Appendix-VIII Resolution No. 30 EC dated 29.10.2021

98th Annual Report 2020-2021



UNIVERSITY OF DELHI DELHI

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ACHIEVEMENTS OF THE YEAR

The University of Delhi is a premier university of the country with a venerable legacy and international acclaim for highest academic standards, diverse educational programmes, distinguished faculty, illustrious alumni, varied co-curricular activities and modern infrastructure. Over the many years of its existence, the University has sustained the highest global standards and best practices in higher education. Its long-term commitment to nation building and unflinching adherence to universal human values are reflected in its motto: 'Nishtha Dhriti Satyam' (Dedication, Steadfastness and Truth).

Established in 1922 as a unitary, teaching and residential University by the Act of the then Central Legislative Assembly, a strong commitment to excellence in teaching, research and social outreach has made the University a role-model and trend setter for other universities. Beginning with three colleges and 750 students, it has grown as one of the largest universities in India with 16 faculties, 86 academic departments, 28 Centres, 90 Colleges and more than six lakh students. The University is offering more than 500 programmes of study and encompassing undergraduate, postgraduate, M. Phil and Ph. D. among others, out of which more than 200 programmes are run by the Departments of the University and the rest are being run by the colleges.

Drawing students and faculty from across India and abroad, the University has emerged as a symbol of excellence, integrity and openness of *mansa* (thought), *vaacha* (speech) and *karmana* (action).

The year 2022 would be the centenary year for this glorious institution. The University is proud that for almost 100 years, it has had an unwavering belief in providing quality education rooted in an egalitarian value system and intellectual curiosity. These impeccable values—of excellence, social responsibility and continuous intellectual evolution that continue to guide us today will ensure our smooth entry into a brighter future. This is exemplified by the fact that the University has been awarded the status of 'Institution of Eminence' by the Ministry of Education in the year 2019.

The progress of the University as reflected in its achievements during the past one year 2020-2021 (April 1, 2020 – March 31, 2021) are highlighted here-

STUDENT ENROLLMENT

As per 2020-21 data, the University has 2,11,590 undergraduate and 29,651 Post graduate students, including those enrolled for M.Phil./Ph.D. A total of 5,948 students are on the rolls in certificate/Diploma/PG Diploma. The total number of students enrolled in conventional mode is 2,47,189. Additionally, as many as 3,26,830 students are enrolled in the distance mode and 32,209 non-collegiate women students also form part of this mammoth University. The total enrolment across conventional and distance mode in all programmes was 6,06,228 during 2020-21.

Out of the total enrolled students, more than 50 percent belong to other states and less than 50 percent belong to the home state of NCT of Delhi. This clearly indicates the academic outreach of the University across the nation and its popularity among the student community as a chosen destination for pursuing higher education.

CONVOCATION

The University organized its 97th Annual Convocation on February 27, 2021. Hon'ble Minister of Education, Sh. Ramesh Pokhriyal "Nishank" was the Chief Guest and he delivered the Convocation address. Sh. P. K. Joshi, UPSC Chairman was the Guest of Honour at this illustrious function. Degrees were conferred upon 670 Ph.D. candidates and 44 D.M./M.Ch. candidates from multidisciplinary fields. 156 medals and 36 prizes were awarded to the meritorious students. The Convocation ceremony was an opportunity to celebrate the academic and non-academic achievements of the students who had completed various courses vigorously and dedicatedly, braving the Covid 19 pandemic. Hence, in a historic step, the University awarded "digital degrees" for the year 2020 to its 1,78,719 students at the Convocation.

RANKINGS OF THE UNIVERSITY

National Rank

Ranking						2021
National Universiti		Ranking	Framework	(NIRF)	for	Rank 12 (Published for the year 2021)
Centre for World University Rankings (CWUR): National Rank		6 (2021-22)				

International Rank

Rankings	2021	
Times Higher Education (THE) World University Ranking	601-800 (Published in the year-2021)	
THE India Rank	4 (2021)	
THE Asia University Ranking	201-250 (2021)	
THE Emerging Economics University Ranking	182 (2021)	
Centre for World University Ranking	571 (2021)	
QS World University Rankings	501-510 (2022)	
QS Asia University Rankings	71 (2021)	

QS World Subject-Wise Ranks, 2021	Global Rank	Domestic Rank
Development Studies	50	1
Sociology	101-105	1
Modern languages	101-150	1
Philosophy	101-150	1
Economics and Econometrics	128	1
Linguistics	151-200	1
Accounting and Finance	201-250	1
Geography	151-200	2
History	151-200	2
English Languages and Literature	151-200	2
Biological Sciences	251-300	2

Physics & Astrophysics	201-250	6
Chemistry	351-400	10

RECENT INITIATIVES AND ACHIEVEMENTS OF THE UNIVERSITY

NAAC ACCREDITATION

The University of Delhi completed the process of assessment and accreditation conducted by the National Assessment and Accreditation Council (NAAC) in the First Cycle in 2018, This accreditation is as per the Revised Framework of NAAC, which was implemented in 2017. The primary focus of the revised framework shifted from qualitative peer judgement only (old framework) to data based quantitative evaluation (70%) and peer judgement (30%).

The University completed its application for accreditation by submitting the Self-Study Report (SSR) to initiate this process. As part of the process, the University successfully completed the Data Verification and Validation process and Student Satisfaction Survey. The NAAC peer team visited the University during October 29-30, 2018. The Peer Team carried out an in-depth verification and validation of the data submitted by the University in the Qualitative Matrices of the SSR and also interacted with Deans, Heads of Departments, administrative staff, faculty members, students and alumni to learn about the academic strengths and administrative functioning of the University.

The University of Delhi was accredited with a CGPA score of 3.28 with A⁺ grade in its First Cycle, which is valid for a period of 5 years from November 30, 2018. This grade is highest among all the Central Universities which have gone through the first cycle of assessment accreditation under the new framework till September, 2019.

> ESTABLISHMENT OF NEW CENTRES

It has been a continuous objective of the University of Delhi to seek to facilitate the development of new research initiatives that cut across traditional disciplinary boundaries. In line with this broad goal, a new study and research centre - Centre for Himalayan Studies was inaugurated by the University.

Centre for Himalayan Studies: The establishment of the Centre was on approved in 8th December 2020 by the Executive Council of the University. The Centre for Himalayan Studies aims to study and conduct research on all aspects of the Himalayas. A Himalayan Museum is also proposed to be established in the campus soon.

This Centre will work in collaboration with various national and international organizations, as well as with the people at the grassroots level in the different Himalayan states.

EXAMINATIONS

The University of Delhi became the first Higher Education Institution of the country to successfully conduct the Open Book Examination (OBE) for the final semester/year regular, NCWEB and SOL students during the COVID-19 pandemic time, keeping their health and safety at the highest priority. The Open Book Examination received a wide participation and support of the faculty and students.

Examination	No. of students registered		
	Regular and NCWEB	SOL	
September 2020	82,111	1,53,394	
December, 2020	1,55,130	-	
March, 2021	92,805	2,02,404	
June, 2021	73,217	1,02,617	

Confidential results were issued to 650 students to enable to them to pursue higher studies.

Digital Initiatives of the Examination

 Online provisional certificate: An online portal for Provisional Certificates was developed in December, 2020 to provide provisional certificates to the students. Provisional certificates were issued to more than 5,000 students at their registered e-mail.

- Online System for Transcript Application: A system of online receipt of Transcript Application was started in February, 2021 to simplify and fasten the process. The 'Fast Track' option facilitates the applicant to receive the transcript in about 10 working days.
- Digital Degree: The process of provision of Digital Degree was initiated in September, 2020 and through this process approximately 15,000 digital degrees were provided to the students before the Convocation. The University of Delhi became the first institution in the country to award "Digital Degrees" to its 1,78,719 students at the 97th Annual Convocation.

> ADMISSIONS

The admission process in the University for the Under-graduate (UG) admissions to 237 Merit-based and 07 Entrance-based courses in 67 colleges and departments of the University commenced on 12th October 2020 and closed on 31st December 2020 while for the Post-Graduate (PG) admissions to 74 courses commenced on 18th Nov 2020 and closed on 31st December 2020.

Admissions to all courses were 100% online and contact-less process. Centralized admissions were done for all courses. This helped the applicants in terms of movements within cut-offs (for UG Courses)/ admission lists (for PG Courses) in different colleges and courses in a time-bound manner. For UG admissions, there was one registration form for all colleges. No additional fee was taken from the applicants for applying to the colleges.

A group of 18 volunteers were involved as Help Desk. These volunteer students handled all queries and provided assistance to the aspirants round the clock through their dedicated mobiles

and emails. The Help-Desk was active from the commencement of admissions till the end of it. List of Departmental/College Nodal officers and Help-Desks were displayed on University websites and on respective Department/College websites.

Six webinars were organized by the branch to help applicants understand the entire process of admissions including filling of the form, uploading the certificates and other documents, reservation policies, updating their records and other aspects related to admissions. Videos were also made to help the applicants fill the forms.

Guidelines were released on a regular basis with each cut-off/ admission list to help students. Admissions under CW/ ECA/ Sports categories were completely done online.

Data related to admission is as under:

- Number of applicants registered for UG Courses: 3,35,434
- Number of admissions in UG Courses (including merit, entrance, NCWEB, Sports, ECA but excluding SOL): 85,163
- Number of applicants registered for PG Courses: 1,46,994
- Number of admissions in PG Courses (including NCWEB but excluding SOL): 10,796
- Number of applicants registered for M.Phil/Ph.D. Courses: 21,699

A separate grievance committee was also made to handle any grievance related to admission. The Grievance Committee worked in close association with the branch to resolve the cases in a time bound manner. Redressal of grievances was also completely online.

> ADMINISTRATIVE AND FINANCIAL PROCESS

The following online systems are in place in university to ensure transparency and commitment to implement policy of "Zero Tolerance against Corruption" in all processes:

Student Grievance Redressal System

- Hostel Accommodation
- Central Placement Cell for Students and Companies
- Scholarship Disbursement
- Attendance Management System
- Time-Table Management System
- Profile Management of Faculty Members and Non-Teaching Staff
- House Allotment
- Medical Bill Reimbursement
- Confirmation of Services of Faculty
- Proforma for Teachers' Representation on College GBs
- Research Project Management
- Bill processing and Tracking
- E- Procurement and GeM
- University Information Management System
- IQAC Proforma
- Inventory Management
- Online Fees Collection Portal
- Initiation of Samarth ERP for DU

> LIBRARY SYSTEM

Besides improving e-ShodhSindhu, J-Gate@e-ShodhSindhu, Internet Access Facility and Electronic Databases, the following digital initiatives are introduced in the DU library system:

- Accessible resources for Visually Impaired
- Digital Collection of Ph.D. theses

Plagiarism Detection Software (PDS) - TURNITIN; URKUND through INFLIBNET

The Central Library checks all the Ph.D. thesis through PDS software and provides a verification certificate before final submission of the thesis for award of degree to maintain standard.

> CAMPUS CONNECT PROJECT AND VALUE-ADDED SERVICES

The University has signed a Memorandum of Understanding with the Ministry of Education (MoE and formerly, MHRD), UGC and NICSI for establishment of campus-wide Wi-Fi network. This project would augment the existing Wi-Fi connectivity in more than 150 departments/academic units/centers and administrative units and about 20 hostels with concurrent user base of approximately 30,000 users. The following initiatives are in place:

- Expanding Wi-Fi infrastructure across the campuses
- Deployment of futuristic network architecture with N+1 redundancy with 40 Gigbackplan
- Redesigned campus topology in Ring architecture
- Robust Identity Management
- Wi-Fi Roaming facility
- Global Wi-Fi Roaming facility through EDUROAM for Faculty members and Research Scholars
- NKN connectivity with 10 G
- MPLS VPN connectivity to all the colleges
- Robust ICT network spanning over campus and colleges
- Integration of EDUROAM to facilitate Faculty members and Research Scholars
- In-house Identity Management Services
- Open -Source Technology Advocacy and Integration
- Integration with INFLIBNET resources

VPN Facility for Faculty members to access e-Resources from home / anywhere

ONEDU PROGRAMME

Online teaching and learning has become an integral part of education worldwide owing to the unprecedented pandemic situation. The University of Delhi has also adopted online teaching and learning from 2020, whereby students were taught through various online platforms. The OneDU programme is a unique initiative of the University where an amalgamation of several e-learning resources offered by the varsity is made available on a single platform. Guidelines and Protocols were formulated for smooth functioning of the teaching learning process during the pandemic. The OneDU platform is aimed at promoting online education across teaching departments, colleges, centres, and other affiliated bodies.

The objectives of OneDU initiatives are:

- To formulate protocol for online education for teaching and other academic activities.
- To facilitate technical support to the Departments, Colleges, Centres and other academic bodies of the University.
- To suggest implementable best practices in the field of online education and provide other constructive inputs from time to time depending upon operational requirements.
- To facilitate preparation of user friendly short videos and FAQs in order to meet the
 objectives of online education, by identifying resources available in various
 Departments, Centres, Colleges and other affiliating bodies of the University.
- To identify and encourage faculty members to prepare syllabi-specific e-resources tailor-made for the use of the University community.

The effort will empower the University in its unwavering commitment to impart continuity in academic endeavours.

LECTURE SERIES

Webinar on 'Covid-19 and the Challenges of the Visually Impaired'

The University of Delhi organized a unique three-hour long webinar on 'Covid-19 and the Challenges of the Visually Impaired' on 27th April 2020, which was presided over by the Hon'ble Vice Chancellor Prof. Yogesh Tyagi. Since the outbreak of the pandemic, the University which has nearly 3,000 students with disabilities, has been reaching out to such students through various initiatives. Based on the feedback regarding the challenges being faced by them, particularly the visually impaired, it was decided to organize a focused webinar on various problems being faced by such students during the present unprecedented crisis.

Ms. Shakuntala D. Gamlin, Secretary, Disability Affairs, Department of Empowerment of Persons with Disabilities, Ministry of Social Justice and Empowerment, Government of India and Dr. Prabodh Seth, Joint Secretary, Department of Empowerment of Persons with Disabilities, Ministry of Social Justice & Empowerment, Government of India delivered their addresses in the Webinar. Presentations were also made by Dr. Nachiketa Rout, Officiating Director, National Institute for Empowerment of Persons with Visual Disabilities (NIEPVD), Dehradun and Mr. Dipender Manocha, President, National Association for the Blind (Delhi); Director, Developing Countries Programme, Daisy Consortium, Managing Trustee, Saksham Trust.

National Unity Day

The University of Delhi on the occasion of National Unity Day, commemorating the birth anniversary of Sardar Vallabhbhai Patel, organized a programme at Gandhi Bhawan, University of Delhi on 31st October 2020, presided by Prof. P.C. Joshi, Vice Chancellor (Acting). Sarva Dharma Prarthana by Sushri Kusum Behan and Sushri Radha Behan of Gandhi Hindustani Sahitya Sabha, Rajghat, New Delhi, was organized. It was followed by a musical programme on

the theme 'National Integrity' by the students of Faculty of Music & Fine Arts, University of Delhi. Pledge taking ceremony was held.

MoU with Indian Council for Cultural Research (ICCR)

On 12th January 2021, on the occasion of Swami Vivekananda Jayanti, also celebrated as the National Youth Day, the Indian Council for Cultural Research, Ministry of External Affairs, Government of India, entered into an MoU with the University of Delhi for establishing an ICCR Centre for catering to the needs of the overseas students who come on the ICCR scholarship.

ICCR proposes to conduct various academic, cultural and extra-curricular programmes to enhance the academic environment and cultural exchange in the University, facilitate the academic exchange for overseas scholars and teachers to supplement a healthy academic growth, and support visiting faculties in the University from overseas academic institutions. The Registrar signed the MoU on behalf of the University in the presence of the Director General, ICCR, Shri Dinesh Pattnaik. On 4th March 2021, Shri V. Muraleedharan, Hon'ble Minister of State for External Affairs, inaugurated the ICCR Centre in the University.

Conference on National Education Policy 2020

The University of Delhi in collaboration with Shikha Sanskriti Utthan Nyas organized a conference on National Education Policy (NEP) 2020 and its implementation on 15th January 2021. Approximately, sixty Principals of various colleges of the University of Delhi attended the conference. Prof. P.C. Joshi, Vice Chancellor (Acting), announced the constitution of 48-member NEP implementation Committee. The Vice Chancellor of Chaudhary Bansi Lal University, Prof. R. K. Mittal, presided over the conference and shared the future plans of implementation of NEP 2020.

97th Convocation Ceremony

The University organized its 97th Annual Convocation on 27th February 2021. The Hon'ble Minister of Education, Sh. Ramesh Pokhriyal "Nishank" was the Chief Guest and Sh. P. K. Joshi, Chairman, Union Public Service Commission was the Guest of Honour. Prof. P. C. Joshi, Vice Chancellor (Acting), presided over the function. Prof. Balaram Pani, Dean of Colleges, Prof. Suman Kundu, Director South Campus and Dr. Vikas Gupta, Registrar graced the ceremony.

For the first time, digital degrees to the tune of 1,78,719 for the year 2020 were conferred online by the Hon'ble Minister of Education. Efforts of the University in resolving the challenges posed by the pandemic, such as conducting Open Book Examination (OBE), issuance of Digital Degrees, etc. were appreciated by the Chief Guest and the Guest of Honour.

The University's Brochure was released which had a dedicated section on Resilience to COVID – 19. The Vice Chancellor shared with immense pride that the University had launched the Vidya Vistar Scheme (V2 Scheme) to support institutions in the remote areas. Under the V2 scheme, the University will offer expertise of the faculty members, library resources and other academic facilities to the partner institutions. Establishment of new Centres of learning – Delhi School of Public Health, the Delhi School of Climate Change & Sustainability, the Delhi School of Skill Enhancement & Entrepreneurship Development were also announced.

63rd Annual Flower Show

The 63rd Annual Flower Show of the University was organized on 5th March 2021 at the Mughal Garden of the University. The event was inaugurated by Prof. D. P. Singh, Chairman, University Grants Commission, in the presence of Prof. P.C. Joshi, Hon'ble Vice Chancellor (Acting), Prof. Balaram Pani, Dean of Colleges, Prof. Suman Kundu, Director of South Campus; Dr. Vikas Gupta, Registrar, Shri Girish Ranjan, Finance Officer and other dignitaries of the University. In a first of its kind, programme of the traditional floral splendour of the Flower show was webcasted on the website of the University.

Commemoration of 'Shaheed Diwas'

The University organized a programme to pay homage and to commemorate 90 years of martyrdom of our national icons of the Indian National Movement – Shaheed Bhagat Singh, Sukhdev Thapar and Shivaram Rajguru on 'Shaheed Diwas' on 23rd March 2021.

Homage was paid to Shaheed Bhagat Singh in the Chamber located in the basement of the Viceregal Lodge of the University where he was imprisoned. On this occasion, Shaheed Bhagat Singh Smarak was inaugurated by the Hon'ble Minister of Education, Dr. Ramesh Pokhriyal "Nishank", virtually. The existing collection of books on freedom fighters in the Bhagat Singh Smarak has been announced to be converted into "Shaheed Smriti Pustakalaya" by the Hon'ble Minister of Education. Tribute was paid to Shaheed Bhagat Singh and his associates through patriotic songs presented by the Faculty of Music. Various competitions – poetry, song, slogan and essay writing were also organized in the Colleges of the University.

RESEARCH HIGHLIGHTS

Extramural Research Grants

The University has attracted extramural research grants from many national and international funding agencies like DBT, DST, IFICAR, UGC, MOEF, IAEA, ICAR, DRDO, CSIR, MOES, ICMR, MNRE, World Bank, TERI, Indo-USSTF, GAIL, IUAC, ICSSR, MCIT, NUST, University of Norway, University of Turkey, ISRO, SDTT, Vigyan Prasar, DST-SERB, Japan Foundation, SEWA-THDC, MOSJ&E, DAE, MWCD, INSA, TISS-DU, Leverhulme Trust UK, ICHR etc.

Name of the Departments with Financial Assistance under various schemes of UGC (SAP) for the year 2020-21:

Departmental Research Support (DRS)

- Botany
- Biochemistry
- Psychology

Centre for Advanced Study (CAS)

- Economics
- Geology
- History
- Linguistics
- Political Science
- Physics and Astrophysics
- Zoology

Faculty Members with Grants above Rupees One Crore:

• During the reporting period, more than 28 faculty members of the University have ongoing Research Projects of the value of more than Rupees One Crore each.

• During the reporting period, more than 161 Faculty Members of the University have ongoing projects with grants above Rupees Ten Lakhs each.

FACULTY AWARDS/HONOURS

Departments

- Prof. P.C. Joshi, Department of Anthropology, appointed as Pro Vice Chancellor in June 2020 and took over the charge of Acting Vice Chancellor of University of Delhi in September 2020.
- Prof. S. Kundu, **Department of Biochemistry**, elected as Fellow of the Indian Academy of Biomedical Sciences, Lucknow in March 2021.
- Prof. R. Tandon, **Department of Botany**, awarded Vishwambhar Puri Medal 2020.
- Prof. K. Sankaran, Campus Law Centre, Member, Committee of Experts on the Application of Conventions and Recommendations, International Labour Organisation, Geneva.
- Prof. Pami Dua, **Department of Economics**, Member, Monetary Policy Committee, Reserve Bank of India, 2016 to 2020.
- Prof. A. K. Aneja, **Department of English**, awarded Sarojini Trilok Nath National Award 2020 in the Best Individual category by the National Association for the Blind.
- Prof. M. K. Pandit, **Department of Environmental Studies**, Ngee Ann Kongsi Distinguished Visiting Professor, National University of Singapore; Indian (INSA)

representative at BRICS Academy of Sciences; Indian (INSA) representative at G-20 Science Academies.

- Prof. S. C. Rai, **Department of Geography**, received "Award of International Medals-2020" based on merit and for development of relations with the Republic of Moldova and Romania in December 2020.
- Prof. G.V.R. Prasad, **Department of Geology**, awarded Sepkoski Grant 2020 by the Paleontological Society, McLean, USA.
- Prof. N.C. Pant, Department of Geology, Geosciences Group of the Scientific Committee on Antarctic Research (SCAR) (2017-2020); Chairman, INSA Committee on SCAR; Member, Research Advisory Committee, National Centre for Polar and Ocean Research, Goa.
- Prof. S. Satyanath, Department of Linguistics, Member of the Scientific committee for Sociolinguistic Symposium [SS23], University of Hong Kong; Vice President, Linguistic Society of India.
- Dr. S. Srivastava, **Department of Mathematics**, awarded INSA Teachers Award 2020.
- Dr. D.O. Bhalla, Department of Music, Bharat Sanchar Award, by Bharat Sanchar Nigam Ltd., Govt. of India, for 'Valuable Contribution to Music & Dance', in March 2021.
- Dr. S. K. Kar, Department of Physics, recipient of Outstanding Reviewer Award 2019 and 2020, Classical and Quantum Gravity, Institute of Physics Publishing, Bristol, United Kingdom.

- Prof. A. Acharya, Department of Political Science, Country Expert, Varieties of Democracy (V-Dem) Project, University of Gothenburg, 2019-20.
- Prof. R. Kumar, **Department of Punjabi**, 'Shiromani Punjabi Sahitkar Purskar', announced by Language Department, Govt. of Punjab, 2020.
- Prof. R. C. Bharadwaj, **Department of Sanskrit**, received U. N. Brahma Soldier of Humanity Award from U. N. Brahma Trust, Kokrajhar, Assam in January 2021.
- Prof. D. S. Tiwary, **Department of Sanskrit**, Loknayak National Award 2020 in Education, in October 2020.
- Prof. T. R. Kumar, **Department of Sanskrit**, Saraswat Samman 2020 by Akhil Bhartiya Saraswat Parishad.
- Prof. R. Behera, **Department of Sanskrit**, Received Global Faculty Award by AKS Education Society for the year 2020.
- Prof. R. Chakrabarti, Department of Zoology, Outstanding Reviewers Certificates from Elsevier's Journals: "Certificates of Outstanding Contribution in Reviewing" for Aquaculture, Fish & Shellfish Immunology and Food Chemistry".

Centres

Prof. P. K. Joshi, Agricultural Economics Research Centre (AERC), Member, Board
of Directors. The Asia Pacific Agricultural Policy Forum, South Korea, Seoul.

- **Dr. V. Chaudhary**, CIIDRET, is Co-Chairman of the DBT Task Force on "Infectious Disease Biology"; Member of IP & Tech. Management Advisory Committee-BIRAC
- **Prof. D. Sahoo**, Director, Cluster Innovation Centre (CIC) and Professor of Botany, University of Delhi assumed charge as the Vice Chancellor of Fakir Mohan University in December, 2020.
- Prof. S. Bagai, CIC, was awarded winner in the category of "Top Digital Enablers in Institute of National Importance/ Institute of National Eminence/ Public University" by Government of NCT, Delhi in March 2021.
- Prof. M. Chopra, Dr. B.R. Ambedkar Center for Biomedical Research (ACBR), received Drug Discovery Hackathon Phase I- Award (DDH-2020), open-source drug discovery Hackathon against Covid-19, Organized by Innovation Cell, Ministry of Education, Government of India.
- Prof. J. P. Khurana, ICPG "Lifetime Achievement Award (2020)" in the area of Research and Teaching awarded by the Society of Plant Biochemistry and Biotechnology, Delhi, during the Annual Symposium of the Society held at BITS-Pilani, Goa, in November 2020.

FACULTY AWARDS/HONOURS IN MEDICAL SCIENCES

• **Dr. A. K, Saxena** Anaesthesiology, (UCMS) International Association for Study of Pain (IASP), USA, Award for "Excellence in pain research and management in developing countries", 18th World Congress on Pain 2020.

- Dr. C. Grover, Dermatology (UCMS) "Prof VN Sehgal Award"-2021 by the Indian Association of Dermatologists, Venereologists and Leprologists for contribution to the field of Dermatology.
- **Dr. A Singal**, Dermatology (UCMS) 'Hall of Fame Award' from 7th Annual DAAS Summit, for extra-ordinary academic achievements, in July 2020.
- **Dr. R. Sarkar**, Dermatology & STD (LHMC) was awarded Dr V N Sehgal Award for Excellence in Dermatology from IADVL 2020 and Dr. K. C. Kandhari Memorial Award from IADVL Delhi in 2020.
- **Dr. C. Grover**, Dermatology (UCMS) "Prof VN Sehgal Award"-2021 by the Indian Association of Dermatologists, Venereologists and Leprologists for contribution to the field of Dermatology, in February 2021.
- **Dr. S. Singh**, Physiology (UCMS) was awarded by His Excellency President of India with the National Award at the 11th National Voters' Day for making the elections in India disabled-friendly in January 2021.
- **Dr. Aaradhana**, Pediatrics (UCMS) received Dr James Flett Endownent Award First Prize -2021.
- Dr K Guleria, Obstetrics& Gynaecology, (UCMS) FOGSI Dr Rajat Ray award in Fetal Medicine (first prize- Federation of Obs& Gyn of India (FOGSI) award in September 2020.
- **Dr. S. Jain**, Obstetrics & Gynaecology, (UCMS) Royal college of Obstetrician and Gynaecologist Oxford overseas award-2020.

FACULTY OF AYURVEDIC & UNANI MEDICINE

Prof. T.M. Nesari, Director, All India Institute of Ayurveda, awarded with Society For Ethnopharmacology, India – Outstanding National Ethnopharmacology Award – 2020 "Harihar Mukherjee Memorial Award" in the 7th International Congress of Society for Ethnopharmacology by School of Pharmaceutical Education and Research, Jamia Hamdard, New Delhi, India in February 2020.

SEMINARS/CONFERENCES/WORKSHOPS ORGANISED

(Selected list is provided below. Complete list is given under Departments/Centres)

- **Department of Anthropology** successfully organized the Indian Anthropology Congress 2021, from 21st to 23rd February 2021 in hybrid mode on the theme Anthropology: Theory to Application.
 - **Department of Anthropology,** organized International webinar on Gandhian Thoughts in Human Welfare on 25th August 2020.
 - **Department of Anthropology,** Webinar on 'Forensics: An important need of the society' on 23rd July, 2020.
 - **Department of Anthropology,** Webinar on 'Mental Health and well-being in Post-COVID world' on 20th July, 2020.

- **Department of Anthropology,** Webinar on 'Anthropological response to COVID-19' on 7th July, 2020.
- Department of Anthropology, International webinar on 'Far away from home' on 25th May, 2020.
- **Department of Anthropology,** Webinar conclave on 'Recent advances in Anthropological research' from 8th-9th May, 2020.
- **Department of Anthropology,** Panel discussion on 'Ethnographic Fieldwork at Zemnui' was held on Wednesday 19th February, 2020 at 2:00 PM in the Seminar Hall, Department of Anthropology, University of Delhi.
- **Department of Anthropology,** Seminar on Population Genetics in Public Health in the Department of Anthropology, University of Delhi, Delhi on 31st January 2021.
- **Department of Anthropology,** Special Lectures organized: 'Fashioning Tradition in a Rajasthani printing town' by Ms. Meherose Borthwick, from University of Sydney, on Thursday, 17th December 2020.
- **Department of Anthropology,** Organized an International Conference on "Anthropology of Food and Health" held from 27th 29th February, 2020 in University of Delhi.

- Department of Arabic organized a two-day National Seminar on "COVID-19 and Modern Challenges, With Reference To Arabic and Urdu Language" on 18th -19th March, 2021.
- Department of Arabic organized a Lecture under Prof. K. A. Fariq Memorial Lecture
 Series 14 on the topic "Shining Stars of Delhi in the Sky of Arabic Language and
 Literature" delivered by Professor Shafiq Ahmad Khan on 18th March, 2021.
- All India Institute of Ayurveda (AIIA) Randomized Clinical Research Trial by Dr. Anurag Srivastava on the occasion of Sushrut Jayanti on 15th July 2020.
- **AIIA**, Surviving The Storm Through Shelter of Ayurveda International Webinar On "Integrated Approach To Combat Covid-19" 5th May 2020.
- **AIIA,** An international webinar in association with Western Sydney University's NICM Health Research Institute on Yoga and Ayurveda Medicine For Mental Wellness, on 5th November 2020.
- Department of Biochemistry, Webinar on "Covid-19 Diagnostics, Therapeutics and Vaccines – Initiatives in India and Canada", was organized by Department of Biochemistry in association with Centre for Canadian Studies and Department of Finance and Business Economics, University of Delhi South Campus, 14th December 2020.
- Department of Biochemistry, Special webinar on "Single-particle Cryo-EM: Visualization of Biological Molecules in their Native States" delivered by Nobel Laureate Dr. Joachim Frank, Professor, Biochemistry and Molecular Biophysics & Biological Sciences, Columbia University, New York, USA, *The Nobel Prize in Chemistry 2017*, on 5th February 2021.

- Campus Law Centre, Abhigyan- the CLC lecture series, Prof. Bhagwati Prakash Sharma, Vice-Chancellor, Gautam Buddha University spoke on the New Education Policy 2020, on 26th September 2020; Prof. (Dr.) Kuldip Chand Agnihotri, Hon'ble Vice Chancellor, Central University of Himachal Pradesh, spoke on India's Response to China's Expansionist Policy on 10th October 2020; Professor Ved P. Nanda, John Evans distinguished University Professor & Thompson G. Marsh Professor of University of Denver, spoke on Migrants & Refugees- Challenges for International Law & Policy, on 6th April 2021.
- Campus Law Centre, Ms. Harshita Mishra, Ld. Metropolitan Magistrate & Secretary,
 DLSA (East) collaborated with District Legal Services Authority (East) to conduct a workshop on Child Rights and POCSO on 15th March 2021.
- Campus Law Centre, COURTROOM LEGENDS- Keynote Series Queen's Counsel, Former Solicitor General of India, Sr. Advocate, Shri. Harish Salve delivered a Keynote on the topic, 71 years of Constitution: Are we true to the dreams of its makers, on 6th March 2021; Addl. Solicitor General of India, Senior Advocate, Shri. C S Vaidyanathan gave a keynote on Equal Opportunity and Meritocracy, on 19th March 2021; Former Solicitor General of India, Senior Advocate, Shri. Mohan Parasaran spoke on Evolution of Constitutional Law by Supreme Court of India, on 22nd March 2021; Former Solicitor General of India, Senior Advocate, Shri. Gopal Subramanium delivered a Keynote on Constitution as a Dynamic instrument of Change, on 31st March 2021; The Solicitor General of India, Shri Tushar Mehta delivered a Keynote on Demystifying the Freedom of Speech & Expression, on 10th April 2021.

- **Department of Economics,** The Annual Winter School was held from 14th -17th December 2020, in online mode in collaboration with The Econometric Society with financial support from EXIM Bank and others.
- Department of Economics, each year the Winter School combines invited lectures by distinguished economists with parallel sessions where early career researchers present their work.
- **Department of Education**, Webinar on Understanding Education from Social Justice Perspective held at Department of Education, University of Delhi under the aegis of IASE, Delhi University in March 2021.
- **Department of Education**, Six-day Workshop-cum-Scholars' Seminar on 'Pursuing a Philosophical Study in Education', in March 2021 under the aegis of IASE, University of Delhi.
- **Department of Education**, National Seminar on Inclusive Education and Collaboration under the aegis of IASE, in March 2021.
- **Department of Education**, Webinar titled Perspectives in Science Education Funding agency/support : IASE, MHRD on 20th February 2021.
- **Department of Education**, A two-day International webinar on Education, Assessment and Virtual world: A Socio-Philosophical Dialogue, on 9th -10th May 2020.
- **Department of Education**, National Workshop on Sanskrit Vagmay Mei Darshan under the aegis of IASE, in March 2021.

- **Department of Education**, Workshop-cum-Content Development on Strengthening Qualitative Research in Education (SQRE) under the aegis of IASE, in February 2021.
- **Department of Education**, Webinar / Lecture Series on Areas and Issues in Art Education under the aegis of IASE, in February-March 2021.
- **Department of Education**, Content Development Workshop on Developing Materials for In-service Teachers to promote mentally healthy gender attitudes among middle school students, under the aegis of IASE, in March 2021.
- **Department of Education**, Content Development Workshop on Tools of Data Collection in Educational Research under the aegis of IASE, in March 2021.
- **Department of Education**, Webinar on Multilingual Education: Challenges and Prospects under the aegis of IASE, in March 2021.
- **Department of Education**, Webinar Series for B.Ed. Mental Health Students under the aegis of IASE in March 2021.
- Department of Education, Content Development e-Workshops on Education System in select countries: A comparative study & on Diversity and Inclusion held under the aegis of IASE in February 2021 & March 2021 respectively.
- **Department of Education**, National Conference on Pedagogy of Social Science and Human Right Education under the aegis of IASE in March 2021.

- **Department of Education**, Webinar on Evolving Perspectives of Environmental Education under the aegis of IASE in February 2021.
- **Department of Education**, Workshop series on Understanding Reading and Writing under the aegis of IASE in March 2021.
- **Department of Education**, One Week Virtual National Workshop on Learning Resource Development in Mathematics Education under the aegis of IASE in February 2021.
- Department of Education, One Week Virtual National Workshop on Development of Teaching Learning Resources in Science and Mathematics Education under the aegis of IASE in February 2021.
- **Department of Education** International Web conference on Transcending Science Education: Building Scientific attitude for the 21st Century in September 2020.
- **Department of Electronic Science**, Two days Technical Webinar on MIMO Antennas for 5G Communications using CST Studio Suite in June 2020.
- **Department of Electronic Science,** Five days Technical Webinar on Modern Antenna Designs for 5G and related applications in September 2020.
- **Department of Environmental Studies**, International Webinar on "Environment, Gender and Climate Change" with Shivaji College on 28th July 2020.

- **Department of Geography,** IGU-India E-Conference jointly organized by Usmania University in collaboration with IGU -Commissions on Local and Regional Development and Commission on Geo-Heritage "on COVID-19 and Local and Regional Sustainable Development: A Global Perspective during 27th 28th June 2020.
- **Department of History,** organized lectures on 'Gender Awareness: Challenging Stereotypes' & 'Sexual Harassment and Academia in India' on 27th January 2021.
- Law Centre –I, Dr. Balakrishna Pisupati, Chairman FLEDGE & Former Chairman, National Biodiversity Authority, India, spoke on COVID-19 and Climate Change: Issues and Challenges in the National Webinar on 17th May 2020.
- Law Centre –I, Advocate Iram Majid, Mediation Expert and Director of IIAM spoke on 'Role of Young Lawyers in Alternative Dispute Resolution in Webinar on 19th May 2020.
- Law Centre –I, Hon'ble Dr. Justice Pushpendra Singh Bhati, Rajasthan High Court, Jaipur, spoke on 'Paradigm Shift in Indian Constitutional Interpretation'in Webinar on 22nd May2020.
- Law Centre –I, Mr. Bharat Chug, Former Judge, and Partner at L&L Partners, spoke on 'Why India needs Super-Lawyers?, on 23rd May 2020.
- Law Centre I, Mr Rajshekhar Rao, Advocate, Supreme Court of India, spoke on "Conversations on Insolvency and Bankruptcy Code" in Webinar on 29th May 2020.

- Law Centre-I, Mr. Chetan S. Dhore ,Advocate Bombay High Court, spoke on 'Drafting of Arbitration Clause: An Indian & amp; International perspective' in a Webinar, on 30th May 2020.
- Law Centre-II, Justice A. K. Tyagi, Judge, Punjab and Haryana High Court, Prof. (Dr.) R. N. Sharma, Dean, School of Law, IMS Unison University, Dehradun and Mr. Jatin Kalon, Research Scholar & Guest Faculty, Faculty of Law, spoke in "National Webinar on Doctrine of Mens Rea in Socio-Economic Offences with Special Reference to *M. H. George Case*" on 26th February 2021.
- Law Centre II, Prof. (Dr.) Poonam Saxena, Hon'ble Vice-Chancellor, National Law University, Jodhpur and Prof. (Dr.) Nishtha Jaswal, Hon'ble Vice-Chancellor, Himachal Pradesh National Law University, Shimla, in 'National Webinar, spoke on Role of Women in Higher Education', on 8th March 2021.
- Law Centre II, in collaboration with National Service Scheme, Dr. G. S Grewal, President of Delhi Medical Association, Mr. Zafar Iqbal, Former Indian hockey Player and Mr. Manindra Nath Thakur, Centre for Political Studies, JNU, spoke in National webinar on 'Gandhian thoughts and Fit India', on 2nd October 2020.
- Law Centre II, Hon'ble Ms. Justice Indira Banerjee, Judge, Supreme Court of India, Hon'ble Mr. Justice A. Muhamed Mustaque, Judge, High Court of Kerala, Hobble Mr. Justice M. Govindaraj, Judge, High Court of Madras, Mr. Roar Thun Waegger, Director, Wagger Negotiation Institute, Norway, Mr. Aloysius Goh, Founder and CEO, Sage Mediation, Singapore and Mr. Vinod Kumar, President, India SME Forum, spoke in International Webinar on 'Online Mediation: Is this the Future of Dispute Resolution? National and International Perspectives' on 7th June 2020.

- Law Centre II, Hon'ble Mr. Justice S. Ravindra Bhat, Judge, Supreme Court of India, Dr. Aniruddha Rajput, Member, UN International Law Commission, H. E. Dr. Kennedy Gastorn, Secretary General, Asian-African Legal Consultative Organization and Mr. O. P. Gupta, IAS, Controller General of Patents, Designs and Trademarks, Government of India, spoke in 'International Webinar on Patenting of Pharmaceutical Products and Pandemic COVID-19: Some Reflections on IPRs v. Human Rights' on 24th May 2020.
- Law Centre II, Prof. Poonam Saxena, Vice-Chancellor, National Law University, Jodhpur, in 'National Webinar, spoke on Proprietary Rights of Hindu and Muslim Females: Socio-Legal Perspectives' on 27th May 2020.
- Law Centre II, Hon'ble Ms. Justice Mukta Gupta, Judge, High Court of Delhi delivered a lecture on 'Admissibility of Electronic Evidence', on 6th June 2020.
- Law Centre II, Hon'ble Mr. Justice Rajiv Shakdher, Judge, Delhi High Court as chief guest and others spoke in the 'National Conference on effect of COVID-19 on Legal Profession and the Road Ahead' on 20th June 2020.
- Department of Music, organized The Malhar Utsav 2020: An annual two day festival
 of Indian classical music, through vocal and instrumental renditions by Veteran
 Musicians of the many varieties of the "Malhar" raga on online mode on 3-4th
 September 2020.
- **Department of Modern Indian Languages and Literary Studies,** a International Webinar on "Telugu Novel: Unforgettable Characters" on 29-30th September 2020.

- Department of Modern Indian Languages and Literary Studies, National Webinar on "Multidisciplinary Approaches to Folklife: Challenges and Perspectives," Part I during 21-23rd October 2020.
- **Department of Modern Indian Languages and Literary Studies,** National Seminar on "Multidisciplinary Approaches to Folklife: Challenges and Perspectives" (Part II) during 5 -7th November 2020
- **Department of Modern Indian Languages and Literary Studies,** National Seminar on "Multidisciplinary Approaches to Folklife: Challenges and Perspectives" (Part III) during 19-21st November 2020.
 - Department of Modern Indian Languages and Literary Studies, 14 Day International Workshop on "Theories and Literature: Understanding in Tamil Milieu" With the collaboration of the Department of Tamil, Central University of Tamil Nadu during 11th 24th November 2020.
 - Department of Modern Indian Languages and Literary Studies, International webinar on, "Assamese Literature in Translation: Theory and Practice" during 27-28th December 2020.
 - **Department of Persian,** 2 day international webinar on "Short Story Writing in Iran during 1940-79" during 19-20th October 2020.
- **Department of Persian,** 2 day International webinar on "Indo-Persian Literature during 14th Century" during 12-13th March 2021.

- **Department of Persian**, 2 day National Seminar on "Rumi Studies in the Indian Subcontinent" during 27-28th March 2021.
- **Department of Philosophy,** 3-months online certificate course on "The Feminist Philosophy" under MAP project in collaboration with The Philosophy Project sponsored by ICPR during April, July, and August 2021.
- **Department of Plant Molecular Biology,** National Webinar on behalf of NASI and Central University of Haryana (CuH) on "Effective Poshan (Nutrition) during Covid-19" on 24th September 2020.
- Department of Political Science, Webinar on "Legal Responses to COVID 19: Insights from Different Countries" By: Khimlal Devkota, Senior Advocate and Member, Central Committee of Nepal Communist Party on 25th July 2020.
- **Department of Sanskrit**, Prof. N.N.Memorial Lecture 2021 on 16th January 2021.
- Department of Sanskrit, National Workshop on 'Indian Knowledge System and Higher Education with reference to New Education Policy 2020' during 11-13th March 2021.
- **Department of Slavonic & Finno-Ugrian Studies**, Webinar on "Kievan Rus and The Lay of Igor's Campaign" on 29th October, 2020.
- **Department of Slavonic & Finno-Ugrian Studies,** Webinar in collaboration with "Yasnaya Polyana" Leo Tolstoy Estate-Museum, Tula, Russia presented a Lecture Series on Russian History and Literary Heritage on 02nd November 2020.

- **Department of Slavonic & Finno-Ugrian Studies,** Webinar on "Russian from 1223-1689" on 23rd December, 2020.
- **Department of Slavonic & Finno-Ugrian Studies**, International Online Conference in collaboration with Moscow Region State University and Jawaharlal Nehru University on "Changing Paradigms and Alternatives in the 21st Century: Russian Language, Literature and Culture" during 23rd and 24th November, 2020.
- **Department of Zoology**, International Colloquium on "Regulatory Mechanism underlying Behavior, Physiology and Development" sponsored by University Grants Commission Special Assistance Programme Centre of Advanced Study (UGC-SAP-CAS) in 2021.

MEMORANDA OF UNDERSTANDING (MoUs) WITH FOREIGN UNIVERSITIES

To enrich its academic inputs and experiences, the University of Delhi has maintained its tradition of entering into academic collaboration with premier institutions. In its endeavour, the University has signed up for academic and research collaborations with many institutions globally. In the reporting period, MoUs and Agreements were established with:

- ✓ Aleksander Moisiu University, Durres, Albania (F & BE)
- ✓ City University of Hong Kong, HKSAR, People's Republic of China
- ✓ Daito Bunka University, Japan (EAS)
- ✓ Fo Guang University, Taiwan (EAS)

- ✓ Kardan University, Afghanistan
- ✓ Lebanese University, Lebanon
- ✓ Mitsubishi Corporation Japan
- ✓ National Cheng Kung University, Taiwan (EAS)
- ✓ Peter the Great Museum of Anthropology and Ethnography (Kunstkamera) of the Russian Academy of Sciences, St. Petersburg, Russian Federation (SFUS)
- ✓ Singapore Indian Fine Arts Society (SIFAS), Singapore (Music)
- ✓ Sokhumi State University, Tbilisi, Georgia
- ✓ University of Macerata, Italy
- ✓ University of Melbourne, Australia
- ✓ University of Wollongong, Australia

SOCIAL OUTREACH

Community Outreach under the Unnat Bharat Abhiyan (UBA) Initiative

The University takes immense pride in spearheading the work of the Unnat Bharat Abhiyan Initiative of the MHRD (currently Ministry of Education). The mandated mission of UBA is inspired by the vision of transformational change in community development processes by leveraging knowledge institutions to help build the architecture of an Inclusive India. The work in the five villages adopted under the programme moved to its fifth year with new teams of students being placed there for field work. Villages having low socio-economic indicators namely Badarpur Khadar, Chauhan Patti, Jagatpur, Mukundpur and Jharoda have been chosen for community development initiatives under the UBA. A team of students under the guidance of faculty members have been taking up need based, planned and sustainable community initiatives

in the five communities. The Department of Social Work is playing a lead role in organising community based developmental activities on an ongoing basis and is assisted by other departments from time to time. The teams participate in the joint identification of the problems and felt needs of the particular village; chalk out intervention plans; and then engage in participatory community initiatives to address the same. In the five villages adopted by University of Delhi, the sanitation and health are the primary work agenda of the UBA teams. The following programmes formed the core of the UBA outreach of the University:

(i) Activities under Swachh Bharat Abhiyan under the aegis of Unnat Bharat Abhiyan

The School of Open Learning, University of Delhi graciously agreed to fund this initiative of the Unnat Bharat Abhiyan, undertaken by the UBA Team. Under its auspices, a number of programmes were undertaken in all five villages to create awareness regarding the long term hazards of using 'single use plastics'. Apart from sensitising people about the items which fall in the hazardous waste category, 'single use plastic free' drives were organised in the communities, wherein residents were motivated to discard single use plastics and adopt alternative means such as paper, cloth and jute bags. In these door to door campaigns, people were asked to discard all single use plastic from their houses. Student teams collected plastic bags and other objects from the households and distributed cloth bags to facilitate people to switchover to environment friendly ways of living. To spread the message students mobilized children of the community holding banners and urging not to use 'single use plastics' Village teams comprising of students and faculty worked with youth groups too. Women of the community were also mobilised while visiting their homes for asking the 'single use plastic' waste. They were made aware about the hazardous impact of plastic on their lives and the environment. Principles of community practice like community planning and implementation and full participation of community groups were assiduously applied through students and faculty facilitators.

Camps were organised through which children and women were taught to make paper bags which could be used as an easy substitute for single use plastic bags. Used newspapers were

collected by the students for this purpose. The bags were distributed among families and shops. This activity was carried out in all the villages under the UBA following the plastic free awareness campaign, so that sustainable alternatives were popularised and made available to the people.

Poster making and slogan writing competitions were also organized in community schools. These generated a diversity of creative outcomes and widespread sensitisation of children on hygiene, sanitation, health and environmental well-being. Children took pledge in which they vowed to abstain from using single use plastics and to encourage others to do the same. An exhibition on the life of Gandhi was organised by the community children, together with a quiz on the life and values of Gandhi. In the overall context, the active participation of the women, youth and children of the five communities was a sight to behold. The enthusiasm and zeal of community groups were laudable in this movement.

(ii) Aadhar Card Camps & India Post Payment Bank Account Camps

This was another important component of work undertaken under the UBA banner. These camps were organised under the auspices of the National Backward Classes Finance and Development Corporation. UIDAI and India Posts also collaborated for these camps. As all of the communities articulated the widespread problem of errors in Aadhar cards and also that many people were still without Aadhar cards, these camps were organised.

The camps provisioned the much needed opportunity to make new Aadhar cards and to rectify the errors in the existing cards. Before conducting the camp, a survey was conducted in which the prospective beneficiaries were identified. The India Post Payments Bank also organised bank account opening camps wherein accounts for community members were opened. India Posts has initiated banking facilities with the idea of promoting 'Financial inclusion'. The camps were undertaken to promote the habit of savings in the community people.

(iii) Health Camps

Health Camps were also organised with the support of Fortis hospital and Netram Eye Foundation. The Department of Social Work volunteered for these camps in all five communities. The student trainees were instrumental in mobilizing people for participation in all phases of the camps. People's participation was overwhelming as they availed the facilities of general physiology, eye check-ups, ear nose throat (ENT) check-ups, measurement of blood pressure and blood sugar levels and disbursement of free medicines.

The student trainees in the five villages have also worked on multiple dimensions of physical, psychological/mental and social health of community constituents over the entire year. They have been involved in strengthening the ICDS programme and transforming the anganwadi centres from being merely food distribution centers to being nodal resource centers for comprehensive psychological, physical and social development of children. They initiated children centric learning activities with children. In order to make the effort sustainable, they involved adolescent boys and girls who have dropped out from school and trained them to handhold these young ones and guide them towards formal schooling. This has been done on a pilot basis in a few anganwadi centres, and the success of this effort is leading to its replication in other centres. Environmental Consciousness through Street Theatre Street Theatre or Nukkad Nataks were organised in all the communities. The Sukhmanch Theatre group, a renowned group of theatre artists from all over India was mobilised to collaborate for this initiative. There was immense participation by all community groups, including women and youth. A large number of school going children came to watch the nukkad nataks after their school hours. The theatre group focussed on diverse environmental issues and presented powerful messages like pressing for a complete ban on plastic use, planting more trees, using public transport, saitation and healthy living, waste segregation and many others. The Nigam Parishad also appreciated the work of the entire team of UBA. The team members of the Sukhmanch Theatre Group interacted with the community people and asked for their suggestions and other issues they could include in future performances.

PLACEMENT ACTIVITIES

Placement & Internship Opportunity: - It is indeed an established fact that the world of academia reflects a hub of boundless ideas and possible inventions and innovations. However, the path from research laboratory or classrooms to the market is often unbelievably long, uncertain, undefined and stress- provoking. In this competitive global era, it is often seen that resources are not distributed in an equitable manner, and as a result it becomes an arduous exercise to tap expertise in any predetermined or specified area. In order to bridge the gap between industry and education, the University of Delhi set up Central Placement Cell (CPC) in 2008 under the aegis of the Dean, Students Welfare Office. The main endeavour of CPC is to get students placed in reputed multinationals, government organizations, NGO's and the private sector.

The Central Placement Cell has entered the thirteenth year of its inception. All the previous batches registered with CPC in past have duly benefited from the industry- students' interaction. Corporate houses from different sectors have participated in the endeavour and recruited large number of students from the university and its colleges during these years. The CPC has extended its data base to include Ph.D/Post Graduate/Under Graduate students along with the students from School of Open Learning and Non-Collegiate Women Education Board. This pool extends to all Colleges and Post Graduate Departments of the University. The CPC certainly ensures a wider choice for recruiters in terms of number and quality of students available at a single platform. The CPC also provides opportunities to the students of Ist & IInd year by encouraging them to participate in Internship Programme. The University of Delhi acknowledges the support and contribution of the corporates in their efforts to encourage and facilitate the recruitment of the Differently Abled Students.

In the academic year 2020-21 the placement cell organized recruitments, mega sessions on stress management, counselling and meditation sessions through various digital platforms to rejuvenate and relax students as well as faculty members.

Details of Campus Placement During The Year 2020- 2021

Name of Organizations Visited	Number of Students Participated	Number of Students Placed	Packaged (Per Annum)
Experts' Global Training Services	56	2	4.80 Lakh - 12.00 Lakh
Poly Jindal Ltd	90	15	5.00 Lakh - 6.00 Lakh
Cabinet Secretariats, Govt of India	578	32	8.00 Lakh
Back Benchers Pvt. Ltd (Math- 103, Eng-91 & Content Writers- 35)	229	10	2.55 Lakh - 4.50 Lakh
JCO Gas Pipe Ltd	543	45	2.40 Lakh - 4.80 Lakh
Agnext Technologies Pvt. Ltd	253	22	6.00 Lakh (PG) 4.50 Lakh (UG)
Amazon Development Center India Pvt. Ltd	779	27	5.00 Lakh
Air India(sats) Pvt Ltd	2650	Final result awaited. However, 463 students were sent offer letter	2.30 Lakh
Experts Global Solution Pvt. Ltd	113	4	6.00 Lakh- 12.00 Lakh

INITIATIVES UNDER RIGHT TO INFORMATION ACT

The University is functioning with complete observance of all the relevant provisions of the RTI Act 2005 and the rules framed thereunder from time to time. It is actively involved in the disclosure of maximum possible information in the public domain, encompassing almost all the areas of activity concerning the students, employees and various other stakeholders.

Information is disseminated by the University through various means which includes disclosure of information through its website, information handbook, prospectus for various courses of study, public notices, press releases, various pamphlets, booklets, hand-outs etc. from time to time, in order to keep all the stakeholders informed about the developments of the University on a regular basis. Therefore, the University is at the forefront when it comes to observance of transparency and accountability, leading to good governance in an academic institution.

All the above systematic efforts are appropriately channelized through a well-structured and consistently updated mechanism of information dissemination for the public.

During the year 2020-21, the University received 2003 Original Applications and 477 First Appeals which were decided as per relevant provisions of the RTI Act. During this time, 40 Second Appeals before the Hon'ble Central Information Commission were also successfully defended by the University.

VIDYA VISTAR SCHEME

The University of Delhi has taken up a special initiative called the Vidya Vistar (V2) Scheme for developing academic cooperative bonding between colleges of the University with colleges of fellow universities, and Departments of the University with the Departments of fellow universities, which are situated within remote areas of the country. The aim of the Vidya Vistar Scheme is to maximize the contribution of higher educational institutions to nation building through optimum utilization of existing resources and potentials. Through this scheme, the University of Delhi proposes to throw open its faculties, library and other academic facilities available in its Departments and Colleges to partner institutions for academic cooperation and collaboration.

The main proposed objectives of V2 Scheme are as follows:

- Online/offline lectures, workshops, trainings, meetings and other such programmes aimed at capacity building of the faculty members of both the institutions will be initiated. To the extent possible, visits of faculties will be facilitated for this purpose.
- The teachers and researchers of selected colleges and university departments will be associated in research activities of the departments of the University of Delhi and/or its colleges and will be invited to be co-investigators in the research programmes submitted to funding agencies.
- The University will facilitate joint publication by teachers/researchers of University and the selected colleges and University of Delhi departments.
- Library resources for providing support in capacity building and for improvement of teaching and research skills of the faculty will be strengthened in selected colleges and University departments.
- Mutually beneficial linkages will be forged with partners through various platforms such as Cluster Innovation Centre, Electropreneur Park etc. so as to initiate and assist innovation activities and boost start-ups.
- Feeling of brotherhood will be cultivated among the youth of the two institutions through sports and extracurricular activities.
- The bonding envisaged under V2 Scheme is based on the principle of mutual respect, cooperation and sharing between the two colleges of the universities as equal partners. Such symbiotic relation between the two shall enrich both the academic institutions in more ways than what each could achieve solitarily.

RESILIENCE OF UNIVERSITY OF DELHI DURING THE PANDEMIC

The University of Delhi during the Covid-19 Pandemic demonstrated its resilience and adapted itself in accordance to changing circumstances. The University of Delhi was at forefront to ensure the wellbeing of students and staff members. Several decisive and proactive measures were taken.

A Covid-19 Task Force was constituted on 28th March 2020. The responsibilities of the Task Force were the following:

- Carrying out administrative activities in the duration of the lockdown
- Looking after the welfare of the resident students
- Monitoring and coordinating e-learning avenues in order to ensure the continuation of academic learning in an accessible manner.

The University also initiated an online counselling facility for fostering mental health and wellbeing of the students and staff of the University during the pandemic. Another initiative titled "Care for the Neighbours" made provisions of ration packages to vulnerable fellow citizens in the vicinity of the University campus.

During the Covid-19 Lockdown, the University initiated OneDU Programme for promoting online education. The University Library services were updated to give remote access to the complete digital resources through the University VPN and Remote Login. Digital library services were made available to all the users and DULS also facilitated access to books/ articles not available in digital collection by collating from other sources. The DULS also continued plagiarism verification of M.Phil. dissertations and Ph.D. thesis in online mode. The Dean, Students' Welfare (DSW) office organized weekly webinars with TELERANG for skill bridging and up-skilling every Monday from 5.00 p.m. – 6.00 p.m. The event was open to both UG and PG students and around 800 students of the University attended these webinars.

The Hostels of the University also faced an unprecedented situation during the Covid-19 pandemic and several students left the hostels during the lockdown periods. For hostellers, who stayed back and/or could not return home due to lockdown restrictions, all possible arrangements were made to ensure their safety and security. In consultation with the University officials and District health officials, COVID readiness plan was prepared, including rooms for quarantine/isolation ward, continuous sanitation of hostel premises, training of staff and residents about good practices to avoid the risk of transmission.



Special webinar on "Single-particle Cryo-EM: Visualization of Biological Molecules in their Native States" by Dr. Joachim Frank, Professor, Biochemistry and Molecular Biophysics & Biological Sciences, Columbia University, New York, USA, The Nobel Prize in Chemistry 2017, on 5th February 2021.



MoU Signing Ceremony between University of Delhi and the Indian Council of Cultural relations.



Inauguration of Nodal regional Centre of ICCR by Honorable MOS of External Affairs



Inauguration of Covid-19 Vaccination Centre at WUS Health Centre, University of Delhi



Inauguration of Post Covid-19 Respiratory Management Centre at VPCI, University of Delhi

GENERAL FACILITIES AND PROGRAMMES

ALUMNI AFFAIRS

The DU Alumni Association DUAA continues to play its statutory role in university decision-making and elects its representatives to The Court, EC, and Finance Committee. Ten representatives were elected to the DU Court for a 5-year term beginning.

DUAA Representatives to The DU Court 2018 – 2023 are Mr. Hari Shankar Gupta, Professor Virendra Kumar Agrawal, Professor Jai Prakash Sharma, Mr. Aman Kumar, Professor J L Gupta, Mr. Rajesh B Mangla FCA, Adv. Nathu Ram Sharma, Dr. Sanjeev Kumar Singhal, Dr. L S Chaudhary and Mr. Swarn Swarup Dubey.

Fresh Membership and Renewal of the statutory DU Alumni Association DUAA were carried out within the norms and The Association elected 10 of its Members to The DU Court; subsequently, alumni were also elected to the Executive Council, Finance Committee, and other official bodies.

Efforts and plans are underway for strengthening The Office of The Alumni Affairs in the University and for a global celebration of The University Centenary 2020 - 2021 - 2022.

CULTURE COUNCIL

Major Activities and Achievements

- For the academic year 2020-2021, University of Delhi conducted for the first time a centralized ECA admission process on the basis of evaluation/marking of ECA certificates only. Due to unprecedented situation of COVID-19 pandemic and prevailing public health guidelines, trials (online/offline) were not conducted. This year 11,736 applicants had applied under the fourteen categories of ECA. The entire admission process was handled by the Culture Council office.
- The office of the Dean Students' Welfare along with the Culture Council Office and Gandhi Bhawan under the aegis of the University of Delhi organized an inaugural seminar and 'Charkha Karyashala' to commemorate the flagship programme of the Government of India titled "75 years of India's Independence Azadi Ka Amrut Mahotsav" on 12th March 2021 at Gandhi Bhawan. Professor P.C. Joshi, Honourable Vice Chancellor, University of Delhi was the Chief Guest and other dignitaries who graced the occasion were Professor Balram Pani, Dean of Colleges, Professor Suman Kundu, Director, South Campus, Professor Neeta Sehgal, Proctor, Professor Rajeev Gupta, Dean Students' Welfare, Professor Ramesh Bhardwaj, Director, Gandhi Bhawan and Professor Seema Bawa, Head, Department of History, University of Delhi. The event witnessed an enthusiastic response from the academic community and large number of volunteers participated in the 'Charkha- Karyashala' which is a way of upping the skills and moving towards the path of 'Atmanirbhar Bharat'. Prof. P.C. Joshi also announced that similar charkha workshops would be organised in various Colleges of the University of Delhi.
- To pay homage and commemorate 90 years of martyrdom of national icons of the Indian National Movement Shaheed Bhagat Singh, Sukhdev Thapar, and Shivaram Rajguru, the Office of Dean Students' Welfare along with Culture Council Office successfully organized "Shaheed Diwas" on 23 March 2021 in the Convention Hall of the Viceregal Lodge. This occasion was marked to honour and value the sacrifices made by the national icons and to drive out lessons of inspiration from their lives and times. The Chief Guest on this occasion, Dr. Ramesh Pokhriyal 'Nishankh', Honourable Education Minister delivered his keynote speech through virtual platform. The programme

was presided by Professor P.C. Joshi, Honourable Vice-Chancellor, University of Delhi and witnessed the graceful presence of Prof. Balram Pani, Dean Colleges, Professor Suman Kundu, Director, South Campus, Professor Rajiv Gupta, Dean, Students' Welfare, Dr. Vikas Gupta, Registrar along with Principals, officials, faculty members, staff, and students at the University of Delhi. On this occasion *Shaheed Bhagat Singh Smarak* was inaugurated by the Hon'ble Minister of Education virtually. The existing collection of books on freedom fighters in the Bhagat Singh Smarak has been announced to be converted into "*Shaheed Smriti Pustakalaya*" by the Hon'ble Vice Chancellor. The Vice-Chancellor also announced that the Bhagat Singh Smarak shall remain open to the students and the university community to inculcate values of freedom and sacrifice. Tribute was paid to Shaheed Bhagat Singh and his associates through patriotic songs presented by the students and faculty members of the Music Faculty. On this occasion the University of Delhi organized intra-college competitions on four categories i.e., poetry, song, slogan, and essay writing. The award-winning students were felicitated by the Vice Chancellor and other dignitaries on the dais and also given an opportunity to showcase their talents in front of the august gathering.

Facilities

The Office of Culture Council is the Nodal Office for all UG Admissions under ECA Category. The Culture Council Office organizes various cultural activities with the objective of not only just generating interest and appreciation, but also active participation in and celebration of culture at all levels.

DELHI UNIVERSITY LIBRARY SYSTEM MAJOR ACTIVITES, EVENTS AND INITIATIVES

1. Major Activities and Achievements

Delhi University Library System (DULS) is a federally managed combination of physical and virtual collections and associated information services, where in on the one hand, the traditional system of library holding is maintained and on the other hand, ICT based services are implemented. The library system has taken several measures to revamp the library and information services provided through its 34 constituent libraries, in keeping with the newly revised Ordinance XVI. A brief listing is given below.

• Library services during COVID-19

The Library System continued to support teaching, learning and research during COVID-19 restrictions. The users were provided with Remote Login facility to remotely access the e-resources subscribed by the University and accessible through E-Sodh-Sindhu. The major libraries were re-opened for users following Covid appropriate restriction.

• Print Resources

The Library System added 2571 volumes of books to its collection by purchasing out of maintenance grant. The total collections on 31-03-2021 are 1705902 volumes. The current Periodicals Subscribed by DULS is 756. It also holds a well-organized collection of 46777 thesis/Dissertations.

• Electronic Resources

The DULS continued to strengthen the accessibility of electronic resources to the users. There are 48 electronic databases in different subjects and disciplines that are available to the user community of the University.

• Audio Book Resources and Braille Library

The Braille Library is actively engaged in supporting teaching, learning and research for the visually impaired students and faculty members. It has 3 audio book production studios, 1 high-capacity Braille embossers, network of 22 latest computers with software like Daisy System, Sparsha, OBI, PUTTY, Sigtuna, Jaw, Duxbury, Leap Office etc. There are 1858 audio books, 2002 Braille books, 1645 e-text and 403 books in E-Pub format. Presently 15 members are enrolled in the library. It has circulated 200 books on CDs and Pan drives. Braille Library is also a member of Sugamya Pustakalya under which the user can download the study material in the form of Audio Books or E-texts by remote access.

ACTIVITIES IN OTHER MAJOR LIBRARIES

Central Library (Including the Arts Library)

The Central Library (including the Arts Library) was not fully functional owing to COVID-19 restrictions. However, it has been able to add a collection of 52 volumes in the last financial year with a membership of 1121 users and the circulation of 100 books. The library has been providing Plagiarism Checking Services to its students and teachers. A dedicated desk, with trained staff, has been established to check research work and generate similarity reports. The internet access facility at Research Floor in the Central Library is being used regularly by scholars when library is open. The library is subscribing 240 periodicals in print format. The total collection of thesis and dissertation in Central Library is 46777. Several visitors from other Universities in Agra, Banaras, Allahabad, Rohtak, Mahendergrah, Kerala, Karnataka, and Mumbai etc. visited the library.

> <u>Central Science Library</u>

The Central Science Library has a membership of 201 users with circulation of 2316 books. The library received and sent several documents / articles to and from different libraries in the country through JCCC. The current periodicals subscription including print and online is 190.

> Ratan Tata Library

The library could only add 74 titles in the last financial year with a membership of about 332. The RTL has augmented its computing facility and unique e-library with 105 terminals to access various resources and one High End server. The total periodicals subscription of RTL is 232 including print and online journals. It also has approx. -1500 thesis and dissertations in its collection. It also acts as a deposit centre of UN's and Govt. of India's publications.

South Delhi Campus

The South Delhi Campus Library has been able to add a collection of 1333 volume in the last financial year with a membership of 1154 users and the circulation of about 1397 books. It has subscription of 89 print journals, holds 14575 back volumes of periodicals and is fully computerized. Library activities like circulation-issue-return, reminder, membership, acquisition-ordering and billing, serial control, and OPAC take place in a fully automated environment using Troodon Library Management System.

Faculty of Music and Fine Arts Library

The Library of Music and Fine Arts has a total collection of 16585 books with a membership of 415 users. In its digital collection it has 2643 cassettes, 1186 CD's, and 104 Talking Books besides 344 Braille Books. As an extension of Audio-Visual Library, it has a Listening Room with 10 CD players where students can listen the audio material.

2. Honours/Distinctions

• Dr. Rajesh Singh, University Librarian & Head DULS was conferred the GIDWANI-DESHPANDAY BEST ACADEMIC LIBARIAN AWARD-2019

ILA-

SEMINARS / CONFERENCES / WORKSHOPS/ EXHIBITION

University of Delhi: Annual Report 2020-21

- Rajesh Singh and Shailendra Kumar, 'Information evaluation skills of social science researchers: an
 assessment' Annals of Library and Information studies: Vol.67 (4) pp. 222-230, December 2020,
 USSB 0975-2404 (online); 0972-5423 (Print).
- Avijit Mahala and Rajesh Singh 'Research output of Indian universities in science (2015-2019): a scientometric analysis' Library HI Tech: Vol. ahead-of print No. ahead-of print. https://doi.org/10.1108/LHT-09-2020-0224, ISSN: 0737-8831
- Singh, Rajesh Dr. and Kumar, Shailendra Prof., Information Literacy Competency Levels of Social Science Researchers: A Diagnostic Study' (2021). Library Philosophy and Practice (e-journal). 5684. https://digitalcommons.unl.edu/libphilprac/5684
- Singh, Rajesh Dr. and Kumar, Shailendra Prof., "Information literacy competency of researchers in social sciences: An assessment from diverse perspectives" (2021). Library Philosophy and Practice (e-journal). 5685. https://digitalcommons.unl.edu/libphilprac/5685
- Singh, Rajesh Dr; Mahala, Avijit Dr; and Yadav, Shreya, 'Science Research Output pattern of University of Delhi (2015-2019)" (2021). Library Philosophy and Practice (e-journal). 5835. https://digitalcommons.unl.edu/libphilprac/5835

3. Facilities

- ➤ <u>Information Literacy Programme</u>: DULS continues its information literacy activities with a view to empower the students, researchers, and faculty members to seek, evaluate, use, and create information effectively and efficiently. DULS organizes orientation programs, workshops, and hands on training. Following are the program contents:
 - E-Resource Orientation Program
 - Online Information retrieval
 - Orientation to Open Access Education Resources
 - Bibliographic Citations
 - Copyright and Plagiarism
 - Citation Analysis Databases, Web of Science/Scopus
 - Federated/Meta Search services
- Similarity Detection: The Central Library is continuing the work of similarity detection for the research assignment submitted by students during April 2019 to March 2020. Central Library has verified a total of 41951 PhD Thesis and M.Phil. Dissertations, other research assignments and faculty research papers for promotions.
- Document Delivery Service: The J-Gate provides article-level access for all the databases accessible through E-Shodh Sindhu, about 5,200 open access electronic journals, and print journals subscribed by 30 University libraries designed as Inter-Library Loan (ILL) Centers of the INFLIBNET Centre. DULS is one of the 30 designated ILL Centers for the services.
- ➤ <u>HUMAN RESOURCES</u>: The training facility created in the Central Library for imparting training on 'Use of Computers in Libraries' has been conducting the training programme for the benefit of Library Staff of the University and College Libraries.

4. Other Significant information

• DULS—Website

DULS-Website which includes the catalogue of selected libraries (OPAC); a provision of ereferencing, A-Z list of E-journals, Online Information Literacy Tutorial, Subject Portal, Ask your Librarian, access to electronic resources including open access resources and several other user friendly features, is in operation.

• E-Books

During the financial years 2020-2021 DULS has been able to procure 962 e-books titles in perpetual access mode. The bibliographic details of these e-books have been incorporated in the DULS OPAC to provide access. Besides, an e-book search facility has also been developed for use by different stakeholders. It is available at www.eb.du.ac.in.

DELHI UNIVERSITY SOCIAL CENTRE CO-ED SECONDARY SCHOOL

Delhi University Social Centre Co-ed Secondary School is becoming one of the known schools in the nearby area. It is situated in midst of residential area of Block – C, Maurice Nagar, Delhi – 07. A small voluntary women's organization had started the school in the year 1945. In fact, they had a humble beginning at the behest of Sir Maurice Gwyer in pre- independent India. Since 1964 the school has been getting 95% aid from Delhi Govt. and 5% from Delhi University. Delhi University provided a modern building for the school during the period of Vice Chancellor Prof. Moonis Raza from its own funds which is maintained by the Engineering Dept. Of DU. DU also granted one time grant of Rs. 12 lacs for contractual staff and infrastructure facilities. Additionally, DU has allotted Quarter C-4 to the school for its use. Few primary classes have been shifted to this building. We were able to start a Nursery section in that building which is quite popular. The school was upgraded from 8th to 10th standard in 2003.

The Managing Committee of the school consists of 13 persons: 6 professors nominated by Delhi University, 1 Executive Council member, 2 nominated by Delhi Govt., 3 from the school & 1 from the Parent Teachers Association. The Members of the present Managing Committee are:

1.	Prof. Namita Ranganathan	(Chairperson)
2.	Dr. Sunil Kumar	(Manager)
3.	Dr. V.S. Negi	(E.C. Member)
4.	Dr. Vikas Beniwal	(Member)
5.	Dr. Girish Chadha	(Member)
6.	Dr. Sunita Singh	(Member)
7.	Dr. Monika Kaul	(Member)
8.	Dr. Garima Bharti	(HOS)
9.	Mrs. Seema Kumari	(Vice-Principal, GGSS Burari) Member of advisory board of MC
10.	Mr. Harish Nagpal	(Staff Representative)
11.	Mrs. Geeta Satija	(Staff Representative)
12.	Mr. Poonam Sonker	(PTA Secretary)

The School Staff consist of Dr. Garima Bharti (HOS) along with 6 TGT, 6 Asst. Teachers, 1 PET teacher, 1 peon, 2 Chowkidars, 1 mali ,1 water woman and on contract: 1 Office asstt.,1 Nursery Teacher, 1 I.T. assistant and 1 Safai Karamchari. Mrs. Neelam Mendiratta (Yoga Teacher) retired on 31.12.2020. Mr. Shane Alam (Asst. teacher) resigned w.e.f. 30/06/2020, as he has been selected in NDMC.

Details of various academic and co – curricular activities taken under during the academic session 2020– $21(1^{st}$ April 2020 to 31^{st} March 2021): -

- 1. The school has a strength of around 600 students. We are happy that it is becoming one of the good schools in the area in every field i.e., academic, and co-curricular activities.
- 2. Due to Pandemic Covid- 19 schools remained closed. But our teachers did their best and managed to contact the parents and students through WhatsApp and Google meet.
- 3. We are rigorously following the academic calendar from Directorate of Education and forward the worksheets from Directorate of Education to the students. The assessment was done as per the norms.

- **4.** Management took the initiative and arranged some funds to help the parents (financial assistance) who had lost their jobs. A survey was done by teachers to identify students who needed devices to support online education in their respective classes. Following this, tablets were distributed to the needy students.
- 5. Teachers managed to take virtual Parent teacher meetings and addressed the mental health aspects of students and their families.
- **6.** Teachers organized the following activities virtually:
 - 1. Yoga Day.
 - 2. Poster Making competition- Save the Environment.
 - 3. Bhasha Sangam Activity.
 - 4. Online Quiz Ganga Quest.
 - 5. Independence Day.
 - 6. Awareness session for pandemic Covid -19.
 - 7. Pariksha pe charcha Poster competition organized by CBSE.
 - 8. Health Talk on antimicrobials.
- 7. Teachers organized following activities in the school premises (as per the norms of DOE)
 - 1. Session on emotional Wellbeing.
 - 2. Republic Day Celebration.
 - 3. Saraswati Pooja
- **8.** Teachers attended Webinars:
 - 1. Organised by CBSE
 - 2. Organised by NCERT
 - 3. Management organised virtual meetings with the staff to motivate and counsel them. It was a great effort by the management during this tough time.
- **9.** The school is keenly awaiting the decision of Delhi Government for grant of aid for the secondary section of the school. Meanwhile, Delhi University provides support for the expenses of the secondary section of the school. School Managing Committee is thankful to them for their continuous support.

DELHI UNIVERSITY WOMEN'S ASSOCIATION

Delhi University Women's Association (DUWA) is a social welfare organization and was registered under the societies Registration Act XXI of 1860 (Punjab Amendment Act 1957) as extended to the Union Territory of Delhi, on 31st October 1964, with the aim to promote and to carry on social, cultural, recreational, educational and economic activities for the benefits of the women in and around Delhi University. DUWA was started by Dr. Durgabai Deshmukh, a social activist, a great visionary and wife of the then Vice Chancellor Prof. C.D. Deshmukh with the vision of empowering deprived and under privileged women.

Programmes and Facilities:

- 1. **Play Schools:** DUWA runs two Pre-schools, Durgabai Deshmukh Balwadi and Usha Ganguly Shishu Vihar, established in 1966 and 1967 respectively, to promote intellectual, emotional, social, esthetic and physical development of a child. The Balwadi is meant for the children from economically weaker sections where they are given free nutrition. There are about 200 children enrolled in both the schools.
- 2. Women's Hostels: DUWA established the working women hostel, Sri Sadan, to commemorate the international Women's year in 1975, for the benefit of the single women teachers at Delhi University and affiliated colleges. The other two hostels, Old DUWA Hostel and New DUWA Hostel provide accommodation to the M.Phil. and Ph. D students at Delhi University. There are about 36 residents in the hostels with a full-time warden.
- 3. <u>Vaatsalya:</u> This childcare programme is meant to support the working mothers from Delhi University with the objective of reducing their stress related to the wellbeing of their children. This Day-Care facility is for the age group of 6 months to 6-year-old children. There are 50 children admitted to this facility.
- 4. The Mind Body Center: Promoting the wellness of the women students at Delhi University is a prime objective of this center which was inaugurated by Prof. Dinesh Singh, Vice Chancellor, Delhi University, in February 2014. As problems of the Mind and Body are interconnected, they need to be dealt in a

- holistic manner by the expertise of the physician, naturopath and counselor at the center. In addition to free consultation, the practice of yoga and acupressure techniques is also used at the center.
- 5. Souvenir Shop: The Souvenir shop was launched in November 2014 to commemorate DUWA's Golden Jubilee Celebration which was inaugurated by Prof. Dinesh Singh, Vice-Chancellor of Delhi University. The primary purpose of this activity is to promote the DU brand and to simultaneously inculcate a sense of pride and belonging amongst the students and other members of the DU community. The design and sale of the souvenir items is being managed by DUWA members. There has been a great demand for some souvenir items like folders, sweatshirts, bags, pens, key chains, mugs, etc.
- 6. <u>Sahyog:</u> Sahyog programme helps school students of standard from I XII from the neighborhoods with the objective of improving their academic performances. In this tuition support programme, the children are served nutritious snacks and health drinks. Classes are held six days a week from 3-5 pm., and there are about 40 children enrolled in this programme.
- 7. **<u>Drishti:</u>** DUWA members have made significant contributions through Drishti Programme by addressing the needs of the visually challenged students at Delhi University. Members read out and record lessons, arranging study materials and provide emotional support to the visually challenged persons.
- 8. <u>Jagriti:</u> Recognizing the growing incidents of cancer among women, this programme strives to spread awareness through organizing lectures, discussions, screening camps, street plays competitions, and other activities among the students at Delhi University.
- 9. <u>Computer Literacy Programme:</u> In this a four-month computer course which is conducted to impart the basic knowledge that includes MS-Word, Excel, PowerPoint, Access, and internet. The aim of this programme is to help girls to acquire basic computer skills.
- 10. <u>Language familiarization Programme:</u> DUWA is taking the initiative of conducting free short term language familiarization courses for DUWA members, DU staff, faculty and students. The programme started with a three-month course of Chinese Language.
- 11. **Golden Jubilee Celebration:** DUWA's Golden Jubilee was celebrated over four days with lot of zeal and festivities from 20th November to 23rd November 2014. On 20th the Souvenir shop was inaugurated by Prof. Dinesh Singh, Vice Chancellor of Delhi University. There was a wellness programme for Mental Health awareness conducted by the staff of Mind Body Center and Ms. Shifa Haq from Ambedkar University. On 21st November there was a winter carnival participated by non-profit organizations from Delhi. On 22nd November there was a vocal classical musical evening by Dr. Shanti Hiranand and Padmashree Dr. Uma Tuli, the founder of Amar Jyoti Trust, graced the occasion as Chief Guest. On 23rd November there was a cultural evening performed by the members of DUWA followed by dinner hosted by Delhi University.
- 12. <u>Participation in Antardwani:</u> Like every year, DUWA actively participated in Antardhvani in February 2015. There were four stalls put-up by DUWA, i.e., Food
- 13. Court, Good Practice Stall, DU Souvenir stall and Saplings Stall. DUWA won a prize of Rs.1,00,000/-(Rupees One Lakh only) in the special category for its Good Practice Stall.

All Activities

- 1. Distribution of Ration to students and women around (north campus) in need, on 08.05.2020.
- 2. Organised online workshop on "Mental Health Matters" on 14.05.2020
- 3. Distribution of mask and sanitizers in North Campus area on 20.05.2020
- **4.** Distribution of Food Packets in Wazirabad village to residents of DU, UG and PG students on 25.05.2020.
- **5.** Online Conference on "Feminism in India" on 27.07.2020.
- **6.** Online Orientation programme of Durga Bai Deshmukh and Usha Ganguly Shishu Vihar play school on 20.08.2020
- 7. Online Teacher's Day celebration on 04.09.2020.

- **8.** Celebrated online "HINDI DIWAS" on 14.09.2020.
- **9.** Celebrated online "Gandhi Jayanti" on 30.09.2020.
- 10. Webinar on Senior Citizen Day (Grandparent's Day) on 01.10.2020
- 11. Webinar on "Energize your life" on 01.10.2020.
- 12. Celebrated "Children's Day" online on 23.11.2020.
- 13. Webinar on "Youth, COVID 19 & Stress Management" on 27.11.2020
- 14. Online discussions on "Hathras Rape Case" and roll of Govt. Agencies on 22.12.2020.
- 15. Celebrated online "Christmas Day" with children of DUWA School on 23.12.2020
- **16.** Inspection visit of Honorable Vice Chancellor of University of Delhi (Patron of DUWA) Prof. P.C. Joshi on 05.01.2021
- 17. Hostel's interviews were conducted on 16.01.2021.
- **18.** Celebrated online "Republic Day" with patriotic songs by school children on 25.01.2021.
- 19. Celebrated "Saraswati Puja" (Basant Panchmi) with cultural programmes on 15.02.2020
- 20. DUWA has celebrated International Women's Day through webinar on 08.03.2021
- 21. Organised webinar on "Women and Constitutional Provisions" (Speaker Sushma Yadav) on 18.03.2021.
- 22. Visit of Honorable Vice Chancellor of University of Delhi (Patron of DUWA) Prof. P.C. Joshi, Dean of Colleges Prof. Balram Pani, Director South Campus Prof. Suman Kundu, and Registrar of University of Delhi Dr. Vikas Gupta with their spouses to oversee the different Activities of DUWA and discuss its future on 25.03.2021

DIRECTORATE OF THE HINDI MEDIUM IMPLEMENTATION

The Directorate of the Hindi Medium Implementation publishes high standard textbooks in Hindi, primarily on Social Sciences and Humanities for the benefit of under-graduate and post-graduate students who opted for Hindi as the medium of their study. We have published approximately 270 books in various subjects including History, Political science, Education, Commerce, Law, Sports and Physical Education, Economics, Philosophy, Geography, Literature etc. so far.

For the year 2020-2021, Directorate has six new titles, ten revised edition and more than hundred reprints ready to publish.

Uttar Pradesh Hindi Sansthan has awarded 'Sahitya Bhusharan Award' for the year 2019 to the Officiating Director of the DHMI.

FOREIGN STUDENTS' REGISTRY

There has been an increase in the number of international students seeking admission to various programmes offered by the University of Delhi for the academic year 2020-2021. The office of foreign students received 2691 applications. In total 557 students, from 66 different countries were admitted to the first year of various programmes ranging from Certificates to Ph.D. courses of the University of Delhi during the academic session 2020-2021.

Best Practices of Foreign Students' Registry

- Offering Integrated Services: Admission and stay of foreign nationals in DU has been made convenient by providing updated information about Colleges/Departments/FRRO/Hostel Admission/ Facilities through online counselling.
- 2. **Updated Website:** The website has been revamped. It now provides information about the process of admission, the Courses available in various Colleges, and the related statistics. It also features useful

information for students to make their stay and study at the University of Delhi an enjoyable experience. A list of the local phrases in Hindi has been also provided for the arriving students.

- 3. Inter-Linkage with ICCR and Ministry of External Affairs, Government of India: An effective linkage has been achieved between the institutions which facilitates overseas applicants while still being in other countries regarding the status of application for admission. The main feature of this collaboration is the entering an MoU between Delhi University and the ICCR. Under it, the University has provided space in the main Campus to open an ICCR Regional Centre for catering to the needs of the ICCR funded students. This MoU also provisions to help the academic development of the University by providing visiting professors from abroad as well as facilitating our faculty members for academic visits abroad.
- 4. **Disseminating information:** The practice of disseminating information to the foreign students was continued more vigorously this year due to the pandemic. We reached them through email, phone, and some of them came to the FSR Office as well. Overseas universities, alumni, and Indian missions overseas were also contacted. In addition, we created a dialogue box on the FSR website for foreign students.
- 5. Online Admission & Fee Collection: The practice introduced last year for the collection fees through online mode was continued this year also.
- 6. Appointment of one Nodal Officer in each College/Department/Institute/: Due to the Covid pandemic, the role of nodal officer this year has been of very important nature. The FSR office has a constant interaction with most of them for the welfare of foreign students.

Actions Taken by Foreign Students' Registry:

- 1. Counseling of foreign students: This is undertaken at the time of admission as well as on regular basis at the FSR office through personal contacts and convening of meetings. As all admission were done online and classes were also held online only, the interaction between newly admitted students was possible through telephone calls and regular email. We also did connect with all students who were in Delhi during complete lockdown. It included delivering food and medicine to them. There was an outbreak of Covid in the International Students Hostel for Women in early August 2020. That time, there were 49 girls left (others had gone back home through *Vande Bharat* special flights). Out of them, 9 girls were found positive, and they were admitted in the AIIMS. Fortunately, all of them recovered and they were brought back to their hostel safely. The FSR also worked for their departure to their parent countries with the assistance of MEA, Govt. of India and the Diplomatic Missions located in New Delhi.
- 2. **Meeting with Ambassadors/Embassy Officials for the benefit of foreign students:** There were few interactions this year due to the outbreak of the Pandemic. However, during the low intensity of the pandemic months (November 2020 February 2021), there was visit of Ambassadors from Indonesia, Cambodia, Nepal.
- 3. An Admission Committee was formed to supervise the admission process. This year, the Committee was formed a bit late (October 2020) and as the admission process was also delayed due to pandemic, the Committee met frequently through online mode.
- 4. The data of enrolled students of last 5 years was updated online on the Foreign Students Registry's website.

5. For the extension of visa, the FSR worked closely with FRRO, and all such letters were issued only by email.

GANDHI BHAWAN

1. Major Activities and Achievements

On 8th May 2020, a special lecture on Patanjala Yoga Sutra was organized in which Prof. Ramesh C. Bharadwaj, Director, Gandhi Bhawan, briefed the audience as resource person. A lecture series on the great Indian philosophers - Acharya Shankar, Acharya Jaimini, Vachaspati Mishra was organized on 25.5.2020, 26.5.2020 and 2.6.2020, respectively, in collaboration with Department of Sanskrit, DU. A summer workshop on 'The Regeneration of Indian Society in the light of Constructive programmes of Mahatma Gandhi' was organized from 10th August – 20th August 2020. Acharya Kakasaheb Memorial lecture on 'Rashtriya Shiksha Niti tatha Samajik Drishtikon' was organized on 22,7,2020 in collaboration with Gandhi Hindustani Sahitya Sabha, Rajghat, New Delhi. An international webinar on 'Thoughts and Philosophy of Mahatma Gandhi' was organized in collaboration with Center for Deen Dayal Upadhyaya Studies, HP University, Kangra, Himachal Pradesh. Release function of 'Instruction Manual to manage COVID19 at home, based on indigenous Indic Knowledge viz., Avurveda therapy, Mudras, Pranayams, etc. was organized on 23 July 2020. A lecture on Instruction Manual on COVID19 was organized 23.8.2020 in which Dr. Bajrang Lal Gupta, Eminent Thinker of Country was the resource person. A webinar on 'Matri Bhasha aur Bhartiye Bhashayen' was organized 28 September 2020 in which Shri Atul Kothari, Educationist, Shiksha Sanskriti Utthan Nyas, New Delhi was the resource person. An International Webinar on 'Gandhi and Contemporary Challenges' was organized from 27.9.2020 – 1.10.2020. An International Webinar on 'GANDHI150' was organized on 1.10.2021 in collaboration with MGI, Moka, Mauritius. Gandhi Jayanti & Closing Ceremony of GANDHI150 was organized on 2 October 2020. Makar Sankranti Utrsav was celebrated on 14 January 2021. A winter workshop on 'Hind Swaraj' with reference to a book 'Making of Hindu Patriot' by J. K. Bajaj and M. D. Srinivas was organized from 23-30 January 2021. On 30 January 2021, Martyrs' Day was commemorated. A one-week Faculty Development Programme' was organized in collaboration with Mahatma Hansraj Faculty Development Center, Hansraj College, University of Delhi from 23 January 2021. A workshop on 'Indian Knowledge System and Higher Education' with reference to New Education Policy (NEP2020) was organized from 11 to 13 March 2021 in collaboration with Department of Sanskrit, University of Delhi.

2. Honours/ Distinctions:

(i) Gandhi Bhawan is awarded II prize in recognition of outstanding contribution to the maintenance and improvement of medium garden on the occasion of the 63rd Annual Flower Show at University of Delhi.

3. Facilities – Certificate Course:

(i) Certificate course of three months duration Yoga and Meditation Training Programme (online due to Covid)) – Tuesday & Friday through virtual mode. Organized twice a year.

4. Other Significant Information:

Programmes/ events attended by the Director, Gandhi Bhawan, as Chief Guest/ Inaugurator/ Speaker/ Resource Person, through virtual mode, as following:

S	Programme/ Event	Place	Date	Organized by
No.				
1	Special Lecture on Patanjala Yoga Sutra	University of Delhi	8.5.2020	Gandhi Bhawan, DU
2	Lecture on 'Corona Ki Chunautiyan Aur Gandhi Vichar'	University of Delhi	9.5.2020	Moti Lal Nehru College, DU

3	Lecture on 'Coronakaal Mein Sanskrit ki Bhumika'	University of Delhi	13.5.2020	Maitreyi College, DU
4	Importance of Ayurveda in present scenario of COVID19	University of Delhi	17.5.2020	World Hindi Secretariat, Mauritius and Rashtriya Sanskrit Manch, ND
5	Bharat Mein Takniki Vikas: Vibhinn Kalkhandon Mein	University of Delhi	21.5.2020	Sanskrit Department, DU
6	Lecture Series on the great Indian philosophers as following: a. Acharya Shankar b. Acharya Jaimini	University of Delhi	May/June 2020 23.5.2020	Sanskrit Department, DU collaboration with & Gandhi Bhawan, DU
	c. Vachaspati Mishra		26.5.2020 2.6.2020	
7	Lecture Series on Mahatma Gandhi Webinar	University of Delhi	19.5.2020 to 23.5.2020	Ram Lal Anand College, DU
8	Webinar on Mahatma Gandhi	University of Delhi	30.5.2020	Mahatma Gandhi Adhyayan Kendra, JRRS University, Jaipur, Rajasthan
9	Mahatma Gandhi aur Pandit Deen Dayal Upadhyaya	University of Delhi	5.6.2020	Deen Dayal Upadhyay Peeth, Himachal Pradesh
10	Two-day International Conference on 'Dharmashastriye Achar-Vicharon ki Vartamaan mein Prasangikta'	University of Delhi	18.7.2020 to 20.7.2020	Department of Sanskrit, Sogra College, Biharsharif, Nalanda, Patliputra University, Patna, Bihar
11	Lecture Series 2020 – 'Arya Akraman ke Siddhant ke sandarbh mein Dr. Ambedkar ka Chintan'	University of Delhi	19.7.2020	Himachal Pradesh Central University, HP
12	Special Lecture on 'Vaidik Kaal Nirdharan' (Sahityik evam Puratatvik sandarbh mein)	University of Delhi	20.7.2020	Sanskritshauryam Facebook
13	E-seminar on 'Atmanirbhar Bharat: Gandhi vichar ki Prasangikta'	University of Delhi	31.7.2020	Dakshin Bharat Hindi Prachar Sabha, Madras
14	Summer Workshop on 'The Regeneration of Indian Society in the Light of Constructive Programmes of Mahatma Gandhi'	University of Delhi	10.8.2020 to 20.8.2020	Gandhi Bhawan, University of Delhi
15	Acharya Kakasaheb Kalelkar Memorial Lecture on 'Rashtriya Shiksha Niti tatha Samajik Drishtikon'	University of Delhi	20.7.2020	Gandhi Bhawan, University of Delhi & GHSS, Rajghat, New Delhi
16	International Webinar on 'Thoughts and Philosophy of Mahatma Gandhi'	University of Delhi	22.7.2020	Gandhi Bhawan, University of Delhi & Center for Deen Dayal Upadhyaya Studies, HP University, Kangra, HP
17	Release of 'Instruction Manual to manage COVID19' based on indigenous Indic Knowledge viz., Ayurveda, Yoga, Acupressure therapy, Mudras, Pranayams, etc.	University of Delhi	23.7.2020	Gandhi Bhawan, University of Delhi
18	Webinar on 'Bhartiya Darshan ke Katipaya Gyanmimansiye Prashna: Vishesh Roop se Nyaya-Shaikshik darshan ke Sandarbh mein' under the auspices of Bhartiya Baudhik Virasat Vyakhyayanmala	University of Delhi	25.7.2020	Department of Sanskrit, Hansraj College, University of Delhi

19	Release of Instruction Manual on to manage Covid19 at Home & Lecture	University of Delhi	23.8.2020	Lecture and released by Dr. Bajrang Lal Gupta, Eminent Thinker of Country
20	Webinar on 'Pracheen Bharat mein Takniki Gyan'	University of Delhi	22.9.2020	Kashi Hindu Vishwavidyalaya (BHU)
21	Gandhi and Contemporary Challenges	University of Delhi	23.9.2020	ICCR – Swami Vivekananda Cultural Center, Consulate General of India, South Africa
22	Talk/ Lecture on Mahatma Gandhi	University of Delhi	23.9.2020	ICCR - Thomas Varghese, Head of Chancery, Bratislava
23	Message/ Talk on Mahatma for Gandhi Jayanti - 2 October	University of Delhi	27.9.2020	ICCR - Dr. Syed Tanveer Nasreen, Director, ICC, High Commission of India, Male, Maldives
24	Webinar on 'Matri Bhasha aur Bhartiye Bhashayen'	University of Delhi	28.9.2020	Shri Atul Kothari, Educationist, Shiksha Sanskriti Utthan Nyas, New Delhi
25	International Webinar 'Gandhi and Contemporary Challenges'	University of Delhi	27.9.2020 to 1.10.2020	Gandhi Bhawan, DU
26	Talk on 'Gandhi and Contemporary Challenges'	University of Delhi	29.9.2020	Indian Cultural Center, Embassy of India, Bratislava
27	Talk on 'Gandhi and Contemporary Challenges	University of Delhi	29.9.2020	Indian Cultural Center, Embassy of India at Hague, Netherlands
28	International Webinar on 'Gandhi: A Nationalist of Socio-political Movements'	University of Delhi	30.9.2020	Lal Bahadur Center for Indian Culture, Embassy of India, Tashkent, Uzbekistan
29	International Webinar 'Gandhi and Contemporary Challenges'	University of Delhi	30.9.2020	Gandhi Bhawan, DU
30	International Webinar on 'GANDHI150'	University of Delhi	1.10.2020	Gandhi Bhawan, DU in collaboration with MGI, Moka, Mauritius
31	Talk on 'Mahatma Gandhi on Women and Making them Equal in Society'	University of Delhi	1.10.2020	Bharati College University of Delhi
32	Talk/ Message on Gandhi Jayanti	University of Delhi	1.10.2020	Shyam Lal College (Eve), DU
33	Closing Ceremony of GANDHI150	University of Delhi	2.10.2020	Gandhi Bhawan, DU
34	Talk on Mahatma Gandhi	University of Delhi	2.10.2020	Kamla Nehru College, University of Delhi
35	Lecture/ Talk on Mahatma Gandhi	University of Delhi	2.10.2020	Indian Cultural Center, Embassy of India, Kuwait
36	Lecture/ Talk on GANDHI 150	University of Delhi	2.10.2020	Rajasthan Sanskrit University, Rajasthan
37	Lecture/ Talk on Mahatma Gandhi	University of Delhi	2.10.2020	Indian Cultural Center, Embassy of India, Tel Aviv, Israel
38	Lecture/ Talk on Mahatma Gandhi	University of Delhi	2.10.2020	CSTT, Govt. of India
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39	Lecture/ Talk on Mahatma Gandhi	University of Delhi	2.10.2020	Biharsharif, Nalanda University, Bihar
40	Lecture/ Talk on Mahatma Gandhi	University of Delhi	2.10.2010	Kashi Virasat
41	Lecture/ Talk on Mahatma Gandhi	University of Delhi	2.10.2020	Indian Cultural Center, Embassy of India, Bagota, Columbia

GARDEN COMMITTEE

Major Activities and Achievements

Vriksharopan 2020: plantation of native shrubs at various sites of North campus and colleges of the University of Delhi

- A series of native tree and large shrub-planting events involving 2355 saplings from diverse taxonomic plant families were conducted in September November 2020 to enhance and rejuvenate green spaces. High quality saplings were gifted to the University Garden committee by alumni from Tata Power-DDL Ltd., and saplings raised by 'malis' of the University Garden committee were also used. This green endeavour to educate stakeholders about the essential role of plants for healthy ecosystems was initiated in 2018 with monsoon plantations. In 2020 Vriksharopan activities were organised with strict adherence to norms stipulated by the Government and University for safety precautions related to the pandemic and ensuing lockdowns.
- At least twenty colleges of the University participated in the *Vriksharopan* 2020 drive with tree and shrub species like 'Belpatra/Bael (*Aegle marmelos*), 'Sita Ashok' (*Saracaasoca*), 'Imli' (*Tamarindus indica*), 'Dhak' (*Butea monosperma*), Arjun and Baheda (*Terminalia* species), 'Shahtoot' (*Morus nigra*), 'Lasora' (*Cordia myxa*), 'Kurayjia' (*Chorisia speciosa*), 'Khajoor' (*Phoenix sylvestris*), and 'Chandni' variegated (*Tabernaemontana divaricate*). Enthusiastic participation was appreciated from Bhaskaracharya College of Applied Sciences, Vivekananda College, Maharshi Valmiki College of Education, Swami Shraddhanand College, Ramanujan College, Bharti College, Aryabhatta College, Hansraj College, Lakshmibai College, Zakir Husain College, Aditi Mahavidyalaya, Deshbandhu College, Janaki Devi Memorial College, Kalindi College, Miranda House, Atma Ram Sanatan Dharma Collegeand Shivaji College at the helm of plantation activities.

❖ Development/renovation and maintenance of new Lawns and Gardens

- Substantial efforts were made to maintain green spaces for the University and local communities, remove and control weedy overgrowths that occurred at some sites due to pandemic-related lockdown period.
- Assistance to oversee renovation of garden space and maintain lawn at the Department of Zoology for an area of about 576 sqm

Facilities

- The 'malis' and staff of the University Garden Committee provided support in Decoration and Flower arrangements at Convocation Day, and various official functions/activities of the University. Due precautions and safety guidelines were followed in the current pandemic related scenario.
- ❖ During the lockdown period, the University Gardens website http://www.universitygardens.du.ac.in provided online material for garden enthusiasts and skill-sharing videos for indoor/outdoor gardening tips

as well as links to virtual tours/visits to famous national and international gardens. The movie clips were created by student volunteers.

Other significant Information

❖ 63rd Annual Flower Show − 2021

The 63rd Annual Flower Show of the University of Delhi was held successfully on the 5th of March 2021 at the Mughal Garden (opposite the Vice-Regal lodge), North campus, University of Delhi. In a first of its kind, the traditional floral splendour of the Flower show was captured by drones and available on live webcast at www.du.ac.in The event was inaugurated by Prof. D. P. Singh, Chairman, University Grants Commission, in the presence of Prof. P.C. Joshi, the Hon'ble Vice Chancellor (acting); Dr. Vikas Gupta, the Registrar; Prof. Balaram Pani, the Dean of Colleges; Prof. Suman Kundu, Director of South Campus; Shri Girish Ranjan, the Finance Officer; and other dignitaries of the University. Rolling shields, cups and trophies were awarded to various colleges, hostels/halls, schools, and institutions who competed in 35 categories of potted plants, lawns & gardens. The hard work of "malis" was celebrated and a new category of "Corona warrior malis" were awarded to recognize outstanding service towards upkeep of garden activities during the pandemic related lockdown. Many participants competed in virtual photography and videography competitions aimed at celebrating the theme of "Diversity of flowers, fruits and vegetables in India" "भारतीयपुष्प, फलएवं शाकविविधता" as well as gardens & green activities of participating institutions. Virtual exhibits showcasing the diversity of flora and fauna associated with the Biodiversity Parks of Delhi, archival footage of past flower shows, and nature in north-east India were available at www.universitygardens.du.ac.in The Flower show saw resplendent displays of flowering plants including dahlias, buttercups, garden nasturtiums, foxgloves, irises, ferns, bonsai, cacti, and succulent plants.

INTERNATIONAL GUEST HOUSE

(1) Major Activities & Achievements: -

- (a) <u>Catering Arrangements: Special catering arrangements</u> were provided to One Hundred Seventy Five booking requests received for Dinning Services for Selection Committee/ Academic Council/ Executive Council/ Court Meeting/ Convocation/ Counting of Academic & Executive Council Elections/ Flower Show/ Finance Committee and all other University Official Meetings during the said period.
- (b) Rooms Accommodations: During the period fifty-eight guest rooms were provided for accommodation and messing. All the guests are satisfied from services provided and behaviour of the staff of IGH.
- (2) Facilities: Procurement of two touchless Sanitizer machines.
- (3) Other Significant Information: International Guest House follows all Office Orders issued by University during COVID-19 pandemic. International Guest House is closed w.e.f. 19.03.2020 with reference to University Office Order F.No. Estab.II(i)/330/COVID-19/M/2020 till 19.07.2020. International Guest House opened only for General Cleaning purposes w.e.f. 20.07.2020 till 05.10.2020 with all the precautions proposed in the guidelines issued by MHA from time to time strictly followed. International Guest House started functioning from 06.10.2020 with reference to University Order No. Estab.II(i)/GH/IGH/2020/750 with all guidelines issued by MHA from time to time for COVID-19.

University of Delhi: Annual Report 2020-21

New Managing Committee Has Constituted by University Competent Authority w.e.f. 17.03.2021 composition is as under: -

1. Prof. Sanjay Kumar Chamoli: - Chairperson

2. Prof. Neera Agnimitra : - Member3. Prof. R. K. Negi : - Member

4. Prof. M. K. Singh : - Member

5. Shri Sharad Kumar Sant : - Member
 6. Shri Pradeep Kumar : - Member Secretary
 7. Manager : - Ex-Officio

NATIONAL CADET CORPS

Hybrid mode for enrolments was adopted by most of the college NCC Units for intake in Senior Wing and Senior Division in the forty-six colleges of the University of Delhi. NCC cadets actively participated in various University level activities like University Convocation, Shaurya Diwas, Republic Day, Independence Day. Besides this they participated in hybrid mode for COVID-19 awareness campaign, mask distribution, food distribution, Arogya Setu app awareness for vaccines, vaccine myths etc.

NCC cadets also actively participated in Fit India Campaign, International Day of Yoga, Swachh Bharat Abhiyaan, Ekta Diwas, Tree plantation, Ek Bharat Shrestha Bharat Camp, Combined Annual Training Camp, Special National Integration Camp, Pre-Republic Day Camps, Republic Day Camp, CM Rally, PM Rally, Amar Jawan Jyoti, etc. organised by NCC Directorate Delhi through hybrid mode. They organized webinars on issues of concern for awareness among cadets as well as their friends.

NATIONAL SERVICE SCHEME

Online Activities were organised under the aegis of NSS Centre by the volunteers of NSS Units in the session 2020-2021.

Major Activities

1. COVID 19 Prevention April 2020 onwards

NSS Volunteers organised awareness programmes to prevent spread of COVID-19. Social distancing, use of face mask and repeated hand wash was promoted among the masses. Webinars and online workshops were organized for breaking myths related to COVID 19. 'badlo vyvhaar' was the theme of the campaign. NSS Volunteers played a vital role by performing 'Apada Mitra'. COVID-19 essential items were also distributed by NSS Volunteers. IEC material had distributed among the masses regarding COVID-19 awareness programme.

2. International Day of Yoga: 21 June 2020

International Day of Yoga was celebrated by NSS Volunteers, University of Delhi on the theme Yoga at home and Yoga with family. NSS Volunteers from various colleges performed Yoga by following Common Yoga Protocol as prescribed by the Ministry of AYUSH. Varied activities on Yoga were conducted by NSS units like workshop, webinar, poster making competition, quiz competition, poetry

competition, creative writing competition, online Yoga posture competition etc. e-certificates were also issued to participants.

3. Fit India Programme: 15 August to 4 September 2020

Fit India Programme was organized on the theme Fitness @Home, Fitness with Family. Walking, Running and Cycling was the main attraction of the event. Online e-posters competition was also organized to spread awareness among NSS Volunteers.

4. Celebration of NSS Day: 24 September

NSS Day was celebrated on 24 September. NSS Centre has devoted this day to our father of the Nation Mahatma Gandhi. Every college got an opportunity to speak and give presentation on the topic "Gandhian Values and NSS". Programme Coordinator, NSS interacted with the participants and praised the speakers.

5. Rastriya Ekta Diwas: 31 October 2020

On the occasion of the Birth Anniversary of Sardar Vallabhai Patel, Rastriya Ekta Diwas was celebrated by the NSS units on 31st October 2020. As part of the celebration NSS units conducted various activities like Pledge on Rashtriya Ekta and Lectures on the theme Unity.

6. Vigilance Awareness Week 27 Oct. to 2 November 2020

NSS Units organized Vigilance Awareness Week in which slogan writing competition was organized in Hindi and English through virtual mode. Theme of the week was vigilant India prosperous India.

7. Celebration of Constitution Day: 26 November 2020

Constitution Day was Celebration on 26 November 2020. Awareness programme regarding fundamental duties was organized through online mode. Understanding the basic theme of the Constitution i.e., Preamble of the Constitution was the area on focus of various associated events organized to celebrate constitution day.

8. Republic Day Parade Camp: 1 January to 31 January 2021

In the RD Parade Camp from 1 January 2021 to 31 January 2021 held at International Youth Hostel, 5 Nyaya Marg, Chanakyapuri, New Delhi. NSS volunteers Ms. Shakshi Gangwar from Shaheed Bhagat Singh College University of Delhi was part of the NSS Contingent at the Republic Day Parade 2021.

9. National Youth Day 2020

National Youth Day 2020 was celebrated in virtual mode at Central Hall of Parliament on 12 January 2021. Theme of the Youth Day was YUVAAH. Event was organized live on Lok Sabha TV and through NIC webcast. NSS Volunteers participated through live streaming mode.

10. 125th Birth Anniversary of Netaji Subhash Chandra Bose

Remembering India's great patriot and iconic hero of our freedom struggle. Netaji Subhash Chandra Bose on his 125th Birth Anniversary. To promote his values and principles slogan writing competition on the theme was organized. Theme of the events was Prakram Parv.

11. International Women's Day 8 March 2020

International women's day was organized by initiating various awareness programme related to health and hygiene, advocacy roles and protection of rights of women in present scenario.

NON-COLLEGIATE WOMEN'S EDUCATION BOARD

Introduction

NCWEB was established in September 1944 under DU Act 1943. The board facilitates the girl students to graduate with University of Delhi degree using non-Collegiate teaching format. NCWEB has emerged as an important academic option for the female students. Board had started with three students and at present, it is catering the need of approx. 32,000 students. There are UG courses being taught in 26 DU NCWEB teaching centres. These centres are within Delhi area, fulfilling the academic needs of the students. Apart from UG centres, one PG centre is situated in Tutorial Building, Arts Faculty. There are 20712 students in B.A. (Part I, II and III), 10608 in B. Com (Part I, II & III) and 889 in PG course Part I & II). Approx. 1378 guest lecturers were appointed for teaching at UG Centres. For PG students,40 Associate Professors/Assistant Professors had been appointed as per the guidelines of the University.

(1) Major Activities and Achievements.

Admission Process 2020-21: -Complete admission process became online. Registration as well as admission form was filled through online process. A separate Grievance Addressal mechanism was introduced for the first time for NCWEB students.100% seats were filled under SC category in UG Admissions. The seats were enhanced by 25% due to implementation of EWS reservations as per the directive of Govt. of India. Integration with CBSE was successfully achieved for the online verification of candidates' marks and other particulars.

<u>Academic cum Cultural activities:</u> -Seven Days online Orientation Programme for the NCWEB Guest Faculty was organised between 19th Jan 2021-27th Jan 2021.

(2) Facilities:

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- Due to the Covid -19 NCWEB provided the E-resources links and soft copy of study material given by the guest faculties to the students at various NCWEB centres.
- Financial aids of Rs. 3000/- provided to 657 needy and deserving students during this year 2020-21.
- NCWEB also provided Rashtriya SVF Tejaswani fellowship sponsored by Shanti Tatha Vidya foundation to 05 students.

(3) Other Significant Information.

COVID 19 – Teaching and Learning at NCWEB

- Institutional e-mail id created for the NCWEB guest Faculty to take online classes.
- During the Lockdown period, NCWEB successfully organised online teaching for the students using Google platform provided by the University of Delhi.
- Online academic and cultural activities were organised by the various entries like poetry recitation, essay writing and many more activities for the NCWEB students.
- NCWEB organized self-composed poem competition titled "Women as Nation Builders' on the occasion of International Women's Day on 8th March,2021.
- Online "Human Rights Workshop" titled "Protecting Human Rights of Women and children" organised by NCWEB for the UG/PG students on 10th March,2021.
- NCWEB organized 07 days "Creative Writing Workshop" in Hindi & English for 160 NCWEB students on virtual platform commencing from 13th April,2021.
- NCWEB centers started Environment/Paryavaran Club to sensitize and propagate environment concern among the students through various activities. NCWEB centres also celebrated 'World Environment Day' on 5th June 2021.
- NCWEB centres also celebrated 7th International Yoga Day on 21st June 2021.
- COVID-19 vaccination facility provided to the NCWEB students by the Lakshmi Bai College teaching Centre.

NCWEB is constantly working towards empowering women through education and is committed towards the holistic development of their students.

TEACHING CENTRES OF NCWEB

- 1. ADITI MAHAVIDYALAYA
- 2. ARYABHATTA COLLEGE
- 3. BHAGINI NIVEDITA COLLEGE
- 4. BHARATI COLLEGE
- 5. COLLEGE OF VOCATIONAL STUDIES
- 6. DR. BHIM RAO AMBEDKAR COLLEGE
- 7. DEEN DAYAL UPADHYAY COLLEGE
- 8. HANSRAJ COLLEGE
- 9. JANAKI DEVI MEMORIAL COLLEGE

- 10. JESUS & MARY COLLEGE
- 11. KALINDI COLLEGE
- 12. KESHAV MAHAVIDYALAYA
- 13. LAKSHMIBAI COLLEGE
- 14. MAHARAJA AGRASEN COLLEGE
- 15. MAITREYI COLLEGE
- 16. MATA SUNDRI COLLEGE
- 17. MIRANDA HOUSE
- 18. MOTI LAL NEHRU COLLEGE
- 19. PGDAV COLLEGE
- 20. RAJDHANI COLLEGE
- 21. RAMANUJAN COLLEGE
- 22. SATYAWATI COLLEGE
- 23. SRI AUROBINDO COLLEGE
- 24. SGGSC OF COMMERCE
- 25. SPM COLLEGE
- 26. VIVEKANANDA COLLEGE
- 27. PG TEACHING CENTRE

STUDENTS' WELFARE OFFICE

The Highlights of Admission Process 2020-21 (UG and PG Courses)

- Under-graduate admissions to 237 merit-based and 07 entrance-based courses in 67 colleges and departments of the university commenced on 12th October 2020 and closed on 31st December 2020. Admissions to all courses were contactless, and therefore no applicant had to come to the university.
- Post Graduate admissions to 74 courses commenced on 18th November 2020 and closed on 31st December 2020. Admissions to all courses were contact-less thereby no applicant had to come to the university.
- Centralized admissions were done for all courses. This helped the applicants in terms of movements within cutoffs (for UG Courses)/ admission lists (for PG Courses) in different colleges and courses in a time-bound manner.
- For UG admissions, there was one registration form for all colleges. No additional fee was taken from the applicants for applying to the colleges.
- Involved a group of 18 volunteers as Help Desk. These volunteer students handled all queries and provided assistance to the aspirants round the clock through their dedicated mobiles and emails. The helpdesk was active from the commencement of admissions till the end of it.
- Six webinars were organized by the branch to help applicants understand the entire process of admissions
 including filling of the form, uploading the certificates and other documents, reservation policies, updating
 their records and other aspects related to admissions. Videos were also made to help the applicants fill the
 forms.
- List of Departmental/College Nodal officers and helpdesks were displayed on university websites and on respective Department / college websites.
- A separate grievance committee was also made to handle any grievance of the students. The Grievance committee worked in close association with the branch to resolve the cases in a timely urgent manner. Redressal of grievances was also completely online.
- Guidelines were released on a regular basis with each cutoff/ admission list to help students.
- Admissions under CW/ ECA/ Sports categories were completely done online.
- The details regarding UG & PG Admissions are as follows:
 - Number of applicants registered for UG Courses: 3,35,434

- Number of admissions in UG Courses (including merit, entrance, NCWEB, Sports, ECA but excluding SOL): 85,163
- Number of applicants registered for PG Courses: 146994
- Number of admissions in PG Courses (including NCWEB but excluding SOL): 10796
- Number of applicants registered for M.Phil./ PhD Courses: 21699
- Admissions for M.Phil./ PhD are in process for the Academic Year 2020 21

In short, the motto of the Admission Branch was Contactless, Paperless and Online Admission.

Challenges and opportunities are said to be coterminous in the sense that each challenge generates new opportunities and the DSW office at the University of Delhi has indeed been pragmatic in realizing this age-old wisdom. While the world has been facing the perils of the deadly pandemic, our efforts at the DSW office in the turbulent period of Covid 19 has been to think of newer constructive and innovative ways to motivate and engage students. Consequently, we strived towards conducting online admission at the undergraduate and post graduate levels, online counselling, motivational sessions to rejuvenate spirits of the students as well as faculty. At DSW office, we continuously stive to achieve mandate of upping the skill component of the students, extending internship opportunities to them, and also ensuring their recruitment by the market leaders.

Pertinent here to mention that the DSW Office covers within its purview the following four important segments:

- 1) Admission
- 2) Grievance Redressal
- 3) Placement and Internship (facilitator)
- 4) Cultural Counselling
- 1) Admission: The DSW Office organizes counselling activities every year by the way of conducting Open Days sessions to guide students with the nuances of admission process. Similarly, it sets up helpdesks at various centers across Delhi to eliminate undesirable elements from disseminating wrong/ inadequate information to the aspiring candidates. The helpdesk continues to function during the entire duration of the admission. In the academic year 2020-2021, several online counselling sessions and open days were held to address the concerns and clear the doubts of aspiring candidates.
- 2) Grievance Redressal: DSW Office ensures to resolve all problems/issues that students seeking admissions at the University of Delhi and its colleges might possibly confront with. To that endeavour and commitment modalities and strategies periodically brought out and stressed on. Pertinent is to submit that the DSW Office continuously collaborates with UGC portal and responds quickly to the queries raised by students.
- 3) Placement & Internship Opportunity: It is, indeed, an established fact that the world of academia reflects a hub of boundless ideas and possible inventions and innovations, however, the path from research laboratory to marketplace is often unbelievably elongated, undefined, and ambiguous. In this competitive global era, it is often seen that the resources are not distributed in an even manner as the result it becomes an arduous exercise to tap expertise in any predetermined or specified areas. In order to bridge the gap between industry and academia, University of Delhi has set up Central Placement Cell in 2008 under the aegis of the Dean Students Welfare Office. The main endeavour of CPC is to get students placed in reputed multinationals, government organizations, NGOs, and the private sectors.

The Central Placement Cell, University of Delhi has entered the thirteenth year of its inception. All the previous batches registered with CPC in past have duly benefited from Industry-student interaction. Corporate houses from different sectors have participated in our endeavor and recruited large number of students from the university and its colleges during these years. CPC has extended the data base to include Ph.D./Postgraduate/Undergraduate students along with the students from School of Open Learning and Non-Collegiate Women Education Board. This pool extends to all Delhi University Colleges and Post Graduate Departments. The CPC certainly ensures a wider choice in terms of number and quality of students available at a single platform.

The vision of CPC is to provide a continuum of opportunities to the undergraduate, post graduate students and research scholars studying in various courses of Science (Physical, Life and Applied sciences), Mathematical Sciences Commerce and Social Sciences. A detailed list of courses offered by the University of Delhi is available on the university website. The Central Placement Cell seeks the support of all corporate houses and NGOs in our endeavor to provide suitable placements to our students and help them in their competency's enhancement. The University of Delhi also appreciates corporates in their endeavour to encourage recruitment of Differently Abled Students. CPC provides opportunities to the students of 1st & 2nd year by encouraging them to participate in Internship programme.

In the academic year 2020-21 the placement cell organized recruitments, mega sessions on stress management, counselling, and meditation sessions through various digital platforms to rejuvenate and relax students as well as faculty members.

4) Cultural Counselling: - Cultural Council is an important wing of DSW Office and its primary function is to encourage and promote young interested and talented students at the university level to understand the culture of pan Indian community. Towards that endeavour the cultural council under the aegis of DSW Office organizes various cultural programme with the overarching concern of promoting inclusivity.

Along with it the DSW Office has initiated and coordinated several new programmes in 2020-2021 keeping in mind the interest of the student's community. Some notable ones of the many conducted till 30^{th} April 2021 are provided below: -

- 5) EK BHARAT SHRESTHA BHARAT: In the academic session 2020 2021 Dean Student's Welfare Office was assigned as nodal centre for coordinating EBSB programme and therefore it was instrumental in handling and coordinating various activities with the paired Sikkim University. The coordination was done both with the College's and the MHRD. In the aforementioned academic session, the modalities for conducting programmes were slightly altered after receiving instructions from the MHRD however DSW office ensured to open some EBSB clubs in the colleges where cultural exchange programmes were conducted online between the paired states.
- 6) In order to utilize the time of students in a constructive manner, DSW office organized weekly webinars with TELERANG for skill bridging and up skilling. The event was open to both UG and PG students and around 800 students at Delhi University attended these webinars where the focus was on imparting training on Gen Z and Jobs of the Future, Business Ethics, Introduction to Data Analytics, Case Studies and Resume and Interview Tips and Tricks.
- 7) In the month of May,2020 the DSW office through CPC collaborated with 'Internshala' for an initiative "Chalo India, Let's Work from Home," providing over 12,000+ virtual/online internships opportunities to UG and PG students at the University of Delhi in reputed companies like HCL, TikTok, Make My Trip, Unacademy. Pertinent to mention that these internships had no registration fees, and it was totally online (work from home). It also carried stipends for the interns and around 4600 students registered for this flagship programme.
- 8) Dean Students' Welfare office in partnership with National Skill Development Corporation (NSDC) initiated 'work from home model' Internship opportunities to UG and PG students at the University. In this internship offer, around 650 students registered themselves.
- 9) On 28th May 2020, the Dean Students Welfare Office, University of Delhi organized a webinar titled "Exploring Resilience and Self-care for Students in Covid- 19 Times". The speakers for the event were Dr. Bijayalaxmi Nanda, Principal (Acting), Miranda House, Ms. Sutapa Sanyal, Former Director of General Police and Dr. Amrita Dass, Founder Director Institute for Career Studies. This webinar was Chaired by Prof. Rajeev Gupta, Dean Student's Welfare and coordinated by Dr. Hena Singh and Dr. Somorendro Singh, Deputy Deans, Students' Welfare.
- 10) On the next day i.e., 29th May 2020, Dean Students' Welfare Office in association with VACT SOLUTIONS offered an online training workshop for three hours on "Design Thinking- Creativity and Innovation for Excellence." This workshop was free of cost for the students as well as faculty members of

University of Delhi and a certificate of participation was also given to all the participants. The response was very enthusiastic and around 1100 students and faculty members registered and participated in this workshop.

- 11) In the month of **June 2020** DSW office announced another collaboration with Internshala under which 6000+work from home internships opportunities were extended to the student of the university of Delhi. There were no registration charges involved and all internships carried stipends ranging from 1000 to 30000 INR/ month. All together 3500 students have been beneficiaries of this opportunities.
- 12) On 16th June, DSW office organized an international webinar on "Mental Health Challenges during COVID- 19." The speakers for this session were Dr. Anil Singhal, Senior Neurologist, Oklahoma, USA, and Dr. Achala Singhal, Senior Cardiologist, Oklahoma, USA. The event was chaired by Prof. Rajeev Gupta, Dean Student's Welfare and coordinated by Deputy Deans Students' Welfare Dr. Hena Singh and Dr. Somorendro Singh. This webinar had an overwhelming response from the participants.
- 13) On 13th July, DSW office reached other milestones by organizing online career counselling/mental counselling and motivational sessions between the officials of Talerang career training and faculty members of the University of Delhi on the modalities for conducting online training/classes for faculty members and pedagogies of online education.
- 14) On 31st July 2020, Dean Students' Welfare Office, University of Delhi conducted a webinar on Changing paradigms in Education: impact of Covid 19 long lasting or seasonal? This webinar had galaxy of star speakers. The keynote address was delivered by Shree Shakti Sinha, Hony DSPP&G, University of Delhi. The webinar was chaired by Prof Rajeev Gupta, Dean Students Welfare and coordinated by Dr Hena Singh and Dr Somorendro S Singh, Deputy Deans Students Welfare. The webinar was a huge success and attended by more than 220 participants. This online webinar had Dr Dwarika Prasad Unival, Professor and Dean, Flame University, Dr Sanjay Kumar, India Company Director, LMSAI, Harvard University and Mr. Aditya Mallik, MD and CEO TalentEdge Ltd as the illustrious panelists.
- 15) In the third week of August DSW office in collaboration with Tarerang conducted virtual online workshops on the future of India in association with Aditya Birla.
- 16) DSW office participated in a webinar on 'Reimagining future' and challenging the norms in the month of September 2020.
- 17) As mentioned above, DSW office is continuously striving to keep pace with time and accordingly organized various welfare centric activities to keep students motivated and channelize their energies in the positive direction. It organized online interactive sessions of CEOs of reputed companies with students at Delhi University to energize and motivate them.
- 18) DSW office also organized free online workshop for 3 hours on Design Thinking conducted by Vact Solutions. The workshop was attended enthusiastically by both students and faculty members and altogether 750 members participated in it. The session had been graced with the presence of Prof. Rajeev Gupta, Dean Students Welfare, as the keynote speaker and coordinated by Deputy Dean Students Welfare Dr. Hena Singh.
- 19) Azadi Ka Amrut Mahotsav The Dean Students' Welfare Office in association with Gandhi Bhawan organised an inaugural seminar and 'charkha karyashala' to commemorate the flagship programme of the Government of India titled "75 years of India's Independence Azadi Ka Amrut Mahotsav" on 12th March 2021 at Gandhi Bhawan. Professor P.C. Joshi, the Honourable Vice Chancellor of the University of Delhi has graciously consented to be the Chief Guest on this occasion. The other dignitaries who graced the occasion was Professor Balram Pani, Dean of Colleges, Professor Suman Kundu, Director, South Campus, Professor Neeta Sehgal, Proctor, Professor Rajeev Gupta, Dean Students' Welfare, Professor Ramesh Bhardwaj, Director, Gandhi Bhawan and Professor Seema Bawa, Head, Department of History, University of Delhi. The seminar along with memorializing 91years of the Dandi March led by Mahatma Gandhi focused on the need to value and understand the sacrifices and contributions made by the nationalist leaders during the freedom struggle for India against the colonial powers. The speakers

urged the academic community to explore and unveil the unique stories that are scattered and wrapped up in our past. The event witnessed enthusiastic response from the academic community and large number of volunteers participated in the 'Charkha- Karyashala' which is a way of upping the skills and moving towards the path of 'Atmanirbhar Bharat'. Organising 'Charkha - Karyashala' also give us an impetus to think and celebrate how the threads of its yarn had united the entire nation and tied the communities closely.

20) Shaheed Diwas - To pay homage and commemorate 90 years of martyrdom of national icons of the Indian National Movement - Shaheed Bhagat Singh, Sukhdev Thapar and Shivaram Raiguru, the Office of Dean Students' Welfare successfully organised "Shaheed Diwas" on 23 March 2021 in the Convention Hall of the Viceregal Lodge. This occasion was marked to honour and value the sacrifices made by the national icons and to drive out lessons of inspiration from their lives and times. The Chief Guest on this occasion, Dr Ramesh Pokhriyal 'Nishankh,' Honourable Education Minister delivered his keynote speech through virtual platform. The programme was presided by Professor P.C. Joshi, Honourable Vice-Chancellor, University of Delhi, and has witnessed the graceful presence of Prof Balram Pani, Dean Colleges, Professor Suman Kundu, Director, South Campus, Professor Rajiv Gupta, Dean, Students Welfare, Dr. Vikas Gupta, Registrar along with Principals, officials, faculty members, staff, and students at the University of Delhi. The programme started by offering floral tributes to the martyrs and patriotic songs were sung by the students of the Music Faculty. Prof Rajeev Gupta, Dean Students Welfare while welcoming the august gathering highlighted the need for commemorating such events to remind ourselves of the price paid by our ancestors for the freedom we enjoy today. He further added that only by understanding its value we can keep the flame of freedom ignited among the people. Honourable Education Minister in his virtual keynote address emphasised on the need of holding such programmes to instill inspiration and pride in the youth of today and also to absorb the values that our national heroes exemplified in making independent India a reality. The Honourable Vice-Chancellor while presiding the session announced the opening and accessibility of Bhagat Singh Smarak for the students as well as academic community. Reflecting on the relevance of history the Vice Chancellor reiterated the need to revisit past with the purpose to imbibe, inculcate and understand the values of freedom and sacrifices made by these martyrs. The Honourable Vice Chancellor also announced that the existing collection of books on freedom fighters in the Bhagat Singh Smarak being converted into "Shaheed Smriti Pustakalaya." On this occasion the University of Delhi organized intra - college competitions on four categories i.e., poetry, song, slogan, and essay writing. The award-winning students were felicitated by the Vice Chancellor and other dignitaries on the dais and also given an opportunity to showcase their talents in front of the august gathering. The formal vote of thanks was extended by Professor Suman Kundu, who along with paying homage to the martyrs appreciated the efforts of authorities for opening the Bhagat Singh Smarak and Shaheed Smriti Pustakalaya and congratulated the winners. The live Webcast of both the programmes were made available on the official website of the University of Delhi: www.du.ac.in.

UNIVERSITY GUEST HOUSE

- 1. Major Activities and Achievements: The University Guest House caters to the needs of major academic meetings by way of providing accommodation and meals. It is also a venue for meetings. A number of examiners and visiting scientists are provided hospitality.
- **2. Facilities:** University Guest House has thirty-three rooms in the main building and 06 Bamboo Cottage rooms with attached bathroom. Phone, TV etc. Two persons can stay in one room.

University Guest House provides free internet and Wi-Fi facility to the room guests.

University Guest House has a kitchen to provide safe, healthy, hygienic, and delicious food.

University Guest House has a clean and specious dining hall with the sitting capacity of 35-40 persons.

Guest House has a lounge with mike and projector facility for meetings, get-togethers with the sitting capacity of 70-80 persons.

WORLD UNIVERSITY SERVICE HEALTH CENTRE

Major Activities and Achievements

The W.U.S. Health Centre came into existence on 19th March 1955.

Vision: The develop the institution to deliver primary health care in a comprehensive manner for the employees and students of DU.

Mission: To provide efficient and streamlined Health services to all the beneficiaries of the University. Primary as well as specialized treatment is provided in many specialties through a large number of empaneled Hospitals and Diagnostic Centres.

The W.U.S. Health Centre (North Campus) caters to approx 1,62,766 beneficiaries i.e. Regular, Retired Employees and their dependents, Resident & Non-Resident Students and Ad-hoc employees (teaching). Total OPD attendance for the financial year 2020-21 was 57,946 and the total clinical services (Physiotherapy, Pathology Lab., Nursing and Dressing) was 27,830. Approximately 193 patients sought consultation in OPD per day during F.Y. 2020-2021. These numbers are ever increasing.

WUS Health Centre (South Campus) caters to approximately 16,186 beneficiaries. Approximately 33 patients avail W.U.S. Health Centre (South Campus) OPD facilities per day (six days per week).

W.U.S. Health Centre (East Delhi) caters to approximately 5,132 beneficiaries. Approximately 06 patients avail W.U.S. Health Centre (East Delhi) OPD facilities per day (five days per week).

W.U.S. Health Centre (West Delhi) caters to approximately 5,600 beneficiaries. Approximately 13 patients avail W.U.S. Health Centre (West Delhi) OPD facilities per day (five days per week).

Total OPD attendance of different W.U.S. Health Centres for the financial year 1st April, 2020 – 31st March, 2021 is as follows:

North Campus: 57,946

South Campus: 11,075

East Delhi: 1881

West Delhi: 3939

Total Clinical Services of W.U.S. Health Centres for the financial year 1st April, 2020 – 31st March, 2021 is as follows:

North Campus: 27830

South Campus: 912

East Delhi: 59

West Delhi: 356

In addition to routine Health Services, W.U.S. Health Centre (North) also provided emergency health services even on Sundays/Gazetted Holidays during following Tournaments/Other University Functions organised by University of Delhi:

97thAnnual Convocation: 27th February, 2021

Diwali: 14th November, 2020

63rd Annual Flower Show: 5th March, 2021

Holi: 29th March, 2021

World Health Day was celebrated in W.U.S. Health Centre (North Campus) on 7th of April 2020. The theme of this year's World Health Day was Support the Nurses and Midwives. Leaflets highlighting the issues regarding Supporting the Nurses and Midwives were disseminated to all the Faculties/Departments/Centres/Colleges/Hostels which was highly appreciated by everyone. An article on Support the Nurses and Midwives was uploaded on University of Delhi website and W.U.S. Health Centre website for the information of University fraternity.

World Heart Day was celebrated in W.U.S. Health Centre (North Campus) on 20th September, 2020. The message of World Heart Day 2020 was "In the time of COVID-9, taking care of your heart is more important than ever before".

In view of Corona Virus Disease (COVID-19) Pandemic, an advisory highlighting this disease, treatment, preventive steps to be scrupulously followed, details of Quarantine measures, COVID Appropriate Behaviour (CAB), prognosis was promptly uploaded on University of Delhi website www.du.ac.in and WU.S. Health Centre website http://healthcentre.du.ac. for the information of University fraternity and series of seminars were hosted in W.U.S. Health Centre, North Campus and Delhi University Women Association (DUWA) premises from time to time for the information of beneficiaries and the public which was highly appreciated.

Even though COVID-19 pandemic was in its full spate still W.U.S. Health Centre (North Campus) was functional 24 x 7 hours and the peripheral W.U.S. Health Centres were operational from 09:00 AM to 03:00 PM. Telephonic consultation and Tele counseling facilities were provided to the beneficiaries 24 x 7 hours. Advisories regarding impact of COVID-19 Pandemic and Psychosocial impact of COVID-19 Pandemic on the Health of Staff and Students, visually impaired students and staff were uploaded on time Delhi University website www.du.ac.in.

The facility of Vaccination with Covaxin and Covishield was inaugurated by Hon'ble Vice Chancellor Senior Professor Dr. P.C. Joshi on 14th April, 2021 on the occasion of Birthday of Babasaheb Dr. Bhim Rao Ambedkar (Ambedkar Jayanti) and has been made available daily in W.U.S. Health Centres (North Campus, South Campus, West Delhi) and so far 1500 beneficiaries have been vaccinated. Under the dynamic leadership, Camaraderie, Team approach and Visionary Leadership of Senior Professor Dr. P.C. Joshi, daily 100 beneficiaries are vaccinated in different W.U.S. Health Centres since 14th April, 2021.

Health checkup camps, Cardiac checkup camps, Diabetes control camps have been organized in collaboration with reputed Hospitals from time to time.

Existing Facilities:

The W.U.S. Health Centre (North Campus) provides 24 x 7 hours services for the University employees, their dependents and students except on Sundays/Gazetted Holidays from 10:30 AM to 08:00 PM.

OPD Timings: MONDAY to SATURDAY*

Morning Duty: 08:00 AM to 02:30PM

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Evening Duty: 01:30 PM to 08:00PM

Night Duty: 08:00 PM to 08:00AM

In the Evening shift 2 Part-time Medical Officers and 1 Full time Medical Officer examine the patients.

Sunday/Gazetted Holiday: 00:00 hours to 10:30 AM.

Night Service: All Days (Emergency services only)

W.U.S. Health Centre (North Campus) is the nodal point and has a team of 09 dedicated Medical Officers [including 1 medical consultant on contract, 1 Medical Officer on contract and 2 Part-time Medical Officers (against 2 sanctioned posts of Medical Officers)], 10 Visiting Part-time Specialists [who provide Specialized services for two hours in Cardiology (thrice per week), Neurology (once per week), Psychiatry (once per week), Orthopaedics (five days per week), E.N.T. (five days per week), Paediatrics (four days per week), Dermatology (3 days per week), Ophthalmology (thrice per week), Dental (3 hours, six days per week)], 6 Permanent Pharmacists, 2 Pharmacist on Contract, 2 Physiotherapists, 1 Nurse, 3 Nurses on contract, 2 Dressers, 1 Dresser on contract, 1 Technical Assistant (Pathology Laboratory), 4 Permanent Ministerial Employees, 4 Ministerial Employees on contract, 2 Office Attendent, 7 MTS-Attendant on contract, 3 Ambulance Drivers.

W.U.S. Health Centre (North) has a Pathology Laboratory, Physiotherapy Unit, Nursing Station, Dressing Room and equipped with Basic Life Support Ambulance to evacuate the patients to the nearest empaneled Hospital/Government Hospital in case of emergencies.

W.U.S. Health Centre (South Campus) caters to its beneficiaries from Monday to Saturday from 09:00 AM to 05:30 PM and on Saturday from 09:00 AM to 03:30PM. It has 04 Medical Officers [(including 01 Medical Consultant on contract and 02 part-time medical officers (against 1 sanctioned post of Medical Officer)], 03 visiting Part-Time Specialists [who provide Specialized services for two hours in Ophthalmology (twice a week), Dentistry (thrice a week) and Cardiology (thrice a week)], 2 Pharmacists, 1 Physiotherapist on contract, 1 Ambulance Driver. This Health Centre has a Pathology Laboratory, Physiotherapy Unit, Dressing Room and is equipped with Basic Life Support Ambulance.

W.U.S. Health Centre (East Delhi) and W.U.S. Health Centre (West Delhi) cater to their beneficiaries from Monday to Friday from 09:00 AM to 03:30 PM. These Health Centres have 1 full time Medical Officer, 2 Pharmacists and 1 Dresser. These Health Centres have a Medical Store and Pharmacy.

Seminars Organized: 05

Conferences/Coninuing Medical Education (CMEs) organized: 20

Extension and Outreach Activities: Delivered several Public Health Lectures/Webinars on COVID-19 Pandemic in different Colleges affiliated to the University.

Doctors' Strength

1 Chief Medical Officer, 7 Permanent Medical Officers. 1 Medical Officer on contract, 2 Medical Consultants on contract, 5 Part-time Medical Officers, 13 Part-time Visiting Specialists.

Other Significant Information

Health Centre (North Campus) was operational 24 x 7 hours even during COVID-19 Pandemic.

Online submission of Medical claims of Hospitalization and OPD treatment bills is being followed.

Provision of High-quality Medical care to the patients.

Provided Medical Cover to the Dignitaries and during Sports activities. Quick and timely disposal to the patients.

In addition to the already available/purchased infrastructure, Infrared Thermometers, Sanitizers, Double & Triple Layered Masks – N95/N99, Sterilized Gloves, Personal Protective Equipment (PPE), BP Apparatus, Pulse Oximeters, 10 Oxygen Concentrators, Nebulizers, Ambu Bag, 02 Advanced Cardiac Monitors, 20 ICU Beds and Oxygent Cylinders have been procured recently so as to augment the facilities.

Timely disposal of medical examination of fresh appointees/commutation of pension.

Timely holding of series of meetings for the finalization of tendors for the purchase of Drugs & Medicines for the F.Y. 2019-2021 and 2020-2021.

Universal precautions and advisories issued by WHO, MoH&FW, AIIMS New Delhi, ICMR are being followed in letter and spirit.

COVID-19 Vaccination drive (Covishield and Covaxin vaccination facilities) at W.U.S. Health Centre (North Campus, South Campus and West Delhi).

Medicines are issued by W.U.S. Health Centres to its beneficiaries 24 x 7 hours (North Campus) except 10:30 am to 8:00 pm on Sundays/Gazetted Holidays.

Tele consultation and Tele counseling regarding various diseases and Psycho-social Problems are provided to all the patients 24 x 7.

Process for the recruitment of 15 more Medical Officers and 30 Paramedics is underway.

ACADEMIC CENTRES

AGRICULTURAL ECONOMICS RESEARCH CENTRE

Major Activities and Achievements

AERC, Delhi continued the research and policy communication work during 2020-21. The research staff crunch is still persistent at the centre. There have been contributions in the form of research reports, journal publications, book, presentations in conferences and inputs to high level committees by the faculty. Honorary Director, Prof. P. K. Joshi (former Director for South Asia, International Food Policy Research Institute), continue guiding the centre for the year in which the field work is significantly impacted due to Covid-19 pandemic situation. The tenure of the Chairperson, Dr. Harsha Vardhana Singh, (former Deputy Director General of WTO, Geneva) completed in March 2020. Selection of new chairperson is under process.

Honours/Distinctions

Prof. P. K. Joshi

Member, Board of Directors. The Asia Pacific Agricultural Policy Forum, South Korea, Seoul.

Publications

Bathla, Seema, Joshi, Pramod K, and Kumar Anjani (2020), Agricultural Growth and Rural Poverty Reduction in India: *Targeting Investments and Input Subsidies*. Springer Nature Singapore.

Bhatt, Y., Vinit, P. K., Yadav, U., Jain, V., Sain, R. (2020), COVID-19 and Sugarcane Farmers: Impact on Harvesting and Transportation. *Agro-Economic Policy Briefs*, IIM Ahmedabad.

Bhatt, Y., Yadav, U., Jain, V., Sain, R., Vinit, P. K. (2020), Assessing the Status of Feed and Fodder in Haryana: Findings from Field Survey. *Agro-Economic Policy Briefs*, IIM Ahmedabad.

Deepak Varshney, Anjani Kumar, Ashok Mishra, Shahidur Rashid, and Pramod Kumar Joshi (2020), India's COVID-19 Social Assistance Package and its Impact on the Agriculture Sector. *Agricultural Systems*.

Deepak Varshney, Anjani Kumar, Ashok Mishra, Shahidur Rashid, and Pramod Kumar Joshi (2020), COVID-19, Government Transfer Payments, and Investment Decisions in Farming Business: Evidence from Northern India. *Applied Economics and Perspective Policy*.

Deepak Varshney, Pramod Kumar Joshi, Devesh Roy, and Anjani Kumar (2021), Understanding the Adoption of Modern Cultivars in India: Adoption probability and use intensity. *Forthcoming Journal of Agricultural and Resource Economics*.

Deepak Varshney, Pramod Kumar Joshi, Devesh Roy, and Anjani Kumar (2020), PM-KISAN and the Adoption of Modern Agricultural Technologies. *Economic & Political Weekly*, Vol 55 (23).

Deepak Varshney; Anjani Kumar; Ashok Mishra, Shahidur Rashid and Pramod Kumar Joshi (2020), Could Pradhan Mantri Garib Kalyan Yojana (PM-GKY) mitigate COVID-19 shocks in the agricultural sector: Evidence from Northern India. 2020. IFPRI Discussion Paper 1990. Washington, DC: International Food Policy Research Institute (IFPRI).

Deepak Varshney; Pramod Kumar Joshi; Devesh Roy; and Anjani Kumar (2020), Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) and the adoption of modern agricultural technologies in Uttar Pradesh, India. IFPRI Discussion Paper 1907. 2020. Washington, DC: International Food Policy Research Institute (IFPRI).

Ghosh N., Rajeshwor M., Vinit P.K. (2020), "Towards One Agricultural Market in India: Does the ICT Help?". In: Maiti D., Castellacci F., Melchior A. (eds) *Digitalisation and Development*. Springer, Singapore. https://doi.org/10.1007/978-981-13-9996-1_8

Kumar, Anjani, Tripathi, Gaurav and Joshi, P K (2020) Adoption and Impact of Modern Varieties of Paddy in India: evidence from Nationally Representative Field Survey. *Journal of Agribusiness in Developing and Emerging Economies*.

Mishra, Ashok, Kumar Anjani and Joshi, Pramod K. (2021), Transforming Agriculture in South Asia: The role of Value Chains and Contract farming. *Routledge*, New York, USA.

Nuthalapati, Rao, Chandra Sekhara, Bhatt, Yogesh and Beero, K., Susanto (2020), Is the Electronic Market the Way Forward to Overcome Market Failures in Agriculture? *IEG Working Paper No.* 387.

Saroj, Sunil, Kumar, Anjani and Joshi, P K. (2021), Adoption of New Wheat Crop Varieties in India: Status, Determinants and Impact. *The Journal of Developing Areas*.

Thapa, Ganesh, Kumar, Anjani, Roy, Devesh and Joshi, P. K. (2020), Food Safety Consciousness and Consumers' Milk Purchasing Behavior: Evidence from a Developing Country, *Journal of Agricultural and Applied Economics* Vol 52.

Research Projects

Completed (3)

Harvesting and Transportation costs of sugarcane—For the Commission for Agricultural Costs and Prices (CACP), GoI. There is no reliable data on the transportation and harvesting costs for sugarcane crop in the country at present. The present study is a step to create a reliable database and develop a scientific methodology to estimate the harvesting and transportation costs of sugarcane.

Assessing the Impact of Covid-19 on Sugarcane Farmers in Haryana and Uttarakhand - A self-initiated telephonic based surveystudy by AERC-Delhi, attempted to elicit sugarcane farmers' responses on impact of Covid-19 lockdown in Haryana and Uttarakhand.

Assessment of Livestock Feed and Fodder in Haryana – The study attempts to generate reliable estimates of feed and fodder availability in Haryana.

Ongoing (2)

Continuous Village Survey (CVS) – CVS attempts to study the changing dynamics of rural transformation by studying a village economy at periodic intervals of five years. The present study is the first in this series.

Estimating and Bridging the Yield Gaps in Oilseeds for Atamnirbhar Bharat -Despite impressive performance in production of oilseeds, the yield levels are way behind than many oilseed growing countries. This study is an attempt to trace the low yield states and districts of India and ways to step-up yield to increase production of oilseeds.

Seminars Organized

Prof. P. K. Joshi (1)

Organized a Panel Discussion on "Covid 19: Impacts and New Normal in Agriculture". National Academy of Agricultural Sciences, New Delhi (5 June 2020).

Seminar/Conferences/Workshops Presentation and participation (National/International) Prof. P. K. Joshi (20)

- Delivered a talk to students on "Future of Indian Agriculture: Challenges and Career Opportunities". School of Agricultural sciences, Sharda University, Noida, UP. (11 May 2020).
- Delivered a talk in an International Webinar on "Resurgent India- Way Ahead" organized by the Indira Gandhi National Tribal University, Amarakanatak, MP (28 May 2020).
- Delivered a talk on "Emerging Research Priorities in Social Sciences" in a workshop on 'Advances in Research Methodology for Social Science" Organized by the Indian Agricultural Research Institute, New Delhi (4 Sep 2020).
- Delivered a talk on "Post-harvest Management of Horticultural Commodities: National and International Perspective", organized. By the MP Government and the UNDP, India. (6 Sep 2020).
- Panellist in a NAAS sponsored Brainstorming Session on "Sugarcane Based Ethanol Production for Sustainable Fuel Blending Program". NAAS, New Delhi (18 Sep 2020).
- Panellist in a Brainstorming Session on "One Health One Health". Presented views on "Integrating Environment in One Health", Organized by NAAS, New Delhi (20 Sep 2020).
- Panellist in a Roundtable Discussion on "Agricultural Technologies and Crops: India's Experience with Genetically Modified Crops" organized by the Council of International Economic Understanding, New Delhi (29 Sep 2020).
- Panellist in a Panel Discussion on "Recent Market Reforms in Agriculture" Organzied by the Institute of Economic Growth, New Delhi (30 Sep 2020).
- Presented a paper on "Aatm Nirbhar Bharat in Farm Sector: Challenges and Opportunities" in Agriculture Outlook Forum 2020, sponsored by the Ministry of Agriculture and Farmers' Welfare, New Delhi (15 Oct 2020).
- Delivered the Valedictory Address on Management Development Program on "Priority Setting, Monitoring and Evaluation of Agricultural Projects" organized by the NAARM, Hyderabad (17 Oct 2020).
- Panellist in a Brainstorming Session on "Higher Agricultural Education Policy" organized by the NAAS, New Delhi (20 Oct 2020).
- Delivered inaugural address in the International Conference on "Contemporary Practices of Technology and management for Economic Growth" Organized by the Vellore Institute of Technology, Vellore (23 Oct 2020).

- Delivered a talk on "Agriculture Sector as a Driver for US\$ 5 trillion Economy' organized by NAARM, Hyderabad (31 Oct 2020).
- Delivered a talk on "Noble Peace Prize' in Noble Prize Lecture Series 2020, organized. By the Karnataka Science and Technology Academy, Karnataka (2 November 2020).
- Delivered a webinar on Agricultural Transformation in India" organized by the Bangladesh Agricultural University, Mymensingh, Bangladesh (10 Nov 2020).
- Delivered the Inaugural Address on 23rd Foundation Day of the International Development Center Foundation (IDC Foundation) on "Recent Market Reforms in Indian Agriculture" (11 Nov 2020).
- Panellist in the Launch of the Book on "Agricultural Transformation in Nepal" organized by IFPRI, USAID-Nepal and IIDS, Nepal (11 Nov 2020).
- Delivered a talk on 'Enabling Policies and Emerging Good Practices in Improving Food Security and Access to Markets During Covid Pandemic in India", in 2nd Virtual Seminar Organized by the Asia Pacific Agriculture Policy Forum, South Korea, Seoul (5 Dec 2020).
- Panellist in the 1st Rice Congress in a Session on "Reinventing Rice Production Systm for Achieving the SDGs (11 Dec 2020).
- Delivered Special Address in the Valedictory Session of the 103 Conference of the Indian Economic Association (28 Dec 2020).
- Chaired a Session on "Decoding New farm Laws' organized by the National Dairy Research Institute (13 Jan 2021).
- Delivered a Lead Lecture on "Changing Global and National Pulse Scenario: Policy Perspective and Challenges" in the Pulse WebCon on the eve of Global Pulse Day (11 Feb 2021).

Dr. Yogesh Bhatt (6)

- Presentation to Chairman Commission for Agricultural Cost and Prices (CACP) ON "Methodology and study findings of the study -Transportation and Harvesting costs of sugarcane", at Agricultural Economics Research Centre, Delhi (11th September, 2020).
- UGC sponsored Six Day National Webinar on "Discovering Statistics using R", organised by Department of Statistics, K.B.N. Collage, Vijaywada, Andhra Pradesh, (June 15-June 20, 2020)
- Five days online course on "Make Your Research Effective through SPSS", organised by Stat Modeller and AERC Vallabh Vidhyanagar, Gujarat, (July 11-July 15, 2020).
- One Week Faculty Development Programme on "E- Learning and Developing MOOCs for Teaching Process in Higher Education", organised by Department of Statistics & IQAC, Hindu College, (December 14 December 20, 2020).
- Six Day online Faculty Development Programme on "Regression analysis", organised by School of Business Studies, Sharda University, (December 14 December 19, 2020).
- One Week Faculty Development Programme on "Qualitative Data Analysis", organised by Teaching Learning Centre, Ramanujan College, (December 21- December 28, 2020).

Faculty Strength

01(full time) + Honorary Director

Membership of Committees

Prof. P. K. Joshi (10)

- Member, Committee appointed by the Hon'ble Supreme Court on the New Farm laws.
- Member of the Research Advisory Committee of the Department of Economic Analysis and Research (DEAR), NABARD, Mumbai.
- Member, Research Advisory Committee of the ICAR-Agriculture Technology Application Research Institute for three years, ICAR, New Delhi.

- Member, Technical Advisory Board of BAIF, Pune.
- Member, External Advisory Board of the World Bank and ICAR implemented National Agriculture Higher Education Project, New Delhi.
- Member, Advisory Committee of the India Human DevelopmentIndex, National Council of Applied Economic Research, New Delhi.
- Member, Steering Committee on the Transforming Indian Agriculture of the UN Food and Agriculture Organization, New Delhi.
- Member, Committee of RKVY-RAFTAR, Ministry of Agriculture and Farmers' Welfare to select the Startups in Agriculture. Government of India, New Delhi.
- President, Agricultural Economics Research Association (AERA).
- Secretary, National Academy of Agricultural Sciences (NAAS).

CENTRE FOR CANADIAN STUDIES

Major Activities and Achievements

The Centre shifted to its new location on the second floor of the library in the South Campus. It organized one International Conference and three international webinars. There is significant collaboration in progress with various departments of the University for diversity and to maintain the multidisciplinary focus of the Centre. Attempts are being made to publish papers in Canadian Journals. Efforts are underway to invite Adjunct Faculty from diverse disciplines from Canadian Universities and Research Institutes to teach students of University of Delhi online.

Seminars Organized: Webinars

Total Number: 03

Conferences Organized (1)

Multidisciplinary, International online conference on "COVID 19 and Issues of Urban Sustainability in India and Canada," 11th-12th March 2021. Funded by Shastri Indo-Canadian Institute.

Seminar/Conference Presentations (International) (3)

- COVID-19 Strategy and Expertise of India and Canada, 9th Nov 2020. In association with Department of Finance and Business Economics.
- Impact of COVID 19 on Labor: Issue and Policy in India and Canada, 4th Dec 2020. In association with Department of Finance and Business Economics.
- Center for Canadian Studies, Covid-19 Diagnostics, Therapeutics and Vaccines Initiatives in India and Canada", 14th Dec 2020. In association with Departments of Biochemistry and Finance and Business Economics.

Other Inter-Institutional Collaboration

With Shastri Indo Canadian Institute (SICI); Concordia University, and University of Calgary, Canada; Department of Finance and Business Economics, Department of Biochemistry, Ramanujan College, University of Delhi.

Other Significant Information

Providing platform for deliberations on aspects of NEP2020: Two weeks international refresher programme on Academic Bank Credit in association with Ramanujan College is scheduled from 7th July 2021 onwards.

CENTRE FOR DETECTOR AND RELATED SOFTWARE TECHNOLOGY

Major Activities and Achievements

Centre was earlier involved in the major discovery of Higgs Boson in 2012 in the CMS Experiment at CERN, Geneva, Switzerland and in 2015-16 it continued its association with the CMS experiment. Multi-strip Si sensors, which are designed, developed, and fabricated in collaboration with BEL, Bengaluru were characterized at KIT, Germany. These are state-of-the-art detectors and are developed almost for the first time in India. Centre has become first operational sensor qualification centre in Asia (and amongst six in world) to qualify and characterize silicon sensors for the Phase 2 upgrade of the CMS Experiment at CERN.

Publications

CMS Collaboration. (2021). Measurements of production cross sections of the Higgs boson in the four-lepton final state in proton-proton collisions at $\sqrt{s} = 13 \, TeV$. arXiv preprint arXiv:2103.04956.

CMS Collaboration. (2021). Search for a heavy vector resonance decaying to a Z boson and a Higgs boson in proton-proton collisions at $\sqrt{s} = 13 \, TeV$. arXiv preprint arXiv:2102.08198.

CMS, C., Sirunyan, A. M., Tumasyan, A. R., Adam, W., Andrejkovic, J. W., Bergauer, T., ... & Zhu, D. H. (2021). Search for top squarks in final states with two top quarks and several light-flavor jets in proton-proton collisions at $\sqrt{s} = 13 \, TeV$.. Physical Review D, 104(3), 032006.

Sirunyan, A. M., Tumasyan, A., Adam, W., Ambrogi, F., Bergauer, T., Dagicevic, M., ... & Litov, L. (2021). Study of Drell-Yan dimuon production in proton-lead collisions at $\sqrt{s_{NN}} = 8.16 \, TeV$. Journal of High Energy Physics, 2021(5), 1-47.

Sirunyan, A. M., Tumasyan, A., Adam, W., Ambrogi, F., Bergauer, T., Dragicevic, M., ... & Chen, H. S. (2021). First measurement of large area jet transverse momentum spectra in heavy-ion collisions. Journal of High Energy Physics, 2021(5), 1-48.

Sirunyan, A. M., Tumasyan, A., Adam, W., Ambrogi, F., Bergauer, T., Dragicevic, M., ... & Litov, L. (2021). Measurements of the differential cross sections of the production of Z+ jets and γ + jets and of Z boson emission collinear with a jet in pp collisions at $\sqrt{s} = 13 \, TeV$. Journal of High Energy Physics, 2021(5), 1-43.

Sirunyan, A. M., Tumasyan, A., Adam, W., Andrejkovic, J. W., Bergauer, T., Chatterjee, S., ... & Mittal, M. (2021). Measurements of Higgs boson production cross sections and couplings in the diphoton decay channel at $\sqrt{s} = 13 \, TeV$. Journal of High Energy Physics, 2021(7), 1-87.

Sirunyan, A. M., Tumasyan, A., Adam, W., Andrejkovic, J. W., Bergauer, T., Chatterjee, S., ... & Dozen, C. (2021). Search for resonant and nonresonant new phenomena in high-mass dilepton final states at $\sqrt{s} = 13 \, TeV$. Journal of High Energy Physics, 2021(7), 1-62.

Sirunyan, A. M., Tumasyan, A., Adam, W., Andrejkovic, J. W., Bergauer, T., Chatterjee, S., ... & Yuan, L. (2021). Observation of a New Excited Beauty Strange Baryon Decaying to Ξ b- π + π -. Physical review letters, 126(25), 252003.

Sirunyan, A. M., Tumasyan, A., Adam, W., Andrejkovic, J. W., Bergauer, T., Chatterjee, S., ... & Martins, J. (2021). Measurement of the W γ production cross section in proton-proton collisions at $\sqrt{s} = 13 \, TeV$ and constraints on effective field theory coefficients. Physical review letters, 126(2102.02283).

Research Projects

Dr. Kirti Ranjan (2)

DST Major Research Project, Compact Muon Solenoid (CMS) Upgrade, Operation and Utilization, 2014-2020, Rs. 11,73,00,000.

DST Major Research Project, Updating and Operation of Regional WLCG Grid System, 2014-2020, Rs. 25,30,000.

Dr. Md. Naimuddin (1)

DST Major Research Project, R&D efforts by university groups for INO Project, 2013-2020, Rs. 1,78,41,000.

Dr. Ashutosh Bhardwaj (1)

DST research project, bilateral Indo-Italy, Simulation studies and tests to develop radiation tolerant silicon detectors for High luminosity colliders No. INT/Italy/P-10/2016 (ER), 25.07-2017-March 2021, Rs.10,80,000.

Other Inter-Institutional Collaboration

All Research Projects are inter-institutional projects.

CENTRE FOR ENTREPRENEURSHIP AND CAREER ORIENTED PROGRAM

Major Activities and Achievements

The Centre for Entrepreneurship worked throughout the year 2020-2021despite the Covid 19 epidemic. It started the work by helping a start-up to design their Entrepreneurship program and how to deliver it online in the form of a game. The next program was with Shaheed Rajguru College of Applied Sciences for Women, University of Delhi.

Publication

Lakshmi Devi,S 2021 "Future of Food Processing Industries: Strategies and framework of Action". A chapter in a book entitled "The Saga of Food-Politics, Ethics and Technology (in press)".

Invited Talks (9)

- 24th April'2020 I was an invited speaker for the Webinar on "Healthy Mindset for a Better Tomorrow" wherein I delivered a talk on "Values in Education".
- 14th May'2020 I delivered a talk on "Traditional Indian Foods and Immunity" in a webinar entitled "Learning from Experience -Traditional and Nutritious Foods" organized by American Institute of Bakery and Technology Management.
- 8th August'2020- Was invited by Shyama Prasad Mukerji College to talk on "Entrepreneurship and Creativity"
- 1st September'2020- Vishwa YuvaKendra Delhi Organized a Webinar on "National Education Policy 2020". I was invited as a Panellist and I delivered a talk on "National Education Policy 2020: An Analytical View".
- 27th October'2020- In the Entrepreneurship Cell UPKRAM" of Bharti College, I delivered a lecture on "Entrepreneurship and Creativity".
- 6th December'2020 -Was invited as a Panellist by the Entrepreneurship Cell "Prayaas" of Great Lakes Institute of Management, Gurgaon in "Transcend" Business Plan Competition.
- 8th January'2021 -Delivered a talk on "Women Empowerment", in a webinar organized by the National Dairy Research Institute Karnal.
- 15th February'2021-19th February'21-Was a Panellist in an "Online Entrepreneurship and Faculty Development Program" conducted by Shaheed Rajguru College of Applied Sciences for Women, University of Delhi
- 6th March' 2021- The North East Cell Shaheed Rajguru College of Applied Sciences for Women, University of Delhi conducted an online interaction with me

Other Significant Information

CECOP organized a Competition for the students of the college on writing a project on Entrepreneurship idea and how it could be effective in pandemic situations.

• Three prizes were awarded to the students. Prize money was donated by Prof. S. K. Palhan of the Great Lakes Institute of Management Gurgaon.

The following students got the prizes:

- Crocheting Kasvi Chatwal- First prize-Rs. 5,000
- Compost making Yashita Gupta- Second prize Rs. 2,500
- Plate making Gunjan Khanna-Third prize –Rs. 1,500

CECOP also had a follow up with the 20 colleges of University of Delhi wherein the Entrepreneurship Cell was set up by CECOP.

CENTRE FOR ENVIRONMENTAL MANAGEMENT OF DEGRADED ECOSYSTEMS

Major Activities and Achievements

The thrust areas of the Centre include action research in addressing contemporary environmental and ecological challenges that are threatening ecosystems and quality of life and capacity building in action research. CEMDE has been active in the area of biological invasions, ecological restoration of degraded ecosystems and conservation of biodiversity. Contributed to the understanding of mechanisms through which naturalized and/or nonnative plants achieve their competitive or general ecological success. Doctoral students of the Director are working on the invasion ecology of several exotic species. During 2017-18 the centre has undertaken the ecological restoration of mined out areas in coalfields of Coal India Limited at Dhanbad and Ranchi. The 4-year-old restored sites harbour tropical deciduous forests/ecosystems. The centre has also developed a successful strategy for the management of *Lantana* – an invasive alien species – in protected areas. As a part of rejuvenation of lakes and rivers, the Centre has developed constructed wetland system for in-situ biological remediation of sewage. The design developed has been widely used across the country.

Publications

Callaway, R. M., & Meron, E. (2021). Belowground feedbacks as drivers of spatial self-organization and community assembly. *Physics of Life Reviews*.

Slate, M. L., Tsombou, F. M., Callaway, R. M., & El-Keblawy, A. A. (2020). Exotic Prosopis juliflora suppresses understory diversity and promotes agricultural weeds more than a native congener. *Plant Ecology*, 221, 659-669.

Measey, J., Visser, V., Dgebuadze, Y., Li, B., Dechoum, M., Ziller, S. R., & Richardson, D. M. (2019). The world needs BRICS countries to build capacity in invasion science. *PLoS biology*, 17(9), e3000404.

Research Projects (3)

Delhi Development Authority (DDA), "Biodiversity Parks Programme", 2019-2020, Rs. 11,00,00,000/- (approx.), Prof. C.R. Babu.

NABARD, "Climate resilience and livelihood improvement of vulnerable communities implemented through NABARD" 2020-2025.

National Adaptation Fund of MoEF&CC's Multistate Project on "Restoration of Degraded Landscapes to Natural State of Ecosystem for Climate Resilience and Livelihood of Vulnerable Communities", Rs. 1,32,30,000/-.

Seminar/Conference Presentations (3)

- Plenary (online) talk, "Weeds in agroecosystems' at the Agroecosystem Sustainability: Links between Carbon Sequestration in Soils, Food Security and Climate Change virtual conference, Lithuania, December 2, 2020.
- Delivered invited lecture, "Urban invasions" at the GUBIC meeting, University of Toronto, Canada, June 17-21, 2019
- Delivered invited lectures at webinars organized by different colleges of University of Delhi on Environment and Ecology related topics.

National/International Collaboration (2)

- University of Toronto, Canada: A research student working under Prof Inderjit has a co-supervisor from the University of Toronto.
- University of Alberta, Canada: Research project collaboration

Extension and Outreach Activities

In joint collaboration with Delhi Development Authority the CEMDE has been developing and managing seven Delhi Biodiversity Parks- the first of its own kind in the world and these are rendering a wide range of ecological services to the City and its citizens. The DDA's Biodiversity Parks Programme is largest outreach activity ever undertaken by any University in the world. The Biodiversity Parks have become hub for promoting environment

awareness, environment education and nature conservation areas. Undergraduate students of the Delhi University visit Biodiversity parks to learn plant biodiversity as a part of compulsory environmental education.

The Centre has been working on bioremediation of waste water (both domestic sewage and industrial effluents) using constructed wetland systems. The constructed wetland systems designed by the Centre has been widely adopted by State Pollution Control Boards across the country.

As a part of rejuvenation of rivers across India, the Hon'ble NGT ordered CPCB to prepare 'Guidelines for Setting Up of Biodiversity Parks along the Floodplains of Rivers in India, including river Ganga' with Professor C. R. Babu as a member of the Committee. The Guidelines was prepared and approved by Hon'ble NGT and is being adopted by different States as a part of rejuvenation of rivers. The CPCB is printing the Guidelines for distribution among stakeholders.

Faculty Strength(permanent)

Professor: One (Inderjit Singh)

Professor Emeritus (C.R. Babu)

Non-teaching staff = Three

Other Significant Information

Prof. C.R. Babu is part of several task force committees at the Ministry of Environment, Forest and Climate Change, Department of Biotechnology and other agencies. Prof. Inderjit is part of several task force committees at the Department of Biotechnology.

CENTRE FOR GENETIC MANIPULATION OF CROP PLANTS

Major activities and achievements

Major activity of the Centre has been on genetic improvement of oil seed mustard (*Brassica juncea*) through conventional and molecular breeding. It involves extensive work on field breeding, application of microspore-derived doubled haploids (DH) in breeding, transgenic development and application of molecular mapping and genome sequencing in marker-assisted breeding. The work has led to the development of some CMS-based and GM-based productive hybrids, several pure lines with improved quality and white rust resistance lines and identification of some promising combiners for heterosis breeding. The Centre has sequenced the genome of seven important oilseed mustard lines which will help in identification of candidate genes for some traits of importance and also help in diversification of important QTL and genes.

Publications

Harper, Andrea; He, Zhesi; Langer, Swen; Havlickova, Lenka; Wang, Lihong; Fellgett, Alison; Gupta, Vibha; Pradhan, Akshay Kumar; Bancroft, Ian (2020) Validation of an Associative Transcriptomics platform in the polyploid crop species Brassica juncea by dissection of the genetic architecture of agronomic and quality traits. The Plant J. 103, 1885 – 1893

Heena Arora, K. Lakshmi Padmaja, Kumar Paritosh, Nitika Mukhi, A. K. Tewari, Arundhati Mukhopadhyay, Vibha Gupta, Akshay K Pradhan, Deepak Pental (2019) *BjuWRR1*, a CC-NB-LRR gene identified in *Brassica juncea*, confers resistance to white rust caused by *Albugo candida*. Theor Appl Genet 132: 2223 - 2236

Kumar, Paritosh; Yadava, Satish; Singh, Priyansha; Bhayana, Latika; Mukhopadhyay, Arundhati; Gupta, Vibha; Bisht, Naveen; Zhang, Jianwei; Kudrna, David; Copetti, Dario; Wing, Rod; Reddy, Vijay; Pradhan, Akshay; Pental, Deepak A chromosome-scale assembly of allotetraploid *Brassica juncea* (AABB) elucidates comparative architecture of the A and B genomes. Plant Biotechnology J. 19, 602-614

Latika Bhayana, Kumar Paritosh, Heena Arora, Satish Kumar Yadava, Priyansha Singh, Divakar Nandan, Arundhati Mukhopadhyay, Vibha Gupta, Akshay Kumar Pradhan, Deepak Pental (2020) A mapped locus on LG A6 of Brassica juncea line Tumida conferring resistance to white rust contains a CNL type R gene. Frontiers in Plant Science 10, 1690

Paritosh, K., Pradhan, A.K., Pental, D. 2020. A highly contiguous genome assembly of *Brassica nigra* (BB) and revised nomenclature for the pseudochromosomes. BMC Genomics, 21:887

Extension and Outreach Activities

Four white rust resistant mustard lines developed through marker-assisted backcross breeding are being evaluated by All India Co-ordinated Research Project on Rapeseed and Mustard.

CENTRE FOR INNOVATION IN INFECTIOUS DISEASE RESEARCH, EDUCATION, AND TRAINING (CIIDRET)

Major Activities and Achievements

Centre for Innovation in Infectious Disease Research, Education, and Training (CIIDRET) was established under the ordinance XV-A of the University of Delhi in October 2015. As per its mandate, besides carrying out path-breaking Innovation-driven research, CIIDRET has been carrying out several outreach activities, which include interaction with college students of science stream to inspire them to take up research and Innovation as their career. CIIDRET has organized Public Lectures by international and national scientists who are leaders in their field in different areas of scientific research. CIIDRET has organized Industry-Academia Interaction through 'Entrepreneurship Guest Public Lecture Series', which includes lectures by Entrepreneurs and the facilitators of Innovation. CIIDRET has been providing state-of-the-art Proteomic and Genomic analytical facilities along with expert advice to scientists from both academia and Industry, and offers consultancy to the Biotech Industry. CIIDRET organizes Hands-on training courses covering different aspects of Genomics and Proteomics in collaboration with Industry Experts under the scheme 'Continuing Education and Skill Enhancement for Innovation in Biotechnology (CIIDRET-CESEIB). These courses are attended by college students, graduate students, research scholars, scientists and teachers from colleges and universities. In 2020, CIIDRET has initiated work on developing novel diagnostics and therapeutics for COVID-19.

Honors/Distinctions

Dr. Vijay Chaudhary joined as NASI Platinum Jubilee Senior Scientist from 1 January 2021 for a period of 3 years.

Dr. Vijay Chaudhary served as NASI Honorary Scientist from 1 September 2020 - 31 December 2020.

Dr. Vijay Chaudhary appointed as Adjunct Professor at Regional Centre for Biotechnology (RCB), Faridabad from December 2020 for two years.

Dr. Vijay K. Chaudhary (7)

- Is Co-Chairman of the DBT Task Force on "Infectious Disease Biology."
- Is Co-Chairman of the DBT NER Technical Expert Committee (TEC) Medical Biotechnology-II.
- Is Member of Scientific & Technical Appraisal & Advisory Group (STAG), Medical Biotechnology, DBT.
- Is Member of Scientific & Technical Appraisal & Advisory Group (STAG), Medical Biotechnology, DBT NER.
- Is Member, DBT Expert Group on Technology Transfer Organization (TTO).
- Is Member of IP & Tech. Management Advisory Committee-BIRAC
- Is a Mentor, Nexus @ American Center, New Delhi. (https://startupnexus.net/mentors).

Dr. Amita Gupta is Joint-Secretary of the Society for Bacteriophage Research and Therapy (SBRT).

Awards

Dr. Vijay Chaudhary awarded NASI Platinum Jubilee Senior Scientist Fellowship from 1 January 2021 for a period of 3 years.

Research Projects (1)

Department of Biotechnology- Biotechnology Industry Research Assistance Council (DBT-BIRAC) has funded project on 25 November 2020 on "Therapeutic Antibodies for COVID-19" under strategic funding for Covid-19 Consortium under National Biopharma Mission for a total cost of Rs. 16.5664 crores, with support of Rs. 10.705 crores to the CIIDRET, UDSC and Rs. 5.8614 crores to M/s. Gennova Biopharmaceuticals Limitedfor 15 months.

Publications

Verma, V., Joshi, G., Gupta, A., & Chaudhary, V. K. (2020). An efficient ORF selection system for DNA fragment libraries based on split beta-lactamase complementation. *PloS one*, 15(7), e0235853. Verma, V., Gupta, A., & Chaudhary, V. K. (2020). Emulsion PCR made easy. *BioTechniques*, 69(1), 64-69.

Patents granted/ published

An antibody fragment library, and uses thereof; EP application number - 18882787.7, Filed on 29/06/20 An antibody fragment library, and uses thereof; US patent application number -16/768,116, Filed on - 29/05/2020

Presentation in Conferences (1)

Prof. Vijay K. Chaudhary participated and presented in the DBT Welcome Trust IAVI partnered Global Webinar on COVID Therapeutics held on 24th February 2021.

National/International MoUs Signed

MoU signed between University of Delhi South Campus (UDSC) and Gennova Biopharmaceuticals Limited, Pune for development of Therapeutic antibodies to COVID-19.

Extension and Outreach Activities

One M.Sc student of Jamia Millia Islamia carried out dissertation research work at CIIDRET, UDSC. She was trained in cloning, expression and purification of SARS-CoV2 proteins.

Any additional Information

Professor Yogendra Singh, Department of Zoology, Delhi University who has been a member of CIIDRET since its inception, took over in September 2020 as Director, CIIDRET from Professor Vijay Chaudhary following his superannuation.

CENTRE FOR INTER-DISCIPLINARY STUDIES FOR MOUNTAIN & HILL ENVIRONMENT

Major activities and achievements

The Centre having made significant contributions in the field of environment impact assessment of energy sector and environmental sensitivity studies of river basins, Ministry of Power, Government of India recognized it as Centre of Excellence in 2001-2002. It was subsequently established as an R&D Centre to conduct studies related to issues of environment impact and environment management in the power sector. The Centre has so far conducted more than 60 studies related to environment impact assessment and biodiversity conservation across India. The Centre also provides expert advice and consultancy services to various institutions of Government of India, its PSUs and Private sector in the field of environment impact assessment and sustainable development. The Centre has a state-of-the-art infrastructure and vast expertise available in the area of Ecology, Biodiversity Conservation Management, Aquatic Ecology, Remote Sensing and Geographic Information System (GIS). The Centre has played key role in assisting Public and Private sector organizations in pursuing the goal of sustainable development.

The faculty members and scientists at the Centre are also engaged in full-time teaching programmes of the Department of Environmental Studies and guide research at Ph.D. level at the Centre.

Honors/Distinctions

Professor Maharaj K. Pandit, Director

Ngee Ann Kongsi Distinguished Visiting Professor, National University of Singapore Indian (INSA) representative at BRICS Academy of Sciences Indian (INSA) representative at G20 Science Academies

Publications

Arora, J. et al. 2020. IAPT Chromosome data 33/1. Taxon, 69, E3-E4.

University of Delhi: Annual Report 2020-21

Bawa, K.S. et al. 2020. China and India: Toward a sustainable world. Science, 369:515.

Kaushik et al. (2020). Contrasting composition, diversity and predictive metabolic potential of the Rhizobacterial microbiomes associated with native and invasive *Prosopis* congeners. *Current Microbiology*, 78: 2051-2060.

Kaushik et al. 2020. *Paludisphaera soil sp. nov.*, a new member of the family Isosphaeraceae isolated from high altitude soil in the Western Himalaya. *Antonie Van Leeuwenhoek*, 113: 1663-1674.

Pandit, M.K. 2020. The Himalaya should be a nature reserve. Nature, 583: 9

Number of Department Teachers serving as Editor(s)/Member (s) of Editorial Board:

Four (4) journals, namely: PloS One; PLoS Water; Diversity and Research & Reports in Biology

Research projects (1)

"Ecological Study for EIA Study for Sileru Pump Storage project, Andhra Pradesh for pre-monsoon season", WAPCOS Ltd., Gurugram, Haryana, 2020-21, Rs (Lacs) 5.16+GST.

Other Inter-institutional Collaboration:

Ecological Surveys & River Basin Studies WAPCOS Limited, Gurgaon Biodiversity Studies RS Envirolink Technologies, Gurgaon

Faculty Strength: Permanent/Temporary/Ad-hoc/Contract basis:

Permanent - 1; Contract basis - 2

CENTRE FOR PROFESSIONAL DEVELOPMENT IN HIGHER EDUCATION (CPDHE) Major Activities and Achievements

Centre for Professional Development in Higher Education (CPDHE), UGC-HRDC, University of Delhi, Delhi is one of the best HRDCs in the country and is reputed for its dynamic and interdisciplinary programmes round the year. Aimed at contributing to the overall professional development and intellectual growth of the teachers, these courses in turn also helps in development of students through their teachers' growth. Teacher attending courses here learn about the most effective teaching methodology and ways of designing creative curriculum. These courses encourage teachers also to integrate ICT, e-learning methods while teaching which not only captures young minds but also further perpetuates the capabilities of students. This further motivates the faculty to improve upon their classroom teaching methods by making them interactive/innovative sessions and thereby creating a transformative space of dialogue for enriched teaching-learning process. Keeping this concern in mind the curriculum is made inter-disciplinary as per the needs of contemporary times. This can further be exemplified from the recent online programmes that were efficiently organized in alliance with the best possible experts from across the country with thousands of teacher participants. Despite the on-going pandemic situation, CPDHE conducted 8 online Refresher Courses and 9 online Short-Term Courses/ Workshops that were attended by 413 and 637 participants respectively from teaching fraternity from university/college across all over the country. Teachers from diverse demographical feature participated in these courses. CPDHE received an enthralling response from across the country. CPDHE is one of the main centres for training not only the faculty of Delhi University college or departments but for the thousands of faculties located in the nearest to the farthest corners of the country who are currently not connected to the mainstream academia.

Publications

(ed.) Singh, Geeta. 'Nagarikta Sanshodhan Adhiniyam Tathya Evam Satya: Ek Bauddhik Vimarsh, Prabhat Prakashan, New Delhi, 2020. ISBN No. 978-93-90378-16-6.

Conferences Organised (18)

• Refresher Course in Science of Yoga and Meditation (IDC) on the theme 'Path to Self: Yoga and Meditation', 17.06.2020 – 30.06.2020, Participant 42.

- Refresher Course in Journalism, Media and Cinema (SRC) on the theme 'Role of Journalism, Media and Cinema in Nation and Generation Building', 20.07.2020 01.08.2020, Participant 102.
- Refresher Course in Chemistry (SRC) on the theme 'Advances in Chemical Science', 27.10.2020 10.11.2020, Participant 40.
- Refresher Course in Environmental Studies, Water, Earth and Environment (IDC) on the theme 'Towards Sustainable Environment', 27.10.2020 10.11.2020, Participant 28.
- "Ātmanirbhara Bhārata: India in the 21st Century, Faculty Development Program 2020 on Indian Knowledge Systems in Contemporary Education & Practices" in collaboration with Department of Contemplative and Behavioural Sciences, Sri Sri University, Cuttack, Odisha, 05/11/2020 19/11/2020, Participant 72.
- Refresher Course in Mathematics/ Operational Research/ Statistics and Computer Science on the theme 'From Zero to Infinity: A Journey of Knowledge (शून्य से अनन्त : यात्रा ज्ञान की)', 02.12.2020 15.12.2020, Participant 30.
- Refresher Course in Life Sciences on the theme 'Life Sciences and Biotechnology: Recent Trends, Advances and Challenges', 25.01.2021 08.02.2021, Participant 32.
- Refresher Course in Indian Folklore, Culture & Traditions (IDC), 10.02.2021 23.02.2021, Participant 49.
- Refresher Course in Indian Philosophy: Samskara, Culture and Global Recognition (IDC) on the theme 'भारतीय दर्शन: संस्कार, संस्कृति, शिक्षा एवं वैश्विक पहचान', 10.02.2021 23.02.2021, Participant 90.
- Short Term Course on E-contents/MOOCs Development & Delivery on the theme 'ICT Tools for Online Teaching', 15.05.2020 17.05.2020, Participant 109.
- Workshop on E-content Development and Online Pedagogy on the theme 'ICT Tools for Online Teaching', 23.05.2020 29.05.2020, Participant 73.
- Workshop on MOOCs, Online Courses & Open Educational Resources on the theme 'ICT Tools for Online Teaching', 23.05.2020 – 29.05.2020, Participant 63.
- Workshop on Leadership Development Programme (LDP-1) on the theme 'Personality Development and Leadership Skills', 25.07.2020 31.07.2020, Participant 44.
- Workshop on Interaction Programme for Ph.D. Research Scholars/Post-Doctoral Fellows on the theme 'राष्ट्रीय शिक्षा : निति, नियति, नेतृत्व एवं अनुसंधान', 10.09.2020 16.09.2020, Participant 85.
- Workshop on Research Methodology (RM-1) on the theme 'Research for Resurgence', 10.09.2020 16.09.2020, Participant 63.
- Workshop on Research Methodology (RM-2) on the theme 'Research for Resurgence', 06.01.2021 12.01.2021, Participant 34.
- Workshop on Leadership Development Programme (LDP-2) on the theme 'Personality Development and Leadership Skills', 19.01.2021 25.01.2021, Participant 26.
- Short Term Course on Academic Leadership Program for Academicians (Middle Level / Senior Level) on the theme 'Role of Teachers in National Education Policy (NEP): Awareness, Orientation, Challenges & Responses', 22.03.2021, Participant 140.

Other Significant Information

Academic Contribution of Prof. Geeta Singh, Director, CPDHE Chaired Academic Sessions/Invited Lectures, Presentations at National/International Conferences/Symposia (10)

- Delivered a lecture in the National Webinar on International Women's Day organized by Dr. B.R. Ambedkar University of Social Sciences, Mhow, Madhya Pradesh on 4th March 2021.
- Delivered a lecture as Chief Guest on the 113th Birth Anniversary of Shaheed-e-Azam Bhagat Singh Ji organized by Shaheed Bhagat Singh Evening College, University of Delhi on 28th September 2020.
- Delivered a lecture as Chief Guest in the Annual Alumni Meet 2021 organized by Delhi College of Arts and Commerce, University of Delhi on 28th February 2021.
- Delivered a lecture in the National Webinar on Shakti (Durga) Within You organized by Mahila Sashaktikaran Committee, Swami Vivekanand Subharti University on 24th October 2020.

- Evaluated the seminar presentation of the 1st Guru Dakshta Faculty Induction Programme held from 05/10/2020 to 07/11/2020 organized by Lakshmibai National Institute of Physical Education, Gwalior, Madhya Pradesh.
- Evaluated the seminar presentation of the Interdisciplinary Refresher Course on Science and Technology of Yoga and Meditation on 28/08/2020 organized by Lakshmibai National Institute of Physical Education, Gwalior, Madhya Pradesh.
- Delivered a lecture in the faculty induction Training Programme organized by Iswar Saran PG College, Prayagraj, Uttar Pradesh on 20th February 2020.
- Participated in "Workshop on Training of Teacher" organized by Kalinga Institute of Industrial Technology, Bhubaneswar, Odisha on August 30, 2019.
- Participated in "National Conference on Rural Engagement with Participatory Learning and Action" organized by Mahatma Gandhi National Council of Rural Education, GoI, Hyderabad, Telangana on July 6-7, 2019.
- Delivered Inaugural Address of the Workshop on the theme "Technical Production on SWAYAM 2.0 for MOOCs" organized by Anna University, Cheenai, Tamil Nadu (14.05.2019).

Organized Programmes at CPDHE (18)

- "Ātmanirbhara Bhārata: India in the 21st Century, Faculty Development Program 2020 on Indian Knowledge Systems in Contemporary Education & Practices" in collaboration with Department of Contemplative and Behavioural Sciences, Sri Sri University, Cuttack, Odisha from 05/11/2020 19/11/2020
- Refresher Course in Chemistry (SRC) on the theme 'Advances in Chemical Science' from 27.10.2020 10.11.2020
- Refresher Course in Environmental Studies, Water, Earth and Environment (IDC) on the theme 'Towards Sustainable Environment' from 27.10.2020 10.11.2020
- Refresher Course in Indian Folklore, Culture & Traditions (IDC) from 10.02.2021 23.02.2021
- Refresher Course in Indian Philosophy: Samskara, Culture and Global Recognition (IDC) on the theme 'आरतीय दर्शनः संस्कार, संस्कृति, शिक्षा एवं वैश्विक पहचान' from 10.02.2021 23.02.2021
- Refresher Course in Journalism, Media and Cinema (SRC) on the theme 'Role of Journalism, Media and Cinema in Nation and Generation Building' from 20.07.2020 01.08.2020
- Refresher Course in Life Sciences on the theme 'Life Sciences and Biotechnology: Recent Trends, Advances and Challenges' from 25.01.2021 08.02.2021
- Refresher Course in Mathematics/ Operational Research/ Statistics and Computer Science on the theme 'From Zero to Infinity: A Journey of Knowledge (शून्य से अनन्त: यात्रा ज्ञान की)' from 02.12.2020 15.12.2020
- Refresher Course in Science of Yoga and Meditation (IDC) on the theme 'Path to Self: Yoga and Meditation' from 17.06.2020 – 30.06.2020
- Workshop on E-content Development and Online Pedagogy on the theme 'ICT Tools for Online Teaching' from 23.05.2020 – 29.05.2020
- Workshop on Interaction Programme for Ph.D. Research Scholars/Post-Doctoral Fellows on the theme 'राष्ट्रीय शिक्षा: नित, नियति, नेतृत्व एवं अनुसंधान' from 10.09.2020 16.09.2020
- Workshop on Leadership Development Programme (LDP-1) on the theme 'Personality Development and Leadership Skills' from 25.07.2020 31.07.2020
- Workshop on Leadership Development Programme (LDP-2) on the theme 'Personality Development and Leadership Skills' from 19.01.2021 25.01.2021
- Workshop on MOOCs, Online Courses & Open Educational Resources on the theme 'ICT Tools for Online Teaching' from 23.05.2020 29.05.2020
- Workshop on Research Methodology (RM-1) on the theme 'Research for Resurgence' from 10.09.2020 16.09.2020

- Workshop on Research Methodology (RM-2) on the theme 'Research for Resurgence' from 06.01.2021 12.01.2021
- Short Term Course on E-contents/MOOCs Development & Delivery on the theme 'ICT Tools for Online Teaching' from 15.05.2020 17.05.2020
- Short Term Course on Academic Leadership Program for Academicians (Middle Level / Senior Level) on the theme 'Role of Teachers in National Education Policy (NEP): Awareness, Orientation, Challenges & Responses on 22.03.2021

Appointed and Nominated member on the various committees (48)

- Member of the Peer Team Review (NAAC) of Sri Durga Malleswara Siddhartha Mahila Kalasala, Venkateswarapuram, Labbipet, Vijayawada, Telangana on 27th 28th January 2021.
- Member of the Examination of Ph.D. thesis of the Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya, Wardha, Maharashtra on December 28, 2020.
- Member of the Peer Team Review (NAAC) of Sri Durga Malleswara Siddhartha Mahila Kalasala, Venkateswarapuram, Labbipet, Vijayawada, Telangana on 19th 20th March 2020.
- UGC's nominee of the Board of Management of Educational Multimedia Research Centre (EMRC), Osmania University, Hyderabad, (March 11, 2020).
- UGC's nominee of the Governing Body of UGC-Human Resource Development Centre, Lakshmibai National Institute of Physical Education, Gwalior, Madhya Pradesh (March 06, 2020).
- UGC's nominee of the Governing Body of Sri Sarada College for Women, Tirunelveli, Tamil Nadu (March 6, 2020).
- Member of the Peer Team Review (NAAC) of Drabya Shah Multiple Campus, Gorkha, Nepal on 01st 05th March 2020.
- Member of the Viva-voce Examination of Ph.D. thesis of the Jiwaji University, Gwalior, Madhya Pradesh on October 14, 2019
- Member of the Spot Assessment Committee (UGC) of Spicer Adventist University, Pune, Maharashtra (September 14, 2019).
- Vice Chancellor's nominee of the selection committee for Teaching posts of Director HRDC, Dr. H.G. Vishwavidyalaya, Sagar, Madhya Pradesh, 22.08.2019.
- Vice Chancellor's nominee of the Academic Advisory Committee of Human Resource Development Centre, Sagar, Madhya Pradesh (May 24, 2019).
- UGC's nominee of the Governing Body of St. Christopher's College of Education, Chennai, Tamil Nadu (May 1, 2019).
- Vice Chancellor's nominee of the selection committee of Kinder Kin College of Education, Panipat, Haryana (February 15, 2019).
- Nominated Expert for Annual Comprehensive Report Evaluation of Post-Doctoral Fellowship (PDF) 2017-19 of Indian Council of Historical Research, February 2019.
- Member of the Peer Team Review (NAAC) of Prasanta Chandra Mahalanobis Mahavidyalaya, Kolkata, West Bengal (January 30-31, 2019).
- Member of the Annual Comprehensive Report Evaluation of Post-Doctoral Fellowship (PDF) 2017-19 of the Indian Council of Historical Research (ICHR) (January 21, 2019).
- Member of the Peer Team Review (NAAC) of Chhatrapati Shivaji Kala Mahavidyalaya, Purna, Maharashtra (January 21-22, 2019).
- UGC's nominee for Spot Assessment Committee, Diamond Harbour Women's University, Diamond Harbour, West Bengal, January 2019.
- Member of the Peer Team Review (NAAC) of Maharaja Krishnakumarsinhji Bhavnagar University, Bhavnagar, Gujarat (August 8-12, 2018).
- Visitor's nominee of the Central University of Jammu, Jammu and Kashmir (July 26, 2018).

- UGC's nominee of the Academic Council of Arya Mahila P.G. College, Chetganj, Varanasi, Uttar Pradesh (04.06.2018).
- Chancellor's nominee of the Academic Council of Maharaja Surajmal Brij University, Bharatpur, Rajasthan (19.05.2018).
- Member of the Peer Team Review (NAAC) of Vidarbha Youth Welfare Society, Amravati's Prof. Rajabhau Deshmukh Kala Mahavidyalaya, Amravati, Maharashtra, October 2017.
- Subject expert/University Nominee in interview panel for the teaching post on 4.09.2017 of Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya, Wardha, Maharashtra.
- Member of the Peer Team Review (NAAC) of Sri Venkateswara University, Tirupati, Andhra Pradesh, May 2017.
- Subject expert/University Nominee in interview panel for the post of Assistant Professor and Librarian on 24.01.2017 of Chaudhary Partap Singh Memorial College of Education, Gurgaon, Haryana.
- Member of the Peer Team Review (NAAC) of North Kamrup College, Assam, January 2017.
- Vice Chancellor's nominee of the selection committee of Teaching Staff of N.S. College of Education, Sonepat, Haryana, 23.12.2016.
- Vice Chancellor's nominee of the selection committee for Teaching posts of MD College of Education, Bahadurgarh, Haryana, 18.10.2016.
- Subject expert/University Nominee in interview panel for the post Professor and Associate Professor on 17.10.2016 of Chaudhary Partap Singh Memorial College of Education, Gurgaon, Haryana.
- Vice Chancellor's nominee of the selection committee for the post of Principal and Assistant Professor of Rao Dalip Singh College of Education, Pataudi, Gurgaon, Haryana, 07.10.2016.
- Vice Chancellor's nominee of the selection committee for the post of Principal and Assistant Professor in Education of N.S. College of Education, Sonepat, Haryana, 06.10.2016.
- Vice Chancellor's nominee of the selection committee for Teaching posts of Advanced Institute of Education, Aurangabad, Palwal, 07.09.2016.
- Vice Chancellor's nominee of the selection committee for Teaching posts of Venkateshwara College of Education, Sonepat, Haryana, 05.09.2016.
- Appointed as a member on the board of Local Programme Planning and Management Committee of UGC-Human Resource Development Centre, University of Kashmir (Since April 2016).
- Member of the Training Advisory Committee of the Central Board of Secondary Education.
- Member of the Academic Council of the Chaudhary Devi Lal University, Sirsa, Haryana.
- Chancellor's (Governor) nominee of the Academic Council of Raj Rishi Bhartrihari Matsya University, Alwar, Rajasthan.
- Nominated Member of the EMMRC of Magadha University, Bodh Gaya, Bihar.
- Nominated Member of the EMMRC of Anna University, Chennai, Tamil Nadu.
- Nominated Member of the CPE of Mahatma Gandhi College, Thiruvananthapura, Kerala.
- Nominated Member, Hindi Advisory Committee, Ministry of Rural Development, Gov. of India.
- Appointed as a member on the board of Local Programme Planning and Management Committee of UGC-Human Resource Development Centre, University of Mumbai.
- Appointed as a member on the board of Local Programme Planning and Management Committee of UGC-Human Resource Development Centre, Rani Durgawati Vishwavidyalaya, Jabalpur, Madhya Pradesh.
- UGC's nominee of the Academic Advisory Committee, UGC-Human Resource Development Centre, Kumaun University, Nainita, Uttarakhand.
- UGC's nominee of the Academic Advisory Committee, UGC-Human Resource Development Centre, Devi Ahilya Vishwavidyalaya, Indore, Madhya Pradesh.
- UGC's nominee of the Academic Advisory Committee, UGC-Human Resource Development Centre, Jamia Millia Islamia, Delhi.

• UGC's nominee of the Academic Advisory Committee, UGC-Human Resource Development Centre, North-Eastern Hill University, Shillong, Meghalaya.

CLUSTER INNOVATION CENTRE

Major Activities and Achievements

On 11th April 2020, B.Tech students of CIC organized HackCIC, an online hackathon in association with Major League Hacking (MLH). 90+ registrations were received within 4 to 5 days from various institutions such as the University of Delhi, Vellore Institute of Technology, King's College London, St. Mark's School in New Delhi, Delhi Technological University, Indian Institute of Information Technology Guwahati, and many more.

On 22 February 2021, The Office of Principal Scientific Advisor, GOI through project completion letter appreciated the work done under the project "Establishing Process Based Identification and Mentoring Practices for Potentially Gifted Children in Science and Mathematics" by the Project Team: Prof. Jyoti Sharma (PI), Prof. Pankaj Tyagi (Co-PI), Prof. Shobha Bagai (Co-PI) and Prof. B. Biswal (Co-PI), Cluster Innovation Centre, University of Delhi. The work done under the project has helped in integrating the concept of Gifted Education in New Education Policy (NEP-2020).

Honours/Distinctions

Prof. Dinabandhu Sahoo, Director, Cluster Innovation Centre and Professor of Botany, University of Delhi assumed charge as the Vice Chancellor of Fakir Mohan University on 7Th December 2020.

Prof. Shobha Bagai was awarded winner in the category of "Top Digital Enablers in Institute of National Importance/ Institute of National Eminence/ Public University" by Dy Chief Minister of Delhi State – New Code of Education 19th March 2021.

Publications

Ahmad M, Singh S, Bhaduri A (2020) A Case Study of a Weekly Women's Market in an Urban Space: Mahila Bazaar, Urban India 40(II): 171-177

Arora, S., Jain, R., & Singh, H. P. (2020). Epidemiological models of SARS-CoV-2 (COVID-19) to control the transmission based on current evidence: A systematic review. (doi: 10.20944/preprints202007.0262.v1).

Arora, S., Singh, H. P., Sahota, L., Arora, M. K., Arya, R., Singh, S., ... & Singh, A. (2020). Performance and cost analysis of photovoltaic thermal (PVT)-compound parabolic concentrator (CPC) collector integrated solar still using CNT-water based nanofluids. *Desalination*, 495, 114595.

Bagai, S., & Isaar, K. (2020). Application of Complex Numbers and Matrix Transformations in Pentagonal Tiling. *Resonance*, 25(10), 1369-1384.

Bagai, S., Kumar, M., & Patel, A. (2020). Mixed convection in four-sided lid-driven sinusoidally heated porous cavity using stream function-vorticity formulation. *SN Applied Sciences*, 2(12), 1-24.

Dawa, D., & Arjune, V. (2021). Identifying Potential Erosion-Prone Areas in the Indian Himalayan Region Using the Revised Universal Soil Loss Equation (RUSLE). *Asian Journal of Water, Environment and Pollution*, 18(1), 15-23

Dubey, N., Khan, M. Z., Kumar, S., Sharma, A., Das, L., Bhaduri, A., ... & Nandicoori, V. K. (2021). Mycobacterium tuberculosis PPiA interacts with host integrin receptor to exacerbate disease progression. *The Journal of Infectious Diseases*.

Khurana, S., Kukreti, S., & Kaushik, M. (2021). Designing a two-stage colorimetric sensing strategy based on citrate reduced gold nanoparticles: Sequential detection of Sanguinarine (anticancer drug) and visual sensing of DNA. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 246, 119039.

Kumar, M., Kaushik, M., & Kukreti, S. (2020). Interaction of a photosensitizer methylene blue with various structural forms (cruciform, bulge duplex and hairpin) of designed DNA sequences. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 242, 118716.

Kumar, S., Sharma, A., & Singh, H. P. (2021). Convergence and global stability analysis of fractional delay block boundary value methods for fractional differential equations with delay. *Chaos, Solitons & Fractals*, 144, 110648.

Kumar, S. (2020). An Assessment of Research Process Management Software Usage in Indian Higher Education. *In Decision Analytics Applications in Industry* (pp. 409-419). Springer, Singapore.

Kumari, P., Singh, H. P., & Singh, S. (2021). SEIAQRDT model for the spread of novel coronavirus (COVID-19): A case study in India. *Applied Intelligence*, 51(5), 2818-2837.

Mittal, B., Verma, A. K., & Bagai, S. (2020). A Study of Crime in India Through Statistical Analysis. *In ICT for Competitive Strategies* (pp. 361-367). CRC Press.

Nisha, Z., Kumar, S., Pal, S. K., Singh, J., & Singh, O. (2021). Insights and reflections using data analytics approach of COVID-19 situation among the Indian states and ethical considerations. *International Journal of System Assurance Engineering and Management*, 1-12.

Panda, P. P., Bohot, M., Chaturvedi, M. M., & Purohit, J. S. (2021). Purification and partial characterization of vinculin from chicken liver nuclear extract. *Biologia*, 76(4), 1349-1357.

Pathak N et al. (2020) Phytochemical analysis and Antifungal activity of weed extracts against *Rhizoctonia* root rot in buckwheat (*Fagopyrum sp.*) *Biopesticide International* 16(2):125-131

Sarkar, N., Sharma, R. S., & Kaushik, M. (2021). Innovative application of facile single pot green synthesized CuO and CuO@ APTES nanoparticles in nanopriming of Vigna radiata seeds. *Environmental Science and Pollution Research*, 28(11), 13221-13228.

Singh, A., Gaur, M., Sharma, V., Khanna, P., Bothra, A., Bhaduri, A., ... & Misra, R. (2021). Comparative genomic analysis of mycobacteriaceae reveals horizontal gene transfer-mediated evolution of the CRISPR-Cas System in the Mycobacterium tuberculosis complex. *Msystems*, 6(1), e00934-20.

Verma A. K., et al, SRSPIA: Security Based Recommender System Against Profile Injection Attack. *International Journal of Engineering Trends and Technology* 69.3(2021):219-228.

Verma, S., Purohit, J. S., Arora, A., Sinha, S., & Chaturvedi, M. M. (2021). Liver regeneration: metabolic and epigenetic regulation. *Hepatoma Research*, 7.

Yadav, N., & Srivastava, T. (2020). Analysis of error in convolution algorithm for tomography in discrete spaces. *International Journal of Applied and Computational Mathematics*, 6(4), 1-15.

Yadav, N. (2020). Retinal blood vessels detection for diabetic retinopathy with Ridgelet transform and convolution neural network. *International Journal of Wavelets, Multiresolution and Information Processing*, 18(06), 2050048. Yadav, N., Singh, A., & Kaushik, M. (2020). Synthesis and characterization of hydrothermally synthesized superparamagnetic APTS. 7PEs 2.0.4 papagaticles: DNA hinding studies for exploring hiomedical applications.

superparamagnetic APTS–ZnFe 2 O 4 nanoparticles: DNA binding studies for exploring biomedical applications. *Chemical Papers*, 74(4), 1177-1188.

Yadav, N., Singh, A., & Kaushik, M. (2020). Hydrothermal synthesis and characterization of magnetic Fe 3 O 4 and APTS coated Fe 3 O 4 nanoparticles: physicochemical investigations of interaction with DNA. *Journal of Materials Science: Materials in Medicine*, 31(8), 1-11.

Book Chapters

Prof. Mahima Kaushik

Sarkar N., Chaudhary S., Kaushik M., (2021), Chapter entitled "Nano-fertilizers and Nano-pesticides as Promoters of Plant Growth in Agriculture" in book "Plant-Microbes-Engineered Nano-particles (PM-ENPs) Nexus in Agro-Ecosystems: Understanding the Interaction of Plant, Microbes and Engineered Nano-particles (ENPS), Pages: 153. [SPRINGER NATURE]

Chaudhary S., Kumar M., Ahmed S., Kaushik M., (2021), Chapter entitled "Detection and Removal of Heavy Metals from Wastewater Using Nanomaterials" in book Pollutants and Water Management: Resources, Strategies and Scarcity, 241-272. [JOHN WILEY & SONS, Ltd.]

Chaudhary S., Sarkar N., Kaushik M., (2021), Chapter entitled "Recent advances in nanotechnology for accomplishing sustainable agriculture" in book "Water Conservation in the Era of Global Climate Change", 147-166. [ELSEVIER PUBLISHER]

Sarkar N., Sharma R. S., Kaushik M. (2020), Chapter entitled "Exploitation of Antibiotics: Mechanism of resistance, consequences, challenges of conventional remediation and promise of nanomaterials in mitigation.", in book "Nano-Materials as Photocatalysts for Degradation of Environmental Pollutants: Challenges And Possibilities", Vol. 1 (1), 195-209. Paperback ISBN: 9780128185988 [ELSEVIER PUBLISHER]

Kaushik M., Jha D. (2020), Chapter entitled "Targeting Alzheimer's Disorders through Nanomedicine." in book "Targeting Alzheimer's Disorders through Nanomedicine" Frontiers in Clinical Drug Research – Dementia"; Vol. 1 (1), 165. [eISBN: 978-1-68108-339-1, 2017; ISBN: 978-1-68108-340-7] [BENTHAM SCIENCE PUBLISHERS]

Research Projects

Prof. Shobha Bagai (1)

Project Based Learning in Mathematics, Funding Agency: IoE, University of Delhi, 31st Dec 2020 – 31st March 2021, Rs. 1, 75,000/-.

Dr. Jogeshwar S Purohit (2)

Evaluation of Age-linked Chromatin Modifications in Mice Sperm: an approach to study sperm quality and fertility. (ICMR-Adhoc grant 2021-2024 52.44 lakhs).

Characterization of the H3 specific protease (H3ase) activity of the chicken liver glutamate dehydrogenase (GDH). (DST-SERB-EMR grant 2017-2020 62.74 lakhs).

Dr. Harendra Pal Singh (1)

Mathematical Modeling and prediction of novel coronavirus (COVID 19), Funding Agency: IoE, University of Delhi, Year/Period: 2020-2021, Amount: 1,75,000/-.

Seminars Organized

Prof. Jyoti Sharma and Prof. Pankaj Tyagi (8)

- Organized A weekly web series on *Decoding New Education Policy -2020: Discussions on Future Road Map on National Education Policy 2020* was organized for faculty and students at Cluster Innovation Centre. The series consisted of seven sessions conducted virtually from 20th August 15th November 2020. The series consists of seven discussion sessions by senior experts under critical themes envisioned in NEP.
- An introduction to NEP 2020: Vision and Challenges: Prof. Pankaj Arora, Faculty of Education, University of Delhi. (20th August 2020 from 2:00 4:00 pm)
- Foundational Literacy as building blocks of learning progression: Prof. Usha Sharma, NCERT. (27th August 2020 from 2:00 4:00 pm)
- Foundational Numeracy: Importance and Challenges in the light of NEP: Prof. Anup Rajput, NCERT. (3rd September 2020 from 2:00 4:00 pm)
- Redefining Inclusive Education in the light of NEP 2020: Prof. Vandana Saxena, Faculty of Education, University of Delhi. (17th September 2020 from 2:00 4:00 pm)
- Translation NPE into practice: Readiness of Schools, Dr. Meenakshi Gupta, Principal, S.D. Public School, East Patel Nagar, Delhi. (24th September 2020 from 2:00 4:00 pm)
- Changing Role of Teacher Education in the light of NEP 2020: Prof. Saroj Sharma, GGSIPU. (8th October 2020 from 2:00 - 4:00 pm)
- Transforming Higher Education under NEP 2020: Prof. Asheesh Srivastava, Mahatma Gandhi Central University, East Champaran, Bihar. (15th September 2020 from 2:00 4:00 pm)

Prof. Shobha Bagai (1)

• Webinar on "Are Digital Innovations around the corner?" by Dr Dheeraj Bhardwaj, CEO Arnab Mobility/ Mawared Energy on 8th May 2020.

Dr. Saleem Mir (1)

• Organized a talk on *Social Innovation and Change* on 15.02.2021. Resource Person: Dr Fayaz Sheikh, Innovation Researcher, Beijing Centre for Innovation, Entrepreneurship and Strategy, School of Management, Zheijiang University, China

Seminar/Conference Presentations

Prof. Jyoti Sharma (5)

- Invited session "Student-Centric Pedagogic Methods" on 28th January 2021 at Faculty Development Program jointly organized by Mahatma Hansraj Faculty Development Centre, Hansraj College and Janaki Devi Memorial College, University of Delhi.
- Invited talk on Four quadrant model of identification and mentoring gifted students in indian classrooms in International Centre for Innovation in Education on 6th February 2021 (8:30 9:30 pm).
- Keynote speaker on the session Gifted Children in for School Education, Web-series organized by Subject Expert Group (SEG) of the Unnat Bharat Abhiyan (UBA), a flagship program of the Ministry of Education, Government of India on 14th February 2021.

- Resource Person, Workshop on Project Based Learning at Undergraduate level, Department of Mathematics at Hansraj College, University of Delhi, 9th February 2021.
- Resource Person and Coordinator for two workshops on GeoGebra software for 30 PGTs (Maths) from all region, Navodaya Vidyalaya Samiti (29-31st July 2020 and 3-10th August 2020).

Prof. Shobha Bagai (5)

- "Impact of COVID 19 Pandemic in reshaping Education", Key Speaker Webinar, Motilal Nehru College, 14th May 2020.
- "Project Based Learning: A Different Way to Explore Engineering", Key Speaker Webinar, School of Engineering and Technology, Central University of Haryana, 28th May 2020
- "Teaching Pedagogies in Mathematics: Innovative Pedagogy", Faculty Development Programme, Ramanujan College, March, 2021
- "Teaching Pedagogies in Mathematics: Project Based Learning", Faculty Development Programme, Ramanujan College, March, 2021
- "Application of Mathematics in Business and Social Science", Inaugural Lecture Interdisciplinary Faculty Development Programme, Miranda House, 18th March 2021

Prof. Pankaj Tyagi (2)

- Prof. Pankaj Tyagi gave an online session on "Innovative Teaching: Simplifying Learning" on 21 August, 2020 on series #LetsTalkEducation 3.0" organised by Delhi Government Education Departments' Educational platform "Education for Future" for their teachers.
- Prof. Pankaj Tyagi gave an online Talk on "Innovation & Research at Undergraduate Level" for Physics and Electronics Society, Hans Raj College, University of Delhi on 25 February 2021.

Dr. Nirmal Yadav (1)

• Presented a paper entitled 'Error Analysis and imaging by convolution algorithm for Fan beam Algorithm with Discrete Radon transform', 3rd International Conference on Mathematical Modeling, Applied Analysis and Computation-2020 organized by Department of Mathematics, Faculty of Science JECRC University, Jaipur(Raj.), India, 07-09 August 2020.

Dr. Asani Bhaduri (5)

- Webinar on "Birds of India: Spotting, Identification and Habitat Distribution" in Symposium on Wildlife Conservation: Challenges, Efforts and Scope at Sri Venkateswara College, 20th March 2021.
- Webinar on "Birdwatching in India for Beginners" inaugural talk on the series Natural History of India organised by National Zoological Park, Delhi on 12th March 2021.
- Gave a webinar presentation on "BLAST Application in Covid-19 Studies" for "Bioinformatics: An Introduction for Beginners" organized by Miranda House, University of Delhi on 3rd July 2020.
- Gave a webinar presentation on "Bharat ke Pakshi" organized by ITLS Academy Lucknow on 18th May 2020.
- Gave a webinar presentation on "Birdwatching in India: Balcony to Bush" organized by Vivekananda College, University of Delhi on 17th May 2020.

Placement Details

M.Sc. (Mathematics Education): Batch VII (2019-20): 35% placed in various companies/institutes 30% pursuing higher studies 52% qualified UGC-NET examination

Extension and Outreach Activities

 Prof. Pankaj Tyagi was appointed as member of Webcast and Digital Requirement Committee for 97th Annual Convocation of University of Delhi held on 27th February, 2021

- On 16 February 2021, Prof. Pankaj Tyagi was awarded certificate of participation for securing 100% in Cyber Ethics online quiz by Ministry of Electronics & Information Technology, Government of India, during the Information Security Education Awareness Programme, Project Phase-II.
- Prof. Pankaj Tyagi was nominated as member of selection committee in Software Technology Park of India in July 2020 for appointment of Scientist E in Level 13.
- Dr. Asani Bhaduri completed Universitas 21 Global Leadership Programme (November 05-18th, 2020) conducted by Universitas 21 and Common Purpose.
- Dr. Saleem Mir successfully Completed Faculty Development Programme, on E-Learning Platform, organised by Electronics and ICT Academy, IIT Guwahati, from 7th to 14th September 2020.
- Dr. Saleem Mir successfully Completed 2-week Faculty Development Programme, on ICT based New Paradigms on E-Teaching and E-Learning: Digital Pedagogy, organised by Mata Sundri College, University of Delhi, from 15th to 30th September 2020.

DELHI SCHOOL OF JOURNALISM

Publications

Abhinav, Rajat. (2020). A Case Study on availability of Mass Communication books in Hindi and attitude of students' satisfaction. *Management Education & Research Institute*(*MERI College*). New Delhi

Abhinav, Rajat. (2021). A study on understanding and response of youth towards internet shutdown. *Makhanlal Journalism and Communication Chaturvedi National University of.* Bhopal

Abhinav, Rajat. (2021). New Media: Contributing to building a Self-Reliant India. Amity University. Patna

Abhinav, Rajat. (2021). अंतर्विरोध से भरा मीडिया का भूत और वर्तमान. पैरोकार पत्रिका. कोलकाता

Abhinav, Rajat. (2021 .(राष्ट्र निर्माण में शोध और सरकार की महती भूमिका .महात्मा गाँधी अंतर्राष्ट्रीय हिंदी विश्वविदयालय ,वर्धा

Abhinav, Rajat. (2021 ,जनवरी-मार्च). दिल्ली दिलवालों की पर भारत का असली दिल यहाँ है बसता. मीडिया हेलिकल्स मैगजीन .नर्ड दिल्ली

Rai, D. K. & Dhingra, A. K. (2014). The Spanish Spoken in Ecuador. HispanicHorizon. 31: 35-147.

Rai, D. K. (2013). Antecedentes Históricos de la Enseñanza del Español en la India: la Introducción del IB. *HispanicHorizon*. 30: 185-201.

Rai, D. K. (2017). Spanish Language Teaching in Multilingual India: The Unknown Implications of Exposures to Local Languages. *International Research Journal of Human Resources and Social Sciences*. 23: 256-273.

Rai, D. K. (2017). The Challenges of Spanish Language Teaching in Multilingual India: A Case Study of Delhi. *Lectico Pedagogical Research*. 2(2): 1-8.

Rai, D. K. (2017). The Future of Spanish Language Teaching in India. *International Journal of Multidisciplinary Research*. 3: 85-92.

Rai, D. K. (2022). El Auge de Español como Lengua Extranjera en la India: el Panorama Histórico. International JournalZRomSD, ZeitschriftfürRomanischeSprachenundihreDidaktik (Revista de lenguas románicas y su didáctica). (forthcoming)

Vaibhav, Atul., (2020). New Media Aur Hindi Sahitya: Vartaman Sthiti., *International Journal of research in all Subject in Multi Languages*. V-8, Issue-9, Page-37-45. www.raijmr.com

Vaibhav, Atul., (2020). Patrakarita Aur Sahityik Patrakarita: Takniki Yug Mein., *Kaav International Journal of Arts, Humanities & Social Sciences*, V-7., Issue-3., Page-22-26. www.kaavpublications.org

Vaibhav, Atul., (2020). Social Media Par Ubharata Naya Sahitya., National Journal of Arts, *Commerce & Scientific Research Review*. V-7., Issue-1 Page-5-11.www.kaavpublications.org

Seminars

Webinars/Lectures organised by the Department (9)

- Dr. A. K Singh -Covid-19- Information, Technology and Management, 2nd May2020
- Shri Praful Ketkar, Post Covid Scenario: Challenges and Opportunities in Media Industry, 28th July 2020

- Mr. H.E Pham Sanh Chau. Shri Praful Ketkar and. Prof. Do Thu, Web Dialogue on State, Media and Society in India and VietnamWeb Dialogue on State, Media and Society in India and Vietnam, 4th September 2020
- Professor V K Vijay, Unnat Bharat Abhiyan, 17th October 2020.
- Prof. Amit Srivastava- "Sustainable and Affordable Housing Solution- Case Studies, 7th November 2020
- Shri Atul Kothari, "नईशिक्षानीतिमेंभारतीयभाषसकीपत्रकारिताका भविष्य", 12th December 2020.
- Mr. Mukund Padmanabhan, 'The Potted history of Indian Journalism' as 21 January 2021
- Prof. C.R Babu, Sustainable Development, 23rd March 2021
- Prof. P D Sahare, High Energy and Health of the People

Conferences Organised (2)

- National Conference on 'Gandhi and Journalism' in collaboration with Gandhi Samiti 22 February 2020.
- International Web-Conference on Accountability of Media on 28-29 November 2020

Seminar/Conferences Presentations (National/International) (1)

Satyendra (2020), "Open and Distance Education: Media Pedagogy, Open Educational Resources and Universal Design for Learning" in an International Conference on Open and Innovative Education (ICOIE 2020), organised by the Open University of Hong Kong (Hong Kong) with the co-organizer Open University of China. (Page-13, 14)

National /International MOU signed

- International MOU signed with EFE Spanish NEWS Agency
- Opportunities of paid Internship at EFA for students.

Placement Details (Number and percentage of students placed)

Four students were selected for Internship by News Era and two have been offered placement in the same.

Faculty Strength: 60 Guest Faculty

Other Significant Information

- Delhi School of Journalism has set up its own Production Studio and ICT Lab.
- DSJ publishes monthly E-newsletter based on the contribution of students and faculty.

DELHI UNIVERSITY COMPUTER CENTRE

Major Activities and Achievements

Delhi University Computer Centre (DUCC), acts as the epicenter to facilitate ICT Services across the University of Delhi. During the last one year (2019-2020), DUCC continued to strengthen ICT Infrastructure and Services for Offices, Faculties, Departments and Colleges of University of Delhi for the benefit of its all stakeholders. As the central hub for all the ICT related activities, DUCC provides the Internet and Wi-Fi connectivity across the University. The whole network has been redesigned and implemented to ensure maximum availability of network and services running on it. Wi-Fi system of DU enables internet access to all students/faculty/staff across a variety of devices like laptop, smart phones, tablets etc. As DUCC is also the Datacenter for hosting various services, various Servers are available to link up varied utilities and on-line applications of the DU, e.g., Examination application, DU results, e-mailing system, Library system, UG Admissions, FSR Admissions, PG Admissions MPhil/PhD Admissions, Recruitment etc. At present there are more than 40 servers having more than 100 Virtual Machine Instances and network equipment hosted at DUCC Datacenter. Apart from Datacentre DUCC also provides and manages critical services like e-mailing, DU main Web-Site, e-procurement & GeM, and training (ranging from basic to advance courses). The DUCC takes pride in using open-source technology to provide all services.

DUCC Digital Initiatives

Launch of new bilingual DU website

New bilingual website was launched for University of Delhi with new robust design to facilitate all stakeholders with easy access to information. DU website is authentic source of information for all users. It is accessible through following links:

www.du.ac.in www.uod.ac.in

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Launch of DU ERP Samarth

Samarth is an Open Source, Open Standard enabled Robust, Secure, Scalable and Evolutionary Process Automation Engine for Universities and Higher Education Institutions by MHRD. It has 9 core modules and 40+ sub modules to smoothen the functioning of university processes. Samarth will help DU to migrate to a system which is secure, reliable and scalable. University of Delhi has initiated the process of Samarth implementation.

Online OBE Examination with support of Samarth

University of Delhi conducted Online Open Book Examination with the support from Samarth.

Online Admissions with support of Samarth

University of Delhi conducted Online Admissions of various UG / PG/ M.Phil / Ph.D. courses including Foreign Students and Faculty of Medical Sciences with the support from Samarth.

Implementation of following modules for Online Facility to students

Online Digital Degree Online application for Transcript

Usage of Plagiarism detection tool (URKUND)

Faculty members and Departments have been facilitated with online plagiarism detection tool (URKUND / Ouriginal). This is extensively being used with 649 users and increasing. During last year 55386 research papers / books were checked for plagiarism.

Microsoft Campus Licence to facilitate Faculty members and Students

To facilitate Faculty members and staff members, campus agreement has been done with Microsoft for Operating System Windows and Microsoft Office and various other MS softwares. Microsoft Teams facilitated Faculty members to conduct various conferences and any such event.

VPN Facility for Faculty members to access e-Resources from home / anywhere

Faculty members were provided with VPN facility so that the e-Resources could be accessed remotely from their homes or anywhere.

Email System integrated with GSuite

DUCC integrated the email services which are hosted in house over open source 'Zimbra' platform with G Suite. The user experience with regard to the availability of services and space requirements has increased manifolds. All the stakeholders have access to all the services like Classroom, Google Meet, Drive, Sheets etc. which enable them to be part of the Online Teaching Learning process.

New web-hosting platform

In order to provide different departments/faculties/colleges better experience Web Host Manager (WHM) was configured and many of the websites were migrated to the said server. The WHM platform had provided a more secure and flexible platform to the users.

Automation of University process

Online forms that were launched last year were further strengthened in order to cut down the manual intervention and to provide the services. The details are as follows:

- Campus Wi-Fi Application
- Campus Wi-Fi reset of password
- Email Application
- No Dues Certificate.
- GeM User Registration
- E-Procurement User Registration
- Web-space Registration for Departments / Colleges/ Centres / Hostels
- Faculty Web-Pages Registration
- Medical Reimbursement

Bandwidth of 10 Gbps at both the Campuses

The bandwidth utilization at both North & South Campus and associated colleges was utilized to its full capacity. The National Knowledge Network (NKN) continued to provide 10 Gbps bandwidth. University of Delhi continues to be among the highest utilizer of NKN resources across the country.

Campus Connect Project

With the grant received from MHRD for augmentation of Wi-Fi Network and to establish the robust backend, DUCC planned to reestablish the connectivity to all the departments and increase the terminated bandwidth from existing 1Gbps to 10Gbps. The bandwidth among the core switches and distribution switches is also planned to be increased from 10Gbps to 40 Gbps. All the buildings across the campus would be connected through hybrid network with ring architecture to ensure maximum availability of network. Every building will be part of the Ring and connected from two sides so that the network will remain available even if the network gets disrupted from one side.

Procurement of Campus-Wide MATLAB and Simulink Access for University of Delhi

University of Delhi offers MATLAB and Simulink product families for use by faculty, academic researchers and students.

Benefits of a Campus-Wide License:

- Includes all faculty, researchers, and students
- Access at home and in the classroom, in lab and field research, and off-network
- Installation on campus-owned machines, as well as faculty-owned and student-owned personal computers
- Full suite provides the widest and most up-to-date array of products, supporting everything from introductorylevel courses to advanced academic research
- MATLAB Online provides access from a web browser
- Optional add-on: Provide training for all your campus users with the MATLAB Academic Online Training Suite

Existing Projects DU ERP Samarth

The objective is to provide flexible solutions with seamless integration of diverse processes to provide effective access of information to all the stakeholders of the University.

Modules

Academics – Admissions, Student Life cycle management, Examination, Training and Placement, Time Table, Online Attendance System, Enrollment No. generation system.

Finance and Accounts – Grants Management, Assets and Inventory, Research Projects Management, Online Fees, Vendor Bill Tracking Management System

HR and Payroll - Recruitment, Employee Information System, payroll, Leave Management

Administration – Estate Management, File Tracking, Grievance Management and Redressal, Legal Case Management.

Campus wide Wi-Fi at both North and South Campuses with AAA Authentication

Campus vide Wi-Fi was successfully launched and running across both North and South Campus. The service is available to faculty, student and staff of the University. At present all the faculty, staff and students who want to avail the Wi-Fi facility have been provided campus wide Wi-Fi access with individual login and password. The Wi-Fi setup has been built to have Authentication, authorization, and accounting (AAA) at individual internet user level. More than 6000 users already availed the Campus Wi-Fi facility and the count is increasing day by day.

Network monitoring

In order to proactively monitor the Wi-Fi network, the monitoring software (Zabbix) is put in place which can help in proactive troubleshooting and help in maintaining maximum uptime for network, servers and applications.

College Network

The bandwidth of 100 Mbps continued for all the off campus colleges. In view of the requirement to maintain the maximum uptime of internet services, DUCC has taken strong steps to ensure that the college VPN connectivity should be in ring architecture. In case of disruption of VPN connectivity from one side the network remains available from other side of ring.

Live Webcasting on YouTube

- Annual Convocation
- Foundation Day of the University
- Distinguished Lecture Series
- Many other events and Archives of various past events

Campus Wide Software

DUCC continue to provide the following Network License Software for the use of DU faculty, staff, research scholars, PG & UG Students:

- SPSS V 22 + AMOS (Windows 32 bit & 64 bit, Unix and Mac platform)
- Matlab R2014b (Windows 32 bit & 64 bit, Unix and Mac platform)
- SigmaPlot 12 (for Windows Only)

Training Conducted at DUCC

DUCC has organized various Online training programs for the faculty, staff, Research Scholars, PG students, college system administrator/ technical staff covering all the verticals starting from the basic to advanced courses.

Regular Activities

Apart from new initiatives, Delhi University Computer Centre (DUCC) designs and administer India's biggest educational IT network feeding more than 15000 devices through wired network and more than 1.5 lakh users over Wi-Fi for Internet needs as on date through National Knowledge Network (NKN).

DUCC is managing the Delhi University's core IT infrastructure comprising of:

- Data Centre with more than 60 active devices including Servers, Core switches, Zonal switches, Routers, UTM devices, Storage etc.
- Wired equipment comprising of more than 400 network switches (and increasing)
- Wi-Fi equipment comprising of 100+ switches and 500 wireless access points
- Fibre optic cable network of 43 kilometres laid across both campuses
- Servers hosting different applications like College and Department website along with the University main website, DNS, Proxy, Email, Payment Gateway, License and Webcast server.
- Colocation servers for Examination, Administration, Finance, School of Open Learning, Library catalogue and Braille software etc.

DUCC is also actively doing/providing Content Management of DU website, Technical Support & Regular updates on DU Facebook Page, Web Hosting services for Colleges / Departments / Centres, Faculty Members Web Hosting Services. Apart from Network and Website designing and maintenance, DUCC has successfully provided technical support and hosted videos for events such as Public Lecture series, Studio lectures, Gyanodya, Annual Convocation, Antardhvani etc.

DUCC has more than 1500 members comprising of PG students, Research Scholars, Faculties and staff who can avail internet and printing services free of cost. The future plans of DUCC include virtually combining the Campus and College Wi-Fi so that users' remains connected to internet irrespective of the location. This will ensure seamless connectivity for end users.

Provisioning of ICT VPS to different units of the University

- Webcast
- Live Streaming
- Provisioning of technical infrastructure for core events of DU wiz. AC/EC meetings, Court Meeting and other key events/meetings. This includes Wi-Fi setup, computing facilities etc.

Management of e-Procurement and GeM

- Single point of solution to all e-Procurement and GeM related utilities are provided to DU community.
- Following key supports are provided to administrative units and departments: -
 - Provisioning and facilitating of GeM accounts
 - Provisioning and facilitating of e-Procurement accounts.
 - Training program for DU officials/faculty from various Administrative Offices, Departments, Colleges.
- GeM 594 Users of 121 Departments
- e-Procurement
- DU e-Procurement Users: appx 500 Users of 58 Departments and 37 Colleges

DEVELOPING COUNTRIES RESEARCH CENTRE

Major Activities and Achievements

The Centre organised various academic activities in 2020-21 like lectures, interactive discourses, workshops, talks, special lectures and Webinars. Believing in continuity and consistency, the Centre is publishing consecutive issues of its Quarterly Newsletter – *Sanchayan*, Monthly Hindi magazine – *Sanshleshan* and blind-peer review bi-annual journal – *GlobaLense*: A Journal of Social Science Research. After the successful completion of projects, *Samiksha*: UP Assembly Election Survey, *Samiksha*: Delhi Municipal Election, 2017, *Samiksha* Delhi 2020. the centre conducted for the first time meticulously planned, scientifically designed and objectively executed psephological research online survey under the title "dcrc *Samiksha*: Bihar 2020" and "dcrc *Samiksha*: Assam and West Bengal 2021".

Publications

Four Issues of Sanchayan, Quarterly Newsletter Vol.5 No. 2, 3 and 4 (2020) and Vol. 6 No.1 (2021)

Twelve Issues of Sanshleshan, Monthly Hindi Magazine 2020-21

Journal

Two issues of Centre's Journal dcrc GlobaLense: A Journal of Social Science Research

Lectures/ Workshops/Interactive Discourses/Talk Organised

With the onset of unlocking in the wake of Corona and Covid-19, the Centre organized its first Webinar on 'Colonial State, Indian History and Left' on 31 July 2020. Dr Himanshu Roy, a Senior Fellow at the Nehru Memorial Museum and Library, New Delhi was the keynote speaker.

On the occasion of Teacher's Day, the Centre organized a Webinar on *Higher Education in New Education Policy: An Evaluation* by Prof. A.S. Narang from IGNOU, New Delhi on 5 September 2020.

To express its reverence to the founding fathers who framed the constitution of the nation in 1950, the Centre celebrated the 'Constitution Day' on 26 November 2020 at 11:00 am at the Meeting Room. The students, scholars and faculty members pledged to undertake and imbibe the basic postulates of the Constitution in their daily lives. The oath was followed by a discussion on *Continuities, Consistencies and Conformities: A Seven Decade of the Indian Constitution*.

On the occasion of 96th birth anniversary of Shri Atal Bihari Vajpayee, the Centre organized the Third Atal Bihari Memorial Lecture on 25th December 2020. Held as a Webinar, the lecture was titled "Vikas Ki Bhartiya Aavdharna". The key note speaker of the event was Dr. Mahesh Chandra Sharma, President of Ekatmak Manavdarshan Anusandhan Avem Vikas Sansthan, Delhi. The session was inaugurated by our esteemed Pratham Sevak of DCRC Parivar, Prof. Sunil K. Choudhary by welcoming the key note speaker and other fellow audience.

Extension and Outreach Activities

Through the "dcrc Samiksha: Bihar 2020" and "dcrc Samiksha: Assam and West Bengal 2021", the Centre was able to involve and impart empirical training to a large number of students from across the colleges of University of Delhi.

Faculty Strength

Director: 01 Joint Director: 01 Deputy Director: 01 Honorary Fellows: 10

Other Significant Information

The Centre celebrated the Constitution Day on 26 November 2020.

The Centre conducted a meticulously planned, scientifically designed and objectively executed psephological research survey under the title "dcrc *Samiksha*: Bihar 2020" and "dcrc *Samiksha*: Assam and West Bengal, 2021". These results were based on more than 25,000 voters from all the constituencies of Bihar, Assam and West Bengal and broadly corroborated with the results of the Election Commission of India.

The Centre's activities on Delhi elections were widely covered in many newspapers like Dainik Hindustan, Dainik Jagran, Jansatta, Loksatya and Director, Prof. Sunil K. Choudhary appeared on Rajya Sabha TV, India Ahead and All India Radio in many programmes.

DR. B.R. AMBEDKAR CENTER FOR BIOMEDICAL RESEARCH

Major activities and achievements

Dr B.R Ambedkar Center for Biomedical Research was proposed in 1991 and became fully operational in 1997 as a unique Institute of its kind for propelling forward the arena of biomedical sciences through its academic and research activities. The center stood as a role model to start "Biomedical based Institutes" in the Delhi University and in the entire country. ACBR runs Masters and Doctoral courses in **Biomedical Sciences** with a well knitted teaching/learning programme supported by the super 13 core faculty and a conglomerate of scientists from adjoining institutes. In the last one-year ACBR has achieved several patents and published more than 40 research articles in journals of international repute. ACBR faculty are on the forefront of COVID19 research. We have gained several prestigious projects and transferred technology for point of care diagnosis of SARS Cov2.

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Honours/Distinctions

Drug Discovery Hackathon Phase I- Award (DDH-2020), open source drug discovery Hackathon against Covid-19, Organised by Innovation Cell, Ministry of Education. Also selected for Phase II and received grant for above research by Prof. Madhu Chopra.

Best Platform presentation in 21st Joint Annual Conference of Indian Epilepsy Association and Indian Epilepsy Society, ECON2020 at Ahmedabad (17-19 Jan., 2020) by Dr. Aparna Dixit.

Publications

Åkerud, A., Axelsson, J., Yadav, M., Erjefält, J., Ekman-Ordeberg, G., Malmström, A., & Fischer, H. (2021). Heparin fragments induce cervical inflammation by recruiting immune cells through Toll-like receptor 4 in nonpregnant mice. *Molecular Human Reproduction*, 27(3), gaab004.

Aquib, A., & Yadav, A. K. (2020). CD44 alternative splice variants v6 and v10. DOI: 10.20944/preprints202006.0255.

Banerjee, J., Dey, S., Dixit, A. B., Doddamani, R., Sharma, M. C., Garg, A., ... & Tripathi, M. (2020). GABAA Receptor-Mediated Epileptogenicity in Focal Cortical Dysplasia (FCD) Depends on Age at Epilepsy Onset. *Frontiers in cellular neuroscience*, 14, 309.

Banerjee, J., Dey, S., Dixit, A. B., Tripathi, M., Doddamani, R., Sharma, M. C., & Chandra, P. S. (2020). α 7 nicotinic receptors contributes to glutamatergic activity in the hippocampus of patients with mesial temporal lobe epilepsy with hippocampal sclerosis (MTLE-HS). *Journal of Neural Transmission*, 127(10), 1441-1446.

Banerjee, J., Srivastava, A., Sharma, D., Dey, S., Tripathi, M., Sharma, M. C., ... & Dixit, A. B. (2021). Differential regulation of excitatory synaptic transmission in the hippocampus and anterior temporal lobe by cyclin dependent kinase 5 (Cdk5) in mesial temporal lobe epilepsy with hippocampal sclerosis (MTLE-HS). *Neuroscience Letters*, 761, 136096.

Bashir, A., Hazari, Y., Pal, D., Maity, D., Bashir, S., Singh, L. R., ... & Fazili, K. M. (2020). Aggregation of M3 (E376D) variant of alpha1-antitrypsin. *Scientific reports*, 10(1), 1-13.

Chowhan, R. K., Rahaman, H., & Singh, L. R. (2020). Structural basis of peroxidase catalytic cycle of human Prdx6. *Scientific reports*, 10(1), 1-10.

Courouble, V. V., Dey, S. K., Yadav, R., Timm, J., Harrison, J. J. E., Ruiz, F. X., ... & Griffin, P. R. (2021). Resolving the dynamic motions of SARS-CoV-2 nsp7 and nsp8 proteins using structural proteomics. *bioRxiv*.

Dey, J. K., & Dey, S. K. (2020). SARS-CoV-2 pandemic, COVID-19 case fatality rates and deaths per million population in India. *J Bioinform Comput Syst Biol*, 2, 110.

Dey, J. K., Mukherjee, A., Dey, S. K., Pramanik, A., Giri, S., & Pratap, M. (2020). A systematic review on the efficacies and therapeutic interventions of homoeopathic medicines in combating viral disorders with implications in the currently undergoing homoeopathic treatment efforts of SARS-CoV-2 infection (COVID-19). *International Journal of High Dilution Research*-ISSN 1982-6206, 19(3), 27-39.

Dey, S. K., Bhaduri, S., & Midya, T. (2021). An analysis on the divergence of Chironomid spp. based on the study of 18S rRNA and polytene chromosome organization in the species revealing the role of environment on speciation. *The Journal of Basic and Applied Zoology*, 82(1), 1-12.

Dey, S. K., Saini, M., Prabhakar, P., & Kundu, S. (2020). Dopamine β hydroxylase as a potential drug target to combat hypertension. *Expert Opinion on Investigational Drugs*, 29(9), 1043-1057.

Dey, S., Banerjee Dixit, A., Tripathi, M., Doddamani, R. S., Sharma, M. C., Lalwani, S., ... & Banerjee, J. (2021). Altered hippocampal kynurenine pathway metabolism contribute to hyperexcitability in human mesial temporal lobe epilepsy-hippocampal sclerosis. *British Journal of Pharmacology*.

Dey, S., Dixit, A. B., Tripathi, M., Chandra, P. S., & Banerjee, J. (2021). Cellular Electrophysiological Methods to Decipher the Altered Synaptic Transmission Associated with Drug-Resistant Epilepsy. *In Experimental and Translational Methods to Screen Drugs Effective Against Seizures and Epilepsy* (pp. 55-76). Humana, New York, NY.

- Dixit, A. B., Srivastava, A., Sharma, D., Tripathi, M., Paul, D., Lalwani, S., ... & Chandra, P. S. (2020). Integrated genome-wide DNA methylation and RNAseq analysis of hippocampal specimens identifies potential candidate genes and aberrant signalling pathways in patients with hippocampal sclerosis. *Neurology India*, 68(2), 307.
- Iqbal, M. A., Siddiqui, S., Ur Rehman, A., Siddiqui, F. A., Singh, P., Kumar, B., & Saluja, D. (2021). Multiomics integrative analysis reveals antagonistic roles of CBX2 and CBX7 in metabolic reprogramming of breast cancer. *Molecular oncology*, 15(5), 1450-1465.
- Kak G., Tiwari B.K., Singh Y. and Natarajan K. 2020. Regulation of Interferon-γ receptor (IFN-γR) expression in macrophages during *Mycobacterium tuberculosis* infection. Biomol. Concepts. 11: 76-85.
- Kumar, G., Dey, S. K., & Kundu, S. (2020). Functional implications of vascular endothelium in regulation of endothelial nitric oxide synthesis to control blood pressure and cardiac functions. *Life Sciences*, 118377.
- Kumar, M., Lal, N., Luthra, P. M., & Masram, D. T. (2021). Exploring the binding and cleavage activities of nickel II complexes towards DNA and proteins. *New Journal of Chemistry*, 45(15), 6693-6708.
- Kumar, M., Madan, J., Sodhi, R. K., Singh, S. B., & Katyal, A. (2020). Decoding the silent walk of COVID-19: Halting its spread using old bullets. Biomedicine & Pharmacotherapy, 110891.
- Kumar, S., Attrish, D., Srivastava, A., Banerjee, J., Tripathi, M., Chandra, P. S., & Dixit, A. B. (2021). Non-histone substrates of histone deacetylases as potential therapeutic targets in epilepsy. *Expert Opinion on Therapeutic Targets*, 25(1), 75-85.
- Namgail, T., Kumar, D., Vashistha, V., Aquib, A., & Yadav, A. (2020). HnRNPA1 and Its Effect in the Expression of ABCC (ABCC4 and ABCC6) Transporter in Glioma Cell Lines.
- Nitin Kumar, Neetika Lal, Vishal Nemaysh, Pratibha Mehta Luthra (2020) Design, synthesis, DNA binding studies and evaluation of anticancer potential of novel substituted biscarbazole derivatives against human glioma U87 MG cell line; <u>Bioorganic Chemistry</u>, Volume 100, July 2020, 103911; https://doi.org/10.1016/j.bioorg.2020.103911
- Pandey, A. K., Saxena, A., Dey, S. K., Kanjilal, M., Kumar, U., & Thelma, B. K. (2021). Correlation between an intronic SNP genotype and ARL15 level in rheumatoid arthritis. *Journal of Genetics*, 100(2), 1-6.
- Pankaj Taneja, Sonali Sharma, Vimlendu Bhushan Sinha, Ajay Kumar Yadav. Advancement of nanoscience in development of conjugated drugs for enhanced disease prevention. *Life Sciences*, 268 (2021) 118859.
- Pawar A, Jha P, Konwar C, Chaudhry U, Chopra M, Saluja D. (2019). Ethambutol targets the glutamate racemase of Mycobacterium tuberculosis-an enzyme involved in peptidoglycan biosynthesis. *Appl Microbiol Biotechnol*. 103(2):843-851. doi: 10.1007/s00253-018-9518-z.
- Pawar, A., Jha, P., Chopra, M., Chaudhry, U., Saluja, D. (2020) Screening of natural compounds that targets glutamate racemase of *Mycobacterium tuberculosis* reveals the anti-tubercular potential of flavonoids, Scientific Reports, 10, Article no. 949, Doi: 10.1038/s41598-020-57658-8.
- Rizwan, T., Kothidar, A., Meghwani, H., Sharma, V., Shobhawat, R., Saini, R., ... & Dey, S. K. (2021). Comparative analysis of SARS-CoV-2 envelope viroporin mutations from COVID-19 deceased and surviving patients revealed implications on its ion-channel activities and correlation with patient mortality. *Journal of Biomolecular Structure and Dynamics*, 1-16.
- Sharma, D., Dixit, A. B., Dey, S., Tripathi, M., Doddamani, R., Sharma, M. C., ... & Banerjee, J. (2021). Increased levels of α4-containing GABAA receptors in focal cortical dysplasia: A possible cause of benzodiazepine resistance. *Neurochemistry International*, 105084.
- Sharma, M., Jha, P., Verma, P., Chopra, M, (2019). Combined comparative molecular field analysis, comparative molecular similarity indices analysis, molecular docking and molecular dynamics studies of histone deacetylase 6 inhibitors, *Chemical Biology and Drug Design*, 93(5): 910-925.https://doi.org/10.1111/cbdd.13488.
- Sharma, V., Sonkar, S. C., Singhal, P., Kumar, A., Singh, R. K., Ramachandran, V. G., ... & Bharadwaj, M. (2021). Functional impact of allelic variations/haplotypes of TNF- α on reproductive tract infections in Indian women. *Scientific Reports*, 11(1), 1-11.
- Shukla, S., Telraja, J., Yadav, M., & Prakash, H. (2021). Modulation of Macrophage Signaling Pathways During Bacterial Infections. *Frontiers in Cellular and Infection Microbiology*, 11.

Singh A., Anang A., Rana A.K., Verma C., Saraswati S.S.K., Kumari P., Singh A., and Natarajan K. 2020. Deciphering the role of calcium homeostasis in T cells functions during mycobacterial infection. Cell. Immunol. 357: 104198.

Srivastava, A., Banerjee, J., Dubey, V., Tripathi, M., Chandra, P. S., Sharma, M. C., ... & Dixit, A. B. (2020). Role of altered expression, activity and sub-cellular distribution of various histone deacetylases (HDACs) in mesial temporal lobe epilepsy with hippocampal sclerosis. *Cellular and molecular neurobiology*, 1-16.

Tanwer, P., Kolora, S. R. R., Babbar, A., Saluja, D., & Chaudhry, U. (2020). Identification of potential therapeutic targets in Neisseria gonorrhoeae by an in-silico approach. *Journal of theoretical biology*, 490, 110172.

Vashistha, V., Bhardwaj, S., Yadav, B. K., & Yadav, A. K. (2020). Depleting deubiquitinating enzymes promotes apoptosis in glioma cell line via RNA binding proteins SF2/ASF1. *Biochemistry and biophysics reports*, 24, 100846.

Verma C., Rana A.K., Anang V., Tiwari B.K., Singh A., Saraswati S.S.K., Shariff M. and Natarajan, K. 2020. Calcium Dynamics Regulate Protective Responses and Growth of *Staphylococcus aureus* in Macrophages. Biomol. Concepts. 11: 230-239.

Verma, V., Kumar, P., Gupta, S., Yadav, S., Dhanda, R. S., Thorlacius, H., & Yadav, M. (2020). α-Hemolysin of uropathogenic E. coli regulates NLRP3 inflammasome activation and mitochondrial dysfunction in THP-1 macrophages. *Scientific reports*, 10(1), 1-17.

Warepam, M., Mishra, A. K., Sharma, G. S., Kumari, K., Krishna, S., Khan, M. S. A., ... & Singh, L. R. (2021). Brain metabolite, N-Acetylaspartate is a potent protein aggregation inhibitor. *Frontiers in Cellular Neuroscience*, 15.

Yadav, S., Verma, V., Dhanda, R. S., Khurana, S., & Yadav, M. (2021). Latent Upregulation of Nlrp3, Nlrc4 and Aim2 Differentiates between Asymptomatic and Symptomatic Trichomonas vaginalis Infection. *Immunological Investigations*, 1-22.

Yadav, S., Verma, V., Singh Dhanda, R., & Yadav, M. (2021). Insights into the toll-like receptors in sexually transmitted infections. *Scandinavian Journal of Immunology*, 93(1), e12954.

Research Projects

Prof. P M Luthra (1)

IoE, 2020 (vide letter dated 31st December 2020) for one Year, Title: Study the Anticancer Potential of Demethoxycurcumin (DMC) alone and in combination with Temozolamide (TMZ) in orthotopic xenograft mice model of GBM. Amount sanctioned: 5.00 Lakhs.

Dr. Laishram R. Singh and Prof. Anju Katyal (1)

IoE, 2020 To investigate the potentiality of proline as a therapeutic molecule for the treatment of Alzheimers Disease. Amount sanctioned 5:00 lakhs

Prof. Madhu Chopra (3)

BIC project, entitled "Drug Development: From Target Identification, Validation to Drug discovery- BIC of Dr. B. R. Ambedkar Center for Biomedical Research, University of Delhi, Delhi". Rs. 189.36 Lakhs. Sanctioned in Feb. 2020-24, DBT, duration 5 years.

Drug repurposing using computer aided design for development of antiviral compounds against COVID19: *in silico* and *in vitro* Screening against selected antiviral targets, Institute of Excellence, FRP, University of Delhi, Rs. 5 lakhs, 2020-21.

Targeted screening of hit molecules and modulation of lead compounds for clinical management of covid 19: in vitro and antiviral evaluation, Drug Discovery Hackathon Phase II, MHRD INNOVATION CELL, Rs. 23 lakhs, 2021-22.

Dr. Manisha Yadav (1)

IoE, 2020 for one Year, To study the effect of caffeine on strong biofilm forming antibiotic resistant UPEC isolates from UTI Patients. Amount sanctioned: 2.5 Lakhs.

Patents Filed/Granted

A Novel Oligonucleotide-based Diagnostic Probe/Tool/Kit for Tuberculosis Detection and Method of Working for same patent filed in India **Patent No: 382627**. (Application Number **IN 77/DEL.2013**) Date of filing: 10/1/13 Date of grant: 24/3/21

Conferences organized (1)

• Frontiers in Biomedical Research – 2021, Organized by ACBR in Collaboration with DSPH, University of Delhi. From 2 April to 25 June 2021.

Seminar/Conference Presentations (National/International) (7)

- Invited talk as Chief Guest presented by Luthra PM on "Lab Safety Measures and Chemical Waste Management for Ecological and Environmental Shield" NATIONAL WORKSHOP ON LABORATORY SAFETY MEASURES AND CHEMICAL WASTE MANAGEMENT FOR ECOLOGICAL AND ENVIRONMENTAL SHIELD FRIDAY, organized by the *Department of Chemistry, Rajdhani College, University of Delhi, 16th April 2021.*
- Computational Technologies and Drug Design Strategies, in Summer Academic and Internship Program
 (SAIP)-2020, Bioescalator: Insights into Biotechnology, Plant Science and Bioinformatics, on 20th May 2020
 (Online Webinar) organized by IILM College of Engineering and Technology, Gr. Noida by Prof. Madhu
 Chopra.
- Aphrodite Chakraborty, Krishan Kumar, Aparna B. Dixit, ManjariTripathi, Mehar C. Sharma, P. Sarat Chandra, Jyotirmoy Banerjee, Novel GABAA receptor subunit variants may contribute to benzodiazepine resistance in patients with drug-resistant epilepsy. Eposter in 13th AOEC, 2021.
- Mehak Munjal, Bhumika Tiwari, Shubra Lalwani, Meenakshi Sharma, Gurmeet Singh, Raj Kishor Sharma (2020) An insight of bioelectricity production in mediator less microbial fuel cell using mesoporous Cobalt Ferrite anode. International Journal of Hydrogen Energy 45(22):12525-12534
- Meenakshi Dwivedi, Sumathi Muralidhar, Daman Saluja (2020) *Hibiscus sabdariffa* Extract Inhibits Adhesion, Biofilm Initiation and Formation in *Candida albicans*. Indian J Microbiol. 60: 96–106
- Invited talk presented by Dey SK on "Progress and challenges in COVID-19 research". Presented in the International Webinar on "Recent Trends in Scientific, Engineering and Industrial Research and Environmental Concern" organized by the Department of Chemistry, Bolpur College, Burdwan University, West Bengal, India (30th September, 2020).
- Invited talk presented by Dey SK on "Biophysical and functional characterization of the SARS-CoV-2 nsp7-8 polyprotein expressed in and purified from bacteria". Presented in the International Webinar on "Integrated strategies to combat the pandemic COVID-19" organized by the Department of Biochemistry, Central University of Rajasthan, Aimer, India (20-21 August, 2020).

Other Inter-Institutional Collaboration

- INMAS, Delhi
- DIPAS, Delhi
- IGIB, Delhi
- Safdarjung Hospital, New Delhi
- ICGEB, Delhi,
- AIIMS, New Delhi
- Kashmir University, Srinagar
- Manipur University, Imphal

Number of M.Phil. /Ph.D. Degrees awarded

Ph.D.: 06

Faculty Strength

Regular faculties: 12

Adhoc: 1

Other Significant Information

Prof. P M Luthra is one of Governing body member of Rajdhani College, University of Delhi wef (11/3/2021)

INSTITUTE OF CYBER SECURITY AND LAW

Major Activities and Achievements

Post Graduate Diploma in Cyber Security and Law (PGDCSL) started its first batch from the Academic Session 2018-19 under the aegis of Institute of Cyber Security and Law (ICSL), University of Delhi with Shaheed Sukhdev College of Business Studies. This is a self-financing course wherein the Faculty is delivery of the course is through Industry as per the GFR and Guidelines for Information Technology projects. The 2020-21 batch enrolled 48 students.

Other Inter-Institutional Collaboration

The students of Post Graduate Diploma in Cyber Security and Law (PGDCSL) are being taught by the industry experts from the Knowledge Partner: Lucideus Inc.

Placement Details

Number and percentage of students placed: 16 (average package = 4.72 lakhs)

INSTITUTE OF INFORMATICS & COMMUNICATION

Major Activities and Achievements

The Institute has been instrumental in setting up the University Information Management System (UIMS). Under UIMS, IIC has been developing and managing enterprise applications for Online UG and PG admissions, Online recruitment for teaching and non teaching staff, Open Book online Examination, Human Resource Management, Finance Management, Document Management, College management etc. and currently student life cycle management is being implemented.

The Institute organized various activities such as, Industrial Lecture Series, in which eminent persons visit the institute to deliver specialized lectures on current trends in the IT industry sector. Further students and faculty organized time-to-time Industry-University interaction programme. The faculty actively presented their research work in various platforms like National / International conferences, workshops. The Placements activity in this year around~19 % due to COVID. Many top rated IT industries are coming for the campus placement. Industries visiting the Institute this year are, Altron Technologies, Hughes Systique, QA Info Tech, Apsero India Ltd etc.

Honours/Distinctions

Ms. Manisha Patwal, M.Sc pass out student awarded Capt. Anuj Nayyar Memorial Gold Medal-2020, University of Delhi

Publications

Birwal, A., Singh, S., Kanaujia, B. K., & Kumar, S. (2020). Low-profile 2.4/5.8 GHz MIMO/diversity antenna for WLAN applications. *Journal of Electromagnetic Waves and Applications*, 34(9), 1283-1299.

Birwal, A., Singh, S., Kanaujia, B. K., & Kumar, S. (2021). MIMO/Diversity Antenna with Neutralization Line for WLAN Applications. *MAPAN*, 1-10.

Rajat Budhiraja, Manish Kumar, Mrinal K. Das, Anil Singh Bafila, Sanjeev Singh, A reservoir computing approach for forecasting and regenerating both dynamical and time-delay controlled financial system behaviour, Published online 12 Feb 2021 PLOS ONE https://doi.org/10.1371/journal.pone.0246737

Research Projects (2)

MHRD/MOE sponsored project Samarth, 2019-2024, Evolutionary Process Automation Engine for Universities and Higher Education Institutions Rs. 25 Crore

National Project Implementation Unit (NPIU), Ministry of Education sponsored project, 2020-2021, Implementation of Non-Saas, under SAMARTH Evolutionary Process Automation Engine for Universities and Higher Education Institutions Rs. 30 Lakhs

Seminar/Conference Presentations (2)

- Researching in the Digital Era: Challenges and Solutions, Professor Sanjeev Singh, Webinar on "Online Teaching: Challenges and Way forward September 07-11, 2020.
- Shift in Paradigm: Online Education, Professor Sanjeev Singh, Webinar Zakir Husain College Delhi University, June 11, 2020.

Placement Details (Number and percentage of students placed)

Number and percentage of students placed: 11 & 18.96

Number of Companies online/visited for campus recruitment: 02

On Campus placement the average Annual Salary package 3.5 Lakhs Apsero India Ltd. and 7.2 Hughes Systique Corporation (HSC)

Off Campus TCS 3.5 Lakhs and Mathangi India Pvt. Ltd. 3.8

Extension and Outreach Activities

Collaborated with Connecting Dreams Foundation for Social entrepreneurship and empowerment

Faculty Strength: 03 (Positions)

Other Significant Information

IIC has been very instrumental in providing IT based solution and services to the University for various automation processes. The software developed at IIC has been implemented at various central Universities e.g. JNU, CUH, CUB, Patna etc. NIC, Govt. of India has approached IIC to organize Hackathon, Idea championship events organized national level Idea Challenge.

INSTITUTE OF LIFELONG LEARNING

Major activities and achievements

The Institute of Lifelong Learning started academic engagements again after the appointment of new Director and administrative team in September 2020. The first Advisory Committee with the new team took place in October 2020 to discuss the roadmap for future activities. The first online webinar on *National Education Policy and Online Digital Education: Ideas and Possibilities* on 12-13th October 2020. A 5-day workshop on *Academic Writing* was organized from January 27- February 2, 2021 and a 5-day short-term course on *Inclusion in Higher Education* was organised by ILLL through virtual mode from March 15-19, 2021 for Delhi University teachers. An E-Monograph on *Re-Envisioning School Internship for Teacher Education* was published by ILLL in collaboration with Faculty of Education. ILLL has appointed 17 teachers from colleges/departments and 08 interns (PG/MPhil/PhD research scholars) to contribute towards ILLL goals on e-content development, preparation and implementation of short-term courses, conducting training programs and supporting new academic collaborations.

Publications

Arora, P., Gandhi, H. and Singh, S. (2021). *E-Monograph on Re-Envisioning school internship for teacher education*. The Institute of lifelong learning, University of Delhi, Delhi.

Seminar/Workshop/Short term courses Organized (3)

- National Education Policy and Online Digital Education: Ideas and Possibilities on 12-13th October 2020
- 5-day workshop on Academic Writing was organized from January 27- February 2, 2021

 5-day short-term course on *Inclusion in Higher Education* was organised by ILLL through virtual mode from March 15-19, 2021

Faculty Strength

Director: 01 Joint Director: 01 Academic Secretary:01

Fellows: 17 Student -intern: 08

INTERDISCIPLINARY CENTRE FOR PLANT GENOMICS (ICPG)

Major Activities and Achievements

The ICPG members are involved in discovering and characterization of genetic and bioinformatic resources involved in plant reproductive development and response to environmental stress conditions. Nuclear proteins represent an interesting category of regulatory components. During an analysis involving identification and characterization of nuclear proteins, we have found that of the 19441 seed-expressed genes of rice, about one third, i.e., 6116, could, in fact, be nuclear with a high degree of probability. We have initiated work on one of such seed-specific transcription factors, with a premise that if expressed outside its natural domain of expression in seeds, this TF would be able to increase the size and quality characteristics of rice grains. While working on genes involved in light-regulated development in plants, we have found that one of the homologs of *AtHY5* in rice, *OsbZIP1*, has two splice forms in rice. A detailed analysis of trangenics has shown that alternative splicing of *OsbZIP1* has increased the repertoire of its functions they perform in regulating skotomorphogenesis and photomorphogenesis. Another focus of our work has been to improve nutritional quality and the shelf life of tomatoes by altering the expression of genes encoding Ethylene Response Factors (ERFs) and Methylated CpG Binding Domain (MBD) proteins. We are also developing a logistics and data portal to integrate multidimensional 'Big Data' in plant sciences to facilitate semantic archiving, data exchange and knowledge discovery.

Honours/Distinctions

Prof. Jitendra P. Khurana

"Distinguished Teacher Award on the occasion of Teachers" Day conferred in an event jointly organized by Ramanujan College, CA Parivar and IAA NCR Chapter on September 5, 2020.

"Lifetime Achievement Award (2020)" in the area of Research and Teaching awarded by the Society of Plant Biochemistry and Biotechnology, Delhi, during the Annual Symposium of the Society held at BITS-Pilani, Goa, in November 2020.

Publications

Agarwal, P., & Khurana, P. (2020). TaZnF, a C3HC4 type RING zinc finger protein from triticum aestivum is involved in dehydration and salinity stress. *Journal of Plant Biochemistry and Biotechnology*, 29(3), 395-406.

Akash, Parida, A. P., Srivastava, A., Mathur, S., Sharma, A. K., & Kumar, R. (2021). Identification, evolutionary profiling, and expression analysis of F-box superfamily genes under phosphate deficiency in tomato. *Plant Physiology and Biochemistry*, 162, 349-362.

Balyan, S., Joseph, S. V., Jain, R., Mutum, R. D., & Raghuvanshi, S. (2020). Investigation into the miRNA/5' isomiRNAs function and drought-mediated miRNA processing in rice. *Functional and Integrative Genomics*, 20(4), 509-522.

Bhaskar, A., Paul, L. K., Sharma, E., Jha, S., Jain, M., & Khurana, J. P. (2021). OsRR6, a type-A response regulator in rice, mediates cytokinin, light and stress responses when over-expressed in arabidopsis. *Plant Physiology and Biochemistry*, *161*, 98-112.

Bhatnagar, A., Singh, S., Khurana, J. P., & Burman, N. (2020). HY5-COP1: The central module of light signaling pathway. *Journal of Plant Biochemistry and Biotechnology*, 29(4), 590-610.

- Burman, N., Chandran, D., & Khurana, J. P. (2020). A rapid and highly efficient method for transient gene expression in rice plants. *Frontiers in Plant Science*, 11 doi:10.3389/fpls.2020.584011
- Chaudhary, C., Sharma, N., & Khurana, P. (2021). Decoding the wheat awn transcriptome and overexpressing TaRca1β in rice for heat stress tolerance. *Plant Molecular Biology*, 105(1-2), 133-146.
- Daware, A., Parida, S. K., & Tyagi, A. K. (2020). Integrated genomic strategies for cereal genetic enhancement: combining QTL and association mapping. *In Cereal Genomics (pp. 15-25). Humana*, New York, NY.
- Deveshwar, P., Prusty, A., Sharma, S., & Tyagi, A. K. (2020). Phytohormone-mediated molecular mechanisms involving multiple genes and QTL govern grain number in rice. *Frontiers in Genetics*, 11 doi:10.3389/fgene.2020.586462
- Deveshwar, P., Sharma, S., Prusty, A., Sinha, N., Zargar, S. M., Karwal, D., . . . Tyagi, A. K. (2020). Analysis of rice nuclear-localized seed-expressed proteins and their database (RSNP-DB). *Scientific Reports*, 10(1)
- Gahlaut, V., Samtani, H., & Khurana, P. (2020). Genome-wide identification and expression profiling of cytosine-5 DNA methyltransferases during drought and heat stress in wheat (triticum aestivum). *Genomics*, 112(6), 4796-4807.
- Giri, J., Parida, S. K., Raghuvanshi, S., & Tyagi, A. K. (2021). Emerging molecular strategies for improving rice drought tolerance. *Current Genomics*, 22(1), 16-25.
- Kaur, P., Jindal, S., Yadav, B., Yadav, I., Mahato, A., Sharma, P., . . . Singh, K. (2020). Comparative analysis of chromosome 2A molecular organization in diploid and hexaploid wheat. *Molecular Biology Reports*, 47(3), 1991-2003.
- Khurana, J. P., & Srinivasan, R. (2020). Editorial. *Journal of Plant Biochemistry and Biotechnology*, 29(4), 573-574.
- Kumar, A., Daware, A., Kumar, A., Kumar, V., Gopala Krishnan, S., Mondal, S., . . . Thakur, J. K. (2020). Genome-wide analysis of polymorphisms identified domestication-associated long low-diversity region carrying important rice grain size/weight quantitative trait loci. *Plant Journal*, 103(4), 1525-1547.
- Li, S., Nayar, S., Jia, H., Kapoor, S., Wu, J., & Yukawa, Y. (2020). The arabidopsis hypoxia inducible AtR8 long non-coding rna also contributes to plant defense and root elongation coordinating with wrky genes under low levels of salicylic acid. *Non-Coding RNA*, 6(1).
- Maitra Majee, S., Sharma, E., Singh, B., & Khurana, J. P. (2020). Drought-induced protein (Di19-3) plays a role in auxin signaling by interacting with IAA14 in arabidopsis. *Plant Direct*, 4(6).
- Malik, N., Ranjan, R., Parida, S. K., Agarwal, P., & Tyagi, A. K. (2020). Mediator subunit OsMED14_1 plays an important role in rice development. *Plant Journal*, 101(6).
- Manjunatha, S. R., Gowda, M., Narayanaswamy, K. C., Jagadish, K. S., Dhanyalakshmi, K. H., Khurana, P., & Nataraja, K. N. (2021). Assessing the life cycle of pests, diaphania pulverulentalis (hampson) and maconellicoccus hirsutus green, reared on transgenic mulberry. *3 Biotech*, *11*(2).
- Meena, S., Deb, S., Samtani, H., & Khurana, P. (2020). Dissecting the molecular function of triticum aestivum STI family members under heat stress. *Frontiers in Genetics*, 11.
- Negi, N., & Khurana, P. (2021). A salicylic acid inducible mulberry WRKY transcription factor, MiWRKY53 is involved in plant defence response. *Plant Cell Reports*.
- Pandey, B. K., Verma, L., Prusty, A., Singh, A. P., Bennett, M. J., Tyagi, A. K., . . . Mehra, P. (2021). OsJAZ11 regulates phosphate starvation responses in rice. *Planta*, 254(1).
- Pareek, A., Soni, V., Sopory, S. K., Khurana, J. P., Sowjanya Sree, K., Tyagi, A. K., . . . Govindjee, G. (2020). Satish chandra maheshwari (1933–2019)—a brilliant, passionate and an outstanding shining light for all of plant biology. *Physiology and Molecular Biology of Plants*, 26(6), 1087-1098.
- Parry, G., Provart, N. J., Brady, S. M., Uzilday, B., Adams, K., Araújo, W., . . . Von Gillhaussen, P. (2020). Current status of the multinational arabidopsis community. *Plant Direct*, *4*(7).

Saripalli, G., Singh, K., Gautam, T., Kumar, S., Raghuvanshi, S., Prasad, P., . . . Gupta, P. K. (2020). Genome-wide analysis of H3K4me3 and H3K27me3 modifications due to Lr28 for leaf rust resistance in bread wheat (triticum aestivum). *Plant Molecular Biology*, 104(1-2), 113-136.

Sharma, E., Borah, P., Kaur, A., Bhatnagar, A., Mohapatra, T., Kapoor, S., & Khurana, J. P. (2021). A comprehensive transcriptome analysis of contrasting rice cultivars highlights the role of auxin and ABA responsive genes in heat stress response. *Genomics*, 113(3), 1247-1261.

Sharma, N., Chaudhary, C., & Khurana, P. (2020). Role of myo-inositol during skotomorphogenesis in arabidopsis. *Scientific Reports*, 10(1).

Sharma, N., Chaudhary, C., & Khurana, P. (2020). Wheat myo-inositol phosphate synthase influences plant growth and stress responses via ethylene mediated signaling. *Scientific Reports*, 10(1).

Singh, D., Yadav, R., Kaushik, S., Wadhwa, N., Kapoor, S., & Kapoor, M. (2020). Transcriptome analysis of ppdnmt2 and identification of superoxide dismutase as a novel interactor of DNMT2 in the moss physcomitrella patens. *Frontiers in Plant Science*, 11.

Tyagi, V., Parihar, V., Malik, G., Kalra, V., Kapoor, S., & Kapoor, M. (2020). The DEAD-box RNA helicase eIF4A regulates plant development and interacts with the hnRNP LIF2L1 in physcomitrella patens. *Molecular Genetics and Genomics*, 295(2), 373-389.

Tyagi, V., Parihar, V., Singh, D., Kapoor, S., & Kapoor, M. (2021). The DEAD-box RNA helicase eIF4A1 interacts with the SWI2/SNF2-related chromatin remodelling ATPase DDM1 in the moss physcomitrella. *Biochimica Et Biophysica Acta - Proteins and Proteomics*, 1869(3).

Number of Department teachers are serving as Editor(s)/Members(s) of Editorial Boards of various Scientific Journals

Professor A. K. Tvagi

Molecular and General Genomics, Transgenic Research, and Rice

Prof. J.P. Khurana

Associate Editor, Frontiers in Sustainable Food Systems

Prof. Sanjay Kapoor Associate Editor, Rice

Research Projects

Prof. Akhilesh Kumar Tyagi (1)

Sub-project 1: Characterization of Gene Regulatory Networks and Transcriptional Mechanisms that Control Seed Development, under National Rice Functional Genomics Consortium Project entitled, Functional Characterization of Genetic and Epigenetic Regulatory Networks Involved in the Reproductive Development in Rice 2015-2021, DBT 167.4 Lakhs.

Prof. Jitendra P. Khurana (2)

Sub Project II: "Functional validation of genes involved in regulating transition to flowering in rice", as part of a Multi-institutional Network project "Functional Characterization of Genetic and Epigenetic Regulatory Networks Involved in the Reproductive Development in Rice", from November 2015 to November 2021, funded by DBT (Rs 1.40 crores for the sub-project at UDSC)

J.C. Bose National Fellowship award, with a research/fellowship grant for Rs 82.48 lakhs (2018 to 2022), by the Science and Engineering Research Board, Government of India, New Delhi.

Prof. Arun Kumar Sharma (2)

Tomato Ripening Network. (2015-2021). DBT. 130.98 lakhs.

Regulation of ripening in tomato by manipulation of epigenome (2016-2021). DBT 91.74 lakhs.

Professor Paramjit Khurana (3)

Multi Institutional Network Project on Mulberry Genomic Approaches (2018-2021).

NW1: Genomic Resources for Mulberry: Indian Mulberry Nuclear Genome Sequencing, jointly with JNU, New Delhi. (85.34 lakhs).

NW3A: Discovery and validation of growth and abiotic stress related genes in mulberry, jointly with GKVK, UAS, Bangalore. (89.62 lakhs).

Professor Sanjay Kapoor (2)

Development of a Cell-line based Starch Bio-factory System by Manipulating Components of Starch Regulatory and Biosynthetic Machinery in Tobacco BY-2 Cells Feb 13, 2020 to: Feb 12, 2023, 53 Lakhs.

Sub-project IV: Characterization of Gene Regulatory Networks and Transcriptional Mechanisms that Control Male Gametophyte, under National Rice Functional Genomics Consortium Project entitled, Functional Characterization of Genetic and Epigenetic Regulatory Networks Involved in the Reproductive Development in Rice 2015-2021, DBT 167.4 Lakhs.

Dr. Saurabh Raghuvanshi (1)

Mainstreaming rice landraces diversity in varietal development through genome-wide association studies: A model for large-scale utilization of gene bank collections of rice (March 2020-25) PI, DBT, 603 lakhs.

Seminars Organized (1)

• Organized a National Webinar on behalf of NASI together with Central University of Haryana (CuH) on "Effective Poshan (Nutrition) during Covid-19" on 24.09.2020 at Mahendragarh, Haryana.

Conferences Organized

National

Akhilesh Kumar Tvagi (9)

- Nat Conf on Frontiers in Plant Biology, UoH, Hyderabad, 2020.
- NCRABS 2020, JMI, New Delhi, 2020 (key-note address).
- DU-LEAP Initiative, INSA, New Delhi, 2020.
- Webinar, Miranda House, Delhi University, Delhi, 2020.
- Webinar, Bharatyia Vidya Bhawan, New Delhi, 2020.
- Webinar, Nutrition in Times of Pandemics, INSA & NASI, Delhi, 2020.
- Webinar, IGNTU, Amarkantak, 2020.
- Webinar, NASI-IBSD, Praygraj & Imphal, 2020.
- Webinar, IISF2020-Biodiversity Conclave, NBRI, Lucknow, 2020 (key-note address).

Prof. Jitendra P. Khurana (3)

- Delivered inaugural lecture in Science Academies Lecture Workshop on "Frontiers in Science and Engineering – Opportunities for Graduates" organized by Science Foundation and MHRD-IIC-DDUC, Delhi, from September 14 to 19, 2020.
- Delivered a lecture as a panelist in "Digital Conference on B20 Global Dialogue in India" organized by CII, RIS and INSA (Jointly), on October 7, 2020, in New Delhi.
- Delivered an invited lecture as Chief Guest on the occasion of 67th Annual Day of CSIR-NBRI, Lucknow, on 27th October 2020, in virtual mode.

Paramjit Khurana (11)

- Participated in the International Conference on Genomics and Breeding for Crop Improvement and Alumni Meet, at Department of Genetics and Plant Breeding, Ch. Charan Singh University, Meerut, from December 4-6, 2019.
- Delivered an invited talk on "Engineering for Thermotolerance in Wheat" at the National Symposium on "Trends in Plant Biotechnology & Agriculture" and the 41st Annual Meeting of the Plant Tissue Culture Association of India, from February 6-8. 2020, at Thapar Institute of Engineering & Technology, Patiala, India.
- Invited talk on "Meeting Nutritional Challenges of the EWS" in the Webinar on "Nutrition in the times of pandemic" jointly organized by NASI & INSA on September 22, 2020.
- Invited talk on "Meeting Nutritional Challenges for a Healthy Lifestyle" in the Webinar on 'Nutrition: A Weapon to Combat COVID-19' jointly organized by NASI-DBT-NIPGR, on October 1, 2020.
- Invited talk entitled "Scientific Writing and Presentation" in the Faculty Development Programme on "Innovation in Scientific Research Methods" October 14, 2020 organized under DBT Star college scheme 2019-2022, by Kirori Mal College, University of Delhi.
- Delivered a presentation on "The Art of Scientific Presentation and Writing" in the Workshop on Research Methodology (RM-20 conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-HRDC, University of Delhi on January 11, 2021.
- Delivered a presentation on "Scientific Grant Writing and Prospecting for Funds" in the Workshop on Research Methodology (RM-20 conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-HRDC, University of Delhi on January 11, 2021.
- Delivered a presentation on February 3, 2021, entitled "Investigating the Role of PGPRs in Alleviating heat Stress Tolerance in Triticum aestivum L" in the 61st AMI conference organized by The Association of Microbiologists of India (AMI) and Indian Network for Soil Contamination Research (INSCR) in association with The Energy and Resources Institute (TERI), University of Delhi (DU) and Indian Agricultural Research Institute (IARI), New Delhi, from February 3-5, 2021.
- Delivered a presentation on "Scientific Grant Writing and Prospecting for Funds" in the National Level Workshop in "Frontiers in Science and Engineering by Women in Science" jointly organized by The National Academy of Sciences India (NASI) – Delhi Chapter and Deen Dayal Upadhyaya College (University of Delhi) on February 10, 2021.
- Delivered a presentation on "Role of Genes and Genomics for Climate Resilient Crops" in memory of (Late) Mr SL Kochhar, Department of Botany, SGTB Khalsa College, University of Delhi, on March 22, 2021.
- Delivered a Keynote address entitled "Functional Genomics for Thermal Adaptation and Tolerance in Indian Wheat", at the 42nd Annual Meeting of Plant Tissue Culture Association (India) & International Symposium on Advances in Plant Biotechnology and Genome Editing-2021 (APBGE-2021), on April 8, 2021.

International

Akhilesh Kumar Tyagi (1)

Webinar, Indo-Global Biodata Coalition, Delhi University, Delhi, 2020.

Prof. Jitendra P. Khurana (1)

 Delivered a lecture in the AASSA Webinar on "Academies Response to COVID-19" organized by AASSA Secretariat and KAST, Korea, on July 10, 2020.

Other Inter-Institutional Collaboration: The faculty members have ongoing collaborative projects with JNU, New Delhi; GKVK, UAS, Bengaluru; IISc. Bengaluru; Osmania University, Hyderabad; NCBS, Bengaluru and IISER Thiruvananthapuram.

Students under Exchange Programme: The ICPG members have collaborative projects with several institutions across India and abroad. A number of students from universities/institutions across India visit ICPG for short duration for specialized experiments.

Placement Details (Number and percentage of students placed): Not Applicable (as all participating members are part of the Department of Plant Molecular Biology and Ph.D. students are enrolled in the department)

Extension and Outreach Activities: The faculty has been involved in delivering lectures related to our research achievements, general scientific awareness and opinions on current topics related to plant research at several institutes, universities and undergraduate colleges.

Number of M.Phil./Ph.D. Degrees Awarded: Not Applicable (as all participating members are part of the Department of Plant Molecular Biology and Ph.D. students are enrolled in the department)

Faculty Strength

1 Director (Permanent Faculty), 5 Associated Faculty (Permanent)

UNIVERSITY SCIENCE INSTRUMENTATION CENTRE

Major activities and achievements

A centralized facility with sophisticated analytical instruments is maintained by the University Science Instrumentation Center for all researchers and faculty members of science departments and constituent colleges of the University of Delhi. The center is open 6 days a week (9:00 am to 5:30 pm.).

The following instruments are presently available.

- Vibrating sample magnetometer
- Bruker High resolution X-ray diffractometer
- Perkin Elmer FTIR spectrometer with ATR & Specular reflectance
- Agilent LCMS with Quadropole time of flight
- Thermal analysis Perkin Elmer TGA, DTA and DSC
- Waters Differential Scanning Calorimeter
- Jeol 400 MHz Nuclear Magnetic resonance
- TEM sample preparation equipment
- Critical point dryer
- Jeol scanning electron Microscope (SEM) with EDS
- FEI High Resolution Transmission electron microscope (TEM)
- CHNS Analyzer
- Liquid nitrogen (LN2) storage tank and distribution facility
- Renishaw Laser Raman Spectrometer
- Cary Eclipse Fluorescence spectrophotometer (solid and liquid samples)
- Time resolved Fluorescence spectrometer (Horiba Yvon)
- Sentech Ellipsometer
- Upconversion and downconversion fluorescence spectrometer
- Linesis TGA with auto sampler
- Thermo fisher FTIR spectrometer with FIR attachment
- Broadband Dielectric/impedance analyzer (mHz to 10 MHz)
- Jasco Circular dichroism spectropolarimeter
- B.E.T. surface area analyzer
- Zeiss FESEM
- Single crystal X-ray diffractometer
- Nikon confocal microscope

WOMEN'S STUDIES AND DEVELOPMENT CENTRE FOR ADVANCED STUDIES (WSDC)

Major Activities and Achievements

The Centre is amongst the earliest of Women's Studies Centres established in the country and as such has the distinction of being one of the longest running Centres dedicated to Women's studies and Gender Issues in any Central University.

The Centre organized an online Lecture Series comprising of four lectures on thetopic-'Women's Movement in India' in September 2020. The lectures focus on methodological aspects and social challenges relating to tracking almost a hundred years of struggle for women's rights. The lectures included varied themes including how women struggled for rights in Pre-independence India, their perspective on rights and the changes in contemporary times, the issues and challenges concerning women in our democracy and also a look at the future of women's movement in an increasingly globalized world. Aiming at reaching out to an audience across disciplines, the lectures were open to students and held online.

WSDC also offered an interdisciplinary Advanced Certificate Course on Gender and Development, organised for post graduates, research scholars and faculty from different colleges during November, 2020 to Feb. 2021. The participants were from a multi-disciplinary group from ranging from the field of Economics, History, Political Science, Gender Studies, Sociology, English, Development Studies, Psychology, Social Work, Law, Geography, Education, Population Studies, Public Administration, and Mass Communication among others.

On the occasion of Women's Day Professor Jaya S. Tyagi, Director, WSDC made a presentation in Bharti College, University of Delhi on the 'Modern Perceptions of Women in Ancient India: Problems and Perspectives' on 9th March, 2021.

Honours/Distinctions

The Centre's ongoing research project on 'The New Middle Class' will provide major outcomes on the manner in which social changes are affecting gender relations and processes of gender-identity formation.

The Centre's Advanced Course is popular with cross section of students belonging to different departments. This Centre provides the unique interdisciplinary space and interaction to the students.

Research Projects

From UGC annual grant; DU, Title: Gender& new middle class, 2019-ongoing (Data collected from field sites).

Seminars Organized (1)

WSDC conducted Online lecture Series.

Seminar/Conference Presentations

WSDC made presentations through online Advance Course and lecture series.

Other Inter-Institutional Collaboration

WSDC collaborated with SEWA to get interaction at grassroots for its course students. SEWA coordinators also made presentations for the students

Extension and Outreach Activities

WSDC draws students from various constituent colleges, departments and Faculties of University of Delhi and other State and Central Universities across India.

Students drawn from University of Delhi offer the centre with a cross-section of participants across different regions, nationality, ethnicity, promoting inclusive and holistic learning irrespective of gender, caste and identity.

Post graduate and Research Students across diverse disciplines in Natural Science, Mathematics, Commerce, Humanities and Social Science Management participate in the courses offered by WSDC. They bring with them learning and perspectives from their fields that blends with the interdisciplinary approach offered by the centre and women's studies as a field.

International Students of DU and other institutions have also participated in the courses offered at the centre.

The staff and faculty at WSDC have a harmonious blend of cultural and regional variation. Bilingualism (Both English and Hindi) as a mode of communication and discourse for teaching and research is promoted and followed.

Faculty Strength:

Permanent: -- One Director, One permanent faculty.

Prof. Jaya S. Tyagi, Director

Dr Manjeet Bhatia, Associate Professor (superannuated on 31-03-2021)

Other Significant Information

The Centre has done partial field work of New Middle Class (NMC) research project under UGC-CAS and compiled the data collected at Delhi-NCR and Kolkata, with limited resources. WSDC has had to postpone rest of the field work due partially due to no availability of resources and also because of restrictions on movement in the pandemic. However, a few case studies have been done under the project's second phase and an Interim report of the project has been prepared.

DEPARTMENTS

FACULTY OF APPLIED SOCIAL SCIENCES & HUMANITIES

Department of Finance and Business Economics

1. Major Activities and Achievements

Book

Sehgal, S., Ahmad, W., Pandey, P., & Saini, S., *Economic and Financial Integration in South Asia: A Contemporary Perspective*, (2020), Research Book, Published in Routledge, Taylor & Francis Group (ISBN 9780815380139).

Alumni Meet

The Department organized its Annual Alumni Meet for MBA (Finance) Programme on October 17, 2020. The Meet was organized virtually. About 100 students from all over the world participated and shared their corporate experience with the faculty and student of the Department.

MBA (Business Economics)

The department has 6 major events: HR Conclave, A Day with Alum, The Annual Convention, Imprints, Reminiscence and Genesis. We have 4 main clubs: The Placement Committee, The Alumni Relations and Cultural Committee, The Corporate Connection Cell and The Public Relations Cell. The department has 7 main committees: Bluechips, Ecosoc, Markibiz, Datamatics, EdBoard, Roots and Exhousia. The department has started a new club for consulting- ConsultBE. Alongside we had specific committee events as well: Moolyankan, Vishleshan, Markquest, Arthiniti. In terms of achievements, the department is ranked at the 26th Best B-School to study by Outlook, 2020. Student's placement is about 81% with 20 companies visiting the campus. In terms of summer internships, we had 99% of the students placed in 24 companies. The maximum stipend offered was 2 Lakhs (for 2 months). American Express, Barclays, Piramal, Dunnhumby, EXL, Arcesium are some of the major recruiters who visited our campus.

MBA (Finance)

The Department organized its 34rd Annual Convention this year which was held virtually on 27-28 November with the theme of the event being "The Future of Fintech & Business Analytics. Enlightening discussions were held on the emerging trends in Capital Markets, Banking, Payments, Business Analytics. Start-ups, and Real Estate.

Day 1 started with the Techathon event organized by the E-cell. The convention proceeded with first Fireside chat of the day on The Role of Technology in Wealth management and Insurance with the following speakers: Mr. Himanshu Kohli, Co-Founder, Client Associates and Mr.Ankit Agarwal, Founder & CEO, Insurance Dekho and the Moderator: Mr. Mridul Upreti, Sector lead, International Finance Corporation. Followed by the second Fireside chat on The role of Technology in Real Estate, with the following speakers: Ms. Inu Rana, Senior Business Advisor, Launch Pad Innovation Program,

Western Sydney University; Mr. Ankur Srivastava, Chairman at Gen Real Property Advisors; and Mr. John Kuruvilla, Chief Mentor at Brigade REAP and the Moderator: Mr. Mridul Upreti, Sector lead, International Finance Corporation.

Day 2 started with a Technical Session on The Future of Fintech, with the following speakers: Mr. Kumar Kushal, Global CTO, Tiller Capital, NY; Mr. Harsh Gupta, Vice-President, Razorpay; and Mr. Arpit Agrawal, Founder & Director, KELP Decoding Investments and the Moderator: Mr. Vinod Kashyap, Co-Founder & Director, Next Gen Knowledge Solutions Pvt. Ltd. Followed by another Technical Session on The Future of Business Analytics, with the following speakers: Dr. Subhra Datta, Chief Analytics Officer, Retra; Dr. Shakti Goel, Chief Data & Analytics Officer, Travel Boutique Online (TBO); and Mr. Randhir Hebbar, Co-Founder & EVP, Convergytics solutions and the Moderator: Mr. Varunn Kaushikk, Ex - Data Scientist, Royal Bank of Scotland.

The day proceeded with a **Plenary Session** given by: Chief Guest - Shri Anand Mohan Bajaj, Additional Secretary (FM), Department of Economic Affairs, Ministry of Finance (MoF); Keynote speaker - Mr. Sanjay Menon, Managing Director, Public is Sapient and Guest of honour - Dr. Youssef Errami, Director - Dean, ESC PAU Business School. The day concluded with a Session on **Being an Entrepreneur - Opportunities & Challenges.** Speakers: Mr. Saurav Gandhi, Co-founder, Bueno Finance; Mr. Rajul Garg, Founder & Managing partner, Leo Capital; and Ms. Saini Rajgopal, Co-founder, Artfine Advisory LLP, Chaired by: Dr. Florent Deisting, Director - Development & Innovation, ESC PAU Business school.

2. Publications

Research Papers

- Agrawal, T. J., Sehgal, S., & Agrawal, R. (2020). Disruptive Innovations, Fundamental Strength and Stock Winners: Implications for Stock Index Revisions. *Vision*, 24(3), 356-370.
- Agrawal, T. J., Sehgal, S., & Vasishth, V. (2020). Firm Attributes, Corporate Fundamentals and Investment Strategies: An Empirical Study for Indian Stock Market. *Management and Labour Studies*, 45(3), 366-387.
- a. Dalei, N.N. & Gupt Y. (2020). Indigenous Knowledge from Ecological Resilience from Pre-Mining Period of a Mined-out Area. *Energy Economics and the Environment: Conservation, Preservation and Sustainability*, Eds. Bhat et al., New Delhi: Sage. ISBN 978-93-538-8310-2
- b. Ghosh D.A. & Kajleen, K. (2021). An Evaluation of Monetary Policy in India: A Sustainable Development Perspective in Dasgupta, Purnamita, Roy Saha, Anindita and Singhal, Robin (eds.), 'Sustainable Development Insights from India', Singapore: *Springer*, 107 139.
- c. Negi, C.M. & Akhil (2020). "Factors Influencing Mobile Phone Purchasing Decision in Delhi", *Global journal of Enterprise Information system*, 12(4) 21-32.
- d. Negi, C.M. (2020). Dynamics of Apple Production in Himachal Production, *Agriculture Situation in India. Vol. LXXVII, NO. 2, 20-29.*
- e. Sehgal, S., Mishra, R., Vashisht R., & Deisting, F. (2021). On the determinants and prediction of corporate financial distress in India, *Managerial Finance*, 47, 1428-1447.
- f. Sehgal, S., Sobti, N. & Deisting, F. (2021). Who leads in intraday gold price discovery and volatility connectedness, *Journal of Futures* Markets, *41*, *1092-1123*.
- Tarunika Jain Agrawal, Sanjay Sehgal & Muneesh Kumar (2020). Market Development and Policy Issues for Agri-derivatives in India: A Study of Cotton and Mentha, *Agricultural Economics Research Review*, 33(1), 99-108.
- Vasisth, V., Sehgal, S. & Sharma, G. (2021). Size Effect in Indian Equity Market: Myth of Reality? *Asia-Pacific Financial Markets*, 28, 101-119.

3. Research Projects

• PI: Prof. Yamini Gupt and Co-PI: Dr. N. N. Dalei, University of Petroleum and Energy Studies UPES, Dehradun- Impact Assessment of Climate Change Literacy Program of

- Indian Business Schools using Randomized Control Trial Method, Faculty Research Program Grant—Institute of Eminence, University of Delhi, 3.5 Lakhs, Jan 2021
- PI- Prof. Vijay Kumar Kaul and Co PI: Prof. Ananya Ghosh Dastidar- India's Role in Indian Ocean Region: Stimulating Growth and Strengthening Strategic Interests, Indian council for Social science Research –(Impactful Policy Research in Social Sciences (ICSSR-IMPRESS) Project, 15 Lakhs, 2019 – 2021.
- PI Prof. Sanjay Sehgal, Tail risk and stock returns: Evidence for India, Faculty Research Program Grant— Institute of Eminence (IoE), University of Delhi (Jan 2021).

4. Seminars Organized

- 1. Abhsihek Bansal, Founder Chairman, ABANS Group, delivered a special lecture on "Grooming Leaders to Successfully Build Sound Business Models under the New Model", on October 24, 2020.
- 2. Alok Kedia, Country head, Indusland bank delivered special lecture on "how banks & other finance avenues can offer great opportunities in the future" on September 20, 2020.
- 3. Amit Johsi, CFA, Chief Investment Officer, Bajaj Allianz General Insurance, delivered a special lecture on "Impact of COVID on Financial Markets", on September 17, 2020.
- 4. Anand Dalmia, Founder, Fidadom, delivered a special lecture on, "Personal Finance" on November 4, 2020.
- 5. Aniruddha Naha, Senior Fund Manager, PGIM India Mutual Fund, delivered a Special Lecture on, "Stock Selection & Frameworks to buy Business" on August 29, 2020.
- Anirudh Gangahar, Ex-Executive Director, Nomura Securities, delivered a special lecture on September 1, 2020.
- 7. Anish Agarwal, Director Data & Analytics, NatWest Group, Opportunities and Risks associated with Analytics in the Post-COVID World, 26th Sept 2020
- 8. AnkurGoel, Founder & CEO, Skwerup.com, delivered a special lecture on "Evolving Role of CEO" on October 8, 2020.
- 9. Avnish Kshatriya, Global Head, CIO (TAO), Wipro, The Pivotal Role of Digital Transformation in firm's business economics, 8th Oct 2020
- 10. Awdesh Nagar, Founder and Director, Moneylogist, delivered a special lecture on "How interest rate are going to effect economy and our personal finance?" on October 7, 2020.
- 11. Gopika Arora, Director-Business Development, VISA, delivered a special lecture on, "Digital Trends Changing Banking Landscape" on October 4, 2020.
- 12. Harish Krishnan, CFA, Executive Vice President (Sr Fund Manager), Kotak Mahindra AMC delivered a special lecture on "What I will say to myself if I was beginning my Investment career?" on September 23, 2020.
- 13. Jeetu Bairathi, Partner, BOP India, delivered a special lecture on, "What investor look in Startup and the things a founder should consider before approaching the prospective investors" on October 10, 2020.
- 14. Jogindra Singh, Vice President (Finance), Hero Corporate Services, on "Corporate Finance and Industry Demands" in July 2020.
- 15. Jyoti Prakash, Vice President & Equity Fund Manager, Aegon Life delivered a special lecture on, "Innovation and technologies in the Insurance Sector", on October 13, 2020.
- 16. Karthik Gopalakrishnan, Vice President Research, Gartner, How will Data, Analytics & AI will impact decision making in organisations, 7th Apr 2021
- 17. Kumar Shekhar, Vice President Risk, Merchant onboarding & chargeback, PayU, Do's & Don'ts of corporate life and digital fraud, 19 Dec 2020
- 18. Maneesh Srivastava, Co-Founder, Director, Alpha value Consulting, delivered a special lecture on "Valuation Strategies for Mature and Emerging Companies in light of COVID-19, on September 19, 2020.
- 19. Mirza Rahim Baig, Analytics Lead, Flipkart, delivered a special lecture on "Effective Business Problem Solving Using Data Science" on October 11, 2020.
- 20. Mridul Upreti, Sector Leader, Tourism, Retail & Property, MAS Upstream, Asia Pacific at IFC, delivered a special lecture on "Startup Ecosystem in Post Covid Era", on October 2, 2020.
- 21. Namita Koshy, Vice President, Ogilvy, Creativity is an economic force, 22nd Oct 2020
- 22. Nidhi Agarwal, Assistant Vice-President, Clix Capital, delivered a special lecture on "Impact of COVID-19 on NBFCs and career in NBFC's and Banks", on November 7, 2020.

- 23. Nilanjan Majumdar, Director, Kantar, Behavioral Economics, Nudge and Implication for Consumer Marketing, 27th Mar 2021
- 24. Pankaj Rai, Senior VP Strategy, Wells Fargo, My career journey and how to navigate your career, 16th Oct 2020
- 25. Prayank Swaroop, Partner at ACCEL, delivered a special lecture on "Private Equity and Venture Capital", on September 24, 2020.
- 26. Rajneesh Jain, CFO, Reliance Jio Infocom Ltd., delivered a Special Lecture on "Enhancing India's Competitive Edge A CFO's Outlook", on November 21, 2020.
- 27. Richa Agarwal, Deputy General Manager, SEBI, delivered a special lecture on, "Corporate Bonds Market in India", on November 20, 2020.
- 28. Sanjay Menon, Managing Director, Publicis Sapient India on "Role of Technology in Digital Business Transformation Impact of Covid" on August 1, 2020.
- 29. Saurabh Bajaj, Marketing Head (Dairy), Britannia Industries Limited, Impact of Covid on Business & Marketing, 5th Dec 2020
- 30. Soubir Ghosh, Senior Director, JLL, delivered a special lecture on, "Building your Personal Brand and Preparing for a Challenging Economic Environment" on November 22, 2020
- 31. Soumyabrata Mukherjee, Risk Analyst, Treasury Solution Team, Goldman Sachs, delivered a special lecture on "Risk Management" on September 5, 2020.
- 32. Suchismit Ghosh, MD-IB, RBSA Advisors, delivered a special lecture on "Mergers and Acquisitions" on November 8, 2020.
- 33. Swapnil Pingale, Senior Category Manager, GEP Worldwide, Consumer Behaviour, 3rd Dec 2020
- 34. Tariq Aboobakar, Managing Director, Amicorp Trustees, delivered a special lecture on, "Succession Planning" on November 5, 2020.
- 35. Tarunesh Mathur, Vice President Field Operation, Schindler Group, Leadership Beyond Covid Crisis, 18th Feb 2021
- 36. V. Harikrishna, Director, CPPIB India Advisors, delivered a special lecture on Impact of REIT's The flow of market capitalization to the real estate sector on October 23, 2020.
- 37. Vikas Vasal, National Managing Partner, Tax, Grant Thornton Bharat LLP, delivered a special lecture on "Recent Corporate Tax Framework Changes and Its Possible Impacts on the Economy" on November 26, 2020.
- 38. Vikram Kotak, Co-Founder and Managing Partner, Ace Landsowne, delivered a special lecture on "Effect of COVID 19 on Financial Markets of the World", on October 3, 2020
- 39. Vivek, Bajpai, CFA, Assistant Director at Moody's Analytics delivered a special lecture on. "Integration of AI and ML in structured Financial Modelling", on October 19, 2020.
- 40. Vivek Bengnani, Senior Vice President, Edelweiss Tokio Life Insurance, delivered a special lecture on, "How to prepare a successful career Beyond COVID" on October 10, 2020.

5. Conferences Organized

- a. HR Conclave "Avant Garde'20": "Thriving in the time of coronavirus", 10th October 2020, organized by the Student Body of the Department, Business Economics Association (BEA).
- b. Vishleshan "Data Analytics in Industry 4.0", 6th Mar 2021, organized by the Student Body of the Department, Business Economics Association (BEA).
- c. International Interdisciplinary Conference on "COVID 19 and Issues of Urban Sustainability in India and Canada," on 11-12 March 2021(online) in association with Centre for Canadian Studies. Funded by Shastri Indo Canadian Institute.
- d. Moolyankan "Uncharted: Navigating the Future of Finance", 20th March 2021, organized by the Student Body of the Department, Business Economics Association (BEA).
- e. Markquest "Mar Tech Optimizing the next Generation of Marketing Technology", 27th Feb 2021, organized by the Student Body of the Department, Business Economics Association (BEA).
- f. 46th Annual Convention "The World is Flat or Is It?" 21st Nov 2020, organized by the Student Body of the Department, Business Economics Association (BEA).
- g. Genesis 20 "Together we Learn, together we Grow", 19th Sept 2020, organized by the Student Body of the Department, Business Economics Association (BEA).
- h. Imprints "Untangling Business Streams", 7th Nov 2020, organized by the Student Body of the Department, Business Economics Association (BEA).

- Center for Canadian Studies, Impact of COVID 19 on Labor: Issue and Policy in India and Canada, 4th Dec 2020
- Center for Canadian Studies, COVID-19 Strategy and Expertise of India and Canada, 9th Nov 2020
- Center for Canadian Studies, Covid-19 Diagnostics, Therapeutics and Vaccines Initiatives in India and Canada", 14th Dec 2020
- Center for Canadian Studies, COVID 19 and Issues of Urban Sustainability in India and Canada, 11th-12th March 2021

6. Seminar/Conference Presentations (National/International)

Prof. Amitabh Gupta

• Presented paper entitled Analyzing the Effect of Share Repurchases on Liquidity under Changed Legal Framework with Charu Banga at the online World Finance Banking Symposium, Riga, Latvia, (5-6, December, 2020).

Online Lectures Delivered: Prof. Ananya Ghosh Dastidar

International:

 Delivered a set of Lectures on Panel Data Analysis at the Online Workshop on 'Time Series and Panel Data Analysis' organized by the Faculty of Management Studies, Pokhara University, Nepal (17th and 18th October, 2020).

National:

- Delivered a set of Online Lectures on Basic Econometric Analysis on 22nd, 23rd and 24th June, 2020 in the "14 days On-line National Faculty Development Programme (FDP) on Data Analysis for Research in Social Sciences (Sharpening Skills in Statistical Data Analysis for Research)" organized jointly by the Teaching Learning Centre, Ramanujan College, University of Delhi and the Indian Accounting Association, NCR Chapter (17th to 30th June, 2020).
- Delivered a set of 3 Lectures on 'Introduction to Ordinary Least Squares Regression' on 30th and 31st December, 2020 at the Online "2 Weeks Refresher Course on Data Analysis with Statistical methods" organized by the Teaching Learning Centre (TLC), Ramanujan College, University of Delhi in association with Indian Accounting Association, NCR Chapter (during 21st December 2020-3rdJanuary 2021).
- Delivered a set of 2 Lectures on 'Econometric and Quantitative Tools in Social Science Research' at the Online "Training Programme on Research Methods in Labour Economics" organized by the V.V. Giri National Labour Institute, Noida (22nd January, 2021).

7. Placement Details (Number and percentage of students placed)

MBA (Finance)

- Final Placements–34 placed out of 38 (89.47%) 19 companies visited for campus recruitment
- Summer Placements 37 placed out of 40 (92.5%)

12 companies visited for campus recruitment

MBA (Business Economics)

- Final Placements 40 placed out of 55 (72%) 13 companies visited for campus recruitment
- Summer Placements 50 placed out of 50 (100%) 21 companies visited for campus recruitment

8. Extension and Outreach Activities

The **Yoga Day** was celebrated in the Department of Finance and Business Economics on June 21, 2020. Due to lock down and social restrictions the Yoga Day was celebrated from Home this year. The Head of the Department Prof. Sanjay Sehgal, Ph.D. scholars and non-teaching staff of the Department participated in the Yoga Session. Breathing exercises like, pranayam like, kalapalbhati, anulomvilom, Bhastrika and Bhramari were performed by the participants. The participants also performed yogasanas like, suryanamaskar, tadasana, vrikshasana, adhamukhosavasana, trikonasana, naukasana, bhujangasana, etc.

9. Number of M.Phil./Ph.D. Degrees Awarded

• Ph.D. :MBA(Finance)- 03, MBA(Business Economics)- 04

• M.Phil. : NA

10. Faculty Strength

MBA(Finance)- 08, MBA(Business Economics)- 05
 Total = 13

FACULTY OF ARTS

ARABIC

Major activities and achievements

The Department of Arabic organized a two-day National Seminar on the topic "COVID-19 and Modern Challenges, With Reference To Arabic and Urdu Language" on 18-19 March, 2021. The Department of Arabic organized a Lecture under Prof. K. A. Fariq Memorial Lecture Series – 14 on the topic "Shining Stars of Delhi in the Sky of Arabic Language and Literature" delivered by Professor Shafiq Ahmad Khan on 18th March, 2021.

Publications	08	
Seminar/Conference Presentations	08	

Seminars Organized (01)

The Department of Arabic organized a Lecture under Prof. K. A. Fariq Memorial Lecture Series—14 on the topic "Shining Stars of Delhi in the Sky of Arabic Language and Literature" delivered by Professor Shafiq Ahmad Khan on 18th March, 2021.

Number of Ph.D./M.Phil. awarded

Ph.D. –

M.Phil. –

Faculty Strength

Permanent - 6 (Professors- 3, Assistant Professors- 3)

Guest Faculty - 2

Other Significant Information

Akhtar, M (2020). Working for a project financed by the NCPUL, Ministry of Education Govt. of India. Entitled "Arabic Journalism in India" Translation of an Arabic book into Urdu written by Prof. Mohammad Ayub. Approved on 22-12-2020.

Akhtar, M (2021). Prepared self-learning material for UG containing four units on the request of Directorate of Distance Education, Maulana Azad National Urdu University, Hyderabad submitted on 8th March 2021.

Akhtar, M. (2020). Member of the organizing committee of two-day webinar on "Teaching of Arabic Language in India: Reality and Prospects" organized by All India Association of Arabic Teachers and Scholars in Collaboration with the Department of Arabic, Jamia Millia Islamia, New Delhi on 22-23 March 2020.

Akhtar, M. (2020). Participated in intensive course of methodologies of research and Academic writing conducted by Academy of Excellence in Collaboration with the Department of Arabic, Alia University, Kolkata and Al-Mayadin Magazine for Humanities Studies, Algeria from 4-9 August 2020.

Akhtar, M. (2020). Participated in the one week International Online workshop conducted by the department of Arabic, Assam University, Silcher from 1-7 September 2020.

Akhtar, M. (2020). Participated in the first online two-week refresher course in Modern Language (ID) organized by the UGC-HRDC, JamaiMillia Islamia, New Delhi from 23rd October to 7th November 2020.

Akhtar, M. (2021). Invited and participated in a week-long workshop to revise the syllabi of all courses organized by the Department of Arabic, Jamia Millia Islamia, New Delhi from 22-26 February 2021

Akram, M. (2020). Participated in the First Online two-week Refresher Course in Modern Language (ID) Organized by the UGC – HRDC Jamia Millia Islamia, New Delhi from 23rd October to 7th November, 2020

Akram, M. (2020). Presented Three-day Online Personality Development programme organized by IIIT in collaboration with IOS, New Delhi on 3,4,5 July 2020.

Akram, M. (2020). Participated in three-day faculty development Programme for College University teachers 29-30 June and 1st July 2020, Organized by the Department of Arabic Language and Literature Madeedatul Uloom, Arabic College Pullikkal, Kerala, India.

Mahmood, A. (2020). Participated a two-day International Webinar on "Multaqal-Ulama Li Nusrat Khatam Al-Ambiya" on 25-26 December 2020.

Mahmood, A (2021). Participated in Weeklong workshop on revision of syllabi 22-27 February 2021 organized by the Department of Arabic, Jamia Millia Islamia, New Delhi.

List of Publications

Journal Articles

Akhtar, S. H. (2020). Paper on Jabir-ibn Hayyan. WE, 1-2.

Akhtar, M. (2020). Arabic Journalism in India. Majalla-tul-Hind, 9, 528-532.

Akhtar, M. Article on the book "Hikma-Tul-Qura'n" by Imam Al-Farahi. Majalla-tul-Hind, 9, 316-332.

Akhtar, M. (2020). A Book review named "Yeh Kahani Hai Mukhtasar Meri" by Salim Tandwi. *UrduDuniya*, 22, 83-84.

Hasan, N. (2020). Role of Dictionaries in Personality Development. WE, 1 (1-2), 51-68.

Hasan, N. (2020). Fuyudul Khatir. New Delhi: Al-Balagh Publications.

Mahmood, A. (2020). Article on Maulan Abul Kalam Azad "Fi MajalSahafatiWa Haleem. WE, 1-2.

Book chapter

Akram, M. (2020). Chapter in Book DarulMusannefinKeMemarRufaqa Aur Khidmat. UP: DarulMsannefin (Shibli Academy).

List of Seminar/Conference Presentations

Akhtar, M. (2020). Convener of the two-day National Seminar on "The Role of Universities in Delhi in reaching the Arabic Language" organized by Islamic Fiqe Academy, New Delhi (India) on Dec. 26-27 2020.

Akhtar, M. (2021). Society and Culture in Pre-Islamic Arabia: A Glimpse.Presented in National Webinar on "India and Arab World: Civilization and Prospects" organized by India Arab Culture Centre (IACC), Jamia Millia Islamia held on 16-17 March, 2021

Akram, M. (2020). A Reading of Baadal-Khamseen by Dr Mehmud al-Rabiee. Presented in International Webinar on Autobiographical Literature organized by Centre of Arabic & African Studies SLL&CS J.N.U. and Academy of Excellence, Kerala on 5-6 December 2020.

Akram, M. (2020). Shiv Rai Chowdhary & His Works in Arabic literature. Presented in Two-Day National Seminar on "Role of Universities in Delhi in Enriching the Arabic Language" organized by IFA (India) N. Delhi on 26-27 December, 2020.

Akram, M. (2020). Arabic Lexicons & Its Usefulness to the students. Presented in the National Seminar Organized by AIAATS & Dept. of Arabic J.M.I. N. Delhi on 22-23 March 2020.

Hasan, N. (2020). Organized and convened the Two-Day National Seminar on "COVID-19 and Modern Challenges, with Reference to Arabic and Urdu Languages" by Department of Arabic, University of Delhi, in Collaboration with National Council for Promotion of Urdu Language, on 18-19 March, 2020.

Mahmood, A. (2020). Ashal-Wasaet li Taleem Al-Lugha Arabia. Presented in International Webinar organized by Dulwama Degree College, University of Kashmir on 27th October, 2020.

Mahmood, A (2020). Features of Arabic Language. Delivered a lecture conducted by Research Department of Arabic, Maharaja's College, Emakulam, Kerala on 18th December, 2020.

BUDDHIST STUDIES

Major Activities and Achievements

Keeping in view the unprecedented situation of the COVID-19 pandemic, the department has assigned the task to some of the teachers to prepare study material in such a way which is easy to understand and grasp. Besides, we have also counseled the students on Buddhist practices (Vipassana technique) to cope up with such an unprecedented pandemic situation that the humanity the world over has been facing these days.

Publications	04
Seminar/Conference Presentations	15

Journals

Department publishes a journal named Buddhist Studies, but it has not been published in the previous few years.

Conferences Organized

Weekly Departmental seminars organized

The Department of Buddhist Studies, University of Delhi in association with the Graduate School, Mahamakut Buddhist University, Thailand co-organized the 2nd International (Online) Symposium (GMNIS 2020) on *New Paradigm in the COVID19 Pandemic based on Buddhism* on1st November 2020 and Prof. Subhra Barua Pavagadhi presented the Keynote Address, Numerous scholars participated in this conference including the students of the Department of Buddhist Studies.

Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.: 07 M.Phil.: 00

Faculty Strength

07

Other Significant Information

Pandey, S. K (2021). Participated as Respondent in the 1st Siddham National Conference, organized on the theme "The Contribution of Ven.Bhikkhu Jagadish Kashyap to Paliand Buddhism, held on April 10-11, 2021.

Pavagadhi, S. B. (2020). Chaired a Technical Session on the Sub-Theme 8 'Yoga, Sadhana and Vipassana Meditational Techniques and Global Well-being' at the 3rd International Webinar (IWBS-2020) on *Global Well-being and the Tenets of Ancient Indian Traditions withReference to Buddhism* organized by the University School of Buddhist Studies and Civilization, Gautam Buddha University from July 9-11,2020.

Pavagadhi, S. B. (2020). Participated as a Speaker at the International Webinar on *Rise and Fall of Buddhism in Central Asia* organized by the Centre for Bhartiya Panth, Matt, Sampraday and Semitic Religions, Central University of Himachal Pradesh on July 7, 2020.

Pavagadhi, S. B. (2020). Participated in the 7th International Conference on Pali and Buddhism on *Traditional Buddhist Wisdom and Challenges to Modernity o*rganized by the Maha Bodhi Society of India, Sarnath on 1st November 2020 and presented a paper titled "Relevance of Pali Buddhist Studies in the Education System with reference to NEP 2020."

Pavagadhi, S. B. (2021). Participated in the International Buddhist Conclave, 2021on the *Universal Message of the Buddha on Peace and Harmony* organized by the International Research Institute of Buddhist Studies, Lucknow on 22nd March 2021

Pavagadhi, S. B. (2020). Participated as a Speaker in the National Seminar on *Pandemic Perspectives: Echoes from Past to Present* organized by the Central University of Himachal Pradesh on June 6, 2020.

List of Publications

Pavagadhi, S. B. (2020). Buddhist Economics and Social Welfare in the times of COVID-19. In *GMNIS* 2020 *Proceedings*, (ISBN:978-616-208179-8). Graduate School, Mahamakut Buddhist University, Thailand: 991-1001

Pavagadhi, S. B. (2020). Role of Pali Language in promoting cultural heritage, 2020 (November).

Dharmadootvol. 86, (ISSN:2347-3428). Maha Bodhi Societyof India, Sarnath:60-67.

Sharma, N, (2020). Buddhist Perspective on Happy life in today's pandemic situation. In *GMNIS 2020 Proceedings*, (ISBN:978-616-208179-8). Graduate School, Mahamakut Buddhist University, Thailand.

Sharma, N, (2021). भारतीयसंस्कृतिकेसामाजिकसरोकार.In Keshav SamvaadRNI NO. UPHIN/2000/3766, ISSNNO2581-3528, ANK03

List of Seminar/Conference Presentations

Pandey, S. K. (2021). कोविडमहामारीकेपरिवेशमेंबौद्ध-सिद्धांतोंकीप्रासंगिकता. Presented in 4 day-International Webinar, organized by Pali Society of India in collaboration with Sampurnanand Sanskrit University, Varanasi, U.P., held on 23-26 May 2021.

Pandey, S. K. (2021). विश्वशांतिकीस्थापनामेंबौद्धधर्मकीप्रासंगिकता. Presented in the International Buddhist

Conclave, organized by International Research Institute of Buddhist Studies, Gomati Nagar, Lucknow, U. P. on the theme "Universal Message of the Buddha and Peace, held on 20-22 March 2021.

Pavagadhi, S. B. (2020). Relevance of Buddhist Meditation in Overcoming Social Disruption. Presented in 3rd InternationalWebinar (IWBS-2020) on *Global Well-being and the Tenets of Ancient Indian Traditions withReference to Buddhism* organized by the University School of Buddhist Studies and Civilization, GautamBuddha University from 9-11 July 2020.

Pavagadhi, S. B. (2020). Speaker at the International Webinar on *Rise and Fall of Buddhism in Central Asia* organized by the Centre for Bhartiya Panth, Matt, Sampraday and Semitic Religions, Central University of Himachal Pradesh on July 7, 2020.

Pavagadhi, S. B. (2020). Speaker at the Virtual Symposium on *Pali, Buddhist StudiesandNEP-2020: Perspectives and Prospects* organized by the University School of Buddhist Studies & Civilization, Gautam Buddha University, Greater Noida on August14, 2020.

Pavagadhi, S. B (2020). Analysis of Covid-19 crisis with reference to Buddhist Economics and Social Welfare. Presenter and keynote speaker in the National Webinar *Impact of Covid-19 on Indian Economy: An Approach from Buddhist Perspective* organized by Central Institute of Buddhist Studies, Leh, Ladakh on September 30, 2020

Pavagadhi, S. B. (2020). Relevance of Pali Buddhist Studies in the Education System with reference to NEP 2020. Presented in 7th International Conference on Pali and Buddhism on *Traditional Buddhist Wisdom and Challenges to Modernity organized* by the Maha Bodhi Society of India, Sarnath on 1st November 2020 Pavagadhi, S. B. (2021). The relevance of Buddhist teachings in establishing harmony and peace in modern society. Presented in the International Buddhist Conclave, 2021on the *Universal Message of the Buddha on Peace and Harmony* organized by the International Research Institute of Buddhist Studies, Lucknow on 22nd March 2021

Sangai, G. (2020. Cultivation of Bodhicitta for the well-being of All Living Beings. Presented in the Third International Webinar on the sub-theme II "The Buddha's Tenets and Well-being", organized by University School of Buddhist Studies and Civilization, Gautam Buddha University, held on 9-11 July, 2020.

Sangai, G. (2020/2021).बोद्धधर्म:एकशांतिप्रियधर्म. Presented in the International Buddhist Conclave, organized by International Research Institute of Buddhist Studies, Gomati Nagar, Lucknow, held on 20-22 March 2021 and Civilization, Gautam Buddha University, held on 9-11 July, 2020.

Sharma, N. (2020). Buddhist perspective of self-reliance and mindfulness by global development. Presented in the International conference on the Relevance of Sati and sampajjanna during covid-19 pandemic, organized by National institute of social work and socialsciences, Bhubaneswar, Odisha.

Sharma, N. (2020). Peace in world through Buddhist Education. Presented in the Third International Webinar on "The Buddha's Tenets and Well-being", organized by University School of Buddhist Studies and Civilization, Gautam Buddha University, GreaterNoida, U. P. heldon 9-11 July, 2020.

Vyas, S. (2021)Buddha teaching of BrahmaVihara solid foundation of the VasudhaivaKutumbakam. Presented in the International Webinar on VasudhaivaKutumbakam", organized by Department of Philosophy, Kishore Bharti Bhagini Nivedita college (co-ed),Kolkata, West Bengal held on February 18, 2021,

Vyas, S. (2020). The Relevance of Noble Eightfold Path in the context of Covid Pandemic. Presented in the conference on the theme "Buddhism and Pandemic" organized by Dharma Chakra Vihar, Internal Institute of Origin Buddhist Studies and Research, Sarnath, Varanasi, U.P. held on 27-28 July, 2020

Vyas, S. (2020) Life Management through Buddhist Meditation in the context of the COVID Pandemic. Presented in the Third International Webinar on the sub-theme "Yoga, Sadhana, and Vipassana Meditational Technique and Global Well-being",organized byUniversity School of Buddhist Studies and Civilization, Gautam Buddha University, held on 9-11 July, 2020

ENGLISH

Major Activities and Achievements

The Department of English has the same year of inception as the University of Delhi, 1922. The Department offers degrees at M.A., M.Phil and PhD levels and oversees undergraduate teaching at the 79 Colleges which are affiliated to the University. From 1970 the Department began functioning from two campuses: the main Campus at the Arts Faculty, North Delhi and South Campus, DaulaKuan, South Delhi. Students also enroll at the Non-Collegiate Women's Education Board for the MA degree. We provide intensive mentoring to our students both in and beyond the classroom in a wide variety of forums. Ongoing lectures, film screenings, symposia, conferences, and colloquia on interdisciplinary themes make up our calendar.

Honours/Distinctions (32)

Aneja, A. K. NAB Sarojini Trilok Nath National Award in 2020 in the Best Individual category.

Aneja, A. K. President, All India Confederation of the Blind, September 2020 - till date

Aneja, A. K. Member, Executive Council, Pondicherry University, July 2020 - till date

Aneja, A. K. Member, Education Committee of Ph.D. Chamber of Commerce and Industry. May 2020 - till date

Aneja, A. K. Member, School Board of School of Languages, Central University Of Jammu, February 2020 - till date.

Aneja, A. K. Member, Board of Studies, Department of English, Dayalbagh Educational Institute, Agra, February 2020 - till date.

Aneja, A. K. Member, Committee for Identification of posts for Persons with Disabilities, Nehru Yuvak Kendra Sangathan, Ministry of Human Resource Development, Government of India, June 2019 – till date.

Aneja, A. K. Member, Advisory Committee of the Commissioner (Disabilities), Govt. of NCT of Delhi, June 2019 – till date.

Aneja, Anil Kumar. Member, Committee on the Mobility of PwD students, Department of Social Welfare, Govt. of NCT of Delhi, May 2019 – till date.

Aneja, A. K. Member, Board of Studies, Department of English & Foreign Languages, Central University of Haryana, Mahendergarh, January 2019 - till date.

Aneja, A. K. Member, Committee to set up a Department for the Empowerment of Persons with Disabilities, 2018 – till date.

Aneja, A. K. Chairperson, Rehabilitation Committee, World Blind Union (an organization having consultative status with the United Nations), International Assignment for four years, 2016- till date.

Aneja, A. K. Member, Indian Delegation to the World Blind Union, 2012 – till date.

Aneja, A. K. Chairperson, Advocacy Committee, All India Confederation of the Blind, 2009-till date.

Aneja, A. K. Vice President, All India Confederation of the Blind, 2007-2020.

Dubey, Y.K. Vice President, Shakespeare Society of India.

Kumar, R. Member, Editorial Board, Fortell, Delhi.

Kumar, R. Member, Editorial Board, Ravenshaw Journal of Literary and Cultural Studies, Cuttack, Odisha.

Kumar, R. Member, Board of Studies, Central University, Mahendergarh, Haryana.

Kumar, R. Member, Board of Studies, Guru Gobind Singh Indraprastha University, Delhi.

Kumar, R. Member, Board of Studies, Banasthali, Rajastan.

Kumar, R. Member, Board of Studies, DeenabandhuChhotu Ram University of Science and Technology, Haryana.

Kumar, R. Member, Governing Body, National Institute of Social Work and Social Sciences, Bhubaneswar.

Kumar, R. Member, Board of Studies, Maharshi Dayand University, Rohtak.

Kumar, R. Member, Board of Studies, North Eastern Hill University, Shillong.

Panja, S. Invited to join Advisory Board of Arden Shakespeare series, Shakespeare and Adaptation, UK.

Panja, S. Invited to join as Editor-in-Chief, Palimpsest: EDU Journal of English Studies, Bangladesh.

Panja, S. Member, OneDU Apex Committee, 2020-2021

Panja, S. Core Member, Centre for Canadian Studies, University of Delhi, South Campus.

Panja, S. Member, Editorial Board, 97th and 98th Annual Report, Univ. of Delhi, April 2020 to present.

Panja, S. Coordinator, PhD Committee, Dept. of English, University of Delhi.

Panja, S. Chairperson, Governing Body, NESHW, University of Delhi.

Singh, V. K. Treasurer. Shakespeare Society of India.

Publications	09
Seminar/Conference Presentations	64

Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.: 07

M.Phil.: Nil

Faculty Strength

Professor

Number of Sanctioned Posts—07

Associate Professor

Number of Sanctioned Posts—19

Assistant Professor

Number of Sanctioned Posts-10

Other Significant Information

Raja, I. (2020). 'India's migrant crisis: the sovereign injunction that was not', a part of the Thesis Eleven online project: Living and Thinking Crisis.

Raja, I. (2020). Podcast "Literature, Medicine and Ageing", UoH Podcasts by the University of Hyderabad, featuring experts on various subjects and disciplines.

List of Publications

Journal Articles

Devadawson, C. R., Desai, R., Mohanty & M., Verma, R. (2021). Staying Connected: Remembering Prof G K Das, Delhi: Aakar.

Dubey, Y. K. (2021). Literature and Tribal Issues (special focus on Mahasweta Devi and Ravi Kumar Gond). *Tribal Literature and Oral Expressions in India*, Edited by P K Srivastava, Sahitya Akademi. 95-107.

Vats, N. (2020). The Representation of Nature in Magahi Folklores. *Bhartiya Bhasha: Siksha, Sahitya evamShodh*, 11 (6), 20-26.

Vats, N. (2020). The Cautionary Voice in Allan Holiinghurst's The Line of Beauty. *International Research Journal of Management, Sociology and Humanities*, 11(10), 361-367.

Book Chapters

Devadawson, C. R. (2021). Prof Das and the Footfalls of Memory. In Rupin Desai, Christel R Devadawson, Manoranjan Mohanty and Rajiva Verma, (ed) *Staying Connected: Remembering Prof G K Das*, Delhi: Aakar. 59-62.

Kumar, R. (2020). 'Being to Becoming: The Ontology of Dalit Self' in *Reading the Margins: History, Culture, Literature*, edited by ProvakarPalaka. People's Literature Publication, Delhi.

Kumar, R. (2020). The Radical Dalit Self: Ambedkar and the Discourse on Dalit Literature. In *Prabuddha Bharat: Understanding Ambedkar in the Passage of Time*, edited by Arun Bandopadhyay. The Asiatic Society, Kolkata.

Raja, I. (2020). No Time to Die: Illness, Ageing and Death in Three Short Stories from India. In Caring for Old Age: Perspectives from South Asia, ed Christiane Brosius and Roberta Mandoki, Heidelberg: Heidelberg University Press, 305-320.

Sharma, A. (2020). "Gandhi in August 1947: Self-Fashioning, Print Culture and the Republic of Letters." In Chandrika Kaul ed. M.K. Gandhi, Media, Politics and Society: New Perspectives. Switzerland, AG: Spinger Nature.

List of Seminar/Conference Presentations

Aneja, A. K. (2021). Keynote Address in *Unfolding the Potentials of Women and Girls including Children: Enhancing the Potentials Exponentially for One and All (SabkaSaath-Sabka Vikas)* organized by Aditi Mahavidyalaya, University of Delhi, Bawana, Delhi held on 27th March, 2021.

Aneja, A. K. (2021). Accessibility and Law. Lecture in Faculty Development Program/ Refresher Course on Emerging Accessible Technologies for Teachers in Higher Education organized by Maitreyi College, University of Delhi, in collaboration with Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi held on 20th March, 2021- 3rd April, 2021.

Aneja, A. K. (2021). Self-help Organizations: Relevance, Challenges and Strategies. Inaugural Address in AICB Training Workshop on Leadership Skills and Financial Management on 21st-28th March 2021.

Aneja, A. K. (2021). Advocacy: Philosophy & Actions. Lecture in AICB Training Workshop on Leadership Skills and Financial Management on 21st- 28th March 2021.

Aneja, A. K. (2021). Communication Skills. Lecture in2-day Workshop on Personality Development organized by AICB sponsored by CBM from 20th-21st March, 2021

Aneja, A. K. (2021). Understanding Inclusion in Higher Education: Identities, Issues, and Initiatives. Presented in the Short-term course on Inclusion in Higher Education for the teachers of Delhi University organized by ILLL, University of Delhi on 15-19 March, 2021

Aneja, A. K. (2021). Disability: The Human Rights Perspectives. Presented in the Certificate Course in Disability Studies organized by Department of History, Ram Lal Anand College, University of Delhi on 6th March, 2021.

Aneja, A. K. (2021). Disability and Human Rights: Regulations and Realities. Lecture in the Four Week online Certificate Course in Disability Studies organized by IQAC, Kirori Mal College, in collaboration with the Saksham Trust on 26th February, 2021.

Aneja, A. K. (2021). Disability: Overview, Challenges & Considerations. Inaugural lecture in the Lecture Series on 'Decoding Disabilities in Children' organized by Departments of Human Development & Family Empowerment of Janki Devi Memorial college & Aditi Mahavidyalaya on 10th February, 2021.

Aneja, A. K. (2020). Disability: Society, Gender and Higher-education. Presented in the Panel Discussion organized by Department of English Studies, Central University of Tamil Nadu on 22ndDecember, 2020.

Aneja, A. K. (2020). Inaugural Address in the Orientation Programme of Equal Opportunity Cell of Satyawati Evening College, University of Delhi on 7th December, 2020.

Aneja, A. K. (2020). Negotiating the New Normal: Issues Concerning Persons with Disabilities. Presented in seminar organized by Enabling Unit, Equal Opportunity Cell, Bharati College, University of Delhi on 8th October, 2020.

Aneja, A. K. (2020). Interrelated Dimensions of Diaspora and Disability. Presented in the International Webinar on Diaspora, Gender and Marginality organized by Department of English Literature, School of Literary Studies, EFLU from 26th-27th September, 2020

Aneja, A. K. (2020). Covid-19 and Beyond: Strategies of Empowerment. Presented in the International Webinar on Disability: Identity and Challenges in South Asia organized by PGDAV College, University of Delhi on 28th July, 2020.

Aneja, A. K. (2020). Disability Studies: Crossroads between Literature and Cinema. Presented in Six-Day International e-Workshop on Contemporary Critical Trends in Literature on 26th June, 2020 organized by Department of English, School of Humanities, Pondicherry University, Puducherry from 22nd-28th June, 2020.

Aneja, A. K. (2020). Disability Studies Perspectives: Intersections with Literature and Cinema. Presented in Webinar on Disability Studies organized by Motilal Nehru College in collaboration with IQAC on 24th June, 2020.

Aneja, A. K. (2020). Accessibility of Books for the Visually Impaired. Presented in E-Workshop on SugamyaPustakalaya organized by Saksham Trust on 22nd June, 2020.

Aneja, A. K. (2020). Disability Studies & Literature: Perspectives & Prospects. Presentedin Webinar on Representation of Disability in Literature and Cinema organized by Department of English, Maharaja Agrasen College, Delhi from 15th-20th June, 2020.

Aneja, A. K. (2020). Changing Environments and Innovative Approaches: Challenges & Solutions in the Context of the Visually Impaired. Presented in Webinar on Covid-19 and the Challenges of the Visually Impaired organized by University of Delhi on 27th April, 2020.

Aneja, A. K. (2020). Coordinator, Webinar on Covid-19 and the Challenges of the Visually Impaired organized by University of Delhi on 27th April, 2020.

Antony, S. (2021). The Littoral in the Literary: Blue Humanities as a Heterotopia. Presented in the Valedictory Session of the Two Day Virtual International Conference on "Maritime Footprints: Crafting the Cultural Landscape of the Littoral Zone" organized by the PG and Research Department of English, St.Mary's College (Autonomous), Thoothukudi held on 14-15 June 2021.

Antony, S. (2020). EdibleÉcriture": An Exploration of the Representation of Food in Literature and Popular Culture. Presented in the International Webinar Series, "Stories, Storytellings and Methods: Currents in Vogue in Literature and Culture" organised by the Department of English, SB College Changanacherry, Kerala on 10th October 2020.

Antony, S. (2020). The Question of Literal Truth and Meaning Making in English Studies. Presented in INQUISITIO-National Webinar Series, organized by Department of English & IQAC, Maharaja's College, Ernakulam, Kerala, 2-7 December, 2020.

Antony, S. (2020). Contemporary Literature as Third Space: A Critical Overview of the Spatial Turn within Humanities. Presented in the national webinar "Role and Signification of English Literature in India" organized by the IQAC and Department of English, New Arts and Commerce College, Tikota, Karnataka on 4th November 2020.

Antony, S. (2020). Academic Reading and Writing. Presented as a part of the series of lectures organized by English for Nation's academic forum on 28th September, 2020.

Antony, S. (2020). A Leap of Faith: The Question of Disability and Employability as represented in Literature and Popular Culture. Presented at Ruminations, one day national webinar organized by the Post Graduate Department of English, Sri C. Achutha Menon Government College, Thrissur, Kerala on 5th September 2020.

Antony, S. (2020). New Education Policy and the Question of Flexibility in Higher Education: Can the Dots be connected? Presented as a part of the National Webinar organized by the Department of Education in association with IQAC, The Bhopal School of Social Sciences, on 29th August 2020.

Antony, S. (2020). To Root the Kite or to Route the Kite?: A Psychoanalytical Reading of Khaled Hosseini's *The Kite Runner*. Presented as a part of the online lecture series organized by Dr. Chand Basha M, Department of Studies and Research in English, Post Graduate Centre, Vijayanagara Sri Krishnadevarya University. Bellari, Kopal, Karnataka on 29th May 2020

Devadawson, C. R. (2020). 'English' Romanticism and 'Indian' Readers. Presented in Bharati College on 10th July 2020.

Devadawson, C. R. (2020). Marginalizing Children: The Paradox of Indian Graphic Documentation. Presented in Jamia Millia Islamia on 07th December 2020.

Devadawson, C. R. (2021). The Art of Mystery. Keynote address in SGTB Khalsa College on 08th March 2021.

Devadawson, C. R. (2021). Jhansi ki Rani: The Visible and the Vulnerable. Keynote address in Satyawati College (M) on 08th March 2021.

Devadawson, C. R. (2020). Visual Politics and the Power of a Cartoon. In Shiv Nadar (International Baccalaureate batch) on 18 December, 2020.

Kumar, R. (2021). Literature during the Pandemic. Presented in a webinar organized by Department of English, South Asian University, Bangladesh on 07th June, 2021.

Kumar, R. (2021). Pedagogical Issues in Teaching Dalit Fiction: Challenges and Prospects. Presented in a webinar organized by Department of English, Central University of Punjab, Bathinda on 25th March 2021.

Kumar, R.(2021). Caste, Culture and Narratives: Reading Dalit Autobiographies. Presented in a refresher course organized by UGC-Human Resource Development, NEHU, Shillong on 16th March 2021.

Kumar, R. (2021). Changing Nature of Dalit Literature. Presented in a webinar organized by Government College, Bichhua, Chhindwara, Madhy Pradesh on 06th March 2021.

Kumar, R. (2021). Narratives of Discrimination: Interrogating Caste, Sect and Race. Keynote speaker in a seminar organized by Motilal Nehru College, University of Delhi, Delhi on 04 March 2021.

Kumar, R. (2020). Understanding the Margins: A Reading of Dalit Literature. Presented in a Refresher Course organized by Jamia Milia Islamia, Delhi on 04th December 2020.

Kumar, R. (2020). Global Social structures: Differences and Similarities. Keynote speaker in aseminar organized by Department of English, Satyawati College, University of Delhi, Delhi on 11th November 2020.

Kumar, R. (2020). Interrogating the Margins. Presented in a webinar talk for book discussion organized by People's Literature Publication, Delhi on 02^{nd} October 2020.

Kumar, R. (2020). Theorizing Dalit Literature. Presented in a webinar talk in a Refreshers Course organized by Human Resource Development Centre, Jawaharlal Nehru University, New Delhi on 17th September 2020.

Kumar, R. (2020). Translating Dalit Literature. Presented a webinar talk organized by Daulat Ram College, University of Delhi on 16th September 2020.

Kumar, R. (2020). Caste, Culture and Identity: Reading Dalit Autobiographies. Presented in a webinar organized by Ramadevi Women University, Bhubaneswar on 11th August 2020.

Kumar, R. (2020). Postcolonialism and Dalit Literature. Presented in a webinar talk organized by Women's College, Agartala, Tripura on 7th August 2020.

Kumar, R. (2020). Understanding Akhila Naik's *Bheda*. Presented in a webinar talk organized by Gangadhar Meher University, Sambalpur, Odisha on 06th July 2020.

Kumar, R. (2020). The Marginalized and the Question of Survival. Presented in a webinar talk organized by PG Mahila Arya College, Banares Hindu University, Varanasi on 26th June 2020.

Kumar, R. (2020). Understanding Disabilities. Presented in a valedictory webinar talk organized by Maharaja Agrasen College, University of Delhi on 20th June 2020.

Kumar, R. (2020). The State of the Marginals during Corona. Presented in a webinar talk organized by Motilal Nehru College (Morning), University of Delhi on 01^{st} June 2020.

Kumar, R. (2020). The Marginals during the Pandemic. Presented in a webinar talk organized by Motilal Nehru College (Evening), University of Delhi on 22nd May 2020.

Shormishtha, P. (2020). Feminist Pastoral: the Poetry of Louise Gluck. Presented in Nobel Prize Winners' Lecture Series organized through virtual mode by IIT Indore in December 2020

Shormishtha, P. (2020). Adapted Shakespeare. Presented in Guru Gobind Singh Indraprastha University through virtual mode in October 2020

Shormishtha, P. (2020). Three Contemporary Shakespeare Adaptations on the Indian Screen. Presented in Distinguished Lecture Series, Bharti College, University of Delhi thorugh virtual mode in July 2020

Shormishtha, P. (2020). Shakespeare and the Problems of Globalisation and Cultural Appropriation. Presented in the International Web Lecture Series, Bankura Christian College in July 2020.

Shormishtha, P. Contemporary Shakespeare: Two Recent Bengali Cinematic Adaptations, *Arshinagar* and *Zulfiqar*. Presented in International Webinar, Contemporary Analytical Discourse of English Literature, St Albert's College, Kochi in May 2020.

Sharma, A. (2021) Invited Chair and Discussant in Meena Pillai's Lecture on the Modern Indian Novel for the Faculty Development Programme (FDP) on "Remapping the Indian Novel in English" organized by Department of English, Kirorimal College, University of Delhi on 23rd June, 2021

Sharma, A. (2020). Invited Expert in Webinar "Revolutionary Aesthetics and the Knowledge Economy in Late 18th century Britain" organized by Department of English, Motilal Nehru College, University of Delhi on 1st July, 2020.

Sharma, A. (2020). Invited Expert in Webinar "Tagore and the Idea of Asia." National Webinar on "Retrospection and Relevance of Rabindranath Tagore's Literature" organized by Department of English, Shri Sangameshwar Arts and Commerce College, Chadchan, Karnataka on 7th May, 2020

Sharma, A. (2021) Invited Expert in Webinar "Ikeda and Humanistic Education for World Peace." Deciphering Dr. Ikeda's World Vision in International Panel Discussion organized by Bharat SokaGakkai and Gandhi Smarak Nidhi, New Delhi on 7th July, 2021.

Sharma, A. (2020)From Mahatma to Madman: The Trauma of Gandhi, 1947. Presented in International Conference on Gandhi in the Private and the Public Sphere: Image, Text, and Performance organized by Department of English, University of Delhi on 4th March, 2020.

Singh, V. K. (2020). On Beholding a Distant Relative: The Relevance of Teaching English Literature Today. Lecture in National Webinar on New Education Policy and the Future of English Studies in India, Lanka Mahavidyalaya, Lanka, Assam in August, 2020.

Singh, V.K. (2020). Outstretched Notions of Stagecraft and Statecraft in Shakespeare's *Antony and Cleopatra*. Lecture in Webinar on Shakespeare, Central University of Karnataka, Kalaburagi, Karnataka in September, 2020.

Subarno, C. (2021). "Gooks, go home!" Vietnamese in the United States.In Affective Publics Lecture Series, Freie Universität Berlin on 25th June 2021.

Subarno, C. (2021). "Paradise of the Blind": Durong Thu Hurong's representations of the Vietnam/American War. Presented in International Virtual Conference on 'Sharing War Memories – From the Military to the Civilian.' Le Mans University, France on 22nd-24th June 2021.

GERMANIC AND ROMANCE STUDIES

Major Activities and Achievements

Annual International Conference on the theme, International Conference: "No place to go? Perspectives on displacement, belonging and non-belonging" to be held between 18-20 March 2021

Publications	01
Seminar/Conference Presentations	03

Inurnals

Number of Department teachers serving as Editor(s)/Member(s) of Editorial Board (1) Prof. Minni Sawhney serving as-

- Member of Editorial Board of, International Journal of Arts and Humanities
- Reviewer for *Mitologías hoy*, Autonomous University of Barcelona
- Reviewer for Letras Hispanas, University of Texas

Seminars Organized: 01

Annual International Conference on the theme, "No place to go? Perspectives on displacement, belonging and non-belonging" held between 18th-20th March 2021

National/International MoUs Signed (12)

French (2)

University of Montpellier-III

French-speaking Universities Agency (AUF)

German (4)

University of Wuppertal, Germany

Freie University, Berlin, Germany

Potsdam University, Germany

Vienna University, Austria

Spanish(2)

Externado University, Colombia

University of Navarra, Pamplona, Spain

University of Costa Rica

Italian (1)

University of Turin, Turin, Italy

L'Orientale, University of Naples, Italy.

Portuguese

Instituto Camoes

Extension and Outreach Activities

The department organized aWinter School, "Understanding Displacement" on 22-26 February 2021

Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.: 01-French Studies M.Phil.: 01-Spanish, 01-French

Faculty Strength

Permanent- 11

Adhoc-11

Guest- 05

List of Publications

Sawhney, M. (2021) Calderón on the Web", in *Renaissance and Reformation*, April 2021. Early Modern Drama Review, URL: https://jps.library.utoronto.ca/index.php/renref/article/view/36396

List of Seminar/Conference Presentations

Sawhney, M. (2021). Distinguished speaker at International Symposium on History of Ideas, organized by Doon University, Dehradun, on 15th May, 2021

Sawhney, M. (2021). **D**istinguished speaker at Tribuna de Hispanistas Indios. Instituto Cervantes, New Delhi, on 21st January, 2021

Sawhney, M. (2020).Distinguished speaker in a two-day National Webinar on NEP 2020, Language Teaching, Training and Translation organized by the School of Languages, Doon University, Dehradun, on 10th-11th September, 2020

HINDI

Major activities and achievements

The Department of Hindi of the University of Delhi is one of the leading departments of the country. It creates, innovates 'sustains and promote' high standards of academic excellence. The department has developed a very dynamic curriculum that can reflect and upgrade the needs of changing times, rapid growth in knowledge and requirements. High standard of research is maintained in and by the department as per UGC norms.

Publications	11
Seminar/Conference Presentations	30

Extension and Outreach Activities (2)

Ramnarayan Patel conducted a workshop on "Application of ICT Tools in Higher Education" at Motilal Nehru College, Delhi on 11-12 June, 2020

Ramnarayan Patel conducted a workshop on "Rashtriya Shiksha Neeti: EkVimarsh" at PGDAV College, Delhi; VaigyanikAvmTakaneekeeShabdavali Aayog, Bharat Sarkar, Delhi on 9th August, 2020

Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.-Total 28 M.Phil- Total 21

Faculty Strength

Permanent-19 Temporary-Nil Ad-hoc-Nil

Other Significant Information

Tiwari, V; Nodal Officer, NAAC Committee, Department of Hindi.

Tiwari, V; Nodal Officer, MA, M.Phil. & Ph.D. Program, Department of Hindi.

Kamble, M.M; ICT Mediated Teaching Learning Pedagogy and Content.

Kamble, M.M; 'Shiksha KeKshetra Mein Anuwad: Prakriya Evam Swaroop'; MATS-2, SWAYAM, School of Translation Studies, IGNOU; 28 Aug., 2020

Kamble, M.M; 'Bhartiye Shiksha Neeti Aur Anuwad' MATS-2, SWAYAM, School of Translation Studies,

IGNOU; 28 Aug., 2020

Kamble, M.M; 'Shiksha KeKshetra Mein Anuwad, Bhag-3; MATS-2, SWAYAM, School of Translation Studies,

IGNOU; 28 Aug., 2020

Kamble, M.M; 'Banking Sahitya Ka Anuwad Bhag-1; MATS-2, SWAYAM, School of Translation Studies,

IGNOU; 17 Aug., 2020

Kamble, M.M; 'Banking Sahitya KaAnuwad Bhag-2; MATS-2, SWAYAM, School of Translation Studies,

IGNOU; 17 Aug., 2020

Kamble, M.M; Paryatan KeKshetra Mein Anuwad Bhag-1' MATS-2, SWAYAM, School of Translation Studies,

IGNOU; 20 Aug., 2020

Kamble, M.M; 'Paryatan KeKshetra Mein Anuwad Bhag-2' MATS-2, SWAYAM, School of Translation Studies,

IGNOU; 20 Aug., 2020

List of Publications

Journal Articles

Kumar, S. (2020). Kavya-Sanrachana Mein AntaralKe Hone KeNihitarth. Banas Jan, 118-124

Kumar, S. (2020). Bees Saal Baad: Vyavastha Badlav Ki Aakanksha. Banas Jan, 11-16

Patel, R. (2020). Reetikalin Neetikavya Mein Manavmoolya. Sahriday, Vol 43-45, Year 12, 90-96

Patel, R. (2020). Manavtavad Ki Bhartiya Parampara Aur Dwivedi-Yug ka Kavya. *Sahriday*, Vol 45-46, Year 12, 291-296

Singh, S. (2020). Seva Sadan Ka Ek Sau Ekyawan Varsha. Westanik Philology (Scientific and theoretical Journal) of NaberezhnyeChelney State Pedagogical University, 11-14

Singh, S. (2021). Stree: Sanskriti Aur Swadhinata. Aajkal, Publication Division, Govt. of India, Page 8-11

Tiwari, V. (2020). NityanandAakhiriKalam:Duhswapna Se DuhswapnaTak Ki Yatra Ka SantaptAakhyan. *Anhad*, 197-206

Tiwari, V. (2020). Saraswatichandra: Bhartiya Premakhyan Aur Pashchatya Romance Ke Viral Sanyog Ki AnokhiPremkatha. *Pakhi*, 140-148

Tiwari, V. (2021). Paisath Saal Ki Raspriya Aur Sau Saal KeRenu. Kathadesh, 16-21

Tiwari, V. (2021). LingbhediNaitikta Ki SarjanatmakAalochna. Samved, 65-73

Books

Tiwari, V (2020). VicharKeVatayan. Delhi: SetuPrakashan Pvt. Ltd.

List of Seminar/Conference Presentations

Patel, R. (2020). Sahitya, Shiksha aur Samaj: Taknik aur Parampara Ka Samanvyay. Presented in International Web, ShodhPrakalp, Raipur (C.G.) on 30 May-1 June 2020.

Patel, R. (2020). Vaishvik Paridrisha Mein Bhartiya Samaj Aur Sanskriti. Presented in International Web, S.B. College, Shahapur (MH) on 8-10 June, 2020

Patel, R. (2020). Mahamariyon Ka Lok-Sanskriti Par Prabhav. Presented in National Web, Madhya Pradesh Sanskriti Parishad, Bhopal on 21-26 June, 2020

Patel, R. (2020). ChhayawadKe Sau Varsh aur Mukutdhar Pandey. Presented in International Web, K.G. College, Raigarh (C.G.) on 28-29 July, 2020.

Patel, R. (2020). Kinnar Vimarsh: Dashaevam Disha. Presented in Akhil Bhartiya Viklang Parishad, Bilaspur (C.G.) on 2-3 August, 2020

Patel, R. (2020). VaishvikAapda : Shiksha evam Sahitya. Presented in Govt. P.G. College, Mungeli (C.G.) on 7th August, 2020

Patel, R. (2020). Acharya Hajariprasad Dwivedi: Srishti Evam Drishti. Presented in International Web, Ranchi University, New Delhi on 19-20 August, 2020.

Patel, R. (2020). Swachchandatavadi Sahitya Aur Manavtawad. Presented in National Web, M.G. Degree Collge, Bhukta, (Orissa) on 6th September, 2020.

Patel, R. (2020). Hindi Ka VaishvikParidrishya Aur Rojgar KiSambhavnaein. Presented in National Web, Shri Guru Nanak Dev Khalsa College, Delhi on 15th September 2020.

Singh, S. (2020). Hindi: KalAaj aur Kal. Presented in International Webinar, Jai Prakash MahilaMahavidyala, Chhapra, Bihar on 14th September, 2020.

Singh, S. (2020). Hindi Media Ka VaishvikPatal. Presented in International Webinar; Laxmibai College, University of Delhi on 29th September, 2020.

Singh, S. (2021). Conceptual Basis to Understand Medieval Society and Literature. Presented in International Scientific Conference; Ministry of External Affairs, Turkemenistan, Ashgabat on 31st March, 2021.

Singh, S. (2020). Bollywood Cinema Mein Rashtra. Presented in MHRD, Pandit Madan Mohan Malviya RashtriyaShikshak Evam Sikshan Mission, Shikshan Adhyayan Kendra, Ramanujan College,D.U. on 27th May, 2020

Singh, S. (2020). Aatmakatha Mein Stree. Presented in ARSD College, University of Delhi on 1st June, 2020.

Singh, S. (2020). Samkaleen Hindi Upanyasaur Vartman. Presented in IQAC & JDM College, University of Delhi on 15th June, 2020.

Singh, S. (2020). Ghar Mein Premchand. Presented in Chintan Sahityik Evam Sanskritik Sanstha, Delhi on 31st July, 2020.

Singh, S. (2020). Premchand aur Stree. Presented in Jamshedpur Women's College, Jamshedpur on 31st July, 2020.

Singh, S. (2020). TeesareeKasam Mein Prem. Presented in South Asian Institute for Advance Research and Development & Shri Shikshayatan College, Kolkata on 6th August, 2020

Singh, S. (2020.Discussion & Women's Poetry recitation. In Centre for Women's Development Studies Delhi on 25th August, 2020.

Singh, S. (2020). Rachnakar Mahadevi. Presented in Stree Darpan, Delhi on 11th September, 2020

Singh, S. (2020). Muktibodh: AatmaKe Shilpi. Presented inMuktibodhSahityik Manch, Allahabad (Prayagraj) on 11th September, 2020.

Singh, S (2020). Pandemic: Some unrevealed issue in Arts and Sciences. Presented in Maharaja Manindrachandra College, University of Calcutta, Kolkata on 14 September, 2020.

Singh, S. (2020). Stree Bhasha AnubhutiKeOjhalPaksh. Presented in UGC,MHRD Centre, Himachal Pradesh University, Shimla on 23rd September, 2020.

Singh, S. (2020). Mahadevi Kebahane Hindi Ka StreeVimarsh. Presented in Shyamlal College, University of Delhi on 24th September, 2020.

Singh, S. (2020). Bhasha aur Sahitya. Presented in UGC, MHRD, Kurukshetra University, Kurukshetra on 25th September, 2020.

Singh, S. (2020). Ham Sabhi Ko NarivadeeKyonHonaChahiye?. Presented inAbhivyanjana Debating and Cultural Society, Motilal Nehru College, D.U. on 7th October, 2020.

Singh, S. (2020). Maitreyi Pushpa Par aikBatchit. Presented in Stree Darpan, Delhi, India on 30th November, 2020.

Tiwari, V. (2021). Resource person in the Refresher Course, Dalit Vimarsh Ki Saidhantiki, Ranchi University on 15th February, 2021.

Tiwari, V.(2021). Resource person in webinar, 'Kisan Jeevan Aur Samkalin Hindi Upanyas'; Ernakulum College, Cochin University, Cochin on 10th March, 2021.

Tiwari, V. Keynote Address; International Webinar; 'FanishwarnathRenu'; Department of Hindi, Cochin University of Science and Technology, Kochi on 18th March, 2021.

LIBRARY AND INFORMATION SCIENCE

Major Activities and Achievements

The Department of Library and Information Science of University of Delhi was established in 1946 as a Pilot Project of UNESCO with the efforts of Padma Shri Dr. S R Ranganathan and Prof. S Dasgupta. This was the first library science department in the country which was established as a full-fledged department like other constituent departments in the University of Delhi under the Faculty of Arts. Since the inception the Department has played a vital and constructive holistic role in setting milestones for LIS education and research in India and abroad. Another Kudos for becoming the second department of the world for launching the Post Graduate Course in Library Science in 1956 after USA along with being the first department in the whole commonwealth countries to confer the first PhD degree in 1957 under the supervision of Dr. SR Ranganathan. The excellent and outstanding academicians who laid the foundation inherited the rich and glorious values and teachings to the successors who diligently maintained the high standards of teaching and research. It is the first department in the Country with an indelible tag of Four Padma Shree namely Dr SR Ranganathan (1957); Prof. S Bashiruddin (1960); Prof. BS Kesavan (1967) and Prof. PN Kaula (2002). First Department in the whole commonwealth countries to award PhD Degree (1957) First Department in the Country to have National Professorship in Library and Information Science conferred to Dr SR Ranganathan (1957). The Department is celebrating its Platinum Jubilee this year by organizing several academic activities.

Publications	38
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Other Significant Information

Prof. KP Singh

UGC/Ministry of Education, Nominee as Member of GB of UGC-INFLIBNET Centre, Gandhi Nagar.

EC Nominee by the VC of DU as Member, GB of Kirori Mal College, University of Delhi.

VC Nominee as a Member of EDC of University of Delhi.

VC Nominee as a Member of Editorial Board for 98th Annual Report of DU (2020-2021)

As Coordinator, Academic and Cultural Affairs, faculty of Arts, University of Delhi have organized and coordinated 'Hall of Fame' & launching of 'We - A multidisciplinary and Multilingual Peer-Reviewed Research Journal' on 31st March 2021.

As Course Coordinator, organized Three Weeks 'Orientation Course (OC-98)

"दशा, दृष्टि, दशाऔरविकास" organized by Center for Professional Development in Higher Education (CPDHE), UGC-HRDC, University of Delhi from 3-24th January 2020.

List of Publications

Books

Singh, K.P. (2020). *PLAYING FROM THE FRONT: A Story of Unfolded Acts of a Library & Information Science Teacher*. AKS Publishing House: New Delhi. P.505. ISBN-978-81-946468-4-6

Singh, K.P. (2021). Hall of Fame: Pride and Pearls of Faculty of Arts, University of Delhi: AKS Publishing House: New Delhi. P.50.

Singh, K.P. & Chander, H. (2021). *A Bibliography on Punjabi Books*. Today and Tomorrow's Printers and Publishers: New Delhi. P.389. ISBN-978-81-946468-4-6

Journal Articles

Bajpai, V. K & Margam M. (2021). ICT Skills among the LIS Professionals: An Assessment from Seventy-four College Libraries in Delhi". *Journal of Knowledge & Communication Management* 11.1(2021):66-87 (ISSN: 2277-7946, Peer-reviewed). (SJIF-6.191).

Bajpai, V. K & Margam M. (2020). ICT Skills in Collaborative Age: An Assessment of Library and Information Science Professionals Working in the College Libraries Affiliated to the University of Delhi. *PEARL-A Journal of Library and Information Science* 14.3 (2020):281-292. (ISSN:0975-6922, Peer-reviewed, U.G.C. Approved Journal)

Bajpai, V. K & Margam M. (2019). ICT Skills and Competencies of Library and Information Science Professionals working in College Libraries, University of Delhi: A study. *Library Philosophy and Practice* 2275 (2019): 1-29, (ISSN: 1522-0222); SJR – 0.29 (2012); h-index14.

Bajpai, V. K & Margam, M. (2021). Continuous Professional Development of LIS Professionals: An Assessment from Seventy-Four College Libraries in Delhi. *Journal of Indian Library Association*, 57.1 (2021):105-118. (ISSN: 2277-5145, Peer-reviewed, UGC Approved Journal).

Bhushan, G. & Margam, M. (2020). Securing Online Knowledge Systems by Blockchain: a proposed solution for model Online Defence Information System. *Annals of Library and Information Studies (ALIS)* 67.4 (2020): 257-267. (ISSN: 0975-2404, Peer-reviewed). SJR-0.235 (2018).

Bharti, S. K. & Margam, M. (2019). Content Evaluation of Jawaharlal Nehru University and Banaras Hindu University Library Websites in India. *Library Philosophy and Practice* 2593 (2019): 1-16, (ISSN: 1522-0222); SJR – 0.29 (2012); h-index14.

Chander, H. & Singh, K.P. (2020). Frontline Publishers of Punjabi Language Books: A Bibliometric Study. *DESIDOC Journal of Library & Information Technology*, 40(4); 230-237.

Chander, H. & Singh, K.P. (2020). Growth of Punjabi Books (2004-2013). *Indian Journal of Information, Library and Society*. 33(1-2); 40-58.

Chander, H. & Singh, K.P. (2020). Subject Mapping of Punjabi Language Books: A Bibliometric Study. *Annals of Library and Information Studies*. 67; 251-256.

Chaudhary, P.K., Singh, K.P. & Prasad, D. (2020). Scientometric Study of Research Publications of Faculty Members of Netaji Subhas University of Technology, Delhi. MuktShabd Journal. 9(7); 1304-1311.

Dar, S.A. & Margam M. (2020). Enhancement of Library Services into Mobile-based Library Services in Select University Libraries in Delhi (India): users' perspective. *World Digital Libraries*, 13.1(2020):11-28. (ISSN: 0974-567-X).

Gautam, V.K. and Singh, K.P. (2020). Sustainable Empowerment of Persons with Disabilities through Open Educational Resources (OER): An Analytical Study. *Journal of Library and Information Science*. 45 (1-2);1-15

Khatri, D & Walia, P. K. (2020) Exploring Reading Interests of College Students of University of Delhi. Library Philosophy and Practice.

- Khatri, D & Walia, P. K. (2020) Use of Print and Electronic Resources by Undergraduate Students of Select Colleges Affiliated to University of Delhi. KELPRO Bulletin, Vol. 24, No. 1, June 2020 ISSN 0975-4911 (PRINT) ISSN 2582-497X (ONLINE)
- Kumar, M. & Bhatt, R.K. (2020). Library and Information Science Webinars During Covid19: Stay Connected for Dissemination of Knowledge. *WE: A Multidisciplinary & Multilingual Peer Reviewed Research Journal*. Faculty of Arts: University of Delhi. Vol. 1, No.1-2 June December (2020)
- Kumar. M. (2020). Academic Conference in LIS: Platform for Learning and Leisure. *Indian Journal of Information, Library & Society*. V.33, No.3-4 July December (2020). P. 249-55. ISSN 0971-4286
- Shehu, A.B. & Singh, K.P. (2020). Application of Information and Communication Technologies in Select Private University Libraries of North Central Nigeria. *Journal of Indian Library Association*. 57 (2);1-13.
- Shehu, A.B. & Singh, K.P. (2020). Application of Web 2.0 in Private University Libraries of Northern Nigeria using the Theory of Mannes Library 2.0. *Library Philosophy and Practice (e-Journal)*. 2020; 1-12.
- Shehu, A.B. & Singh K.P., & Oyiza, H.O. (2020). Present Status of Information and Communication Technology in Nigerian Academic Libraries: A Review of Literature. *Library Progress (International)*. 40(1) 2020; 25-33.
- Singh, K.P. (2020). A Eulogy: Dr. HK Kaul A Tribute to An Institutional Builder. *Library Herald*. 58 (2-3); 167-175.
- Singh, K.P. (2020). Generation to Generation: Exploring and Describing the Social Diversity and Dynamics of Relationships of Alumni of Library and Information Science, University of Delhi (1946-2020). *Library Herald*. 58 (2-3); 36-53.
- Singh, K.P. (2020). Professor CP Vashishth: A Multifaceted Personality. Library Herald. 58(1) 2020; 42-47
- Singh, K.P. (2021). Delhi: Glimpses of Libraries and Information Centres. We-A Multidisciplinary & Multilingual Peer -Reviewed Research Journal. 1(1-2)2021;1-21
- Singh, K.P. (2021). Role of Ranganathan's Legacy in LIS Education and Research in India. *Library Herald*. 59 (2): 1-18
- Singh, K.P. & Ahmed, S. (2021). Research Productivity and Research Trends: A Bibliometric Study of Library Herald for the year 1958-1981. *International Journal of Information Dissemination and Technology*. 11(2); 1-11.
- Singh, K.P. & Ansari, M.U. (2020). Mobile Technology in Libraries: A Survey of Periodical Literature Published in Emerald Database. *Library Philosophy & Practices (e-journal)*. 4072; 1-22.
- Singh, K.P. & Negi, N. (2020). Research in Library and Information Science in the University of Delhi (1957-2018): An Analytical Study. *SRELS Journal of Information Management*. 57(2); 101-106.
- Singh, K.P., Chander, H., & Sharma, R. (2020). Bibliometric Study of Publications in Conference Proceedings of SRFLIS Summit during 2014-2019. *International Journal of Digital Content Management (IJDCM)*. 1(1); 9-26.
- Verma S. & Singh, K.P. (2020). Altmetrics Analysis of Top 100 Food Technology Articles: A Study. *SRELS Journal of Information Management*. Vol 57(4); 207-216
- Verma S. & Singh, K.P. (2021) Modeling the Growth of Food Science and Technology Literature in India. *Library Philosophy & Practices (e-journal)*. 4713; 2021; 1-13.
- Walia, P. K. & Khatri, D. (2020) Mapping the use of Internet Sources by Undergraduate Students of select colleges affiliated to the University of Delhi, IASLIC Bulletin, Vol.65, No. 3, September 2020, pp. 163. ISSN 0018-8441

Conference Papers

Akshaya, K. S. &Paramjeet K. Walia (2020). Application of Information and communication technology (ICT) in public libraries. In K.S. Bhatt & M. Rao, Eds., Reaching out users in the digital era: Opportunities and challenges. Proceedings of the 4th National Conference on Management of Modern Libraries (NACML 2020), Manipal, India). Pp. 93-99. New Delhi: Avi Publisher. ISBN 978 93 88575164

Kumar, M & Sharma, S. Library Services During COVID 19: Challenges and Role of Library Staff of Dr. Zakir Husain Library, Zamia Millia Islamia, New Delhi. *In Conference Proceedings Entitled" Emerging Trends and Technologies in Library Services: An Exploration.* Edited by Tariq Ashraf...[et al.], Synergy Books India: New Delhi, 2021. P. 91-96. ISBN: 978-81-948430-6-1

Book Chapters

Margam, M. Application of Emerging Technologies in Libraries. In Managing University and Institutional Libraries in the 21st Century. Ed. Manoj Kumar Sinha. New Delhi: Shree Publishers and Distributors, pp.585-596. (ISBN: 978-81-948189-8-4).

Margam, M & Lamba, M. (2021) The changing roles of librarians: Managing emerging technologies in Libraries. In Quality Library Services in the New Era. Eds. Sanjai Kumar Singh and Kishor Sarma. Guwahati: EBH Publishers (2021):88-96. (ISBN: 978-93-90434-04-6)

LINGUISTICS

Major Activities and Achievements

Language is an important part of being human, human society, history, culture and civilization. Linguistics as a discipline interfaces with social, cognitive and natural sciences. It seeks to understand the nature of linguistic knowledge from a variety of perspectives: human capacity to learn language, continuity and change across generations, the nature of underlying systems as revealed through the study of language structure at various levels, role of factors such as urbanization, mobility and contact on language, diversity and change. The department was placed at Number 1 in the country by Subject in 2020. Its QS World rankings are not available.

The department offers three degree (MA, MPhil, & PhD) and two Diploma programs (Post MA Diploma and Advanced Diploma) in Linguistics combining Probabilistic, experimental, and theoretical approaches. Its major strengths at present are research on (i) Sociolinguistics- This includes corpus based modelling linguistic diversity; the impact of mobility and contact; social differentiation of speech, (ii) Various theoretical approaches to language structure at the levels of syntax, morphology, phonology (iii) Psycholinguistics and Neurolinguistics.

Honours/Distinctions (3)

Dr. Shobha Satyanath: is the Vice President of Linguistic Society of India

Dr. Shobha Satyanath: is the Member of the Scientific committee for Sociolinguistic Symposium [SS23] (University of Hong Kong)

Dr. Shobha Satyanath is the Founding member of the Planning committee for New Ways of Analysing Variation in Asia-Pacific [NWAV-AP] (International Conference Series)

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Publications	05
Seminars/Conference Presentations	12

Journals

Number of Department Teachers Serving as Editor(s)/Member(s) of Editorial Board (2)

Satyanath, S. Chief Editor, Asia-Pacific Language Variation. John Benjamins (2015-Present) Peer reviewed,

Scopus ISSN 2215-1354|E-ISSN: 2215-1362 https://benjamins.com/catalog/aplv

Satyanath, S. Asia Pacific Language Variation. Volume 6.2 John Benjamins

Satyanath, S. Asia Pacific Language Variation. Volume 6.1 John Benjamins

Satyanath, S. Member, Editorial Board (January 2018-2021), *Journal of Sociolinguistics*, John Wiley & Sons Ltd.Impact factor 1.2 (2016); Online ISSN: 1467-9841.

Satyanath, S. Member, Editorial Board, John Benjamins (Creole Library Series). 2006-present.

Bhattacharya, T. Associate Editor, Linguistic Variation (John Benjamins).

Bhattacharya, T. Founder Editor, Indian Journal of Critical Disability Studies, CDSI, Delhi.

International Research Collaborations

Shobha Satyanath (2018-2020). Research collaboration and cooperation with Kanda University of International Studies, Japan. The project seeks to develop modules in eight different varieties of English including Indian English [2015-2016; 2018-2022]. Developed and filmed modules on Indian English.

Research Projects

Centre for Advanced Studies (UGC CAS II): Faculty Project on Language Variation) [ShobhaSatyanath] Centre for Advanced Studies (UGC CAS II):[Tanmoy Bhattacharya]

Talks (invited) Organized in the department

Individually by faculty at the level of teaching Workshops on Acoustic Phonetics; Language Variation Analysis

Seminars Organized

Pre-Ph.D Seminar Talks by Doctoral students

Sharada Biswas. Tectogrammatical Annotation of Bangla Force Categories [Online] (15 May, 2020).

Other Inter-Institutional Collaboration

Hankuk University of Foreign Studies, South Korea (Continuing). This is part of ARG (Brics+7) program under which Students from the above University come 2-3 times a year for 'Hindi Teaching and Indian Studies program'.

*The Programs were suspended with effect from March 2020 due to Covid.

Students under Exchange Programme

Some of our students have been awarded Fulbright fellowships (FLTA) Grants to Students to attend short term Linguistic Institutes abroad.

Extension and Outreach Activities

*Covid adversely affected the outreach activities slowing them down and abandoning some Part of this includes reaching out to communities/people wherever they need Linguists

Since 2012, Shobha Satyanath has been associated with the Zomi community in Manipur (also located in the bordering Myanmar) in helping and guiding them with various issues relating to their language, documentation of its regional varieties, nature of linguistic and cultural relationship among various groups and their speech varieties, developing literature in their language. I have helped the Zomi language and Literature Society to have a balanced (co-existing and non-conflicting) view of regional and national identities. The first phase of their documentation is over and published by the Zomi Language and Literature Society (ZOLLS). Now she is helping them with the next phase of theirwork. The community is very keen on this work as this creates awareness tyowards language practices and vanishing traditions (as the mobility is high among the younger generations).

As part of Sociolinguistics, students undertake fieldwork aimed at studying the local neighbourhoods. This brings the local and the University communities together.

BRICs and 7+1 (Hindi Language and Indian Studies Programme). This is a resource generation and good will generation program between two institutions and two nations as well as promotion of Hindi and Indian culture. *Discontinued since March 2020 in view of Covid and suspension of regular mode of learning.

Faculty Strength

Professors

Sanctioned -02 Filled-0 Vacant-02 CAS & MPS- yes

Associate Professors

Sanctioned -07 Filled-03 Vacant-04 CAS & MPS-yes

Senior Assistant Professor

Sanctioned -05 Filled-01 Vacant-04 CAS & MPS-yes

Guest Faculty

Sanctioned -04 Filled-02 (Jan-April, 2021) Vacant-02 CAS & MPS-NA

Other Significant Information

Shobha Satyanath (along with her students) has over the years, built and is continuing to build sociolinguistic Speech corpora of languages of India.

List of Publications

Journal Articles

Satyanath, S. (2021). Genealogies of Sociolinguistics in India'. *Journal of Sociolinguistics* (Wiley). DOI: 10.1111/josl.12496

Satyanath, S. (In press). Sociolinguistics of multicultural communities: Implications for methods. In Katie Drager, Malcah Yaeger-Dror and Chris Cieri. *Dimensions of Linguistic Variation*. OUP.

Book Chapters

Bhattacharya, T. (2020). Service and Knowledge: The Emergence of Disability Studies Extension. In N. Mehrotra (ed.), *Disability Studies in India* (pp. 111-132). Singapore, Springer. [https://doi.org/10.1007/978-981-15-2616-9_7; Print ISBN978-981-15-2615-2; Online ISBN978-981-15-2616-9].

Shobha, S. (Forthcoming). South Asia: Indo European languages. In Martin J. Ball and Rajend Mesthrie (Eds.). *The Routledge Handbook of Sociolinguistics around the World, 2nd edition.* Routledge.

List of Seminar/Conference Presentations

National

Bhattacharya, T. (2021). Sign Language and Linguistics, AICTE QIP, HSS, IIT Madras on 18th March, 2021.

Bhattacharya, T. (2020). Unfolding (of) theories, not programmes, Fostering Research. Presented in Disability winter school, NALSAR and BITS Pilani, Hyderabad on 19th December 2020.

Bhattacharya, T. (2020). The Terrain of Disability Studies and Critical Abeyance. Presented in Ambedkar University Delhi, Delhi on 28th October, 2020.

Bhattacharya, T. (2020). Syntactic Roots of/Routes to Case and Agreement. In CALTS WebTalk Series 1 titled "Syntax: Theoretical insights and Applications for Indian languages on 15th July, 2020.

Bhattacharya, T. (2020). Agreement in the East: Areal Feature to a Microparameter. Online talk in "Linguistics for Life" series at IIT, Kharagpur on 1st July 2020.

Mamta. (2021). A case study of bilingual dyslexic children learning Hindi and English. Presented in International Webinar, Department of Foreign Language, Banaras Hindu University on 17-18 March, 2021. Satyanath, S. (2021). A variationist perspective on language: Modeling diversity. Presented in International Linguistics Symposium, Central University of Rajasthan on 17-18 March, 2021.

Satyanath, S. (2020). What can be learnt from the Indian models of linguistic diversity? Presented in International Webinar on Covid-19 Pandemic, and the Endangered Languages, The centre for Linguistic Justice and Endangered Languages, National Law University, Delhi on 9-10 July.

International

Bhattacharya, T. & Sharma, J (2020). Indexation Switch' in person hierarchy and negation in two subgroups of agreeing Tibeto-Burman languages. Presented in LinearisingContituentsAcross Domains UCL, London and Bled Institute, Slovenia on 16th October, 2020.

Bhattacharya, T., Guha, I. &Baishya, E. (2020).Ex-k-lamatives in Meeteilon!. Presented in the 53rd International Conference on Sino-Tibetan languages and Linguistics (ICSTLL). The University of North Texas on 2-4 October, 2020

Satyanath, S. (2021). Contact and diffusion: Classifiers in two contact varieties of Assamese. Presented in NWAV, National University of Singapore on 19-22 February, 2021.

Satyanath, S. (2021). Expanding footprints of Sociolinguistics in Asia-Pacific: Decolonising Sociolinguistics. Presented in Sociolinguistics Symposium, 23. University of Hong Kong [Thematic Panel on decolonizing, decentering Sociolinguistics] on 7-10 June, 2021.

Note. Many conferences got postponed due to covid and had to be rescheduled and the following were held online

MODERN INDIAN LANGUAGES AND LITERARY STUDIES

Major Activities and Achievements

The Department of Modern Indian Languages and Literary Studies, University of Delhi, since its inception in 1961, has acted as a centre for language and literature studies in India. The department has succeeded in popularizing a model of 'one literature in India', i.e., 'Indian literature,' in a multi-lingual and multi-cultural set-up of the country. For the past two decades, the department has expanded its areas of investigation to the unexplored areas such as folklore, tribal lore and cultural studies besides its ongoing 2nd Language teaching programmes. Exploring new areas of investigation in the fields of language, literature, and culture of India and creating space for multidisciplinary and inter-disciplinary research may be considered as the major achievement of the department.

Publications	03
Seminars/Conference Presentations	08

Conference Organized (07)

International Webinar on "Telugu Novel: Unforgettable Characters" on 29 and 30 September 2020, Convener: Dr. Venkat R. Gampa

Panel discussion session online on "A new Dawn on Muddupalini's Radhikasantvanamu" on 13th October 2020, Convener: Dr. Venkat R. Gampa

National Webinar on "Multidisciplinary Approaches to Folklife: Challenges and Perspectives," Part I during 21-23 October 2020, Convener: Prof. P. C. Pattanaik

National Seminar on "Multidisciplinary Approaches to Folklife: Challenges and Perspectives" (Part II) during 5 - 7, November 2020. Convener: Prof. P.C. Pattanaik.

National Seminar on "Multidisciplinary Approaches to Folklife: Challenges and Perspectives" (Part III) during 19-21, November 2020. Convener: Prof. P.C. Pattanaik.

Fourteen Day International Workshop on "Theories and Literature: Understanding in Tamil Milieu" With the collaboration of the Department of Tamil, Central University of Tamil Nadu, Thiruvarur, Tamil Nadu During 11th- 24th November, 2020. Convener: Dr.K.Premananthan, Coordinator: Dr.K.Jawahar (Central University of Tamil Nadu)

International webinar on, "Assamese Literature in Translation: Theory and Practice" during 27-28 December, 2020, Convener: Dr.Ratnottama Das

Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.:7 **M.Phil.:**0

Faculty Strength

Permanent-11 Ad-hoc-3

List of Publications

Rooks

Narayanappa, V. (2021). Trikuutamu. Tadepalli: Prajasakti Book House. (ISBN 978-81-950698-1-1).

Narayanappa, V. (2021). Vemana-Sarvajna-TiruvalluvarlaKavitaavaibhavam: Oka TulanaatmakaVishleeshana. Tadepalli: Prajasakti Book House. (ISBN 978-81-950698-5-9).

Narayanappa, V. (2021). Telugu Jaatiiyaalu (Vol. I). Tadepalli: Prajasakti Book House. (ISBN 978-81-950698-9-7).

List of Seminar/Conference Presentations

Baral, K. C. (2021). Critical Humanities and Folk Culture. Special lecture on 5th November 2021 Billimale, P (2020). God's Design of Marriage: A Case Study of Mailaralinga. Special lecture on 20thNovember

Billimale, P (2020). God's Design of Marriage: A Case Study of Mailaralinga. Special Tecture on 20"November 2020

Chellaperuamal, A (2020). Folk-life: Disciplinary Boundaries and Relationship. Special lecture on 23rd October 2020

Nath, D. P. (2020). Creativity and Traditional Cultural Expressions. Special lecture on 22nd October 2020 Pattanaik, P. C. (2020). Folk-life and Pandemic: Covid-19 in Folkloristic Perspectives. Special Lecture on 21st October 2020

Patnaik, B. N. (2020). Sarala Mahabharata: the Art of Story-telling. Special lecture on 7thNovember 2020 Reddy, B. (2020). Situating the Cultural Text within Scroll Narration of Kaakipadigela Performance. Special lecture on 19thNovember 2020

Reddy, Y. S. (2020). Folklife and Folkloristics: Disciplining the Discipline. Special lecture on 6thNovember 2020

PERSIAN

Honours/Distinctions

On the occasion of Research Week organised by Iran Culture House of Embassy of Islamic Republic of Iran on 8th December 2020, the books of Prof. Chander Shekhar, Prof. Rehana Khatoon and Prof. SyedaBilqis Fatima Husaini were released and all of them were awarded the prestigious honorary membership of Academy of Persian Language and Literature, Iran.

Seminars organized (03)

Two-day international webinar organized on "Short Story Writing in Iran during 1940-79" from 19-20 October 2020 on Google Meet application.

Two-day international webinar on "Indo-Persian Literature during 14th Century" from 12-13 March 2021 was organised.

Two-day National Seminar on "Rumi Studies in the Indian Subcontinent" from 27-28 March 2021 was organised.

Number of MPhil/PhD degrees awarded

Ph.D.: 01 **MPhil**: 0

Faculty Strength:

Professor: 01

Associate Professor: 04 Assistant Professor: 06

Other significant information

4thLecture of Persian Lecture series by Dr. Ali Akbar Shah on the topic of "A Visit to Sabk-e-Hindi" was organised on 15th May 2020 on Zoom application.

5thLecture of Persian Lecture series by Prof. Aleem Ashraf Khan on the topic of "Revisiting Malfooz Literature with Reference to Fawaid-ul-Fuwad" was organised on 23 May 2020 on Zoom application.

6thLecture of Persian Lecture Series by Prof. Iraq Raza Zaidi on the topic of "A Visit to Sabk-e-Hindi" was organised on 09th June 2020 on Zoom application.

7thLecture of Persian Lecture Series by Prof. Chander Shekhar on the topic of "Archival Documents and styles of Persian Writings" was organised on 10th July 2020 on Google Meet application.

8thLecture of Persian Lecture Series by Prof Syed Akhtar Husain on the topic of "Sadiq Hedayat: A Truthful Writer of Persian Literature" was organised on 25th July 2020 on Google Meet application.

9th Lecture of Persian Lecture Series was held on 11th August 2020. The lecture was delivered by Dr. Hamid Reza Ghalichkhani, Renowned Iranian Calligrapher.

A virtual interaction with the short story writer "Mr. Mansoor Ali Moradi was organised on 19th August 2020 at 3 PM on Google Meet application.

An interaction with the short story writer "Mr. Hamid Babayee" was organised on 12th September 2020 at 4 PM on Google Meet application.

10th Lecture under Persian Lecture series was organised on virtual mode on 16th September 2020. The lecture was delivered by Prof. JafarYahaghi from Firdausi University, Mashhad, Iran on the topic "Tarikh-e-Baihaqi: The first literary bridge between Iran and India.

Organised a literary interaction with Mr. Masood Borbor, a story writer from Iran on 7th October 2020 at 2 PM on Google Meet application.

Organised a wednesday seminar on Google Meet application, in which Mr. Ghulam Geelani presented his research article on 28th October 2020.

Wednesday seminar was organised in which Mr. Muntazir presented his research paper on 04-11-20 at 2PM on Google Meet application.

Wednesday seminar was organised in which Mr. Noor Ashraf presented his pre-PhD submission seminar on 11-11-20 at 2PM on Google Meet application.

Wednesday seminar was organised in which Mrs. Mushaida presented her research paper on 18-11-20 at 2PM on Google Meet application.

Wednesday seminar was organised in which Ms. Sunita presented her research paper on 25-11-20 at 2PM on Google Meet application.

A preamble reading session was organised on 25-11-20 at 11AM on Google Meet application.

Research scholar's monthly meeting was organised on 25-11-2020 at 3PM on Google Meet application.

11thLecture under Persian Lecture Series was organised on Saturday 12th December 2020 @ 4:00 pm on Google Meet application. Mr. Reza Borabadi, Editor of E-Magazine "Hazar-o-YekShab" delivered the lecture on "Impact of Shahnama-e-Firdausi upon Indian Writers".

12thLecture under Persian Lecture Series was organised on Thursday 24th December 2020 @ 3:00 pm on Google Meet application. Prof. Reza MustafaviSabzevari, Renowned Iranian scholar and Indologist, AllamehTabatabai University, Tehran, delivered the lecture on "A critical analysis of Tarikh-e-Baihaqi".

Wednesday seminar was organised and Mrs. Nigar presented her pre-PhD submission seminar on 02-12-2020 on Google Meet application.

Wednesday seminar was organised and Mohd. Safi Naik presented her pre-PhD submission seminar on 09-12-2020 on Google Meet application.

Wednesday seminar was organised and Mrs. Tabassum presented a research paper on 02-12-2020 on Google Meet application.

A literary interaction with Mr. Ibrahim Akbari Deezgaah, an Iranian writer, was organised on 19th December 2020 at 3PM on Google Meet application.

A research scholar's monthly meeting was organised on 25-12-2020 at 12 PM on Google Meet application. 13thLecture under Persian Lecture Series was organised on Thursday 14th January 2021 @ 2:00 pm on Google Meet application. Prof. Akhlaq Ahmad 'Ahan' from Center for Persian and Central Asian Studies, JNU delivered the lecture on "A visit to Sabk-e-Khorasani".

A literary interaction with Mrs. Tayebeh Najib, an Iranian writer, was organised on 23rd January 2021 at 3PM on Google Meet application.

A research scholar's monthly meeting was organised on 28-01-2021 at 2 PM on Google Meet application. Wednesday seminar was organised and Mrs. Shweta Shriwastav presented a research paper on 06-01-2021 on Google Meet application.

14thLecture under Persian Lecture Series was organised on Saturday 13th February 2021 @ 3:00 pm on Google Meet application. Dr. Farzaneh Azam Lotfi, Faculty member, Faculty of Languages and Literature, University of Tehran, Iran, delivered the lecture on "Comparative study and analysis of monotheism and divine knowledge in two immortal works of Mukhtarnameh Attar and Upanishads".

15thLecture under Persian Lecture Series was organised on Saturday 24th February 2021 @ 12:00 pm in Room No-79B, Faculty of Arts, University of Delhi. Mr. Pradeep Sharma Khusrau, Freelance Research Scholar on Amir Khusrau, delivered the lecture on "Researches on Amir Khusrau in Indian Subcontinent".

Mr. Ibrahim Wani presented his pre-PhD submission seminar on 03-02-2021 at 2PM at Google meet application. Mr. Naushad and Mr. Furqan presented Wednesday seminar on 10-02-2021 and 17-02-2021 respectively at Google meet application.

Department of Persian, University of Delhi in collaboration with Professor Syed Amir Hasan Abidi Memorial Society (Regd.) organised a two day Professor Abidi Centenary Conference on the topic "Indo-Persian Literature & Culture" on 26-27 February 2021 on Zoom application.

16thLecture under Persian Lecture Series was organised on Monday 1st March 2021 @ 12:30 pm in Room No-79B, Faculty of Arts, University of Delhi. Prof. Nishat Manzar, Head, Department of History and Culture, Jamia Millia Islamia delivered the lecture on "From a Pargana to Hazrat-i-Dehli: Journey of the great Medieval City During the Sultanate Period".

17thLecture under Persian Lecture Series was organised on Thursday 4th March 2021 @ 3 pm on Google Meet. Dr. Elham Haddadi, Research Associate, Sub-Continent, International Saadi Foundation delivered the lecture on "RewayatShenasidarAdabiyat-e-Dastani Classic-e-Farsi: Dastan-e-Hasanak Wazir dar Tarikh-e-Baihaqiwa Dastan-e-Pir-e-JangidarMasnavi-e-Maanavi-e-Maulavi".

18th Lecture under Persian Lecture Series was organised on Monday 8th March 2021 @ 12.30 pm in Room No-79B, Faculty of Arts, University of Delhi. Dr. EhsanollahShokrullahi, Director, Persian Research Centre, Iran Culture House, Embassy of I.R. of Iran, delivered the lecture on "Persian Manuscriptology".

PHILOSOPHY

Publications	21
Seminar/Conference Presentations	18

Research Projects

Balaganapathi Devarkonda undertook a project on 'Systemic Approach and Analysis to Neuro-Philosophical Wellness Solution' in collaboration with Department of Philosophy, Ramjas College, New Delhi & SAANS Foundation, New Delhi funded by ICPR, New Delhi. 2021-2023.

Balaganapathi Devarkonda undertook a project on 'Yoga Consciousness in Mahabharata and Bhagavadgita: The Ethical Value for Societal/Political Well-being' sponsored under Scheme for Promotion of Academic and Research Collaboration (SPARC) by MHRD, Government of India, Delhi. Co-PI – Dr. GeeteshNirban, Kamala Nehru College, New Delhi. 2019-2021.

Aditya Kumar Gupta undertook a R& D Project on 'Human Emotions and Reasoning in the context of Meditation', University Of Delhi, 2020-21

Conferences Organized

In addition to regular Friday lectures, department organized following conferences/seminars:

Dr. Balaganapathi Devarkonda, Convened, Faculty Development Program on "Philosophical Methods in interdisciplinary teaching" at Ramanujan College, New Delhi from 22nd to 28th March 2021.

Dr. Reetu Jaiswal & Dr. Sujata Roy co-Organized a 7-days' Workshop on "Women in Philosophy" in Collaboration with Vasanta College for Women, B.H.U.. Also presented a paper "Women, Art and Aesthetics: Critical Exposition". 25th Sept. – 2nd Oct. 2020.

Dr. Reetu Jaiswal &Dr. Sujata Roy, worked as a member of the organizing committee in Two International Webinars on The Philosophy and Practice of Sri Aurobindo, held on 25th-26th February, 2021, and 29th-30th April, 2021, Sponsored by ICPR in collaboration with Sri Aurobindo Ashram, New Delhi.

Dr. Reetu Jaiswal, Course-coordinator of a 3-months online certificate course on "The Feminist Philosophy" (April, July, and August 2021), organized by the Department of Philosophy, University of Delhi under MAP project in collaboration with The Philosophy Project. Sponsored by ICPR.

Dr. Gautam Kalotra, organized Online Lecture on the 'PrathamBhāratīyaDārśanika Divas' celebrated Birth Anniversary of Adi Guru Shankarcharyaon 17th May 2021 as a Coordinator by University of Delhi and ICPR, Delhi

Dr. Aditya Kumar Gupta. organised a lecture by Prof Rajeshwar Mukherji, Kaivalyadham, as the Convener- '7th International Yoga Day' Seminar, June, 2021

Other Significant Information

Bhowmick, N. (2020). Persistence and Persons. Delivered a talk at Department of Philosophy, Ashoka University, on 30th September, 2020.

Bhowmick,N. (2021). Methods and methodologies. Delivered a talk,in FDP on Philosophical Methodologies in Higher Education: Research and Teaching, Organized by Ramanujan College, on 25thMarch, 2021.

Chopra, N. (2021). Intentional Neurodynamics of Enactive Being. Delivered a talkat an event sponsored by ICPR, Delhi for the World Philosophy Day, organized by the Department of Philosophy, Panjab University, Chandigarh, on 3rd June, 2021,

Chopra, N. (2021). Enactive Being. Delivered a talk as a Resource Person, organized by the Centre of Phenomenology and Cognitive Science, Department of Philosophy, Punjab University, Chandigarh, on 25th January, 2021.

Gupta, A. K. (2021). 'Spirituality in Dharmik Traditions. Delivered an invited lecture at Swami Vivekananda Meditation Pyramid, in February 2021.

Gupta, A. K. (2020). Poverty in India: A Philosophical Reflection. Delivered an invited lecture, organised by G.D.M. College, Patna, in October 2020.

Gupta, A. K. (2020). Value of Life and Environment. Delivered an invited lecture online, organized by Tirthankar Mahavir University. Moradabad, in June 2020.

Gupta, A. K. (2020). Students and Future Leadership. Delivered an invited lecture, organized by Student Union, Hindu college, University of Delhi, in July 2020.

Gupta, A. K. (2020). Meditation and mental health. Delivered an invited lecture online, organized by Chhatrasalzila page, in June 2020.

Gupta, A. K. (2020). Dharma, Religion and Indian Secularism. Delivered an invited lecture online, 'organised by student union University Of Allahabad, in May 2020.

Gupta, A. K. (2020). Dharma and Ambedkar: Debating misconceptions and conversion. Delivered an invited lecture online at Ambedkar International Centre, New Delhi, in May 2020.

Gupta, A. K. (2020). Practical Vedanta and Indian Mindset. Delivered an invited lecture, 'organised by student Union, North campus on 15th April 2020.

Jaiswal, R. (2020). Invited as a resource person for a 7-days workshop on "Understanding Logical Positivism through the Ayer's Book 'Language, Truth and Logic'" on 9th June 2020.

Jaiswal, R. (2020). How the Concept of Feminism doesn't Totally Work for Third world Countries. Delivered an invitedlecture in a session organized by Gandhi Fellowship, ADTP-NitiAayogon18th October 2020.

Jaiswal, R. (2020). Delivered a lecture as a resource person in a 7-days' Workshop on "Women in Philosophy" in Collaboration with Vasanta College for Women, B.H.U., held from 25th September 2020 to 2nd October 2020. Jaiswal, R. (2021). Words Beget Power or Power Begets Word. Delivered a lecture in a Certificate Course in

Dialogue Studies 2020-2021 on 6th February 2021.

Jaiswal, R. (2021). Invited as a panelist to speak on a "virtual" interfaith panel discussion (on Zoom) "Women's rights and equality: Faith perspectives" by MARTI on 31st March 2021.

Kumar, K. P. (2021). Philosophy of B.R. Ambedkar. Delivered a Lecture at FDP on 'Dr. B. R. Ambedkar & The Idea of India', organized by Teaching Learning Centre, Ramanujan College, University of Delhi on 16th April 2021

Kumar, K. P. (2020). Delivered a Lecture on *MethodologicalUnderpinnings of B.R.Ambedkar's Social and Political Philosophy* 2nd Refreshers Course on Philosophical Knowledge Traditions in India: Past and Present HRDC, JNU on 12thOctober 2020.

Kumar, K. P. (2020). Development and Democracy: Philosophy of B.R.Ambedkar. Delivered a lecture in Refresher Course on Perspectives on Understanding the arguments on Development patterns in exploring the implications in Social Sciences, organized by HRDC, University of Hyderabad, on 13th October 2020.

Kumar, K. P. (2021). Ambedkar's view of Gender and Social Transformation. Delivered a lecture for Refresher course in Gender and Social Transformation, HRDC, University of Burdwan, on 14th September 2020.

Kumar, K. P. (2021). Philosophy of Dr. B R Ambedkar: Development and Democracy. Delivered a lecture for Refresher course on Social Sciences, UGC- HRDC, University of Hyderabad, Hyderabad on 15th October 2020. Kalotra,G. (2021). Delivered Lecture on Prof. SangamLalPandey's Concept of Advaita Philosophyin16th MP & CG DarshanParishad, on 20-21 March 2021.

Kalotra,G. (2021). Reading Indian Philosophical Traditions. Delivered Online Lecture as a Resource Person for KMV College Jalandhar (Punjab) on 28th June 2021.

List of Publications

Journal Articles

Bhowmick, N. (forthcoming). A would be emperor too good to be true. Review of *The Emperor Who Never Was*. Los Angeles Review of Books, June 2021

Bhowmick, N. (2020). Organizing, Fitting, Predicting. *Journal of the Indian Council of Philosophical Research*, 38 (1), 39-52.

Bhowmick, N. (2020). The Other Buddha: Review of *Two Buddhas Seated Side by Side*. Los Angeles Review of Books, https://lareviewofbooks.org/article/the-other-buddha-on-two-buddhas-seated-side-by-side-a-guide-to-the-lotus-sutra/, January 26, 2020

Chopra, N. (2020). Wittgenstein, Bhartrhari and Extended Cognition, In (Ed.: KC Pandey) Various Aspects of Indian Philosophy and Wittgenstein, by Ludwig Wittgenstein Philosophical Society Publication Series 2.

Devarkonda, B. (2021). Conditional Designation of Artificial Legal Entities (CDALE): A Post-Anthropocene Dynamic Jurisprudence." *Journal of Indian Council Philosophical Research*. co-authored with Gautam, R.D. https://doi.org/10.1007/s40961-021-00235-9

Devarkonda, B. (2021). "Shifts in the Classical Indian Conception of Philosophical Practice: *Védic, Itihāsa-purānic*, and *Dārsanic*" in the *Philosophical Practice*, Journal of the APPA, Vol.16, No. 1, March 2021. P. 2602-2609. ISSN 17428181.

https://www.academia.edu/45589651/Shifts in the Classical Indian Conception of Philosophical Practice Ved ic Itihāsa puranic and Darsanic

Devarkonda, B. (2020). "Global Lockdown Calendar" in the *Philosophical Practice*, Journal of the APPA, Special Double Issue on "How Philosophy Can help during a Global Pandemic" Vol.15, Nos. 2-3, July-November 2020. P. 2485-88. ISSN 17428181.

https://www.academia.edu/43734447/Global_Lockdown_Calender_vol_15_2_15_3_offprint_devarakonda

Devarkonda, B. (2020). "Revisiting the Relationship between Health and Environment during Pandemic times" (co-authored with SaathvikDevarakonda) Vantage: Journal of Thematic Analysis, October 2020, vol. 1 issue 2. Pp 6-11.

Gupta, A. K. (2021) 'Confluence of moden science with Indian Wisdom', in Vijnana Bharti Journal 'Science India', January.2021

Gautam, A. (2020). "Epistemic Injustice: Combating Inequality" In Devarakonda, B. & Velassery, S (Eds) Justice and Responsibility Re-learning to be Human, Washington, DC: The Council for Research in Values and Philosophy. Series: Cultural heritage and contemporary change. Series IIIB, South Asian philosophical studies; volume 17

Jaiswal, R. (2020). "Analyzing Women's Position in Society: A Gandhian Perspective" in Reassessing Gandhian Thought. Edited by Aamir Riyaz & Shahidul Hoque. Shivalik Prakashan: New Delhi.

Jaiswal, R. (2021). "A Gandhian Solution to the Problem of Religious Intolerance" in Re-thinking Religious Pluralism. Edited by Bindu Puri& Abhishek Kumar. Springer Nature: Singapore, 2021.

Jaiswal, R. (2021). "Journalistic Responsibility in the Age of Commercialism" in Justice and Responsibility: Relearning to be Human. Edited by BalaganapathiDeverakonda& Sebastian Velassery. The Council for Research in Philosophy: Washington, D.C.

Papers in Conference proceedings/books

Devarkonda, B. (2021). *Justice and Responsibility: Re-learning to be Human*. Edited along with Sebastian Velassery. Washington DC: The Council for Research in Values and Philosophy. 2021. ISBN 9781565183483

Devarkonda, B. (2020). *Philosophical Doctrines of Andhakas: Exploring Early Buddhist Sects of Andhra*. SpringerBriefs in Religious Studies series, Springer, 2020. ISBN. 978-981-15-5685-2.

Devarkonda, B. (2021). "Free Will and Determinism: Agency, Intentionality, and Action" co-authored with Sudeep Raj Kumar, published in *Justice and Responsibility: Relearning to be Human* eds. BalaganapathiDevarakonda& Sebastian Velassery. Washington DC: The Council for Research in Values and Philosophy. 2021. Pp 31-50. ISBN 9781565183483.

Devarkonda, B. (2020). "Relearning to be at Peace: Exploring Alternative Conceptions" in *Self-awareness of Life in the New Era* ed. Peter Jonkers, He Xirong& Shi Yongze. Whasington, D. C., The Council for Research in Values and Philosophy. 2020. 141-154. ISBN 9781565183421

Devarkonda, B (2020), "Cārvāka-Lokāyata Tradition: A Tradition of Materialist Philosophy" (Co-authored with JayshreeJha) *Ancient and Medieval Indian Thought: Themes and Traditions* Eds. Ankit Tomar&Suratha Kumar. Sage publications, New Delhi. 2020. p.75-82. ISBN: 978-93-5388-232-7 (ePub)

Devarkonda, B. (2021). *Justice and Responsibility: Re-learning to be Human*. Edited along with Sebastian Velassery. Washington DC: The Council for Research in Values and Philosophy. 2021. ISBN 9781565183483

Devarkonda, B (2020). *Philosophical Doctrines of Andhakas: Exploring Early Buddhist Sects of Andhra*. SpringerBriefs in Religious Studies series, Springer, 2020. ISBN 978-981-15-5685-2.

Devarkonda,B (2020) "Revisiting Dana: A response to Eurocentric Approaches" in *Vasudaivakutumbakam: Relevance of India's Ancient Thinking to Contemporary Strategic Reality* Eds. Arvind Gupta & ArpitaMitra Vivekananda International Foundation, New Delhi & Aryan Books International, New Delhi. 2020, 162-175. ISBN 978-81-7305-645-1.

Kesava K.P. (2020). Religion, Caste and Modernity: Ambedkar's Reconstruction of Buddhism, *Classical Buddhism, Neo-Buddhism and the Question of Caste* (Ed. Pradeep P. Gokhale). New Delhi: Routledge, Pp.270-301

Kalotra, G. (2021). Chapter-7: Spiritual Lineage of Mahatma Gandhi, p.73-83 in a Book entitled Reassessing Gandhian Thought published by Shivalik Prakashan, Delhi, Edited by Dr. Amir Riyaz & S. Hoque.

List of Seminar/Conference Presentations

Bhowmick,N. (2021). Essence and Necessity. Delivered a talkat Two Day National Seminar on Mind and Reality,organized by Jadavpur University, on 13-14th March, 2021.

Bhowmick,N. (2021). The Taking Condition on Inference. Delivered a talkat ICPR sponsored Three Day National Seminar on Logic: East and West, held from 17th to 19th March, 2021.

Chopra, N. (2020). On Intentionality (Reflections from analytic philosophy, Heideggerian phenomenology, classical cognitivism and embodiment). Delivered a talkat a webinar organized by HSS, IIT Ropar, Ropar, on 15th September 2020.

Chopra, N. (2020). The Alchemy of Quarantine. Delivered a talkat National Webinar on COVID19 Philosophy: Ethical, linguistic and Epistemic concerns, organized by LWPS and the Department of Philosophy, University of Lucknow, Lucknow, on 30-31st May 2020,

Gautam, A. (2021). Teachings and Philosophy of MarangGomkeJaipal Singh Munda. Delivered an invited lecture in a national Seminar on "The role of MarangGomkeJaipal Singh Munda in the making of the Constitution" organized by Dr. Ram Dayal Munda Tribal Welfare Research Institute, Ranchi, Jharkhand, on 19th January 2021. Gupta, A. K. (2021). Man and Environment. Delivered an invited lecture in a national webinar organized

Gupta, A. K. (2021). Man and Environment. Delivered an invited lecture in a national webinar organized by Kabi Nazrul college, Murarai, Birbhum, West Bengal on 31st March, 2021.

Gupta, A. K. (2020). Gandhi's Ahimsa. Delivered an invited lecture in national Webinar on 'Relevance on Gandhian Philosophy in 21st Century' organized by Department of Arts and Culture, Government of Meghalaya, on 25thSeptember, 2020.

Gupta, A. K. (2020).DrRadhakrishnan on Education and Educators. Delivered an invited lecture 'on teachers' day, organized by Samvardhan Trust, on 5thSeptember,2020

Gupta, A. K. (2020). Human Development and Environment. Delivered an invited lecture at an event organized by 'Students for Development', on 12th August, 2020.

Gupta, A. K. (2020). Meditation and Mental Health. Delivered an invited lecture in a national webinar, organized by Vaishali Mahila College, Hazipur, on 3rd September 2020.

Gupta, A. K. (2020). Yoga: Philosophical Reflections. Delivered an invited lecture in an International Webinar organized by Mata Sundari College, University of Delhi on 7th July, 2020.

Gupta, A. K. (2020). 'Self Reliance of Ideas. Delivered an invited lecture online on in a ICPR Sponsored national Webinar organised by RamDayalusinghCollege, Muzaffarpur, Bihar, in June 2020.

Gupta, A. K. (2020). Meditation, Human Psychology and mental health. Delivered an invited lecture online at Navyog International webinar, in June 2020

Jaiswal, R. (2020). Towards a Gender-Neutral Amity: Challenges and Recommendations. Delivered a lecture in an online lecture series organized by Indialogue Foundation, on 6th June 2020.

Jaiswal, R. (2021). Understanding Aurobindo's Concept of Nationalism: An Integral Philosophy or A Religious Faith? Delivered a talk in an International Webinar on The Philosophy and Practice of Sri Aurobindo, Sponsored by ICPR in collaboration with Sri Aurobindo Ashram, New Delhi, held on 25th-26th February, 2021.

Kumar, K. P. (2021). Delivered a Special lecture on *Civil Society and Democracy* national webinar, organized by D.S.Govt Degree College for Women, Ongole, A.P. on 11th January 2021.

Kumar, K. P. (2021). Ambredkar's conception of Gender Delivered a Valedictory Lecture on Young Scholars webinar on 'Dr. Ambedkar and Gender Question' organized by CSSEIP, Jawaharlal Nehru University, Delhi on 28th October 2020.

Sahni,P. (2020). The Hindrances in the Early Buddhist *Nikāyas* and Why They Matter. Presented in a workshop/webinar on "Buddhist Doctrinal Perspectives, Their Meditational Roots, Ethics and the Soteriological Results", organized by Siddhartha University, Kapilavastu, Siddhartha Nagar, on 14th October, 2020.

PSYCHOLOGY

Major Activities and Achievements

The Department of Psychology offers M.A. in Psychology, M.A. in Applied Psychology and Ph.D. in Psychology. The Department has two units – Psychology Unit in North Campus and Applied Psychology Unit in South Campus. The total number of students, from both the North and South Campus in M.A. Programme are 170 and in Ph. D. Programme are 17. A Total of 16 students have been awarded with a Ph. D. degree this year. The Department also floats Papers of Interdisciplinary nature for the students of the other Departments such as Department of Buddhist Studies, Philosophy, Sociology, English, Sanskrit, Arabic and Linguistics, from the Faculty of Arts, University of Delhi. The research activities of the Department focus around areas of Community Development, Ageing, Multivariate Techniques, Counselling Services and Skills, Advances in Neuro-imaging Research, Buddhism and Psychology, Understanding Self from Indian Psychological Perspective, Art Therapy and Music Therapy, Prof. S.P.K. Jena published a book by an international publisher, evaluated research proposals submitted to Science and Technology of Yoga and Meditation (SATYAM) of the, Department of Science and Technology (DST), Completed the assignment of review of the Evaluation of Massive Open Online Courses (MOOCS) for B. A. (Hons.) Psychology Programme UG CAS Domain Expert. Two students awarded Ph. D. awarded under my supervision. Dr. Priyanka Anjan Rao was invited as Eminent Speaker for the Webinar on "COVID-19 Crisis: Challenges and Concern of Mental Health among Children," organized by Society for Health and Psychology Enabled Services, Delhi on 17th July, 2020.

Publications	07
Seminar/Conference Presentations	01

Research Projects

Prof. S.P.K. Jena has undertaken a project on "Developing resilience and entrepreneurship skills in underprivileged youth below poverty line" (Ongoing Project).

Extension and Outreach Activities

Prof. S.P.K. Jena has undertaken the Entrepreneurship Development Training Programme for the Underprivileged Women as part of skill training programme

Number of M.Phil./Ph.D. Degrees Awarded

Ph.D. : 16 M.Phil.: NA

Faculty Strength

Total (North and South Campus): 13

Permanent : 10 (08 + 02)Temporary : None Ad-hoc : 03

Other Significant Information

The Department has its own Placement Cell. It has been created for the Placements of the students pursuing both M.A. Psychology and M.A. Applied Psychology, from the University of Delhi. The Placement Cell provides a platform for the students to meet and interact with counselling, clinical, corporate organizations, and business houses. Besides this the information of the activities by Central Placement Cell of University of Delhi is also widely circulated in the departments for creating maximum employment opportunities for the students. The Department also runs a Counselling Centre and a Developmental Resource Centre to meet the specific needs of the community.

The Department has its own website 'psychology.du.ac.in'. The information about the department people, research students, courses run by the department, syllabus, seminars and other events are regularly updated on this website. The Department also has its own Library cum Reading Hall and Psychological Testing rooms. Books, Test Materials, Technological equipments, and Teaching-learning aids, are regularly purchased from time to time to upgrade the Laboratories and Class rooms into Hi-tech Smart Classrooms. The department has Bio-Feedback Device inclusive of Hardware and Software, Bulletin Boards, White Boards, and Invertor for Power Backup. The Department also has fully functional Internet access for every teaching staff in their room and in the 03 Laboratories.

Prof. S.P.K. Jena supervised a post-doctoral project of Dr. Pratima Pandey on "Self-regulation and resilience in students with Learning Difficulty," Indian Council of Social Science Research (ICSSR) June 2020.

List of Publications

Darolia, M., Pragyendu, Thakur, S., and Chhabra, D. (2020). Repercussions of Betrayal in Romantic Relationships. *Indian Journal of Psychological Science*, 12 (1).

Jena, S. P. K.(2020). Homelessness: Research, Practice and Policy, Routledge (Taylor Francis), London (and also a South Asian Edition published simultaneously)

Kundu, B. & Gupta, V. (2020). Dispositional Route to Job Satisfaction: A study among Primary School Teachers. *Journal of Organization and Human Behavior*, 9 (3 & 4),01-08.

Prakash, A. and Bajpai A. Understanding Organizational Behaviour in India: An Indigenous Perspective In G.Misra, N.Sanyal&S.De (Eds.). *Psychology in Modern India: Historical, Methodological and Future Perspectives.* Singapore: Springer.

Rao, P. A. (2020). Exploring Correlates of Selfitis and Narcissism among Indian Adolescents. *Clinical Psychiatry*, *6*, 1:67.

Rao, P. A. (2021). "Experiences of Domestic Workers in Delhi: A Community Psychology Perspective" in Edited Book "Women in Household economy", Editor Prof. Archana Sinha. Indian Social Institute, New Delhi.

Tripathi, P. & Gupta, V. (2021). Understanding lockdown experience and its relationship with psychological well-being in young married adults: an exploratory study during nationwide lockdown due to COVID-19 pandemic. *International Journal of Indian Psychology*, *9*(1), 1123-1134. DIP:18.01.118/20210901, DOI:10.25215/0901.118

Other Significant Information

Prof. S.P.K. Jena

Jena, S. P. K. (2020). Mental Health of the Homeless: Their Education and Rehabilitation. Invited Speaker for a National Resource Lecture, organized by National Institute of Mental Health Rehabilitation, Sehore, MP, on 20th October, 2020

Jena, S. P. K. (2020). Psychosocial Social Rehabilitation of Severely Mentally ill: Focus on Mental and Physical Disabilities. Invited Chairperson for a National Resource Lecture by Prof. T. B. Singh, organized by National Institute of Mental Health Rehabilitation, Sehore, MP, on 15th October, 2020.

Jena, S. P. K. (2020).Invited speaker on 'Overview of Criminal Behaviour'1130hrs to 1230 hrs, National Institute of Criminology and Forensic Sciences, Rohini, on 5th October 2020.

Jena, S. P. K. (2020).Mental Health During COVID-19: Depression, Anxiety and Stereotyped Behaviours. Invited speaker at Composite Regional Centre for Skill Development, Rehabilitation & Empowerment of Persons with Disabilities, Tripura, 10:00-11:00 a.m, on 29th October 2020

Jena, S. P. K. (2020). Single-case Design: Current Research and Applications. Invited speaker at Rastriya Rakshya University, School of Forensic Sciences Risk Management Department Gandhinagar, (Institution of National Importance), Virtual Workshop on Research Methodology Research Metrics, on 15-16th December, 2020 *Dr. Dinesh Chhabra*

Chhabra, D. (2020). Data Driven Innovation. Delivered an invited talk, organized by International Association of Young Psychologists & Jindal Institute of Behavioural Sciences, O.P. Jindal Global University, Sonipat (Haryana), on 18th December 2020

Seminar/Conference Presentations

Jena, S. P. K. (2020).Invited Speaker on International Webinar on "Improving Mental Health and Wellness in Youth", Department of Psychology, BJB (Autonomous), College, Bhubaneswar, on 10th October, 2020

PUNJABI

Major Activities and Achievements

Although period from (01-04-2020 TO 31-03-2021) was mainly Covid-19 affected and major portion of this period was lockdown period, but the Department of Punjabi have taken a new initiative by starting online lecture series. Online lectures to celebrate the International Days designated by UNESCO & other important international

organisations were organized by the Department of Punjabi. First lecture in this series was organized on 21, February, 2021 on International Mother Language Day delivered by Sh Jaswant Zafar, an eminent poet & thinker of Punjabi language. Second lecture in this service was organized on 27, March, 2021 on World Theatre Day delivered by Prof Satish kumar Verma (Retd. Prof & Director, Youth Welfare) of Punjabi University Patiala. Even after the said period International Day of Yoga and World Photography Day were also celebrated.

Honours/Distinctions (01)

Jaspal Kaur honored by Bharitya Bhasha Manch as Chief Guest on International Language Day on 27th February 2021.

Jaspal Kaur honored by Maitreyi College, University of Delhi as Alumna and Academic Achievements on 16th June, 2020.

Kumar, R. (2020). 'Shiromani Punjabi SahitkarPurskar', announced by Language Department, Govt. of Punjab.

Publications	14
Seminar/Conference Presentations	09

Journals

Ravinder Kumar serving as Member, Advisory Board of Punjabi Refereed Research Journal 'SANVAD' (UGC care approved Research Journal)

Ravinder Kumar serving as Member, Advisory Board of an International Progressive Punjabi Magazine 'CHARCHA's

Ravinder Kumar serving as Member, Advisory Board of Research Journal 'VISION' An International Journal of Humanities and Management.

Ravinder Kumar serving as Member, Chief Advisory Board of 'TASMAN' An International Journal of Punjabi Language, Literature and Culture.

Jaspal Kaur serving as Member, Editorial Board, VANTAGE Research Journal, MaitreyiCollege, University of Delhi, 2020 onwards.

SeminarsOrganised

International Mother Language Day 21, February, 2021.

World Theatre Day 27, March, 2021.

Nachhattar Singh organized webinar on 'Computer Vigyaan de sandharvvich Punjabi Bhasha: online Tools' having Dr. Tajinder Singh Saini and Ankur Rana as speakers on 11 June 2020.

Nachhattar Singh organized a webinar onWorld Theater Day having SatishKumar Verma as Speaker on 27 March 2021.

Ravinder Kumar (alias Dr. Ravi Ravinder) organized and participated in an Online Lecture delivered by Prof. Satish Kumar Verma on 27th March, 2021 on the eve of 'World Theatre Day'.

Ravinder Kumar presided over the literary program and delivered presidential remarks in the program organized by Sahit Chintan, Chandigarh on 02 August, 2020.

Ravinder Kumar coordinated an online discussion on the topic 'AnuvadikSamvaad' organized by Punjabi Academy, Delhi (Govt. of Delhi) on June 28, 2020.

Ravinder Kumar coordinated an online programme on 'A Fusion of Spirituality & Music-4' organized by Osho Fragrance on June 20, 2020.

Ravinder Kumar delivered Key-note address in a one-day National Webinar on the topic 'Covid-19 Vishav Mahamari Da Manav Jeevan TeParbhav' organized by Gopichand Arya Mahila College, Abohar, Punjab (NAAC 'A' Grade College, under DAV Managing Committee, New Delhi) on May 27, 2020.

Ravinder Kumar delivered a lecture in a one-day Webinar on the topic 'Corona Crisis: Challenges and Opportunities in Teaching and Learning' organized by Mata Sundri College for Women, University of Delhi, Delhi on May 26, 2020.

Ravinder Kumar delivered a lecture to the teachers of different colleges of Panjab University, Chandigarh in an online 'Teachers Training Workshop' on the topic 'Role of Teachers to motivate the students for Co-curricular, Youth and Cultural activities' organized by Department of Youth Welfare, Panjab University, Chandigarh on May 10, 2020.

Ravinder Kumar coordinated an online discussion on the topic 'Corona Sankat de Sabak' organized by Punjabi Academy, Delhi (Govt. of Delhi) on April 26, 2020.

Sankat VichionJeonaSikkhiye participated as a Speaker in a Seven-day online Youth Training Workshop organized by Department of Youth Welfare, Panjab University, Chandigarh on April 21, 2020.

Extension and Outreach Activities

Ravinder Kumar (alias Dr. Ravi Ravinder) coordinated a programme and participated in a discussion on 'Corona Sankat De Sabak'in an online Live Telecast on Punjabi Academy Delhi Facebook Page on 26 April, 2020.

Ravinder Kumar participated in the National Webinar entitled 'Teaching during and Post Corona Times' organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MHRD held on June 12, 2020.

Ravinder Kumar participated in the National Webinar entitled 'Women in Higher Education: Issues and Challenges during Corona Pandemic' organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MHRD held on May 27, 2020 (From 3 P.M. Onwards).

Ravinder Kumar participated in one day webinar on the topic 'Four Pillars of Education' organized by Manav Rachna Centre for Peace and Sustainability on May 20, 2020.

Ravinder Kumar participated in One Day Online workshop on Online Tools (RAx Software) for reviewing and managing research literature for better research productivity, organized by School of Education (Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, MHRD, Govt. of India), Guru Nanak Dev University, Amritsar in Collaboration with RAx Labs Inc and Balani Infotech on May 15, 2020.

Ravinder Kumar participated in the National Webinar entitled 'Challenges & Opportunities before Indian Higher Education due to Covid-19' organized by Guru Angad Dev teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MHRD held on May 2, 2020.

Ravinder Kumar participated in the National Webinar entitled 'Towards Excellence in Higher Education in India in the 21st Century: Challenges and Opportunities' organized by Guru Angad Dev Teaching Learning Centre SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching of MHRD held on May 1, 2020.

Ravinder Kumar participated in One Day Online workshop on Book & Article Publishing and Springer link Platform Demonstration organized by School of Education (Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, MHRD, Govt. of India), Guru Nanak Dev University, Amritsar in Collaboration with Springer Nature on April 22, 2020.

Ravinder Kumar participated in One Day Online workshop on Planning and Organizing Online Research Using Scopus And Mendeley organized by School of Education (Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, MHRD, Govt. of India), Guru Nanak Dev University, Amritsar in Collaboration with Elsevier on April 10, 2020.

Ravinder Kumar successfully completed one week Faculty Development Program on 'Higher Education: Road ahead Developing Next Generation Academic Leaders' organized by Department of Commerce & IQAC, Sri

Venkateswara College, University of Delhi in collaboration with PMMMNMTT, Teaching Learning Centre, Ramanujan College, held from November 25 - December 01, 2020 and obtained A+ Grade.

Nachhattar Singh successfully completed **One week (Online) work shop Digitization & Development of e-Resources for Sanskrit**,organized by School of Sanskrit & India Studies, Jawarharlal Nehru University Department of Sanskrit University of Delhi, held from **27.05.2020 to 02.06.2020**.

Nachhattar Singh successfully completed **One week (Online) work shop Sri Guru Tegh Bahadur Bani: The Study and Interpretation of Commentary,** organized by Punjabi Department, Punjabi University, Patiala, held from **07.09.2020 to 14.09.2020**.

Nachhattar Singh successfully completed **two week (Online) Refresher Course on Online 5th Refresher Course in Modern Language** organized by UGC-Human Resource Development Centre Jamia Millia Islamia, New Delhi – 110025, held from **23.10.2020 to 07.11.2020** and obtained A+ Grade.

Ph.D. / M.Phil Awarded

Ph.D. – 05

M.Phil. -03

Faculty Strength: 07

List of Publications

Books

Kumar, R. (2020). Ghadar Lehar Da Punjabi Sahit, New Delhi: Sahitya Akademi.

Journal Articles

Kumar, R. (2020). Badit... - Pathak KaheViharKe, Desh Sewak.

Kumar, R. (2020). Corona Sankat Ton Baad Di Duniya, Punjabi Tribune (Dastak).

Kaur, J. (2020). Research Article published in Guru Tegh Bahadur: Shahadat ate Rachna, edited by Dr.Jaswinder Singh & Dr Kuldeep Kaur Pahwa (S.G.T.B khalsaCollege) 2020, on "Guru TeghBahadur ji di bani: Maya da Sankalp".

Gojra, K. (2020). Rashtarvaadte Aadhunik Punjabi Kavita. Sanwaad, 12, 122-129.

Nasrali, B. (2020). Ikivisadi de ikkisabak, HUN.

Singh, N. (2020). Punjabi Bhasha: CodeMishrante Parivartan Sanvad (Dialogic), 12, 130-138.

Bala, R. (2021), Sufivadkezariye Punjabi sahitya mein Islam ka swaroop, WE (A Multidisciplinary & Multilingual Peer Reviewed Research Journal, 1 (1-2), 99-106.

Singh, Y. (2020). Amrita Pritam: Romance da Surkhiya Chakar, Filhaal, 29, 67-76.

Singh, Y. (2020). Uttarbastivad. Parkh, 2, 113-135.

Singh, Y. (2021). Bol Mardania: Brahmandi Nizam da Kaynati Tassavar. Sanvad, 13, 85-91.

Singh, Y. (2021). Puran Singh: Kaynati Jashan di Kavita. PrePoetic, 1, 73-87.

Singh, Y. (2020). Corona Sankat teSarmaidari Nizam, 'Punjabi Tribune, Chandigarh.

Singh, Y. (2021). Puran Singh: KainatiJashan da Kavi, 'Punjabi Tribune, Chandigarh.

List of Seminar/Conference Presentations

Kumar, R. (2021). 'Punjabi Sabhyachar: Ateet ton SamkalTak'. Delivered lecture, organized by Dasmesh Khalsa College, Muktsar (Punjab).

Kumar, R. (2020). Key-note speakeratNational webinar on the topic 'Guru Nanak Bani VichSamvaad ate Sadachar' organized by IGNCA (Ministry of Culture, Govt. of India) and Punjabi University T.P.D. Malwa College (Rampura Phool), on 28th October, 2020.

Kumar, R. (2020). 'Punjabi Basha, Sahit ate Sabhiyachar Da Ateet, Vartman ate Bhivikh'. Presented in a webinar organized by Department of Punjabi and Dogri, Central University of Himachal Pradesh, on August 29, 2020.

Gojra, K. (2020).Presented in a one-day International Webinar on Punjabi Bhasha de online Adhaapandiyan Academic, TaknikiteViharikSamaseyawan' organised by the Department of Punjabi, Punjabi University Patiala on August 18, 2020.

Singh, B. (2020). Presented in a webinar, organized by Layalpore Khalsa College Jallandhar on Social Cultural change during Covid-19, on 31st May 2020.

Singh, B. (2020). Presented in a webinar, organized by University College Ghanor on How books help to reach your dreams, on 8th July 2020.

Singh, B. (2020). Presented in a webinar, organized by Shahzada Nand College Amritsar on Online teaching learning Pedagogy, on 4th August 2020.

Singh, Y. (2020). Interrogating Modernity in Punjabi Literature. Delivered an online extension lecture at Lyallpur Young Historian Club, Lyallpur, 12th August 2020.

Singh, Y. (2020). Language, Literature and Politics. Delivered a talk as a Resource Person at 1st Seven days Webinar Series on Emerging Trends in Indian Education, S.D College of Education, Barnala, on 5thNovember 2020.

SANSKRIT

Major Activities and Achievements

The Department organized Prof. N.N. Memorial Lecture 2021 on Saturday, January 16, 2021 through Google Meet. Department of Sanskrit, Delhi University, celebrated Sanskrit Diwas on 4th September, 2020 online on Google meet. The Department organized National Workshop on 'Indian Knowledge System and Higher Education with reference to New Education Policy 2020' on 11th-13th March 2021 at Gandhi Bhawan.

Honours/Distinctions (15)

Prof. Ramesh C. Bharadwajreceived U. N. Brahma Soldier of Humanity Award from U. N. Brahma Trust, Kokrajhar, Assam on 10 January 2021.

Prof. D. S. Tiwary received *Loknayak National Award 2020 in Education* on 11th October, 2020 at India International Centre, New Delhi in an event organized by Loknayak Jayaprakash International Studies Development Centre (LNJPISDC) on the eve of 118th Jayaprakash Jayanti Samaroh.

Prof. Ranjan Kumar Tripathi received Saraswat Samman 2020 by Akhil Bhartiya Saraswat Parishad

Prof. Ranjan Kumar Tripathi is a Member of Board of Studies at Amity Institute for Sanskrit Studies and Research, Amity University, Noida, UP wef.18.02 2021 to 17.02.2023.

Prof. Ranjan Kumar Tripathi serves is a Member BRS, Faculty of Arts, University of Delhi w.e.f. January 2021 to January 2023.

Prof. Ranjan Kumar Tripathi has been Nominated as VC Representative (Member of Governing Body) at SPM College, University of Delhi, Delhi wef. 25.02.2021 to 24.02.2022

Prof. Ranjan Kumar Tripathi is a member of DRC (August, 2020-August 2022, University of Delhi

Prof. Ranjan Kumar Tripathi is a member of All India Sanskrit Sahitya Sammelan, 2020, New Delhi

Prof. Ranjit Behera is a member of Research Board, Central Sanskrit University, Jankpuri, New Delhi.

Prof. Ranjit Behera is a member of Editorial Committee, Bharatavani Project, Govt. of India, CIIL, Mysore, Karnatak

Prof. Ranjit Behera is a member of Executive Committee, Delhi Sanskrit Academy, Delhi

Prof. Ranjit Behera received a Global Faculty Award by AKS Education Society for the year 2020

Prof. Ranjit Behera serves as a convener, Central Admission Grievance Committee, University of Delhi 2020-21

Prof. Ranjit Behera is a member of Governing Body, Deshbandhu College, University of Delhi from 10.2.2021 to 9.2.2022

Dr. Uma Shankar received the best Paper Presentation Award, SPDM Arts, SBB & SHD Commerce and SMA Science college, SHIRPUR Dist. Dhule(MS) IQAC and Department of Physical Education and sports organised Online International Conference on -Post Covid Education ,Physical Education Scenario held on 29th May 2020, Entitled- "योगकेमाध्यमसेसर्वांगीणविकास"

Publications	13
Seminar/Conference Presentations	47

Journals

Number of Department Teachers Serving as Editor(s)/Members(s) of Editorial Board in National/International Journals (4)

Behera, R (Prof.): Editor, WAVES Newsletter, May, 2017 onwards

Behera, R (Prof.): Editor Member, Review Board, Vagarth, An International Journal of Sanskrit Research.

Behera, R (Prof.): Editor Member, Advisory Board, Sanskrita-manjari, Delhi Sanskrit Academy, Delhi.

Tiwary S. D (Prof.): In the Editorial Board of Patliputra Journal of Indology, (ISSN – 2320-351X), (UGC Approved) Published from Patliputra Centre for Indological Research, Patna.

Tiwary S. D. (Prof.): Executive Editor of International Journal of Sanskrit Research (Anantaa), Delhi, ISSN: 2394-7519.

Tiwary S. D. (Prof.): In the Editorial Board of Refereed Journal Drishtikon (ISSN – 0975-119X) published from DrishtikonPrakashan, New Delhi.

Tiwary S. D. (Prof.): In the Editorial Board of an International Refereed Research Journal Tripathaga July-December 2015, Vol. 1.11, ISSN 2395-4280, BHU, Varanasi.

Tiwary S. D. (Prof.): Editor of the Proceedings of International Conference on *Recent Trends in Humanities, Education, Arts, Culture, Languages, Literature, Philosophy, Religion, Gender and Management Studies (HEALM-2019)* on 04 May, 2019at JNU, New Delhi, as a book *Recent Trends in Humanities, Education, Arts, Culture, Languages, Literature, Philosophy, Religion, Gender and Management Studies (HEALM-2019)*, Krishi Sanskriti Publications, Maidan Garhi, New Delhi, ISBN: 978-93-85822-88-9, Year-2019.

Tiwary, S. D. (Prof.): Editor –in-Chief of Journal of Arts, Culture, Philosophy, Religion, Language and Literature (e-ISSN: 2457-0346), 2019, New Delhi.

Tripathi, K. R. (Prof.): Chief editor of Tripathagaa, an International research Journal

Singh, P. A. (Dr.): Chief Editor, Shodh Navneet (An International Referred Journal, ISSN 2321 - 6581)

Research Projects

Prof. Meera Dwivedi: Indian council of philosophical research (ICPR) approved a project on the topic of "Bhartiya Darsana men pratipaditaguna-trya ki avdharana ka Sanskrit, Kavyasastra para prabhava on 23.02.2021 (for 3 year) Amount sanctioned Rs. 5,00,000 /-

Dr. Vijay Shankar Dwivedi: Sanctioned by Institutes of Eminence, University of Delhi Under faculty research programmeFaculty Research Programme (FRP), of the Institutes of Eminence, University of Delhi sanctioned amount of Rs. 1,25,000/-

Seminars Organised

The Department has organized National Workshop on 'Indian Knowledge System and Higher Education with reference to New Education Policy 2020' on 11-13 March 2021 at Gandhi Bhawan, Prof. Ramesh, C. Bharadwaj serves as the Head & Director of Gandhi Bhawan

Due to COVID19, from 15 March 2020 onwards, the courses/ classes/ lectures/ seminars are being conducted through online/ virtual mode. The undersigned was also invited as Resource Person in various programmes organized by different Universities, as following:

- Celebration of International Day of Yoga-21 June 2020 in collaboration with Gandhi Bhawan, University of Delhi.
- Webinars/programmes/events were organized in which the undersigned was invited as speaker/resource
 person at various institutions/universities post March 2020.

The department also organized various webinars/events on Mahatma Gandhi from time to time through virtual mode post March 2020. The list is given as following:

Special lecture on 'Patanjali Yoga Sutra' by Gandhi Bhawan, DU on 8th May, 2020

Lecture on 'Corona Ki Chunautiyan Aur Gandhi Vichar' by Moti Lal Nehru College, DU on 9th May, 2020 Lecture on 'Coronakaal Mein Sanskrit ki Bhumika' by Maitreyi College, DU on 13th May, 2020.

Importance of Ayurveda in present scenario of COVID-19 by World Hindi Secretariat, Mauritius and Rashtriya Sanskrit Manch, New Delhi on 17th May, 2020

Bharat Mein Takniki Vikas: VibhinnKalkhandon Mein by Sanskrit Department, DU on 21 st May, 2020 Lecture Series on the great Indian philosophers as following: i. Acharya Shankar (23 rd May, 2020), ii. Acharya Jaimini (26 May, 2020), iii. Vachaspati Mishra(2 nd June, 2020) by Sanskrit Department, DU collaboration with & Gandhi Bhawan, DU

Lecture Series on Mahatma Gandhi Webinar by Ram Lal Anand College, DU from 19th to 23rd May, 2020 Webinar on Mahatma Gandhi by Mahatma Gandhi Adhyayan Kendra, JRRS University, Jaipur, Rajasthan on 30th May, 2020

Mahatma Gandhi aur Pandit DeenDayal Upadhyaya by DeenDayal Upadhyay Peeth, Himachal Pradesh on 5th June, 2020

Two-day International Conference on 'Dharmashastriye Achar-Vicharon ki VartamaanmeinPrasangikta' by Department of Sanskrit, Sogra College, Biharsharif, Nalanda, Patliputra University, Patna, Bihar from 18th to 20th July, 2020

Lecture Series 2020 – 'Arya Akramanke Siddhant kesandarbhmein Dr. Ambedkar ka Chintan' by Himachal Pradesh Central University, Himachal Pradesh on 19th July, 2020

Special Lecture on 'Vaidik Kaal Nirdharan' (SahityikevamPuratatviksandarbhmein) by Sanskritshauryam Facebook on 20th July, 2020

E-seminar on 'Atmanirbhar Bharat: Gandhi vichar ki Prasangikta' by Dakshin Bharat Hindi Prachar Sabha, Madras on 31st July, 2020

Summer Workshop on 'The Regeneration of Indian Society in the Light of Constructive Programmes of Mahatma Gandhi' by Gandhi Bhawan, University of Delhi from 10th to 20th August

Acharya KakasahebKalelkar Memorial Lecture on 'Rashtriya Shiksha NititathaSamajikDrishtikon' by Gandhi Bhawan, University of Delhi & GHSS, Rajghat, New Delhi on 20th July, 2020

International Webinar on 'Thoughts and Philosophy of Mahatma Gandhi' by Gandhi Bhawan, University of Delhi & Center for DeenDayal Upadhyaya Studies, HP University, Kangra, HP on 22nd July, 2020

Release of 'Instruction Manual to manage COVID19' based on indigenous Indic Knowledge viz., Ayurveda, Yoga, Acupressure therapy, Mudras, Pranayams, etc. by Gandhi Bhawan, University of Delhi on 23rd July, 2020

Webinar on 'Bhartiya Darshan keKatipayaGyanmimansiyePrashna: VisheshRoop se Nyaya-Shaikshik darshan keSandarbhmein' under the auspices of Bhartiya BaudhikVirasatVyakhyayanmala by Department of Sanskrit, Hansraj College, University of Delhi on 25th July, 2020

Release of Instruction Manual on to manage Covid19 at Home & Lecture by Dr. Bajrang Lal Gupta, Eminent Thinker of Country on 23rd August, 2020

Webinar on 'Pracheen Bharat meinTakniki Gyan' by Kashi Hindu Vishwavidyalaya on 22nd September, 2020. Gandhi and Contemporary Challenges by ICCR – Swami Vivekananda Cultural Center, Consulate General of India, South Africa on 23rd September, 2020

 $Talk/\ Lecture\ on\ Mahatma\ Gandhi\ by\ ICCR\ -\ Thomas\ Varghese,\ Head\ of\ Chancery,\ Bratislava\ on\ 23^{rd}\ September,\ 2020$

Message/ Talk on Mahatma for Gandhi Jayanti - 2 October by ICCR - Dr. Syed Tanveer Nasreen, Director, ICC, High Commission of India, Male, Maldives on 27th September, 2020

Webinar on 'Matri Bhasha aur BhartiyeBhashayen' by Shri Atul Kothari, Educationist, Shiksha SanskritiUtthanNyas, New Delhi on 28th September, 2020

International Webinar 'Gandhi and Contemporary Challenges' by Gandhi Bhawan, DU from 27th September, 2020 to 1st October, 2020

Talk on 'Gandhi and Contemporary Challenges' by Indian Cultural Center, Embassy of India, Bratislava on 29th September, 2020

Talk on 'Gandhi and Contemporary Challenges by Indian Cultural Center, Embassy of India at Hague, Netherlands on 29th September, 2020

International Webinar on 'Gandhi: A Nationalist of Socio-political Movements' by Lal Bahadur Center for Indian Culture, Embassy of India, Tashkent, Uzbekistan on 30th September, 2020

International Webinar 'Gandhi and Contemporary Challenges' by Gandhi Bhawan, DU on 30th September, 2020 International Webinar on 'GANDHI150' by Gandhi Bhawan, DU in collaboration with MGI, Moka, Mauritius on 1st October, 2020

Talk on 'Mahatma Gandhi on Women and Making them Equal in Society' by Bharati College, University of Delhi on 1st October, 2020

Talk/ Message on Gandhi Javanti by Shyam Lal College (Evening) University of Delhi on 1st October, 2020

Closing Ceremony of GANDHI 150 by Gandhi Bhawan, DU on 2nd October, 2020.

Talk on Mahatma Gandhi by Kamla Nehru College, University of Delhi on 2nd October, 2020

Lecture/ Talk on Mahatma Gandhi by Indian Cultural Center, Embassy of India, Kuwait on 2nd October, 2020

Lecture/ Talk on GANDHI 150 by Jaipur University on 2nd October, 2020

Lecture/ Talk on Mahatma Gandhi by Indian Cultural Center, Embassy of India, Tel Aviv, Israel on 2nd October, 2020

Lecture/ Talk on Mahatma Gandhi by CSTT on 2nd October, 2020

Lecture/ Talk on Mahatma Gandhi by Biharsharif, Nalanda University, Bihar on 2nd October, 2020

Lecture/ Talk on Mahatma Gandhi by Kashi Hindu Vishwavidyalaya (BHU) on 2nd October, 2020

Lecture/ Talk on Mahatma Gandhi by Indian Cultural Center, Embassy of India, Bagota, Columbia on 2nd October, 2020

Faculty Development Programme on Yoga by In collaboration with Ramanujan College, University of Delhi from 23^{rd} to 27^{th} October. 2020

Faculty Development Programme on Hind Swaraj with reference to the book 'The Making of Hindu Patriot' by J.K.Bajaj and M.D. Srinivas in collaboration with Hansraj College, University of Delhi from 23rd to 30th January, 2021.

Prof. Ranjit Behera coordinated the Webinar on Acharya Shankar organized by the Department of Sanskrit, University of Delhi on 23rd May, 2020

Prof. Ranjit Behera Coordinated the Webinar on Acharya Jaimini organized by the Department of Sanskrit, University of Delhi on 26th May, 2020

Prof. Ranjit Behera Coordinated the Webinar on Vachaspati Mishra organized by the Department of Sanskrit, University of Delhi on 2nd June, 2020

Dr. Uma Shankar organized the level 1 of the Environment Youth Forum 2021 - Nurturing Environment Leaders (online) on at NCWEB, University of Delhi on 20th January 2021

Dr. Uma Shankar organized 07 Days online Orientation Programme for the NCWEB Guest Faculty was between 19^{th} January to 27^{th} January 2021.

Dr. Uma Shankar organized Online self-composed poem competition titled "Women as Nation Builders' on the occasion of International Women's Day at NCWEB on 8th March, 2021.

Dr. Uma Shankar organized Online "Human Rights Workshop" titled "Protecting Human Rights of Women and children" at NCWEB for the UG /PG students on 10th March, 2021.

Dr. Subhash Chandraorganized One Week Online National Workshop on Digitization & Development of e-Resources for Sanskrit in collaboration with School of Sanskrit and Indic Studies, Jawaharlal Nehru University, New Delhi, through Zoom Meetings/YouTube live from 27th May to 2nd June 2020

Other Inter-Institutional Collaboration

The Department has organized National Workshop on 'Indian Knowledge System and Higher Education with reference to New Education Policy 2020' on 11-13 March 2021 at Gandhi Bhawan,

Placement Details

Mr. Atul Kumar, registered in the Ph.D program on 8th November 2019 has joined as an Assistant Professor on 26th February 2021 through Uttrakhand Public Service Commission (UKPSC)

Ms. Upama (SRF), registered in the Ph.D program on 12th May, 2016 has joined as a TGT on 28th January, 2021 through UPSC, Prayagaraj

Ms. Akansha Sharma (SRF), registered in the Ph.D program on 24^{th} October, 2016 has joined as a PGT in Sanskrit on 5^{th} October, 2020 through DSSB

Mr. Lalit registered in the Ph.D program on 19th December, 2018 has joined as an assistant teacher on 26th October, 2020 in Meerut (UP).

Mr. Vikas Gautam registered in the Ph.D program on 8th November, 2019 has joined as an assistant teacher on 23rd October, 2020 in Agra

Number of M.Phil./Ph.D. Degree Awarded

M.Phil = 15 Ph.D = 16

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Other Significant Information

Behera, R. (2020). Participated as a panelist in the Panel Discussion on National Education Policy & Sanskrit organized by Sanskrit Shikshak Sangh, Delhi on 16th August 2020.

Dwivedi, S. V (2021). Participated in the 14th International Conference and 24th India Conference of WAVES on Impact of Vedic Wisdom on the word today organized through zoom cloud meeting on December 25, 26,27, 2020 & January 1, 2, 3, 2021 and presented a paper entitled 'Atharveveda me varnitDirghayuPraptkarnekeUpaya' Dwivedi, S. V (2020). Participated in International Webinar on Gandhi Darshan: VividhAayam organized by Department of Sanskrit, gargi College, University of Delhi, Delhi on dated 03 October -2020

Dwivedi, S. V (2020). Participated in the Online 2 days International Conference on SamvediyaBrahmaneshuVividhVijanam jointly organized by Swami SamarpananandvedicSodhSansthan Meerut & Uttar Pradesh Sanskrit Sansthan Lucknow on dated 30-31July-2020

Dwivedi, S. V (2020). Participated in International Webinar on Corona Sankramankalmein Bhartiya Jeevan Paddhati ki Upyogita jointly organized by Nitiswar College Mujffarpur Bihar & Rastriya Sanskrit Manch Bihar Prant on dated 26 July-2020

Dwivedi, S. V (2020). Participated in the two days International Webinar on Impact of COVID-19 on Global Economy jointly organized by Faculty of Commerce &Research studies Swami Sukhdevanand Post Graduate Collage Shahjahanpur U.P. India & Novel Academy, Pokhrara, Nepal on dated 28-29 June-2020

Dwivedi, S. V (2020). Participated in the Online International Webinar on Vedic (Hindu) Dharma & Science: Is India Teaching Pseudos' Science? jointly organized by Sanskrit Studies Centre Silpacorn University, Bangkok Thailand & Rashtriya Sanskrit Manch India on dated 14-June-2020

Dwivedi, S. V (2020). Participated in the International Webinar on Spirituality and science are complimentary: Science is incomplete without Spirituality jointly organized by World Hindi Secretariat (A Bilateral organization of the Government of India and Government of Mauritius) Phoenix Mauritus&Rashtriya Sanskrit Manch on dated 21-June-2020.

Dwivedi, S. V (2020). Participated in the International Webinar on Guidance and counselling for Wellbeing jointly organized by Department of Education Meerut collage Meerut & Guidance and counselling cell Meston Collage of Education Chennai T.N. & Association of Innovation Education Meerut on dated 20-June-2020

Dwivedi, S. V (2020). Participated in the International Webinar on The revival of Indian perspective and lifestyle to combat the covid-19pandemic(with reference to Sanskrit Literature) jointly organized by Department of Sanskrit, Isar Saran Degree Collage &WAVES (Wider Association for Vedic Studies) on dated 27-May-2020

Dwivedi, S. V (2020). Participated in the International Webinar on Importance of Vedic Principles of Living in Present scenario of Covid-19 jointly organized by Rastriya Sanskrit Manch & R.D.&D.J. Collage, Munger on dated 07-06-2020

Dwivedi, S. V. (2020). Participated in two days online International Webinar on "Various dimension of Corona Problem and Vedic Remedies (Medical, Psychological, Social, Environmental and Economic) "organized Indian Foundation for Vedic Science & Rashtriya Sanskrit Manch on 24-25 May, 2020.

Dwivedi, S. V. (2021). Participated in National Seminar on The Importance of Different Dimensions of Vedanta Philosophy in Present Era Organized by P G Department of Sanskrit, University of Jammu, Sponsored by Indian Council of Philosophical Research, New Delhi on dated March 26-27, 2021, , and presented research paper in titled Atharvveda me varnit Brahma kevividhroop.

Dwivedi, S. V, (2021). Participated in National workshop on Indian knowledge system and higher Education with Reference to New Education Policy (NEP) 2020 Orgnized by Department of Sanskrit South Campus, University of Delhi & Gandhi Bhawan, University of Delhi on dated March 11-13, 2021.

Dwivedi, S. V, (2020). Participated in National Web Symposium on Upnishdonmein Manav Kalyan Ki Bhawna Organized by Department of Sanskrit & Pt. Ganganath Jha Peeth, University of Allahabad, Prayagraj, Uttar Pradesh on dated 11-10-2020.

Dwivedi, S. V. (2020). Participated in National Webinar on Contribution of Sanskrit towards building society in the present scenario Organized by Amity school of liberal Arts, Amity University Haryana & Wider Association for Vedic Studies (WAVES) India on dated 6-8-2020.

Dwivedi, S. V (2020). Participated in National Webinar on Aadhunic Bhartiya Bhashaon ki VividhtameinEkata aur Shrimad Bhagawadgeetaavmtanavmulti Organized by Hansraj Collage University of Delhi on dated 12-06-2020.

Dwivedi, S. V (2020). Participated in National E -seminar Vedic SanskritikeSanrakshak Swami SamrpananandSarswti Organized by Samrpananand Vedic ShodhSansthan Gurukul Prabhat ashram Meerut, on dated 4-7-2020.

Dwivedi, S. V (2020). Participated in National Webinar on Guru Shishya Tradition in Indian culture Organized by Wider Association of Vedic Studies (WAVES) and TarunTarang Waves on dated 5-7-2020.

Dwivedi, S. V (2020). Participated in National Webinar on Hindi Cinema ka studio yug Organized by Hansraj Collage, University of Delhi on dated 6-7-2020.

Dwivedi, S. V (2020). Participated in National Webinar on kenopnishadvimarsh (Motilal Shastri ke Alok mein) Organized by Shri Shankar Shikshayatan Delhi on dated 30-6-2020 -1.7.2020.

Dwivedi, S. V (2020). Participated in the National Webinar on Utility of Ancient culture during Covid-19 Pandemic organized by Government women P.G. Collage Kandhla (Shamli) U.P. on dated 14-06-2020.

Dwivedi, S. V (2020). Participated in the National Webinar on Sanskritvangmay aur ManviyaMulya organized by Acharya Narendradev Kisan P.G. Collag, babhnan, Gondain collaboration with Institute of engineering &Technolog, Dr R.M.L.Avadh University Ayodhya, Uttar Pradesh. on dated 04-06-2020

Dwivedi, S. V (2020). Participated in the National Webinar on Relevance of Yoga, Ayurveda and Vedic Philosophy of life in the current scenario of Covid-19 organized by Department of Sanskrit, Government P.G. Collage Chunar Mirzapur U.P. on dated 11-06-2020

Dwivedi, S. V (2020). Participated in one week online National Workshop on Digitization & Development of e-Resources for Sanskrit jointly organized by Department of Sanskrit & Indic studies Jawahar Lal Nehru University & Department of Sanskrit, University of Delhi, Delhi during May27- June 2, 2020.

Dwivedi, S. V (2020). Participated in the National Webinar Puran Adhyayan avmShodhkeVividhAayam organized by Bhartiya PuranAdhyyan Sansthan New Delhi on dated 30-05-2020

Dwivedi, S. V (2020). Participated Pt. Vashudev Shastri Memorial Lecture organized The Sanskrit Society of India on Google Meet dated on 26-05-2020

Dwivedi, S. V (2020). Participated in the National Webinar (Parisamvad) on expectation and Responsibilities of youth in Present Time jointly organized by TarunTarang (Youth Wing) WAVES and Ram Jaipal College, Chapara Bihar on dated 06-06-2020

Dwivedi, S. V (2020). Participated in lecture series on Bhartiya Darshan kePramukh Acharya (Lecture on Vachaspati Mishra) jointly organized by Department of Sanskrit & Gandhi bhawan ,University of Delhi , Delhi on dated 2-06-2020.

Dwivedi, S. V (2020). Attended the National Webinar on Technology And Methods for Online Sanskrit Teaching organized by Janki Devi Memorial College ,University of Delhi , Delhi on dated 22-05-2020

Dwivedi, S. V (2020). Attended the Exclusive special web Lecture on Punchkosh organized by Department of Sanskrit under the Arsis of IOAC Ram Jaipal Collage, Chapra (Bihar) on dated 27-05-2020

Meena, C. T. (2020). Attended and delivered vote of thanks in Three-Day National Workshop (11-13 Mar 2021) on Indian Knowledge System And Higher Education" *With Reference To* New Education Policy (Nep 2020) collaboration of Department of Sanskrit, UDSC and Gandhi Bhavan, Delhi University.

Meena, C. T. (2020). Attended, actively participated & presented his critical views in One day inter-disciplinary National Webinar on the above said topic ''Defining Role of Brahmins &Brahminical Elements in Indian History (Part 4)" held on 30.07.2020. organized by Dept. of Sanskrit SDHDR& T Centre of SD College Ambala Cantt. Meena, C. T. (2020). Attended, actively participated & presented his critical views in One day inter-disciplinary National Webinar on the above said topic ''Decoding Consciousness in Sanskrit Tradition and Medical Sciences'' held on 27.07.2020 organized by Dept. of Sanskrit SDHDR& T Centre of SD College Ambala Cantt.

Tiwary, D. S. (2021). Coordinated the VIIth Session on Arts & Sciencein a three-day National Workshop on the Indian Knowledge System and Higher Education with Reference to New Education Policy (NEP) jointly organized by Department of Sanskrit, South Campus and Gandhi Bhawan, University of Delhi during March 11-13,2021 at Gandhi Bhawan, University of Delhi, on 13th March 2021.

Tripathi, R. K. (2020). Delivered FB live lecture on "Bhartiya Sanskriti Evam Sahitya" organized by Khwahish Foundation (A movement for reforming lives) on 23rd August 2020.

Tripathi, R. K. (2020). Delivered Online Lecture on Sanskrit Sahitya men Jivan-Mulya on Sudarshan TV on 23.10.20 organised by Sahitya Parishad, Delhi

Tripathi, R. K. (2020). Delivered Online Lecture on Corruption as a Chief speaker at Delhi Public Library, Delhi on 27.10.20

Tripathi, R. K. (2020). Delivered Online Lecture as Resource Person in the Refresher Course at UGC-HRDC, Jamia Millia Islamia University, Delhi on 6.11.20

Tripathi, R. K. (2020). Invited as a subject Expert for Promotion at Hindu College, University of Delhi, on 20.12.2020.

Tripathi, R. K. (2020). Delivered Lecture as resource person on Research Methodology at Bundelkhand University Jhansi on 18th May 2020.

Tripathi, R. K. (2020). Invited as Recourse person in the Faculty Development Program (FDP), organized by Ramanujam College, University of Delhi on 22nd May 2020.

Tripathi, R. K. (2020). Delivered a live lecture on Face-book portal in an event organized by `Sanskrit-Sauryam`, on 24th May 2020

Tripathi, R. K. (2020). Delivered FB live lecture on `AKHAR' Bhojpuri International Portal on 8th June 2020.

Tripathi, R. K. (2020). Delivered lecture as chief speaker on Relevance of Sanskrit language & literature at Ramanujam College, University of Delhi, Delhi on 6th August 2020.

Tiwary, D. S. (2021). Delivered a lecture as a keynote Speaker at State Level Short TermOnline Training Course Initiative for Teaching Learning Excellence, jointly organized by Commissionerate of College Education, Rajasthan & Department of Sanskrit, Ch. BalluramGodara Govt. Girls College Sri Ganganagar, on 20th February 2021.

Tiwary, D. S. (2020). Sanskrit Vangmay Mein Vijnana. Delivered lecture on the Sanskritshauryammanch (YouTube) live-telecast organized by Dr. Raj Kumar on 8th June 2020.

Tripathi, R. K. (2021). Delivered online lecture as a chief speaker on the occasion of National Youth Day (One day National Seminar) organized by BSNV(PG) College Lucknow0n 12.01.2021.

Tripathi, R. K. (2021). Invited as a subject Expert for Promotion at Deshbandhu College, University of Delhi, on 15.02.2021.

Tripathi, R. K. (2021). Delivered online lecture as a Resource Person in FDP held on 19.02.2021 at CB Ballu. Ram Godara Gov. Girls College, Shri Ganga Nagar, Rajasthan.

Tripathi, R. K. (2021). Delivered online lecture as a Resource Person in the Sanskrit Department, Patna University on 20.02.2021.

Tripathi, R. K. (2021). Invited as a subject Expert for Promotion at Laxmi Bai College, University of Delhi, on 22.02.2021.

Tripathi, R. K. (2021). Invited as a subject Expert for Promotion at Kamala Nehru College, University of Delhi, on 23.02.2021.

Tripathi, R. K. (2021). Delivered online lecture as a Resource Person in the Refresher Course on 24.02.2021, organized by CPDHE, Kumaun University, Nainital, UK.

Tripathi, R. K. (2021). Invited as a subject Expert for Promotion at Hindu College, University of Delhi, on 06.03.2021.(4pm)

Tripathi, R. K. (2021). Invited as a subject Expert for Promotion at Miranda House College, University of Delhi, on 10.03.2021.

Tripathi, R. K. (2021). Delivered online lecture as a Speaker in the department of Sanskrit, Dindayal University, Gorakhpur on.22.03.2021.

Tripathi, R. K. (2021). Delivered online lecture as a Saraswat Guest in the department of Sanskrit, Amity University, Noida, (UP) on 25.03.2021.

Participation in International/National Conferences/Seminars/Symposiums (16)

Singhal, S. (2021). On the topic **ageing Issues: Indian, Regional and Global Context**Two day Webinar International Institute on Ageing United Nations-Malta (India) in Collaboration with Development, Welfare & Research Foundation, New Delhi & Department of Sociology and IQAC, Maitreyi College (University of Delhi) held from 16-17 Jan. 2021.

Singhal, S. (2020). On the topic Contribution of Modern Poets in Sanskrit Literature

(संस्कृतवाङ्मयेअर्वाचीनकवीनाम्अवदानम्) Three day International E- Research Conference, Department of Sanskrit, Maitreyi College (University of Delhi) &Department of Sanskrit, Rambachan Singh Gov. Girls Degree, College, Mau, UP, Held From 28-30 Nov., 2020 (Through Google Meet)

Singhal, S. (2020). On the topic **Online Teaching – Learning & Eye Care** National Webinar By Health & Hygiene Committee, Maitreyi College (University of Delhi) on 06 Sept., 2020.

Singhal, S. (2020). On the topic भारतीयदर्शनकेकतिपयज्ञानमीमांसीयप्रश्न: विशेषरूपसेन्याय-

वैशेषिकदर्शनकेसन्दर्भमें National Webinar By Department of Sanskrit, Hansraj College (DU) on 25.08.2020.

Singhal, S. (2020). On the topic संस्कृतवाङ्मयेस्त्रीविमर्शःअन्तर्जालीयराष्ट्रीयसंगोष्ठी, संस्कृतविभाग,

महात्मागांधीकेन्द्रीयविश्वविदयालय, मोतिहारी, बिहार, On 20.07.2020.

Singhal, S. (2020). On the topic अन्ताराष्ट्रीयविचारसङ्कीर्णं—श्रीजयतीर्थःवादप्रकरणानिचInternational Webinarby Department of Philosophy MAHE, Manipal on 13.07. 2020.

Singhal, S. (2020). On the topic **पातञ्जलयोगसूत्रःसमग्रदृष्ट (साधनाकेत्रिविधमार्ग**)अन्तर्राष्ट्रीयअन्तर्जालीयसंगोष्ठी, संस्कृतिशक्षिकसंघ, दिल्ली On 07.07.2020.

Singhal, S. (2020). On the topic

वैदिकसंस्कृतिकेसंरक्षकस्वामीसमर्पणानन्दसरस्वतीअन्तर्जालीयराष्ट्रीयसंगोष्ठीगुरूकुलप्रभातआश्रमटीकरी, मेरठ (उ.प्र.) On 04.07.2020,

Singhal, S. (2020). On the topic **Current Practices in Manuscripts Text Editing** National Webinarby IGNCA, New Delhi on 30.06. 2020.

Singhal, S. (2020). On the topic **पाणिनीयोच्चारणशिक्षाशिक्षणम्**, राष्ट्रीय–अन्तर्जालीय–संगोष्ठी, by ग्रुक्लकाङ्गडीहरिद्वारम्, on 29.06.2020.

Singhal, S. (2020). On the topic **जीवनकीसीमाऔरविस्तारराष्ट्रीयशिक्षा** National Webinar by Department of Sanskrit, Hansraj College (DU) on 20.06.2020.

Singhal, S. (2020).:On the topic **भारतीयदर्शनकेप्रमुखआ**चार्य (वाचस्पतिमिस्र) National Webinar by Department of Sanskrit (University of Delhi)on 02.06.2020.

Singhal, S. (2020).On the topic ध्वनिकास्वरूपNational Webinar by Department of VVBIS & IS, Punjab University, Hoshiarpur on 01.06.2020.

Singhal, S. (2020). On the topic प्रश्नोपनिषद्विज्ञानभाष्यविमर्श, श्रीशंकरशिक्षायतन (वैदिकशोधकेन्द्र) दिल्ली, on 29.05.2020.

Singhal, S. (2020). On the topic **Old Tradition of Manuscripts Editing** National Webinar By IGNCA on 20.05.2020.

Singhal, S. (2020). On the topic कोरोनाकालमें संस्कृतकीभूमिका National Webinar by Maitreyi College Department of Sanskrit (University of Delhi) on 13.05.2020.

Workshops and Faculty Development Programmes (63)

Arya, M. 3 National and 01 International conferences

Chandra, S. (2021). "Machine Translation for Indian Languages" Delivered Lecture as Resource Person in 3 months certificate course on Applications of Digital Tools in Teaching & Learning Indian Languages organized by Department of Sanskrit, Maitreyi College, University of Delhi, on June 05, 2021.

Chandra, S. (2021). "Sanskrit e-tools" Delivered Lecture as Resource Person in One Week Online Workshop on IT Skills in Teaching Learning Process organized by Department of Sanskrit, Miranda House, University of Delhi, During April 09, 2021.

Chandra, S. (2021). "Automatic Certificate Generation and email" Delivered Lecture as Resource Person in One Week Online Workshop on IT Skills in Teaching Learning Process organized by Department of Sanskrit, Miranda House, University of Delhi, During April 08, 2021.

Chandra, S. (2021). "Mail Merge" Delivered Lecture as Resource Person in One Week Online Workshop on IT Skills in Teaching Learning Process organized by Department of Sanskrit, Miranda House, University of Delhi, During April 07, 2021.

Chandra, S. (2021). "Google Docs, Google Sheets, Google Slide" Delivered Lecture as Resource Person in One Week Online Workshop on IT Skills in Teaching Learning Process organized by Department of Sanskrit, Miranda House, University of Delhi, During April 06, 2021.

Chandra, S. (2021). "Basics of Google Form" Delivered Lecture as Resource Person in One Week Online Workshop on IT Skills in Teaching Learning Process organized by Department of Sanskrit, Miranda House, University of Delhi, During April 05, 2021.

Chandra, S. (2021). "Text editing/Typing tools for Sanskrit in Unicode, Text Editing Tools" Delivered Lecture as Resource Person in One Week Online Workshop on IT Skills in Teaching Learning Process organized by Department of Sanskrit, Miranda House, University of Delhi, During April 03, 2021.

Chandra, S. (2021). "Basics of Google Classroom" Delivered Lecture as Resource Person in One Week Online Workshop on IT Skills in Teaching Learning Process organized by Department of Sanskrit, Miranda House, University of Delhi, During April 01, 2021.

Chandra, S. (2021). "Python Programming-2" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 30, 2021.

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Chandra, S. (2021). "Basics Fundamental of Python" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 28, 2021.
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Chandra, S. (2021). "Basics of Python for Programming" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 27, 2021.

Chandra, S. (2021). "Web based Responsive Tool Development: Basics" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 24, 2021. Chandra, S. (2021). "Web based Tool Development: Advance CSS" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 24, 2021.

Chandra, S. (2021). "Web based Tool Development: HTML and CSS" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 23, 2021. Chandra, S. (2021). "Web based Tool Development: HTML-1" Delivered Lecture as Resource Person in 30 hours

Chandra, S. (2021). "Web based Tool Development: HTML-1" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 22, 2021.

Chandra, S. (2021). "Sanskrit Grammar and Computation" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 21, 2021.

Chandra, S. (2021). "Text Digitization and Search for Sanskrit" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 19, 2021.

Chandra, S. (2021). "Text Editing/Typing Tools for Sanskrit in Unicode" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 18, 2021. Chandra, S. (2021). "Machine Translation" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 17, 2021.

Chandra, S. (2021). "Computational Linguistics Tools for Sanskrit: a Survey" Delivered Lecture as Resource Person in 30 hours Online National Level Certificate Course on Computational Resources and Application for Sanskrit organized by Department of Sanskrit, Kamala Nehru College, University of Delhi, During March 16, 2021

Chandra, S. (2021). "Computational Applications of Sanskrit" Invited Lecture at Department of Sanskrit, PGDAV College (Morning), University of Delhi, Feb 27, 2021.

Chandra, S. (2021). "Sanskrit and Computer" Invited Lecture at Department of Sanskrit, PGDAV College (Evening), University of Delhi, Feb 24, 2021.

Chandra, S. (2021). "संगणकीयभाषाविज्ञानकेप्रमुखशोधक्षेत्र" Invited Lecture in International Webinar on Computational Linguistics: Scope and Challenges organized by Department of Sanskrit, Gandhi Memorial National College, Ambala Cantt, Feb 10, 2021.

Chandra, S. (2020). "संस्कृतमेंकैरियरकेविविधअवसर" Special Lecture at Department of Sanskrit, Miranda House College, University of Delhi. November 27, 2020.

Chandra, S. (2020). "Diverse Career Opportunities in Sanskrit with Interdisciplinary Areas" Special Lecture at Department of Sanskrit, Kalindi College, University of Delhi. November 09, 2020

Chandra, S. (2020). "Computational Linguistics for Sanskrit" Special Lecture at Department of Sanskrit, Motilal Nehru College, University of Delhi. August 14, 2020.

Chandra, S. (2020). "संगणकीयसंस्कृतशोध-संभावनायेंएवंच्नौतियाँ" Online Lecture, Sanskrit Shauryam.

Chandra, S. (2020). Machine Translation. Workshop on Text & Music Digitization, July 20, 2020, Rabindra College, Hooghly, WB.

Chandra, S. (2020). Hyper Text Markup Language (HTML). Workshop on Text & Music Digitization, July 16, 2020, Rabindra College, Hooghly, WB.

Ji, S (2021). Participated as a Judge in "Recitation Program" in College Fest Symphony organized by JDMC College, Delhion 11.02.2021.

Kishan, M. (2021). Participated in National workshop on Indian knowledge system and higher Education with Reference to New Education Policy (NEP) 2020 Organized by Department of Sanskrit South Campus, University of Delhi & Gandhi Bhawan, University of Delhi on dated March 11-13, 2021.

Kishan, M. (2020). Participated in International Webinar on Spirituality and Science are Complimentary: Sciences is Incomplete Without Spirituality Organized by World Hindi Secretariat, Mauritius & Rashrtiya Sanskrit Manch India on dated June 21, 2020.

Kishan, M. (2020). Attended national workshop on Digitization & Development of E-Resources for Sanskrit organized by School of Sanskrit and Indic Studies, Jawaharlal Nehru University & Department of Sanskrit, University of Delhi on 27.05.2020 to 02.06.2020.

Kumar, A. (2021). Participated in an Online Four-week Induction / Orientation Programme For "Faculty in Universities / Colleges / Institutes of Higher Education" from March 15 to April 14 2021 Organised by Teaching Learning Center, Ramanujan College, University of Delhi.

Kumar, A. (2021). Participated in an Online One-week Faculty Development Programme On

"शिक्षणप्रशिक्षणमेंकलासंस्कृतिकेआयाम" from February 26 to 04 March 2021 Organised by Mahatma Hansraj Faculty Development Center, Hans raj College, University of Delhi.

Kumar, A. (2021). Attended Seven days / SeminarNational Workshop on "Maharshi Vishwamitra Veda VedangaKaryashalaRashtriyaSangoshthi cha" from 25-03-2021 to 31-03-2021 Organised by

VishveshvaranandVishwaBandhu Sanskrit evamBhartabharatiAnushilansansthan, Punjab University.

Kumar, A. (2021). Attended Three days National Workshop on "Indian Knowledge System and Higher Education with reference to NEP 2020" from 11-03-2021 to 13-03-2021 in Department of Sanskrit, University of Delhi.

Kumar, A. (2021). Participated in an Online One-week Interdisciplinary Faculty Development Programme On "Intellectual Property Rights" from 10-17 February, 2021 Organised by Mahatma Hansraj Faculty Development Center, Hans raj College, University of Delhi.

Kumar, A. (2021). Participated in an Online One-week Interdisciplinary Faculty Development Programme On "Hind Swaraj" from 23-30 January, 2021 Organised by Gandhi Bhawan, University of Delhi in Collaboration with Mahatma Hansraj Faculty Development Center, Hans raj College, University of Delhi.

Meenakshi (2021).Attended 18 th Narendra Nath Choudhary Memorial Lecture on 16.1.2021 at Department of Sanskrit, University of Delhi.

Meenakshi (2021). Attended National Workshop on 'Indian Knowledge System and Higher Education with reference to New Education Policy 2020' on 11-13 March 2021 at Gandhi Bhawan, Organised by Department of Sanskrit, University of Delhi.

Meenakshi (2021). FDP: Attended OneWeek Online Faculty Development Programme (FDP) on Shikshanprashikshan me kala sanskritike aayam,26th Feb.-4th march 2021 Organised by Hansraj College, University of Delhi.

Rai, S. (2020). Participated in One day National Webinar on Psycho-Social Impact of Covid-19: A Philosophical Perspective on August 8, 2020, jointly organized by Department of Philosophy, PabhuJagatbandhu College, Howrah & Department of Philosophy, Sushil Kar College, Pargnas.

Singhal, S (2021). Three day National Workshop on Indian Knowledge System and Higher Education With Reference to New Education Policy (NEP) 2020 Department of Sanskrit, South Campus, University of Delhi &Gandhi Bhawan, (University of Delhi) during March 11- 13, 2021.

Singhal, S (2021). Two Week Interdisciplinary Faculty Development Programme on Sahitya, Bhasha, Samaj, Rajniti Aur Darshan: AntravishyakSandarbh By Teaching Learning Centre Ramanujan College (University of Delhi), Shyama Prasad Mukherjee for Women College (University of Delhi), Armapur PG College (Chhatrapati Sahu ji Maharaj University, Kanpur) & Mount Carnel College, Bangalor, From 26th Dec. 2020 to 09 Jan.2021 Singhal, S. (2020). दशदिवसात्मिकास्वाध्यायकार्यशालाअम्बाकर्विटीकालोकेवाक्यपदीयस्यब्रह्मकाण्डस्यपरिशीलनम्

Organized by व्याकरणविभाग,श्रीलालबहादुरशास्त्रीराष्ट्रियसंस्कृतविश्वविद्यालयःदिल्ली ,,01-10 Oct., 2020.

Singhal, S. (2020). पञ्चिदवसीय-अन्तर्जालीय-राष्ट्रीय- कार्यशाला(व्याकरणम्-समासः) Organized by

हिमाचलप्रदेशकेन्द्रीयविश्वविद्यालयः, धर्मशालाduring 06-10 Aug., 2020.

Singhal, S. (2020). पञ्चिदवसीय-अन्तर्जालीय-राष्ट्रीय- कार्यशाला(योगदर्शनम्) Organized by

हिमाचलप्रदेशकेन्द्रीयविश्वविदयालयः, धर्मशालाduring 24-28 Aug., 2020.

Singhal, S. (2020). सप्तिदवसीयअन्तर्जालीयाराष्ट्रीयाकार्यशाला(कारकप्रकरणम्) Organized by संस्कृतिविभाग, गुरूकृलकांगडीविश्वविदयालय, हरिदवारduring 22- 28 June, 2020.

Singhal, S. (2020). सप्तिदवसीयआनलाइनराष्ट्रीयकार्यशाला" "संस्कृतछन्दोंकाशिक्षणएवम्अनुप्रयोग" Organized by सन्तगणिनाथराजकीयस्नातकोत्तरमहाविद्यालय, मुहम्मदाबाद, उ.प्र., During 01- 07 June,2020.

Singhal, S (2020). One Week Online National Workshop on Digitization & Development of e-Resources for Sanskrit organized by School of Sanskrit & Indic studies, JNU & Depart of Sanskrit, University of Delhi, during May 27- June 02, 2020.

Shankar, U. (2020). Delivered an Online Lecture on the topic "Ancient Indian Chronology-Dating and Calendar System" on 20th May ,2020 organised by Department of Sanskrit, Daulat Ram College, University of Delhi, Delhi.

Srivastava, K. A. (2021). Attended Three days National Workshop on "*Indian Knowledge System and Higher Education with reference to NEP 2020*" from 11-03-2021 to 13-03-2021 in Department of Sanskrit, University of Delhi

Srivastava, K. A. (2021). Participated in Online FDP on *ShikshanPrashikshan Me Kala SamskritiKeAyam* from 26-02-2021 to 04-03-2021 organized by Hansraj College, DU

Srivastava, K. A. (2021). Participated in Online National Level Certificate Course from 15-03-2021 to 30-03-2021 organized by Kamla Nehru College, DU

Srivastava, K. A. (2021) Participated in Online FDP on *Emerging Accessible Technologies for Teachers in Higher Education*20-03-2021 to 03-04-2021 organized by Maitreyi College, DU

List of Publications

Journal Articles

Tiwary S. D. (2020). Sanskrit KePramukhNatakon Mein Hanuman Ki Shri Ramabhakti:

HanumannatakamKeVisheshSandarbha Mein (co-author) in *Journal of Arts, Culture, Philosophy, Religion, Language and Literature e- ISSN: 2457-0346*, 4(2), 90-93.

Tiwary, S. D. (2020). Karana: ShastriyaevamAdhunikaAvadharana (co-author) in *Journal of Arts, Culture, Philosophy, Religion, Language and Literature e- ISSN: 2457-0346*, 4(2)

Tiwary. S. D. (2020) Shahji Ka Mandir: VastushastriyaDrishtikona (co-author) in *Journal of Arts, Culture, Philosophy, Religion, Language and Literature e- ISSN: 2457-0346*, 4(2)

Meena C. T (2021). DanamekamKalauYuge. *Vidyarthi Shiksha-Sahayog-Samiti Smarika*, *Sri Ganganagar*, Rajasthan,102-103

Singhal, S (2020). ऐतरेयब्राहमणमेंसृष्टिविज्ञान. पावमानी, ISSN 2229-6328 (त्रैमासिकीशोध-पत्रिका, Peer-

Reviewed,भाग-पञ्चत्रिंश, प्रथम-द्वितीयखण्ड, Publisher – स्वामीसमर्पणानन्दवैदिकशोधसंस्थान, गुरुकुलप्रभात. आश्रम, मेरठ),21-28

Shankar, U. (2020). Rajasthan ka Pratiharkaleenbrihadabhilekh:eksahitiyikaddhyayana. *Shodh-Prabha(A Refereed & Peer-Reviewed Quarterly Research JournalISSN-0974-8946, Shri L.B.S.R.S.V. Delhi.)*, Year-45, Vol.-3, 117-124, Shankar, U. (2020). Bhavan nirmaanmeinbrahmsthanevammarmsthan ki upyogita. *Vedanjali, (International Peer Reviewed Refereed Journal of multidisciplinary Research, ISSN-2349-364X, Varanasi.)*, Vol.13, part -II, 237-241

Singh, A. P. (2020). वर्तमानपरिप्रेक्ष्यमें भारतीयचिन्तनपद्धतिकीप्रासंगिकता. शोधनवनीत (ISSN 2321-6581)

Kumar, A. (2021) Vyakaran Adhyayan ki Parampara. *Arsh Jyoti-ISSN 2278-0912* Meenakshi (2020). Avesta Pramapra me Haoma Yasna. *Himanjli*, ISSN:2349-4905, Vol. 20

Books

Chandra, S (2021). भाषासंगणन (Language Computing). Upasana Publications, New Delhi, India, ISBN: 978-93-87677-05-0.

Tripathi K. R. (2020). Sanskrit Sahityashastra Evam Sahitya (MSK001, Unit – 5,21, 24, 25 & 26) For M.A. Sanskrit Course IGNOU, Delhi.

Dindoriya, P. V. (2021). Vedāntakārikā – VidyanidhiPrakashan, Delhi

List of Seminar/Conference Presentation

International

Behera, R. (2020). YaskacharyasyaDaivatadrishtih. Presented in the 14th International Conference of WAVES International and 24th India Conference of WAVES India Organized by 14th WAVES International and WAVES India from 25th to 27thDecember, 2020.

Behera, R. (2020).देवताध्यायब्राहमणगत-निर्वचन-विमर्श.Presented in the International Webinar organized by Gurukul Prabhat Ashram on 30th July, 2020.

Shankar, U (2020). योगकेमाध्यमसेसर्वागीणविकास. Presented in an Online International Conference on -Post Covid Education ,Physical Education Scenario, organised by Department of Physical Education and sports and SPDM Arts,SBB& SHD Commerce and SMA Science college, SHIRPUR Dist. Dhule(MS) IQAC, held on 29thMay 2020.

Shruti, R. (2020).योगकीवैश्विकप्रासंगिकताः क्रियायोगएवम् अष्टांगयोगकेदृष्टिकोणसे .Presented in the Two Day

International Web-Sangosthi on The Vedic Literature on Modern Times, Organized by Department of Sanskrit in collaboration with IQAC, PanchamuraMahavidyala, West Bangal, held on 15-16th September 2020.

Shruti, R. (2020). *Shambhava Yoga in Non-Dualistic Shaiva System in Tantric Tradition*. Presented a in Two Day International Web-Samgosthi on Significance of Sanskrit Literature in Preservation of Human Life, organized by SidhoKanhoBirsha University, West Bangal, on 22nd and 23rd August 2020.

Tiwary, D. S. (2020). Chaired a session in International Webinar on the topic *Gandhi Darshan:*

VividhaAyamorganized by Department of Sanskrit, Gargi College, University of Delhi, on 3rd October, 2020. Tiwary, D. S. (2020). Chaired a session on *Pythagorean tripls: The connection between number theory, geometry and algebra through the Vedic mathematics perspective* in the Two - Day International Conference (online) on *Emerging Trends in Vedic Mathematics &Applications in Science, Technology and Social Sciences Research (ETVM-ASTSSR-2020,16-17 August 2020*) organized by Special Centre for E-Learning, JNU, New Delhi. Tiwary, D. S. (2020). Chaired the technical session titled *Modern Sciences and Ancient Indian Sciences* in National E-Seminar on Sanskrit Studiesand Incredible Bharatam organized by the Department of Sanskrit, Assam University, Silchar and Women's College, Silchar, on 20-21 June, 2020.

Tiwary, D. S. (2020). Chaired Technical Session no.1 in one day International Conference (Webinar) on Innovations & Research in Arts, Culture, Literature, Languages, Philosophy and Spirituality organized by Krishi Sanskriti, New Delhi on 7th June 2020.

Tripathi, R. K. (2020). Invited as chief speaker in International E- conference organized by Shodh-DharaAnusandhanOrai& Bhartiya Shikshanmandal,KanpurPrant on 16th May 2020.

Tripathi, R. K. (2020). Delivered lecture as Speaker in the International Web-Seminar, Organized by Janta Vedic College, Baraut (Baghpat) UP on 8th June 2020.

Tiwary, D. S. (2020).Importance of Sanskrit Literature in Promotion of National Unity and Integrity in Present Perspective.Delivered lecture on the topic as Guest of Honour in one day International Webinar jointly organized by Rashtriya Sanskrit Manch, Assam Prant& Department of Sanskrit, Raha College, Nagaon, Assam on 4th August 2020.

National

Behera, R. (2020). Concept of Yoga and Social Harmony in Vedic Heritage. Presented in a Two-Day International Webinar on The Role of Vedic Literature and Allied Subjects in Pandemic to manage stress, immunity, hygiene and harmony jointly organized by Ramjaipal College, Chapra& WAVES-India, New Delhi on 15-16th May 2020.

Behera, R. (2020). Social Harmony and Mental Peace: A Vedic Approach. Presented in the International Webinar on The Revival of Indian Perspective and lifestyle to combat the Covid-19 Pandemic with reference to Sanskrit Literature jointly organized by Iswar Sharan Degree College, Allahabad and WAVES, on 27-28thMay 2020.

Behera, R. (2020). Bharatiya-samskrtau Guru-shishya-parampara. Presentedin the Webinar on Guru Shishya Tradition in Indian Culture organized by Wider Association for Vedic Studies (WAVES) &TarunTarang (WAVES), on 5th July 2020.

Behera, R. (2020).KenopanishadvijnanabhashyadrishaDevatavimarsah.Presentedin the Webinar on Kenopanishadvimarsah organized by Shri Shankar Shikshayatan, New Delhi on 30th June & 1stJuly 2020.

Behera, R. (2020). Yoga, Social Harmony and Peace: Vedic Approach. Presented in the International Webinar on Elements of Eradication of Covid-19 in Sanskrit Literature organized by Yogada Satsang PalparaMahavidyalaya, Palpara and Midinapore College, West Bengal on 3rd August, 2020.

Behera, R. (2020). Sanskrit Studies Across the World. Presented in the Webinar on Sanskrit Studies Across the World organized by Khadagpur College, West Bengal on 6th August, 2020.

Behera, R. (2020).Rashtriya-shikshaniti-drisaSamskrutadhyayanam. Presented in the Sanskrit Week Valedictory Session organized by the Department of Sanskrit, Mahatma Gandhi Central Sanskrit University, on 7th August, 2020.

Chandra, S. (2021). Diverse Opportunities in Sanskrit with Computational Linguistics". Delivered Lecture in National Webinar organized by Department of Sanskrit, ARSD College, University of Delhi, on 17thApril, 2021.

Dindoriya, V. P. (2020). अलङ्कारसिद्धान्त.Delivered speech in Webinar at VVBIS & IS (Panjab University), Hoshiarpur (Punjab), on 29th May 2020.

Dindoriya, V. P. (2020). ध्वनिकास्वरूप. Delivered speech in Webinarat VVBIS & IS (Panjab University), Hoshiarpur (Punjab), on1st June, 2020.

Dindoriya, V. P. (2020). भरतकारसस्त्र.Delivered speech in Webinar at VVBIS & IS (Panjab University), Hoshiarpur (Punjab), on 3rd June, 2020.

Dindoriya, V. P. (2020). नाट्यकास्वरूप. Delivered speech in Webinarat VVBIS & IS (Panjab University), Hoshiarpur (Punjab), on 15th June, 2020.

Dindoriya, V. P. (2020). रूपरोंकेभेदकतत्त्व.Delivered speech in Webinar at VVBIS & IS (Panjab University), Hoshiarpur (Punjab), on 16th June, 2020.

Dindoriya, V. P. (2020). वक्रोक्तिसिद्धान्त.Delivered speech in Webinar at VVBIS & IS (Panjab University), Hoshiarpur (Punjab), on 17th June, 2020.

Meenakshi (2021). Vedic Avestiyoh Yajna VidyohSamyaVaisyamya. Presentedat Kumar Bhaskar Varma Sanskrit and Ancient Studies University,Nalbari, Assam on 23-24th March 2021.

Singhal, S. (2020-21). विशिष्ट-वक्ता,विषय –भर्तृहरिकाभाषादर्शनOrganized by

पंडितमदनमोहनमालवीयराष्ट्रीयशिक्षकएवंशिक्षणमिशन, अध्ययनकेन्द्र, रामानुजनमहाविद्यालय(दिल्लीविश्वविद्यालय),

द्विसाप्ताहिकअंतर्विषयकसंकायसंवर्धनकार्यक्रमकेअन्तर्गत, held between 26th December 2020 to 9th January 2021.

Singhal, S. (2020). विशिष्ट- अतिथि, पञ्चिदवसीय-अन्तर्जालीय-राष्ट्रीय- कार्यशाला(व्याकरणम्,समासः), organized by हिमाचलप्रदेशकेन्द्रीयविश्वविदयालयः, धर्मशाला, held between 6th to 10thAugust, 2020.

Singhal, S. (2020). विशिष्ट – अतिथि, पञ्चिदवसीय-अन्तर्जालीय–राष्ट्रीय – कार्यशाला(योगदर्शनम्) Organized by हिमाचलप्रदेशकेन्द्रीयविश्वविदयालयः, धर्मशालाheld between 24th to 28thAugust, 2020.

Singhal, S. (2020). विशिष्टवक्ता, विषय— सामवेदकेजैमिनीय—उपनिषद्ब्राहमणमें मुक्तिमीमांसा (सामवेदीयब्राहमणेषुविविधज्ञानविज्ञानम्) (द्विदिवसीयाअन्ताराष्ट्रियाअन्तर्जालीयाशोधसंगोष्ठी) Organized उत्तरप्रदेशसंस्कृतसंस्थान, लखनऊ, inगुरूकुलप्रभातआश्रमटीकरी, मेरठ (उ.प्र.),held on 30-31 July, 2020.

Tiwary, D. S. (2020). Stress Management in the Bhagavadgita during COVID-19. Delivered lecture in the National Webinar as an invited speaker, organized by the Department of Sanskrit, Vivekanand College, University of Delhi on 13th May 2020.

Tiwary, D. S. (2020). Yajna Ki Prasangikata: Vaishvika Sankat COVID-19 KePariprekshya Mein. Delivered lecture in the Two-days National Webinar as a special speaker, organized by Department of Sanskrit & other Languages, Mahatma Gandhi Kashividyapeeth, Varanasi, from 20thto 21stMay 2020.

Tiwary, D. S. (2020). The Scientific Contribution of Vedic Yajnas in maintaining Hygiene & Harmony during Pandemic COVID-19. Delivered lecture on the topic as an invited speaker in the Exclusive Web Lecture Series organized by Department of Sanskrit under the Aegis of IQAC, RamJaipalCollege, Chapra (J.P. University) Bihar on 27th May2020.

Tiwary, D. S. (2020). Philosophy, Spirituality, Culture & Art in the Indian Intellectual Tradition. Delivered invited talk in one day International Conference (Webinar) on Innovations & Research in Arts, Culture, Literature, Languages, Philosophy and Spirituality organized by Krishi Sanskriti, New Delhi, on 7th June 2020.

Tiwary, D. S. (2020). Shrimadbhagavadgita Evam Tanavamukti. Delivered lecture as an invited speaker in one day National Webinar organized by Hansraj College, University of Delhi on 12th June 2020.

Tiwary, D. S. (2020). Adhunika Vaijnanika Siksha Ki Drishti Mein Sanskrit Vangmaya Ki

Prasangikata.Deliveredlectureas an invited speaker in three days National Webinar (25th to 27th June2020) organized by Loknayak Jaiprakash Antarrashtriya Adhyayan Vikas Kendra,New Delhi, on 26th June2020.

Tiwary, D. S. (2020).Bharatiyata and Sanskrit: A Socio-Cultural Context.Delivered lecture as an invited speaker in one day National Webinar organized by ICAN (India Co-win Action Network), Bengal on 26th July 2020.

Tiwary, D. S. (2020).Online ShikshanaPlateformo aur UpakaranokaaUpayoga.Delivered a lecture in the National webinar as Chief Guest, organized by Sampurnand Sanskrit University, Varanasi, U.P., held on 5th November 2020.

Tiwary, D. S. (2020).Contribution of Modern Poets to Sanskrit Literature.Delivered a lecture in Three Day International e-Research Conference, organized by Department of Sanskrit Maitreyi College, University of Delhi in collaboration with Department of Sanskrit, Rambachansingh Govt. Girls Degree College, Mau, U.P., from 28th to 30thNovember, 2020.

Tiwary, D. S. (2021). Akhandarashtrake Samvardhanaevam Sanskritisan rakshana ki Disha Me Kautilya Ke Chintana Ki Prasangikata. Delivered special lecture in one day National Seminar on organized by Sanskrit & other Languages Department, Mahatma Gandhi Kashi Vidyapeetha, Varanasi on 29th January, 2021.

Tiwary, D. S. (2021). Delivered lecture on Mathematical Studies in a three- day National Workshop on the Indian Knowledge System and Higher Education with Reference to New Education Policy (NEP) jointly organized by Department of Sanskrit, South Campus and Gandhi Bhawan, University of Delhi during March 11-13,2021 at Gandhi Bhawan, University of Delhi, on 12thMarch 2021.

Tiwary, D. S. (2021).BharatiyaJeevana Drishti: SamakaleenaPariprekhya. Delivered lecture in a Two-Day National Seminar (25-26 March 2021) organized by Department of Sanskrit, Rajdhani College and Internal Quality Assurance Cell (IQAC),Rajdhani College, University of Delhi, on 25th March 2021.

Tiwary, D. S. (2021).Sanskrit AdhyayanaKeNayeKshitija: Avasara Aur Sambhavanaye. Delivered lecture in a One day National Webinar jointly organized by Amity Institute for Sanskrit Studies & Research and Uttarpradesh Sanskrit Sansthan,Lucknow on 25thMarch 2021.

Tripathi, R. K. (2020).Invited as chief speaker in Web -National Seminar, organized by Department of Sanskrit, LBS College, Gonda (UP) on 27th May 2020.

Tripathi, R. K. (2020). Changing Scenario of Education: Challenges and Solution. Delivered lecture as distinguished Speaker at an International Webinar, organized by Laxman Singh Manohar Govt.PG, on 9th August 2020.

Tripathi, R. K. (2020).MaanavjivanasyaSanrakshane Sanskrit Sahityasyopayogitvam.Delivered Lecture at an International Webinar, organized by Department of Sanskrit, Sidho-Kano-Birsha University, Purullia, West Bengal on 22nd August 2020.

SLOVANIC AND FINO-UGRIAN STUDIES

Major Activities and Achievements

The Department of Slavonic and Finno-Ugrian Studies is one of oldest and reputed centers of Russian language and literature studies. The department runs full time PH.D, MPhil, MA and one year Intensive Advanced Diploma course in Russian language. The department also conducts courses (part-time) in Bulgarian, Czech, Croatian, Polish and Hungarian languages. These courses are hugely popular as the department is the only institution providing teaching of thesecourses. Having an added diploma in foreign language also enhances the employability of the students of the University of Delhi. This gives the Department an opportunity to conduct a variety of activities beyond classroom teaching. A list of these activities is given under point number 13.As a routine the Department regularly collaborates with the Cultural Centers of the foreign countries to organize lectures and other activities of visiting specialists and experts, which gives the students an international exposure and widens their outlook. The Department draws a large number of students for its foreign language courses. One of the major activity of the department in November 2020 was the organisation of the first ever online international conference organised in international and national collaboration. The conference was a huge success. This 2-day conference was attended by over 75 participants from India and abroad. There were 60 papers read on topics of contemporary relevance in the field of Russian Language, literature and cultural studies.

Publications	12
Seminar/Conference Presentations	09

Journals

Member of Editorial Board of the following journals:

Koves Margit (Dr.) Member of the Editorial Board *Tanulmányok* (Journal of the Department of Hungarian Studies, Novy Sad, Serbia)

Munjal, Girish (Dr.). Member of the Editorial board, The Journal of Russian Studies, an international peer-reviewed scientific journal, Registered with the National ISSN Agency of the Russian Federation, ISSN number: 2713-2501 (Print). PUBLISHER: "Institute of Cultural Heritage", Kazan, Republic of Tatarstan, Russian Federation.

Seminars / Workshops Organized

A Webinar on "Kievan Rus and The Lay of Igor's Campaign" was organised by the Department on 29th October, 2020 (Thursday) at 11:30 a.m. on Zoom Meeting.

A Webinar in collaboration with "Yasnaya Polyana" Leo Tolstoy Estate-Museum, Tula, Russia presented a Lecture Series on Russian History and Literary Heritage on 02nd November, 2020 at 12:30 p.m.

A Webinar on "Russian from 1223-1689" was organised on 23rd December, 2020 at 02:30 p.m. An online lecture Series on Russian History and Literary Heritage was also organised in the Webinar.

Conferences Organized

An International Online Conference in collaboration with Moscow Region State University and Jawaharlal Nehru University was organised on 23rd and 24th November, 2020 on the topic "Changing Paradigms and Alternatives in the 21st Century: Russian Language, Literature and Culture".

National/International MOUs Signed

Memorandum of understandingbetween University of Delhi, Delhi, India and Peter the great museum of anthropology and ethnography (kunstkamera) of the russiai\ academy of sciences, St. petersburg, Russian f'ederation has been signed on the 3rd march, 2021.

Other Inter-Institutional Collaboration

The department had Inter-Institutional Collaboration with the Russian Studies Centre, JNU and Moscow State Regional University to organize the Online International Conference on 23rd -24th Nov. 2020

Students under Exchange Programme

The University of Rijeka offered a scholarship to students of Croatian language at the Department. This scholarship scheme is a part of the Erasmus Programme, a European Union (EU) student exchange programme. The scholarship was for summer semester for three and a half month of academic year 2020-2021. A test was conducted by Croatian Teacher for scholarship, selecting students, helping chosen students (Pyare Mohan Zutshi and Hina Jain) with paper works for scholarship and Croatian visa.

Extension and Outreach Activities

The students of the Department participated in online song competition organised by CRS, JNU on the occasion of Victory Day, 09th May, 2020. Some students were selected in Second round of the Competition.

The students of the Department participated in an online poetry competition organised by CRS, JNU in collaboration with Russian Centre of Science and Culture on 06th June, 2020 on the occasion of Pushkin Birth Anniversary. 02 students of the Department secured II position and 01 student secured III position.

An online poetry recitation competition of Pushkin's Poems in different languages was organised by Russian State University for the Humanities, Moscow on 06th June, 2020 on the occasion of Pushkin Birth Anniversary. Some students as well as teachers participated in the Competition.

The students of Russian Language participated in the online events (Olympiad, essay writing, poem recitation, song competition etc) organised by Russian Centre for Science and Culture. The students got I, II and III prizes and certificate for the participation.

Faculty Strength

Number of sanctioned posts

Professors-03(2-Russian, 1-Slavic)

Associate Professors-03

Assistant Professors- 09(08- Russian, 01-Bulgarian)

Present strength of permanent faculty

Professors-01

Vacant posts

Professors-03

Associate Professors- 03

Assistant Professors- 08

*Five visiting faculty from Bulgaria/Croatia/Czech Republic/Hungary/Poland under Cultural Exchange Programme

*Six guest lecturers working in the Department

Other Significant Information

Students of the Department participate regularly in various competitions related to the knowledge and skills of language that they are learning and have been receiving awards and prizes for the same.

Several students are receiving the JRF and SRF.

Students are regularly clearing the UGC/NET examination in Russian

The following scholarships are available for the students of the Department *:

- UGC sponsored Bulgarian Scholarships under the CEP programme to participate in the summer seminars in Bulgaria.
- A three-month merit scholarship for a Croatian language course in Croatia.
- Merit scholarships to the students of Czech language offered by the Czech Government from time to time.
- Merit scholarships offered by the Hungarian Government and Institutes from time to time.
- Merit scholarships offered by the Polish Government for Polish Language Courses in different universities in Poland.

^{*}Three Assistant Professor (On ad-hoc basis) working in the Department

^{*(}These scholarships are now pending due to Covid -19 conditions).

List of Publications

Journal Articles

Koves, M. (2021), Magyarul Indiában Köves Margit beszélgetéssorozata indiai diákokkal. Sokminden vonzott... (In Hungarian: Hungarian in India Dialogues with Indian students)https://tiszatajonline.hu/?p=137223

Koves, M. (2021). Magyarul Indiában Köves Margit beszélgetéssorozata indiai diákokkal Örkényt szeretnék fordítani hindire (In Hungarian: Hungarian in India Dialogues with Indian Students) https://tiszatajonline.hu/?p=1364974.02.2021.

Koves, M. Magyarul Indiában Köves Margit beszélgetéssorozata indiai diákokkal Az a vágyam (In Hungarian: Hungarian in India, Dialogues with Indian Students)

https://tiszatajonline.hu/?p=13600612.01.2021

Koves, M.(2020). Kaja, pia, szappan, karaván: A Magyar nyelv és irodalom tanítása Indiában part II (In Hungarian:Food, drink, soap, caravan. Teaching Hungarian language and literature in India II). *ponthu.blog.hu*

https://ponthu.blog.hu/2020/12/06/kaja pia szappan karavan a magyar nyelv es irodalom tanitasa indiaban 2 resz

Koves, M.(2020) A magyar és az indiai nőnevelés (Hungarian: Hungarian and Indian Womens Education) *Taní-tani* (Online journal: *Taní-tani*)

http://www.tani-tani.info/magyar es indiai noneveles

Koves, M. (2020) Kaja, pia, szappan, karaván: A Magyar nyelv és irodalom tanítása Indiában I. (In Hungarian:Food, drink, soap, caravan. Teaching Hungarian language and literature in India part I)ponthu.blog.huhttps://ponthu.blog.hu/2020/10/26/kaja_pia_szappan_karavan_a_magyar_nyelves_irodalom_tanitasa_indiaban?fbclid=IwAR2ussMRKscPAo173hCDHeiDtJmFwe6E_fXWyFeEH5g-QLhMzGT0upm0rp026.10.2020.

Munjal, G. (2020). An Article in English: Crisis & Education: Innovative methods of teaching Russian in India. *Journal of Russian studies*, 1 (1),124-132.

Munjal, G. (2020). Russian Culture in India: Teaching Before and During Crisis. Journal of Foreign Policy & National Affairs, SSY Media (P) Ltd., Noida, India, ISSN: 2581 8929 (https://diplomacybeyond.com/author/drgirish-munjal/).

Munjal, G. (2020). The genre "novel in verse" & Alexander Pushkin's "eugeneonegin". Litinfinite Journal, 2(1), 1-10

Saxena, R. (2020). The Second World war in my Pedagogical Practice (Literature). XX International Pushkin Competition organized by Rossiskaya Gazeta, Moscow.

Saxena, R.Anarticlepublishedin Russian «Репрессииистратегиивыживания: «Шерри-бренди» Шаламова, «Ложитсямгланастарыеступени» Чудакова, «Авиатор» Водолазкина, «Зулейхаоткрываетглаза» Яхиной». Published in Russia – In literaryTraanslationMoscow.

Books

Saxena, R. (2020) Translation published Syed Abdul Mallik, SurajmukhirSwapna (Longing for Sunshine), translated from English to Russian SahityaAkademi.

List of Seminar/Conference Presentations

Koves, M. (2021). *No place to go? Perspectives on Displacement, belonging &non-belonging*. Presented in International Seminar orgaized by the Department of Germanic &Romance Studies, held on 18-20 March 2021.

Koves, M. (2021). Displacement in the Work of László Krasznahorkai. Presented in International Seminar orgaized by the Department of Germanic & Romance Studies on 19th March 2021.

Munjal, G. (2020). Crisis& Education: Innovative Methods of Teaching Russianin India. Presented in International Conference: Teaching foreign languages in Higher Education in the context of Distance education, Institute of International Relations, Kazan Federal University, Russia, held on May 16, 2020.

Munjal, G. (2020). 75THVictory Day Celebrations: Facts, Narratives, Personal Experiences. Presented in International Webinar organized by the Embassy of the Russian Federation on July, 14, 2020.

Munjal, G. (2020). Translating stories for children by leotolstoy into hindi. Presented in International Seminar of Translators of Leo Tolstoy and other writers, Leo Tolstoy Museum-Estate 'YasnayaPolyana', Russia, held on November 9, 2020.

Munjal, G. (2020). Men characters in guzelyakhina's novel "zuleikha opens her eyes". Presented in International Online Conference Changing Paradigms & Alternatives in the 21st Century: Russian Language, Literature and Culture, organized jointly by Department of Slavonic & Finno-Ugrian Studies, University of Delhi; Moscow Region State University & Centre of Russian Studies, SLL&CS Jawaharlal Nehru University, held on November 23-24, 2020.

Munjal, G. (2021). World war II: Reasons leading to it. Presented in International Webinar on "Great Patriotic War: 80 years since the beginning" organized by the Embassy of the Russian Federation on April, 19, 2021.

Saxena, R. (2020). Роман «Лавр» E. Водолазкина – знаковоепроизведение XXI века. Presented in Russian in joint DU/JNU/MSRU International conference held on 23rd -24th November, 2020.

Saxena, R. (2020). Путешествие литератуного героя и путешествие переводчика – Пересмотр романа "Лавр" Водалазкина глазами переводчика. Presented in the International online conference organized by the Translation Institute. MOSCOW, held in November 2020.

URDU

Major activities and achievements

The teachers of the Department are actively engaged in research and publications work in different areas of Urdu Language and Literature. A number of distinguished visitors, Professors and eminent personalities visited the Department to deliver the special lectures and interact with faculty members as well as the students of the Department.

Publications	Nil
Seminar/Conference Presentations	Nil

Ph.D. / M.Phil Awarded

Ph.D. –25

M.Phil. -27

Faculty Strength: 14

FACULTY OF AYURVEDIC & UNANI MEDICINE

University of Delhi: Annual Report 2020-21

All India Institute of Ayurveda (AIIA)

- 1. Name of the College: All India Institute of Ayurveda (AIIA), an Autonomous organisation under the Aegis of Ministry of AYUSH
- 2. Major Activities and Achievements
- AIIA is the first Ayurveda Hospital in Public Sector to be conferred with NABH accreditation in July 2017.
- Dr. Tanuja Manoj Nesari, Director, AIIA is the Chairperson for Ayurveda Subsector Skill Council running 2 courses successfully.
- The Institute started Ph.D. programme with 48 seats this year.
- During the unprecedented times of COVID 19 pandemic, AIIA conferred its services to the general public in the domain of testing, treatment and vaccination, through the modalities of COVID testing Centre (CTC), COVID Health Centre (CHC), COVID vaccination Centre (CVC), COVID call Centre, Post COVID OPD, along with Flu OPD, Emergency OPD, Other OPDs.
- AIIA catered its duty towards the protection of other frontline COVID warriors through world's largest COHORT Public health study on 80,000 police personnel by providing Immunity boosting measures through **Ayurraksha** Project and also to common peoples.
- Sensitization of the faculty members and staff for NAAC.

3. Honours/Distinctions

- Prof. Tanuja M. Nesari, Director, AIIA awarded with SFE Outstanding National Ethnopharmacology Award 2020 "Harihar Mukherjee Memorial Award" in the 7th International Congress of Society for Ethnopharmacology by School of Pharmaceutical Education and Research, Jamia Hamdard, New Delhi, India on 15th -17th February 2020.
- Dr. Shivani Ghildiyal, Assistant Professor Secured **1st Prize in International Level Competition** on Plant Identification Contest" Natucare India held Mumbai, India on 31st May 2020.
- Dr. Shalini Rai, Assistant Professor **Best Teacher Award by Vishwa Ayurveda Mission on the occasion** of teachers Day on 5th September, 2020.
- Dr. Sumedh Sanjay Joshi grabbed **1st position in in Shlokakshari competition** held by Dept of Samhita Siddhant, AIIA on 6th August 2020.
- Dr. Bhimrao Meshram- 1st Position in Quiz competition AYUSH for Immunity on 16th October, 2020.
- Dr. Aparna D, Dr. Karthik K P secured 1st Position in Sukhino-bhavantu' Short film making Competition Self Care for Preventive Health and boosting immunity through Ayurveda organized by AIIA, New Delhi on 19th April, 2020.

4. Students with Distinctions

• Top five meritorious scholars of All India AYUSH PG Entrance test

5. Publications Total Number: 50

- Nesari, T. M., Bhardwaj, A., ShriKrishna, R., Ruknuddin, G., Ghildiyal, S., Das, A., ... & Barde, M. (2021). Neem (Azadirachta Indica A. Juss) Capsules for Prophylaxis of COVID-19 Infection: A Pilot, Double-Blind, Randomized Controlled Trial. Alternative Therapies in Health and Medicine.
- Nesari, T., & Kajaria, D. (2021). Combating COVID-19 with holistic approach of Ayurveda. Indian Journal of Traditional Knowledge (IJTK), 19, S-37.
- Kulkarni, M. S., Kakodkar, P., Nesari, T. M., & Dubewar, A. P. (2021). Combating the psychological impacts of COVID-19 Pandemic through Yoga: Recommendation from an Overview. Journal of Ayurveda and Integrative Medicine.
- Kajaria, D., & Nesari, T. (2021). Common spices & yoga as incredible medicines for geriatric care during COVID-19. TMR Aging, 3(1), 4.
- Singh, T., Singh, A. P., Vyas, M., Khurana, N., Sharma, N., Tandon, N., Prajapati, P. & Agarwal, R. (2020).
 A Comprehensive Review Of Different Pharmacological Activities Of Explored Phytoconstituents Of Cannabis Sativa L. Plant Cell Biotechnology And Molecular Biology, 85-98.
- Verma, P., Kundra, L., Bhatted, S. K., & Dharmarajan, P. (2021). Management of Pakshaghata (Hemiplegia due to basal ganglia bleed) through Panchakarma: A case study. Journal of Indian System of Medicine, 9(1), 39.
- Jyothi, P. A., Dileep, A., Devarajan, D., Sharma, A., Kumari, S., Rathuri, S., ... & Nesari, T. M. (2020). Three case reports of moderate COVID-19 infection managed through Ayurvedic approach. Journal of Ayurveda Case Reports, 3(3), 84.

- Kundra, L., Verma, P., Dharmarajan, P., & Bhatted, S. K. (2020). A case study on Ayurveda interventions in lipodermatosclerosis. Journal of Indian System of Medicine, 8(3), 217.
- Ruhila, A., Srivastava, A., Yadav, P., Galib, R., & Prajapati, P. K. (2021). Preliminary GC-MS profiling of Bhallataka Oil. Asian Journal of Research in Chemistry, 14(2), 108-110.
- Rahul Sherkhane, Priyanka Meena, Nasreen Hanifa, V.D. Mahanta, S.K. Gupta. IFTAK technique: An advanced Ksharsutra technique for management of fistula in ano, Journal of Ayurveda and Integrative Medicine, Volume 12, Issue 1, 2021, Pages 161-164

6. Journals

- Journal of Ayurveda Case Reports AyuCaRe, A Wolters Kluwer indexed journal, Volume 3, Issue 1, 2, 3 & 4; Print ISSN: 2667-0593; Online- ISSN: 2667-0607.
- Number of college teachers serving as Editor(s)/Member(s) of Editorial Board: 14

7. Research Projects: (Total Number: 15)

Sl.	Project Title	Year/Period	Funding Agency	Amount
No.	-			sanctioned (yearly
				basis)
1	Development of RRDR for Trans	Ongoing (3	NMPB Ministry of	5 crores
	Ganga Plain Region	years)	AYUSH	
2	PHI PROJECT: - Ayurveda Care for	On-going	Ministry of AYUSH	1.5 Crore
	Healthy Progeny	(3 Years)	-	
3	Community based Ayurveda	Ongoing	Ministry of Health	1.5 crore
	Intervention for Promotion of physical	(3 yrs.)	and Family Welfare	
	& mental health in elderly			
	population of Faridabad district,			
	Haryana State (PHI Project)			
4	Promotion of Knowledge, attitude and	Ongoing	Ministry of Health	1.5 crore
	practices and mental health status	(3 yrs.)	and Family Welfare	
	(Anxiety, Stress and Depression)			
	among Police personals through			
	Ayurvedic Intervention (PHI Project).			
5	"Evaluation of the immuno-stimulatory	Ongoing	AIIA under GIA	GIA grant in Aid
	potential of Ayurveda management		general	8 crores
	protocol in cohort of Delhi police - An		From Ministry of	
	exploratory clinical study"		AYUSH, Govt. of	
			India	
	CTRI for Quarantine study:			
	CTRI/2020/ 05/025178			
	General police			
	CTRI/2020/05/025171			

8. Patents Filed/Granted

- One
- 9. Seminars/Webinars Organised
- Randomized Clinical Research Trial by Dr. Anurag Srivastava on the occasion of Sushrut Jayanti on 15.07.2020
- Surviving The Storm Through Shelter of Ayurveda International Webinar On "Integrated Approach To Combat Covid-19" 5th May 2020
- An international webinar in association with Western Sydney University's NICM Health Research Institute on 5th November 2020 on Yoga And Ayurveda Medicine For Mental Wellness

10. Conferences Organised:

S.	Title of workshop/ Guest Lecture	Date	Name
No.			
1.	HPLC Workshop	10 th ,12 th and 15 th March, 2021	Deptt. of RSBK

S.	Title of workshop/ Guest Lecture	Date	Name
No.			
2.	"Prevention of Food Adulteration, Food	31 st August 2020	Dr. Mamta Prajapati,
	Standards and Safety Act – 2006 and		
	Consumer Protection Act – 1986"		
3.	Safety studies of Ayurvedic herbal and metal	25 th September 2020	Dr. B Ravishankar,
	based formulations		
4.	Fundamentals of Pharmacology and Animal	(27 th & 30 th July 2020), (11 th ,	Dr. Vijay Kumar
	Experimentation techniques	13 th , 17 th , 21 st , 25 th & 28 th August	
		2020), (14 th , 21 st & 30 th Sept.	
		2020) and (7 th & 12 th October	
		2020)	
5.	Hands on Training Workshop on HPTLC	17 th - 19 th March, 2021	RS&BK Department
	Technique and its application in Drug Research		

11. Seminar/Conference/Webinars Presentations: 50

12. National/International MoUs Signed: Total Number -20

National MoUs

Topic of presentation and Name and details of Event	Date	Name of Faculty
Webinar on self-care of elderly during COVID-19 organized	19 th May 2020	Prof. Tanuja M. Nesari
by Health and WCD Division NITI Aayog, On the topic		
"Ayurveda- Invoking India's ancient wisdom for elderly to		
fight against COVID"		
BIRAC'S SITARE BIIS webinar 2020 lecture on the topic,	23/09/2020	Prof. Tanuja M. Nesari
"clinical management of covid-19 through traditional		
medicines" organised by SRISTI in collaboration with		
BIRAC (Biotechnology Industry Research Assistance		
Council, Department of Biotechnology, Govt. of India)		
India-Hungry International Webinar on "Significance of	09/11/2020	Prof. Mahesh Vyas
Ayurveda in COVID-19 times"		-
Ayurvedic understanding and management of "Ayurvedic	03 rd February 2021	Prof Manjusha R.
understanding and Management of Diabetic Retinopathy "		
organized by Sreedhareeym Ayurvedic eye hospital Kerala in		
the webinar series of "Retinovascular pathologies of systemic		
illnesses."		
Guest Lecture on Metabolic Disorders in OBG organised by	20 th September 2020	Prof. (Dr.) Sujata
Himalaya Ltd.		Kadam
Guest Lecture on COVID-19 Ayurvedic Management in	9 th November 2020	Prof. (Dr.) Sujata
Obstetrics and Pregnancy organised by NIA, Jaipur		Kadam
As a guest speaker delivered talk entitled "Clinical efficacy	23rd July 2020	Prof. P.K. Prajapati
and safety measurement of Herbo-mineral drugs" organized		
by Dr. SRRAY University, Jodhpur, Rajasthan (Webinar)		
As a guest speaker delivered a lecture entitled "Quality	14 th July 2020	Prof. P.K. Prajapati
Assurence of Rasausadhis" in National Webinar organized by		
J. S. Ayurveda Mahavidyalaya & P. D. Patel Ayuveda		
Hospital. (Webinar)	4	
Paper presented entitled "Challenges in implementing	16 th September 2020	Dr. Galib
Pharmacovigilance in AYURVEDA System of Medicine"		
organized by National Webinar, NIUM, Bangalore	4	
Paper presented entitled "Traditional Medicines in Modern	13 th November 2020	Dr. Galib
Days" organized by Virtual Business Summit Meet on		
Ayurveda Day – Myanmar		

- MoU was signed between Ministry of AYUSH and AIIA, New Delhi under Rule 229(XI) of GFR 2017 for Financial Year 2020-21.
- MoU was signed between AIIA, New Delhi and Dabur Research Foundation, Uttar Pradesh on 23rd May, 2020 for Research.
- MoU was signed between AIIA, New Delhi and Jivanti Welfare and Charitable Trust, Uttar Pradesh on 23rd May, 2020 for Research.
- MoU was signed between AIIA, New Delhi and Delhi Police, Ministry of Home Affairs, Govt. of India for "AYURAKSHA -Wellness through Ayurveda (Ayurveda Wellness OPDs via Dhanvantari Rath at Delhi Police Wellness Centres)", on 18th August, 2020
- MoU was signed between AIIA, New Delhi and Amity University, Uttar Pradesh for Quality Standardization of Ayurveda Drugs on 7th October, 2020.
- MoU was signed between AIIA, New Delhi and Central Council for Research in Siddha (CCRS), Chennai on 10th March, 2021 for collaborative projects.

International MoUs

- MoU was signed between AIIA, New Delhi and Universitydade Federal de Sao Paulo (UNIFESP), Brazil to "enter into Academic Cooperation Agreement".
- MoU was signed between AIIA, Ministry of AYUSH and The University General Hospital in La Reunion (Centre Hospitalier Universitaire) CHU de La Reunion, French Republic on "The Establishment of An Academic Collaboration in Ayurveda".

13. Other Inter-Institutional Collaboration

 AIIA has entered in collaboration with other research institutes and organisations of National importance like CCRAS, ESIC, ILBS, PHFI to conduct scientific researches and generate evidence.

14. AIIA Students under Exchange Programme

• Inbound/Outbound

15. Placement Details

• 100%

16. Extension and Outreach Activities-

Besides patient care, AIIA is also extending its clinical services to the society through health camps and various other activities.

- Public Health initiative projects being conducted in Faridabad district of Haryana on Maternal and child healthcare.
- Health and Wellness Clinic modules in Faridabad district of Haryana
- Dhanvantari Rath An initiative for providing healthcare facilities to Police personnel and their families
- Ayurveda care and Wellness at The Lal Bahadur Shastri National Academy of Administration (LBSNAA) in Mussoorie, Uttarakhand
- World Cancer Day Awareness Lecture and Free screening
- Diabetes day Awareness Lecture and Free screening
- The Department of Stree Roga evam Prasuti Tantra organized, "International Women's Day" on 8th March 2021 and provided free screening for osteoporosis and free distribution of medicines.
- Patient awareness lectures- a lecture every week on different aspects for staying healthy, prevention of disease, diet and lifestyle in different diseases and other aspects regarding some caution symptoms, and their recognition.

17. Library Development

Collections

Books : 18,335CDs : 300News Papers : 05

18. Faculty Strength: 33

19. Financial Allocation and Utilization

• Grant sanctioned (Government + Internal Resource Generation): ₹313.80 Crore

• Utilized: ₹306.09 Crore

20. Other Significant Information:

AIIA is a tertiary care hospital with holistic and integrative approach towards patient care

- Dedicated to undertake high quality teaching and training setting the highest standards of education and research
- Collaborating with various National and International organisations, it is striving for Mainstreaming Ayurveda
- Working in collaboration with Ministry of AYUSH to formulate Guidelines on various important issues and implementation of those guidelines in the public domains
- It is also working to disseminate the knowledge about Ayurveda in the other less known domains nationally as well as internationally, to bring Ayurveda to mainstream.
- Experts of AIIA in collaboration with Ministry of AYUSH drafted the protocol for Ayurveda for prevention and management of COVID 19
- Nodal Centre for conduction of AIPGET for Md/MS courses for scholars of AYUSH
- The largest public awareness campaign in the form of Ayursamvad is being organised by AIIA under the guidance of Ministry of AYUSH.

A & U TIBBIA COLLEGE AND HOSPITAL, GOVT. OF NCTOF DELHI

1. Major Activities and Achievements:

- Dedicated COVID Healthcare was established from last week of April 2020 and about 2000 COVID patients were treated without any causality.
- COVID 19 testing Centre was also opened for screening and investigation of COVID 19 through RTPCR and RAPID antigen Test.
- COVID Vaccination Centre with two vaccination site was opened.
- Increment of P.G. seats in Two subjects i.e. Dravyaguna Vigyan and Panchakarma in AYURVEDA.
- International Yoga Day was celebrated on 21st June with all faculty members and Director of AYUSH.
- Intra college sports competition and cultural activities were organized. Annual function /Ajmal Day was celebrated on 13th Feb.
- Celebration of National Ayurveda Day 2020.

2. Honours /Distinctions:

Dr. Deepa Mishra awarded as runner up in Slogan Competition for AYUSH Medical officers organized by Directorate of H & FW, Govt. of NCT of Delhi on dated 11 Aug 2020.

3. Students with distinctions

- Anam Afsar(B.U.M.S., Final year)
- Saba Naaz (B.A.M.S., Final year)
- Abdul Hannan (B.U.M.S., 3rd year)
- Sheetal (B.A.M.S.,3rd year)

4. Publications:

- Sujata R, Yogita M, Manoj S & et.al.(2021) Prakriti analysis of COVID 19 patients: An observational study Original. Alternative Therapies in Health and Medicine
- Sujata R, Manoj S & Ankur T.(2021) Impact of Shirodhara (oil dripping therapy) On Biological Markers of Stress: A Case Study. Journal of Ayurveda integrative medicine.
- Ankur T& Sujata R.(2020) Sadvritta: A Non- Pharmacological Intervention for preventive Approach for Covid-19 Disease. Nat Ayurvedic Med
- Ankur T & Sujata R.(2020). Yoga: A Non pharmacological Approach against Current Pandemic of Coronavirus Disease-19. Review
- Mohd Anus Ansari, Aafreen, Ashhar Qadeer, Mohammad Zubair.2020. Usül E-Ilāj of QillatSh'ar with respect to Androgenic Alopecia in Male with Special Reference to IlājBi'lGhidhā (Dietotherapy)". International Journal of Emerging Technologies and Innovative Research; Vol.7: Issue 12. pp 796-809.

5. Research project:

• Intra Mural Research project ofministry of AYUSH entitled "Evaluation of Efficacy and Safety of Ayurveda Intervention (Ayush-64) in the management of COVID-19 infection (Asymptomatic & Mild to Moderate Symptoms)- An open label single arm prospective clinical trial" funded by CCRAS.

- Intra Mural Research project of ministry of AYUSH entitled "Evaluation of Efficacyof an Ayurveda Intervention (Chyawanprash) in the prevention of COVID-19 pandemic among Health care personnel-An Open label single arm prospective study An open label single arm prospective clinical trial" funded by CCRAS.
- A Pilot study has been done to assess the effect of Ayurvedic Dietary Modification on the Mental Well Being and Satisfaction with Food -related Life (SWFL) in mild cases of Covid-19.
- Approval of Extra mural research project from Ministry of AYUSH entitled "An interventional, single arm study to observe and assess the effectiveness of "Vyaghradi Kashaya Tabin preventing the progression of severity in asymptomatic, mild to moderate COVID-19 cases.
- Research Project entitled "A prospective, interventional, case control study to observe and assess the
 safety and efficacy of Unani regimen in preventing the progression of severity of the disease in
 hospitalized SARS-CoV2 tested positive asymptomatic/ mild-to-moderate symptomatic Covid-19 cases
 managed as per Govt. of India Covid-19 management guidelines at a Covid-19 management facility"
 conducted by CCRUM, Ministry of AYUSH, Govt. of India in collaboration with A & U Tibbia College
 & Hospital, Govt. of NCT of Delhi.

6. Seminars/Webinar organized:

- A Webinar organized by P.G. Department of Kriyashariron "Principles of Physiology and its Practical Aspects" on 21 December 2021.
- A Webinar on "How and when to integrate AYUSH system in Covid Care" on 7th May 2021.
- National Webinar on 'Common Ailments in Childhood and its Management with Unani Medicine' organized by Department of AmrazeAtfal on 09th Jan. 2021.
- National Webinar on 'Revisiting Unani Formulations in Management of COVID-19' organized by Post Graduate Department of IlmulSaidla on 16th Jan. 2021.

7. Seminar / conferences presentations:

A. By Dr. Sujata Rajan (Associate professor) Department of Kriyasharir.

- Dr. Sujata Rajandelievered a lecture on Ayurveda for Immunity in covid-19 on 20 November 2020 (Directorate of Ayush, Govt of NCT of Delhi.
- Dr. Sujata Rajan delivered talk on *in Healthy India Programme on Women's Health on 9th March*, 2021 Prasar Bharti, Doordarsan Kendra doordarsanbhawan –New Delhi.
- B. By Dr. Deepa Mishra (Associate professor) Department of Prasuti Tantra And StriRoga.
- **Delivered online talk** on breast feeding on the occasion of Breast feeding week organized by 'KauseKonnect organization' on 02 Aug 2020.
- **Guest lecture** in CME of 21st National, 6th International Conference and Workshop on CCPR organized by BHU, Varanasi on 16.01.2021.
- **Resource Person** in 'Web conference on Poshan' on the occasion of Poshan Pakhwada-2021 organized by M.M.M. Govt Ayurveda College, Udaipur on dated 31 Mar 2021.

C. Dr. FahmidaKousar(Associate professor) Department of Amraze Atfalpresented:

- As speaker in National webinar on "Metabolic disease and its impact on reproductive health and integrated approach" organised by Govt. Unani Medical College and Hospital in association with AYUSH Govt. of Karnataka, Bangalore on 30 Dec. 2020.
- As Organising Secretary of National Webinar on "Common Aliments in Childhood and Management with Unani medicine" on 9/1/2021 in the Deptt. of Amraz e Atfal A and U Tibbia College

D. Dr. Shalini Varshney (Assistant Professor) Department of Dravyaguna presented

- Delivered a lecture as speaker in COVID -19 and Integrated Approach organized by Arogya Bharti on 10th May 2020.
- Delivered a lecture as resource person "Issues Related To Ethics In Clinical Research" lecture series organized by VAP New Delhi- Vidyarthi Prakostha on 6th march 2021.
- As Organising committee member of National Research Lecture Series (North Zone) -1 under Vishwa Ayurveda Parishad Anusandhana Prakostha.

E. Dr. Mohammad Nauman Saleem (Assistant Professor) PG Department of Ilmul Saidla

Delivered an invited online lecture on "AYUSH for Immunity & Immunity Boosting Tips" on 11.11.2020 organized by Regional Research Institute of Unani Medicine, under CCRUM, Ministry of AYUSH, Govt. of India.

- Organizing Secretary of the Live National Webinar on 'Revisiting Unani Formulations in Management of COVID-19' held on 16.01.2021 organized by PG Dept. of IlmulSaidla, A & U Tibbia College & Hospital, Govt. of NCT of Delhi.
- Coordinator of the Live National Webinar on 'Common Ailments in Childhood and its Management with Unani Medicine' held on 09.01.2021 organized by Dept. of AmrazeAtfal, A & U Tibbia College & Hospital, Govt. of NCT of Delhi.
- 8. Faculty strength:
 - Ayurveda + Unani faculty members = 48
- 9. Financial allocation and Utilization
- a. Grant Sanctioned in Rs. 31,53,00,000=00
- b. Utilized in Rs. 29,18,82,748=00

Department of Commerce Faculty of Commerce and Business

1. Major Activities and Achievements

The Department of Commerce is one of the leading institutions of commerce education in India. The institution is best known for its research activities, faculty, and enthusiastic students. The Department boasts its distinguished alumni working in diverse areas across the world. It carries a vision of creating a learning culture. Apart from its academic excellence, the institution also takes pride in engaging its students in extra-curricular activities. The Year 2020-2021 has been a great challenge to the Academic fraternity; however, the Department of Commerce substantiated the challenges to convert into opportunities. The Department of Commerce continued its academic and non-academic activities through online platforms. The Department witnessed great cooperation from faculty and students to sail through online environment smoothly. Besides classes, the recruitment and admission processes were also done through online platforms seamlessly. Moreover, the students also arranged numerous events online such as Teacher's Day, Symposia and Guest lectures, etc.

2. Honours/Distinctions

- Prof. R.K. Singh received
 - "Best Paper Award" (3rd in HRM Category) for a paper titled 'Mediating role of select work attitudes on the relationship between workplace spirituality and organizational effectiveness' at International E-Conference on Advances in Business and Management, organized by Department of Commerce, Shaheed Bhagat Singh College, University of Delhi on March 4-6, 2021.
 - "Best Paper Award" for a paper entitled 'The Moderating role of culture in student's self-efficacy and approach to learning' presented at International young researchers' conclave organized by Shaheed Rajguru College of Applied Sciences, University of Delhi on September 25-26, 2020.
- Dr. Shikha Sachdeva received the "Best Paper Award" for a paper titled "Evaluation of remote learning portals for competitive examinations in India in Covid- 19: Using AHP approach at the Global strategic management conference (GSMC, 2020) be Delhi Metropolitan Education Institute, IP University, Noida. November 26, 2020.
- Dr. Kiran Bala received "Best paper award" for a paper Titled "An Empirical Study of Satisfaction, Attitude & Tourists' Preferences for Edu-Tourism Sector" at the International

Conference 'Challenges and Prospects in the Management in the VUCA World' Organized by Symbiosis Institute of Business Management, Nagpur on February 16-17, 2021.

3. Publications

- Arora, S., Chaudhary, P., Singh, R. K. (2021). Impact of coronavirus and online exam anxiety on self-efficacy: the moderating role of coping strategy. *Interactive Technology and Smart Education*, 18(3), 475-492, 2021.
- Bhasin, N., Garg, S. (2020). Impact of institutional environment on inward FDI: A case of select emerging market economies. *Global Business Review*, 21(5), 1279-1301.
- Bhasin, N., Kapoor, K. (2020). Impact of outward FDI on home country exports. *International Journal of Emerging Markets*.
- Bhasin, N., Soni, A., Kar, R. N. (2021). Do Institutional and Macroeconomic Factors Matter in IT companies M&As? Evidence from India. *Business Perspectives and Research*, 9(2), 286-305.
- Chandra, A., Bagdi, N. (2021). Analysis of factor's influencing the adoption of e-teaching methodology of learning by students: an empirical study amidst the present pandemic crisis. *Asian Journal of Economics and Banking*, 5(1), 15-24.
- Chhikara, K., Lal, M. (2020). The role of international trade in poverty reduction: a case study of India. *Journal of Commerce & Accounting Research*, 9(2).
- Garg, R., Shukla, A. (2020). Sovereign Wealth Funds: A Critical Analysis. Business Analyst, 41(2), 25-47.
- Gautam, S., Lal, M. (2020). Analysing competitiveness and trade performance: evidence from Indian textile industry and its select competitors. *Transnational Corporations Review*, 1-19.
- Gupta, R., Shukla, A. (2020). Evaluation of factors that affect venture capital investment: Evidence from India. *Global Business Review*.
- Jhunjhunwala, S., Suresh, S. (2020). Commodity and Stock Market Interlinkages: Opportunities and Challenges for Investors in Indian Market. *Global Business Review*.
- Kanojia, S., Malhotra, D. (2021), A Case Study of Stock Market Bubbles in the Indian Stock Market, Indian Journal of Finance, 15(2), 22-48
- Kanojia S., Sharma N., Sharma P., Sharma J. P. (2020), Corporate Funding of Political Parties in India, Corporate Governance Insight, 2(1), 41-70.
- Kanojia, S., Aggarwal, V., Bhargava, A. (2020). Descendants of Financing Decision with Reference to Capital Structure: An Empirical Analysis of Indian SMEs. SEDME (Small Enterprises Development, Management & Extension Journal), 47(1), 33-42.
- Kanojia, S., Sachdeva, S., Sharma, J. P. (2020). Retaliatory effect on whistleblowing intentions: a study of Indian employees. *Journal of Financial Crime*.
- Kanojia, S., Singh, D., Goswami, A. (2020). Impact of herding on the returns in the Indian stock market: An empirical study. *Review of Behavioral Finance*.

- Kumar, P. (2021). Green Supply Chain Management: An Emerging Initiative on Environmental Performance. *International Journal of Commerce and Management Research*, 7(2), 21-26
- Saha, P., Sharma, A. (2020). A fusion of human resource (HR) and marketing management strategies: symbiotic effect. *International Journal of Research and Analytical Reviews*, 7(3), 687-700.
- Saha, P., Sharma, A. (2020). Creating value through customer relationship management in the automotive industry in India. *International journal of research in commerce & management*, 11(9), 13-19.
- Sardana, V., Shukla, A. (2020). Deposit Insurance coverage limit: How much is enough? Evidence from India. *Indian Journal of Finance and Banking*, 4(4), 66-83.
- Sharma N., Singh, R. K. (2021) Workplace Spirituality and Organizational Effectiveness: Exploration of Relationship and Moderators. *Journal of Management, Spirituality & Religion*, 18(1), 15-35.
- Sharma, K., Lulandala, E. E (2020), 'Consumers' Engagement with Social Media Ads: Conceptualizing a Holistic Model', *Delhi Metropolitan Education-Journal of Management*, 1(1), 16-35.
- Sharma, K., Licsandru, T. C., Gupta, S., Aggarwal, S., Kanungo, R. (2020). An investigation into corporate trust and its linkages. *Journal of Business Research*, 117, 806-824.
- Sharma, K., Lulandala, E. E. (2021), 'Facebook Ad Engagement: A Cross-cultural Analysis', *Global Business Review*, 1-27. https://doi.org/10.1177%2F09721509211007115
- Sharma, N., Lal, M., Deshwal, P. (2020). Being Spiritually Green: Investigating the Impact
 of Spiritually Motivated Environmentalism on Green Purchasing Intentions. *International Journal of Service Science, Management, Engineering, and Technology (IJSSMET)*, 11(4),
 101-121.
- Shrotryia, V. K., Kalra, H. (2020). Herding and BRICS markets: a study of distribution tails. *Review of Behavioral Finance*. (Oct)(ahead-of-print).
- Shrotryia, V. K., Kalra, H. (2021). Herding in the crypto market: a diagnosis of heavy distribution tails. *Review of Behavioral Finance*. (March)(ahead-of-print).
- Shrotryia, V. K., Dhanda, U. (2020). Corporate Sustainability: The new organizational reality. *Qualitative Research in Organizations and Management*. (Nov)(ahead-of-print).
- Shrotryia, V. K., Dhanda, U. (2020). Development of employee engagement measure: experiences from best companies to work for in India. *Measuring Business Excellence*. 24(3), 319-343
- Shrotryia, V. K., Dhanda, U. (2020). Exploring Employee Engagement Using Grounded Theory: Experiences from Best Firms in India. *Vision: The Journal of Business Perspective*, 24(2), 171-183
- Shrotryia, V. K., (2020), COVID-19: Humanity and Human Well-Being beyond GDP. SME World, 13(4), 8-9

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- Shrotryia, V. K., Singh, S.V.P. (2020). A short history of India's economy: pre-and post-independence period. *Economic and Regional Studies*. 13(4), 388-406.
- Shrotryia, V. K., Singh, S.V.P. (2020). Measuring Progress Beyond GDP: A Theoretical Perspective. *Emerging Economy Studies*. 6(2), 143–165.
- Singh, D. P., Sharma, K (2020), 'Motivations for Youths' political participation on social media: Implications for Political Marketers', *International Journal of Indian Culture and Business Management*, DOI: 10.1504/IJICBM.2020.10028537.
- Singh, R. K., Babbar, M. (2021). Religious Diversity at Workplace: A Literature Review. *Humanistic Management Journal*, 6, 229-247.
- Singh, R. K., Babbar, M. (2020). Understanding religious diversity and its implications at workplace, *NMIMS Journal of Economics and Public Policy*, 5(4), 10-21

Books published / Chapters in Books

Bhasin, N., Manocha, R. (2020). "An Examination into the Dynamics of India-EU Trade and Investment Engagement." In Rabi Narayan Kar, Kaisa Sorsa and Kusha Tiwari (Eds.). *Responsible Business Prof.essionals: A Strategic Perspective of the Global Challenges*, pp. 52-80. Cambridge Scholars Publishing: UK. (ISBN: 978-1-5275-4791-9)

4. Journals

Published by the Department

Journal of Commerce and Business Studies

Number of Department teachers serving as Editor(s)/Member(s) of Editorial Board - 5

- Prof. Ajay Kumar Singh, Editor in Chief, Delhi Business Review An International Journal of SHTR
- Prof. Ajay Kumar Singh, Joint Managing Editor, Quarterly Journal of Management Development – Journal of Indian Association for Management Development
- Prof. R. K Singh, Member of the Editorial Board, Delhi Business Review.
- Prof. R. K Singh, Member of the Editorial Advisory Board, International Journal of Commerce and Management – ASPIRARE
- Prof. R K Singh, Reviewer: Management Decision, Journal of Organizational Change Management, International Journal of Organizational Analysis, Quality Assurance in Education
- Prof. Sunaina Kanojia, Member of the Editorial Review Board of Business Analyst, a Refereed Journal of Shri Ram College of Commerce.
- Prof. Sunaina Kanojia, Editor, Corporate Governance Insight, International Journal published by Global Research Foundation for Corporate Governance, Dec 2019, Vol I, No II.

- Prof. Sunaina Kanojia, Associate Editor, Journal of Commerce and Business Studies, published by Department of Commerce, Faculty of Commerce and Business Studies, University of Delhi.
- Prof. Amit Kumar Singh, Member of the Editorial Board of the International Journal 'Research in Business Management', Macrothink Institute, Las Vegas, USA.
- Prof. Amit Kumar Singh, Member of the Editorial Board of the Journal of Business Studies:
 A Journal of Shaheed Bhagat Singh College, University of Delhi
- Prof. Amit Kumar Singh, Member of the Editorial Board of the MANTHAN: Journal of Commerce and Management, Journal Press India
- Prof. Amit Kumar Singh, Member of the Editorial Board of Indian Journal of Research in Capital Markets.
- Prof. Amit Kumar Singh, Member of the Editorial Board of the International Journal 'Research in Business Management', Macrothink Institute, Las Vegas, USA.
- Prof. Amit Kumar Singh, Member of the Editorial Board of the Journal of Business Studies:
 A Journal of Shaheed Bhagat Singh College, University of Delhi
- Prof. Amit Kumar Singh, Member of the Editorial Board of the MANTHAN: Journal of Commerce and Management, Journal Press India
- Prof. Amit Kumar Singh, Member of the Editorial Board of the Indian Journal of Finance, Scopus Indexed
- Prof. Kavita Sharma, Guest Editor for a special issue of Sustainability titled 'Business Strategies of Multinational Companies to Achieve Sustainable Development Goals (SDGs) in Developing Markets'
- Prof. Kavita Sharma, Reviewer: Journal of Business Research, Industrial Marketing Management, Qualitative Market Research- An International Journal, Sage Publication, Vision-Journal of Business Perspective, Global Business Review
- Prof. Kavita Sharma, Member of the Executive Board, International Conference of Marketing, Strategy & Policy organised by New castle University

5. Research Projects

- Prof. Kavita Sharma Won the competition for Sheth Research Grant of Rs. 100,000 from the Academy of Indian Marketing for the project proposal titled 'Mobile Health Apps for Sustainable Health Management' as Co-PI.
- Prof. Kavita Sharma Received FRP grant of Rs. 3,40,000 from IoE, University of Delhi for the project titled, 'Cognitive dissonance of mobile application (App) usage A study of its antecedents and behavioural outcomes' as PI.

6. Seminars Organized / Guest Lectures organized

S.No.	Date	Name of the Guest	Company's Name	Topic
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1.	16-06-2020	Nilanjan M	Relaxo	7 pillars of corporate success
2.	11-07-2020	Mr. Satyajit Mohanty	Crompton Greaves Consumer Electricals Ltd	Creating a Learning Culture while WFH & AI in HR
3.	12-07-2020	Mr.Sumit Agrawal & Mr.Shashwat Mittra	The Seekers Inc	Importance of Prof.ile Assessments - LinkedIn & CV
4.	08-08-2020	Mr. Rahul Sharma	Columbus A/S	Human Resource Analytics
5.	08-08-2020	Mr. Pranav Prasoon	Renault India	Essential Management Skills for Emerging Leaders
6.	16-08-2020	Mr. Eesh Dev Varma	Ashland Chemicals	HR roles and key ideas to prepare for and perform well in those ladders
7.	16-08-2020	Mr. Gaurav Johri	Neles	Employee Experience
8.	17-08-2020	Mr. Parived Bhatnagar	SAP SuccessFactors	Roles that HR Prof.essionals can play to directly & tangibly contribute to business results
9.	20-08-2020	Mr. Dinesh Reddy	PPD Pharmaceuticals	How to outshine in campus placements and chasing the corporate ladder while maintaining sustainability
10.	21-08-2020	Mr. Sumit Mundra	Gartner India	Tips to manoeuvre an interview
11.	22-08-2020	Mr. Bhavnesh Bhat	RippleHR Global Consulting	Managing Change and the rise of "New Normal" for Human Resources
12.	23-08-2020	Mr. Sushil Tripathi	Siyaram Silk Mills.	Employee Prof.iling
13.	25-08-2020	Mr. Ashish Taneja	Natwest Group (erstwhile RBS)	Talent Landscape
14.	31-08-2020	Mr. Venkatesh Neelam	Volvo Group	How to Build your personal brand & Credibility in the Digital Era" by using social media
15.	02-09-2020	Mr. Akshay Mathur	S&P Global	Navigating the Future Workplace - Competencies needed for the jobs of the future
16.	04-09-2020	Ravi K Raghunathan	IBM	Importance of Up-skilling in today's dynamic and disruptive environment
17.	05-09-2020	Mr. Sumit Neogi	Lubrizol Corporation	Competencies required for various HR Roles in the future, and how to develop them'

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18.	05-09-2020	Mr. Amit Jain	People Strong	Organizational Development Interventions happened due to COVID-19 in various HR Policies/Practices
19.	05-09-2020	Mr.Vivek Kumar	ICICI Securities	Growing opportunities in the financial markets
20.	08-09-2020	Ms. Lopamudra Banerjee	Carrier midea	Different HR verticals and the competencies required and upcoming trends in HR
21.	12-09-2020	Ayush Mittal	MBA Trek	Plan of action after internship and selecting the right career
22.	13-09-2020	Mr. Havish Madhvapaty	Havish M Consulting	Excel-A Must Have For All Managers
23.	14-09-2020	Ms Manpreet Kaur	Davidoff	Importance of happiness quotient and managing employee stress
24.	15-09-2020	Mr. Somnath Baishya		Organization diagnostic matrix
25.	16-09-2020	Mr. Rajat Kapoor	Assoc CIPD	Leading learning culture in organization
26.	17-09-2020	Ms. Charu Sharma	Author/OD Professional	Succession planning
27.	18-09-2020	Rajiv Naithani	Infogain	Managing high performing teams
28.	19-09-2020	Ms. Jasmine Saini, Mr. Indrajeet Chatterjee	ITC Limited, PwC	Personal Branding and Skills to Crack Big-4 Consulting Interview
29.	25-09-2020	Mr. Rahul Sharma	Columbus A/S	HR Analytics
30.	26-09-2020	Ms. Panchali Das	Zenoti	Navigating the future workplace- Competencies needed for the jobs of the future
31.	26-09-2020	Dr. Shubra Chakraborty	Phillips Healthcare	Personal Branding and Winning Business Competitions
32.	30-09-2020	Mr. Ravish Rana	Gartner	Crash course on how MBA is done
33.	04-10-2020	Mr. Kshitij Batra	HDFC Bank	Future of India on the way to self-reliance, Corporate Calling!
34.	09-10-2020	Mr. Ayoushman Singh, Ganesh, Ananthanarayanan - COO, Airtel Payments Bank, Komal Bapna - Strategy and PMO, Abhishek Sharma - HRBP & Talent Acquisition Specialist, Tanya Sachdev - Lead Corporate communications	KPMG, Airtel Payment Bank	Lean Six Sigma Competency Development Programme (CDP), Payments Bank Model and how it is contributing to drive digital and financial inclusion in the country

35.	11-10-2020	Varun Satia	Varun Satia	Summer Placement Session
36.	12-10-2020	Mr. Mussarat Hussain	Maruti Suzuki	Impact of COVID-19 on business and economy
37.	15-10-2020	Mr. Vijai AMr.itharaj Gnanavel	Nielsen	The Role of HR in Organisation Strategy
38.	17-10-2020	Mr. Anupam Rai	Sterlite Power	An introduction to Organisational Development
39.	17-10-2020	Ms Geetanjali Shivdasani	Enel Green Power	Compassionate Leadership
40.	19-10-2020	Mr. Pankaj Suri	Edelman	Understanding of Communication Market and the skills required for the Communication Profession.
41.	21-10-2020	Vishwanadh Raju	Axiscades Technologies	Stake Holder Management & Design Thinking
42.	23-10-2020	Mr. Rishi Raj Gupta	Facebook	Batch Meet (experience sharing)
43.	24-10-2020	Lt. General Anil Malik, Mr. Sanil Sanchar, Miss Karnika Seth, Miss Niki Mehra, RJ Rahul Makin, Miss Palak Shah	InspireOne Consultants	Pre-Placement Talk, TEDX
44.	26-10-2020	Mr. Hetal Sonpa	A Startup Evangelist and prominent Angel Investor	The Startup Enterprise
45.	31-10-2020	Ms. Namita Koshy	Ogilvy	How to be creative about building a brand on digital
46.	08-11-2020	Pre- Placement Talk (SIP)	ETEK International	Pre- Placement Talk (SIP)
47.	23-11-2020	Mr. Jaskaran Kohli	BeyondCV	Cracking the most FAQs in interview
48.	27-11-2020	Ms. Shalini Sharma	Flock	Building effective and engaged remote team
49.	28-11-2020	Mr.Emmanuel Suraj, Mr. Jiggar Rambhia	A3D Capital, Shopper Insights India Lead at NielsenIQ	Fundamental Analysis and Stock Selection, Brand and Innovation Research
50.	05-12-2020	Dr. Manavi Pathak	Tata Trent	Beyond the Basics – Competencies for Contemporary Careers: Behavioural Perspective
51.	12-12-2020	Mr. Vishal Anand, Mr. Vikas Bhardwaj, Mr. Mahim Sharma, Mr. Jayakar Sodagiri	Alumni	Vocal for local: Is it the correct step in regards to International Business?
52.	13-12-2020	Mr. Vinod kr Katyal, Mr. Vijai S Raghunathan, Mr. Alok Kr Varshney, Ms.		Pandemic: An opportunity for start-ups

		Himanshi Singh, Mr. Deepak Mann		
53.	20-12-2020	Mr. Abhishek Srivastava	Big Boy Toyz	Sales, strategies, and supercars
54.	26-12-2020	Mr. Nisant Mohta	Finlatics	Scenario of Financial Markets post Covid
55.	30-12-2020	Mr. Rajat Khatri	Cactus Communications	Creating a business around passion during the uncertain times.
56.	09-01-2021	Mr. Kaushik Das	Siemens	MBA in the age of Industry 4.0
57.	10-01-2021	Mr. Akash Tripathi	Pristyn Care	Ace the Case
58.	24-01-2021	Ms. Soumya Gupta	Accenture	Introduction to Guesstimates
59.	06-02-2021	Mr. Ankur Chaturvedi	Emami Ltd	Marketplace the Jungle in Real Life- Marketing and Demand lessons from the African savannah
60.	07-02-2021	Mr. Ashwin Malik Meshram	Spinnaker Analytics	E-commerce Analytics
61.	13-02-2021	Mr. Farooq Baig	BSH Group	Consumer-centric approach towards products
62.	18-02-2021	Mr.s. Kadambari Rao Batra	ITC Infotech	Various topics from her field
63.	06-03-2021	Mr. Arpan Gupta	FICCI	Indian economy & industry in current times

7. Seminar/Conference Presentations (National / International)

- Prof. R.K. Singh presented a paper titled 'The Moderating role of culture in student's self-efficacy and approach to learning' presented at the International young researchers' conclave organized by Shaheed Raiguru College of Applied Sciences, University of Delhi on September 25-26, 2020.
- Prof. R. K. Singh was invited as a Guest in the inaugural session of the One Week National-Level Online Faculty Development Program on 'Hypothesis Testing and Techniques for Data Analysis' organized by the Department of Commerce, Shivaji College in collaboration with Mahatma Hansraj Faculty Development Center under the scheme of Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), March 5, 2021 (online)
- Prof. R.K. Singh presented a paper titled 'Mediating role of select work attitudes on the relationship between workplace spirituality and organizational effectiveness at the International E-Conference on Advances in Business and Management, organized by the Department of Commerce, Shaheed Bhagat Singh College, University of Delhi on March 4-6, 2021.
- Prof. R. K. Singh was invited as a Resource Person at a national workshop on 'Transition from traditional to blended learning: Challenges & Opportunities' organized by Madhav Institute of Technology & Science, Gwalior, MP, January 23, 2021 (online).
- Prof. R. K. Singh was invited as a Resource Person at Refresher Course in Commerce & Management Studies organized by UGC Human Resource Development Centre, Jamia Millia Islamia, New Delhi, January 21, 2021 (online).

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- Prof. R. K. Singh was invited as a Resource Person at 'The Changing Paradigm of Teaching-Learning Process 'organized by UGC-Human Resource Development Centre, Jawaharlal Nehru University, New Delhi, January 11, 2021 (online).
- Prof. R. K. Singh was invited as an Inaugural Address at a webinar on 'How to Publish Research Paper in Scopus/Indexed Journals', organized by Bodhini, the Academic Events and Research Committee of Department of Commerce, Acharya Narendra Dev College, University of Delhi, December 12, 2020 (online).
- Prof. R. K. Singh was invited as a Chief Guest in the Inaugural Session of two-Week faculty development program on research methodology: 'A Learning Journey from Bivariate Techniques to Multivariate Techniques' organized by Ramanujan College, University of Delhi, December 10, 2020 (online)
- Prof. R. K. Singh was invited as a Guest at the Inaugural Session of Refresher Course in Business Studies organized by HRDC Pondicherry University, November 17, 2020 (online)
- Prof. R. K. Singh was invited as a Guest of Honor at the Faculty Development Program on 'Research Methodology', organized by Dyal Singh College, University of Delhi, November 2, 2020 (online)
- Prof. R. K. Singh was invited as a Resource Person, at UGC sponsored Faculty Induction Programme, on Professional Development of Teachers through Online Teaching organized by Human Resource Development Centre, Guru Jambheshwar University of Science & Technology, Hisar, Haryana. October 10, 2020 (online)
- Prof. R. K. Singh was invited as Chief Guest, at the inaugural session of International Research Conclave
 on Continuity, Consistency, and Innovation in Management, organized by the Department of
 Management and Financial Studies, Shaheed Rajguru College of Applied Sciences for Women,
 University of Delhi, September 25, 2020 (online)
- Prof. R. K. Singh was invited as Guest Speaker, Inaugural session, ICSSR Sponsored National Conference on "Sustainable Development and Business: Managing Organizations of Tomorrow", organized by Department of Commerce, PGDAV College, University of Delhi, August 18, 2020 (online)
- Prof. R. K. Singh was invited as Resource Person, Case Method of Learning, Induction program, Teaching Learning Centre (TLC), Ramanujan College, University of Delhi, July 18, 2020 (online)
- Prof. R.K. Singh was invited as Resource Person, Work-Shop on 'Understanding Qualitative Research during Pandemic' organized by Delhi Productivity Council, Delhi, July 1, 2020 (online)
- Prof. R. K. Singh was invited as Resource Person, How to write good Research Papers and Project, KIIT Law School, Bhubaneshwar, Odisha, June 26, 2020 (online)
- Prof. R.K. Singh was invited as a Resource person, Research Project Proposals, FDP organized by School of Commerce & Economics, KIIT, Bhubaneshwar, Odisha, June 25, 2020 (online)
- Prof. R.K. Singh was invited as a Resource person, Case Methods of Learning organized by Delhi Productivity Council, Delhi, June 15, 2020 (online)
- Prof. R. K. Singh was invited as Resource Person, FDP organized by Faculty of Management Studies, Mohan Lal Sukhadia University, Udaipur, Rajasthan June 1, 2020 (online)
- Prof. R. K. Singh was invited as Chief Guest, National Workshop on Publishing in Scopus Journals, organized by Postgraduate and Research Department of Commerce Nirmala College, Muvattupuzha, Kerala, May 30, 2020 (online)

- Prof. R. K. Singh was invited as Chief Guest, Inaugural of E-FDP on "Changing Research Landscape in Uncertainties, Rukmini Devi Institute of Advanced Studies, Delhi, May 25, 2020 (online)
- Prof. R. K. Singh was invited as Speaker, Inaugural session, International Conference on "Covid-19: Lives and Livelihood, organized by KIIT School of Commerce & Economics, Kalinga Institute of Industrial Technology, Bhubaneshwar, Odisha, May 5, 2020 (online)
- Prof. R K Singh was invited as Resource Person at Webinar on 'Covid-19 Managing Uncertainties' organized by Atma Ram Sanatan Dharma College, University of Delhi April 30, 2020 (online)
- Prof. V.K. Shrotryia chaired a technical session on June 19, 2020, in an International Webinar (Zoom), organized by the Department of Commerce, Mizoram University in collaboration with Sikkim University on Implications of COVID-19 Lockdown on Trade and Commerce, held on June 19-20, 2020.
- Prof. V.K. Shrotryia chaired a technical session on May 5, 2020 in Online International Conference on COVID – 19: Lives and Livelihood, organized by School of Commerce and Economics, KIIT, Bhubaneswar, Odisha, held on May 5-6, 2020.
- Prof. V.K. Shrotryia delivered a lecture in a webinar on Happiness and Public Policy in the wake of COVID 19 organized by the Department of Commerce & IQAC, Dyal Singh College, University of Delhi, Delhi on the May 25, 2020
- Prof. V.K. Shrotryia delivered a lecture on Prospects for Commerce and Management Research in Knowledge Society, during Online Refresher Course in Commerce and Management for teachers of Commerce and Management discipline from degree colleges and universities, organized by the UGC-HRD Centre, Maulana Azad National Urdu University, Hyderabad on August 29, 2020
- Prof. V.K. Shrotryia was invited as a Keynote speaker in an Online International Conference on COVID
 19 and Human Well-Being: Lessons for revisiting the economics of development held on May 5, 2020
- Prof. V.K. Shrotryia delivered a lecture on Happiness Idea, and Implementation during a National Webinar organized by Madhyanchal Sociological Society, Madhya Pradesh on August 1, 2020.
- Prof. V.K. Shrotryia was invited as a Key Resource person in a National Webinar on Journey from Happiness to Peace organized by Gangasheel Mahavidyalaya, (MJP Rohilkhand University), Bareilly, UP on July 22, 2020.
- Prof. V.K. Shrotryia delivered a lecture on Happiness and Well-Being: Looking Beyond GDP, a webinar organized by MB Khalsa College, Indore, MP on July 15, 2020.
- Prof. V.K. Shrotryia was invited as a Keynote speaker during a One Week Online Faculty Development Program on Innovation and Best Practices for Higher Education Institutions organised on NAAC Accreditation Framework: an overview in respect of new guidelines, organized by Research Foundation of India, Indore on July 11, 2020.
- Prof. V.K. Shrotryia was invited to deliver a valedictory address during a Two-week national-level online faculty development program on Skill Development and Competency Enhancement for College Teachers organized by the Government Degree College, Parkal, Warangal, Telangana on June 30, 2010.
- Prof. V.K. Shrotryia was invited as a Keynote speaker in an international webinar on Organizations and Strategies: Post COVID-19 Era Management, organized by the Department of Commerce, Mizoram

University in collaboration with Sikkim University on Implications of COVID-19 Lockdown on Trade and Commerce, held on June 19-20, 2020.

- Prof. V.K. Shrotryia delivered a lecture in a webinar on COVID 19: Inner Engineering during the Lockdown organized by MBA Department, Invertis University, Bareilly on the June 6, 2020.
- Prof. V.K. Shrotryia chaired a technical session on June 19, 2020, in an International Webinar (Zoom), organized by the Department of Commerce, Mizoram University in collaboration with Sikkim University on Implications of COVID-19 Lockdown on Trade and Commerce, held on June 19-20, 2020.
- Prof. V.K. Shrotryia chaired a technical session on 5th May 2020 in Online International Conference on COVID – 19: Lives and Livelihood, organized by School of Commerce and Economics, KIIT, Bhubaneswar, Odisha, held on May 5-6, 2020
- Prof. Kavita Sharma presented a paper entitled Incidence of Poverty and Customer Value Perceptions: An Investigation to Correct the Dark Side of Marketing' at Subsistence Marketplaces Virtual Conference, hosted by Loyola Marymount University, May 31 –June 1, 2020
- Prof. Kavita Sharma was invited as a Keynote speaker in Virtual Conference on 'Unlocking of Higher Education Institutions' organised by Sri Aurobindo College of Commerce and Management, Ludhiana in association with Punjab Commerce and Management Association (PCMA) on July 7, 2020
- Prof. Kavita Sharma presented a paper entitled Over the Top (OTT) platforms in India- Exploring Resilience Strategies and Consumer Behaviour during COVID-19' presented during 5th International Conference on Marketing Strategy & Policy 2021, organised by marketing Strategy & Policy Centre, Newcastle University, UK.
- Prof. Kavita Sharma presented a paper entitled 'Fashion Brands and Status Consumption: A Study of Antecedent Conditions' at ICMC, 2021 organised by MICA, India.
- Prof. Kavita Sharma presented a paper entitled Impact of E-Detailing by Medical Representatives on Medicine Prescription Behaviour of Doctors during pandemic Covid-19' at 3rd ICDE & 14th ISDSI Annual Conference 2020 organised by IIM Raipur, December 27-29, 2020.
- Prof. Kavita Sharma had been Invited to deliver a talk on 'nCovid-19: Impact on and Future of Indian Economy' during a National Webinar organised by Shahid Bhagat Singh Evening College, University of Delhi, June 8, 2020.
- Prof. Kavita Sharma had been Invited to deliver a talk on 'Impact of Pandemic Covid-19 on Global Trade Outlook: Implications for India' during Webinar organized by PHDCCI on September 7, 2020.
- Prof. Kavita Sharma had been Invited to deliver a talk on 'Marketing in a Digital Era' during a National Webinar organized by Sri Aurobindo College, University of Delhi, November 27, 2020.
- Prof. Kavita Sharma contributed as a Chief Guest during one week FDP organized by organized by Guru
 Angad Dev Teaching Learning Centre, a centre under the Pandit Madan Mohan Malaviya National
 Mission on Teachers and Teaching (PMMMNMTT) of Ministry of Education and Department of
 Business Economics, SGTB Khalsa College, University of Delhi, March 4-21, 2021
- Prof. Kavita Sharma contributed as a resource person to deliver a Lecture in Faculty Induction Programme III through online mode organized by HRDC-JNU: January 8, 2021

- Prof. Sunaina Kanojia delivered a talk on Cyber Frauds and Law Enforcements in the Web Conference "Global Infosec Web Summit 2020, organised by Euinac Technology Pvt Ltd, on April 25, 2020.
- Prof. Sunaina Kanojia delivered a webinar on Cyber Crimes and Preventions during Lockdown on May 6,
 2020, organised by Mata Sundri College for Women, University of Delhi.
- Prof. Sunaina Kanojia delivered a National webinar on Cyber Crimes, Law and Security on May 12, 2020, organised by Shivaji College, University of Delhi.
- Prof. Sunaina Kanojia delivered a National webinar on Essence of Financial Planning During Covid-19, on1 May 15, 2020, organised by PGDAV College, University of Delhi
- Prof. Sunaina Kanojia delivered a National webinar on Financial Planning to Navigate in Uncertain Times on May 19, 2020, organised by Nirmala College Muvattupuzha, MG University Kerala.
- Prof. Sunaina Kanojia delivered a National webinar on Cyber Security: Challenges and Way Out, on May
 22, 2020, organised by Dyal Singh College, Karnal, Kurukshetra University, Haryana
- Prof. Sunaina Kanojia delivered a webinar on Financial Planning in Uncertain Times organised by Ram Lal Anand College, University of Delhi, Delhi on June 27, 2020
- Prof. Amit Kumar Singh delivered a Lecture as a Resource Person in One Day Webinar on the topic 'Contemporary Issues in Stock Market' organized by Mahatma Gandhi Central University on April 24, 2020.
- Prof. Amit Kumar Singh delivered a Lecture as a Resource Person in One Day Webinar on the topic 'COVID—19 and The Indian Financial System: Impact Assessment & Policy Response' organized by the Department of Commerce, Bharti College, University of Delhi on April 29, 2020
- Prof. Amit Kumar Singh delivered a Lecture as a Resource Person in One Day Webinar on the topic 'Stock Market and Mutual Funds' organized by the Institute of Management Studies (IMS), Ghaziabad on May 4, 2020.
- Prof. Amit Kumar Singh delivered a Lecture as a Resource Person in One Day Webinar on the topic 'Impact of COVID-19 on the Indian Financial Market' organized by Chaudhary Ranbir Singh University, Jind on May 5, 2020.
- Prof. Amit Kumar Singh delivered a Lecture as a Resource Person in One Day Webinar on the topic 'Impact of Lockdown & COVID-19 on Financial Markets in India: The Way Forward' organized by Atma Ram Sanatan Dharma College, University of Delhi on May, 6 2020.
- Prof. Amit Kumar Singh delivered a Lecture as a Resource Person in One Day Webinar on the topic 'Understanding Derivatives: Mechanism, Pricing and Hedging' organized by the Department of Commerce, Bharti College, University of Delhi on May 9, 2020.
- Prof. Amit Kumar Singh delivered a Lecture as a Resource Person in One Day National Webinar on the topic 'Financial Planning to Navigate in Uncertain Times' organized by the Postgraduate and Research Department of Commerce, Nirmala College, Muvattupuzha, Kerala on May 19, 2020.

- Prof. Amit Kumar Singh delivered a Lecture as a Resource Person in One Day National Online Webinar
 on the topic 'Challenges in On-Line Learning and Solution' organized by B.N.College of Engineering &
 Technology, Lucknow, U.P., on May 22, 2020.
- Prof. H.K. Dangi delivered a talk in a webinar on "Changing Paradigm of Research in COVID era" organized by Shivaji College, University of Delhi on May 19, 2020
- Prof. H.K. Dangi delivered the talks in EFDP on "Changing landscape of research in uncertainties" organised by Rukmani Devi Institute of Advanced Studies during May 25-30, 2020
- Prof. H.K. Dangi presented a research paper on the Future of Neuromarketing in "Global Strategy and Emerging Market Conference" organised by Cornell University Emerging Market Institute and the Cornell Institute for China Economic Research on November 7, 2020
- Prof. Ashish Chandra delivered a webinar on "Social networks- A Tool to Combat Covid-19" on May 22, 2020, organized by Delhi College of Arts and Commerce.
- Prof. Ashish Chandra delivered a webinar on "Mind-Sets, Knowledge-Sets and Skill-Sets for 21st Century Youth: Innovations and Adaptations" on June 2, 2020 organized by Shri Ram College of Commerce.
- Prof. Ashish Chandra contributed as a resource person in a one-day workshop on "Corporate Accounting" organized by Hansraj College, University of Delhi on January 27, 2020.
- Prof. Niti Bhasin presented a paper entitled "Impact of Outward FDI on Parent Firms in Emerging Markets: A Study for Services Sector Firms in India" (jointly with Ms. Divya) at the Academy of International Business Online 2020 Conference held from July 1-9, 2020 online.
- Dr. Kiran Bala presented a paper Titled "Medicine Prescription Behaviour of Doctors in India: Role of Advertisement in Medical Journals and Opinion Leaders" in International E-Conference on Advances in Business & Management Organized by Department of Commerce, Shaheed Bhagat Singh College, University of Delhi, India, during March 4-6, 2021
- Dr. Kiran Bala presented a paper Titled 'Impact of E-Detailing By Medical Representatives on Medicine Prescription Behaviour of Doctors During Pandemic COVID-19' in the 3rd ICDE & 14th ISDSI Annual Conference, organized by Centre for Digital Economy, Indian Institute of Management Raipur, India, during December 27-29, 2020
- Dr. Kiran Bala presented a paper Titled "An Empirical Study of Satisfaction, Attitude & Tourists'
 Preferences for Edu-Tourism Sector" in the International Conference 'Challenges and Prospects in the
 Management in the VUCA World' Organized by Symbiosis Institute of Business Management, Nagpur
 on February 16-17, 2021.
- Ms. R. Saini and Prof. H K Dangi, presented a paper entitled, Social Networking while Social Distancing: An opportunity for Marketers? in the 3rd ICDE &14th ISDSI Annual Conference IIM Raipur, Raipur, Chhatisgarh, India, December 27-29, 2020.

• Dr. Shikha Sachdeva presented a paper titled "Evaluation of remote learning portals for competitive examinations in India in Covid- 19: Using AHP approach at the Global strategic management conference (GSMC, 2020) be Delhi Metropolitan Education Institute, IP University, Noida, November 26, 2020.

8. Placement Details (Number and percentage of students placed) MBA(IB)

- Number and percentage of students placed 51 and 78.46%
 - Number of Companies visited for campus recruitment- 74

MBA(HRD)

- · Number and percentage of students placed 32and 71.11%
 - Number of Companies visited for campus recruitment- 35

M.Com.

Number and percentage of students placed – 65 and 35.14%

· Number of Companies visited for campus recruitment- 25

9. Extension and Outreach Activities

- 1. Online lecture delivered by Prof. Ujjwal Kumar Singh, Department of Political Science under the aegis of Gems of University Lecture series on the topic "Foundations of Electoral Governance in India: Procedural certainties and electoral uncertainties" on November 5, 2020.
- 2. Online lecture under the aegis of Department-College Interface on "An Overview of Cost Accounting Standards and their Implications on teaching Cost Accounting papers at Graduation Level" on February 28, 2021.
- 3. Online lecture under the aegis of Department- College Interface on "Relevance and Implications of Cost Accounting Standards with special reference to Cost Accounting- Paper BCH 4.1& BC 4.3" on January 30, 2021.

10. Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.: 12 M.Phil.: 18

11. Faculty Strength

Professors: 15

Assistant Professors (Ad-hoc): 13

12. Other Significant Information

- Beyond the classroom Media Cell, a student-led editorial society of M.Com., Department of Commerce, Delhi School of Economics with its flagship work 'Drishti', the official magazine of Department of Commerce has also launched 'Beyond the Classroom' - a series of sessions for the students that aims at bringing the experiences of experts in various fields.
- 2. Blooming Insights, the official Blog of Media Cell, was launched in February 2021. Since then, it has been providing its readers with quality and well-researched content, interesting and engrossing topics, and up-to-date news. Every week we post new articles to keep our readers entertained and updated with what's going on in the world.

S.No.	Date	Blog
1	17-02-2021	The GameStop story - how social media for nerds shook the entire Wall Street!
2	20-02-2021	Bad Banks: Good or Bad?
3	24-02-2021	The old vehicle scrapping policy 2021

4	27-02-2021	Reliance vs. Amazon: The Battle of Titans
5	06-03-2021	Is Amazon really 'Aapki Apni Dukaan'?
6	13-03-2021	Financial Analysis as a Career
7	20-03-2021	Fundamental State of Leadership: How Leaders take Decisions

- 3. **TEDx** The inaugural TEDx for the Department of Commerce, Delhi School of Economics was organized on October 24, 2020 by Team Convention on the platform Zoom. The theme for the event was 'Legacy of us all' and it featured 6 speakers from different walks of life who came and shared their experiences with the audience. The event started with the Dean's address, which was followed by 'Ted Talk' given by the speakers. The speakers for the event were as follows:
 - Mr. Sanil Sachar
 - Dr Karnika Seth
 - RJ Rahul Makin
 - Ms Palak Shah
 - Ms Niki Mehra
 - Lt. General Anil Malik
- **4. HR Symposia -** HR Symposia is a two-day annual HR conference organized by the Student Development Cell of MBA HRD. The vision of HR Symposia is to increase the corporate-student interaction by reaching out to eminent leaders and connect our budding HR Managers to them, with an aim of gaining knowledge. The theme for HR Symposia 2020 was HR Metamorphosis: Transforming people and practices (November 21-22, 2020).
- **5. Workshop in Coursera -** HighQ team of MBA(HRD) got a deal with Coursera where DSE MBA HRD students had the exclusive chance to get free courses and certificates to gain some skills which are deemed mandatory in current corporate world. It included courses in MS Excel (Mandatory), Different HR domains, Data analytics, etc.
- 6. Pragyata The Corporate Relations Team of MBA programme took the initiative to conduct online Corporate Talks with prominent business Professionals from the corporate world and conducted close to 15 Pragyata sessions on various topics ranging from the emerging role of HR in the COVID scenario to interview and CV building tips (August 2020 December 2020).
- 7. Guest Lecture Series, IMBIBE IMBIBE was conducted on an ongoing basis with speaker sessions on different aspects of management useful for HR Professionals and future managers. The vision is to keep students updated with current trends in the industry and to increase corporate-student interaction by reaching out to eminent leaders and to form a connect with our budding HR managers
- 8. Cognizance: Metacognition by Experts -_Looking at the pandemic situation social media platforms became a new focal point of interesting discussions and we opened up to it too. MBA corporate relations team used all social media platforms to discussions and discoveries, by connecting people from different walks of life. Students, Professionals, experts, and all those interested came together and presented their views on a range of topics in form of a short write-up to open a dialogue for enrichment and growth of all (August 2020 December 2020).
- **9. Alumni committee** (**MBA -HRD**) In a continuous effort to maintain and increase the connection of our esteemed alumni with the institute, the Alumni Committee organizes various events throughout the year. These events give the alumni an opportunity to engage with each other as well as the faculty and students.

- a. **Horizon-** Annual alumni conference, in which panels of our alumni discuss the prevailing impediments, and recommend new solutions to overcome them, as well as potential avenues in the HR sphere that may arise in future. This allows students to assimilate in-depth knowledge of the issue and share their perspectives with Professionals in the field. This conference helps students to widen their views and develop a holistic HR approach (October 10, 2020).
- b. **Bandhan-** The objective of this program is to facilitate one to one mentoring for the students by roping in alumni of this prestigious course. This program intends to leverage the experience and expertise of the alumni to address the mentoring needs of the students seeking Professional and personal development (November 20, 2020).
- c. Edify'20- A unique Guest Lecture Series where the students interact with our diverse array of Alumni and gain insight into the corporate sector. This series aims to further familiarize the students with the field of HR and the recent trends & developments and assist them in expanding their HR dimension and reach (September 25, 2020, October 23, 2020, November 27, 2020).
- d. Rewind- The annual newsletter of MHROD, strives to strengthen our ties with our alumni and to keep them aware about all of the events that take place during the academic year. It also provides information about the college's current batches' accomplishments, alumni achievements, and anecdotes by alumni (January 26, 2021).
- 10. Alumni Committee (MBA- IB) Aagaaz Alumni Committee acts as the link that connects Department of Commerce, DSE to the corporate world. It provides the platform wherein students, industry leaders from all walks of life come together and share ideas. The objective of Aagaz is to enlighten the students with the words of wisdom of corporate personalities, discuss the topic of diverse interests and fields of students through series of panel discussions.
- 11. The Corporate Ecclesia Team IISAC The Corporate Ecclesia was an online panel discussion organized by Team IISAC in October 2020 with the view of getting insights from top-notch industry leaders and stalwarts. This initiative is taken keeping in view the pandemic so that our learning does not get hampered and we can get an insight into the thought processes of the corporates and policymakers at large. It allows the faculty and students to harness a vast pool of practical knowledge and reveal the ropes of the industry. The theme of the discussion was: "Future of India on the way of Self-Reliance". The panel consisted of 5 esteemed guest speakers.
 - a. Mr. Naveen Gupta from Apollo India,
 - b. Mr. Manoj Nair from Infosys BPM,
 - c. Mr. Malladi Dinakar, Vice President Kerry iNdev logistics,
 - d. Mr. R Balaji, Sr VP Mahindra Finance
 - e. Mr. Rajan Bhandari, CEO Hitachi MGRM India
- **12. Sankalp** To inculcate a sense of social responsibility in students and to make a difference to the society, Team Sankalp took following initiatives that culminate in social development:

a. Plant a Plant

"With every seed sown, hope for the future blossoms" To instill the spirit of giving back to nature in the future corporate leaders at DSE, Team Sankalp initiated a "Plant a Plant" activity wherein all had to give life to a new plant and send their pictures along with a caption on what impact this activity had on their minds. The event received a heartwarming response from the students (September 16, 2020).

b. Charitism

Team sankalp collaborated with the Alumni Committee to donate food packets on behalf of the guests in the annual alumni conference- Horizon. The NGO- Charitism distributed 200 packets on the guest's behalf to migrant workers and homeless destitute

around the railway station and bus stand areas of Chennai. The event was aimed to donate a nutritious mix of rice and vegetables to save poor destitute and homeless people from hunger and malnutrition (October 7, 2020).

c. Fundation

As a path to fostering team spirit and bonding, despite the "Social Distance" the pandemic has brought with it, Team Sankalp organised an online foundation event for the students of MBA HRD. The delightful event was made whole by the enthusiastic participation of the students. On behalf of the winners of the event, Grow-trees.com (NGO) planted trees for each winner at Ganges (Ganga), Buxar, Bihar as a donation (November 6, 2020).

Faculty of Education

1. Major Activities and Achievements

In the year ending 2021, 90 students got their B.Ed. degree, 43 students got their M.Ed. degree. Likewise, 14 Scholars were awarded the M.Phil. degree in the course of the year and 20 scholars received their Ph.D. degrees in the University Convocation.

The Department, under the aegis of the Institute of Advanced Studies in Education (IASE) scheme, sponsored by the Ministry of Human Resource Development of the Government of India, organized national level conferences, seminars, dialogues, symposia, faculty development programmes, and content development workshops.

The Department ensured that students get the necessary support for learning through the various channels, such as, Enabling Unit, Library, Online Learning Resources, Department Website, Flexible Assessment System.

The Department also organised various special events, such as, a concert on Secular Traditions in Indian Poetry and Music, International Yoga Day, Rashtriya Ekta Diwas, 73rd Foundation Day, Basu Memorial Lecture, Constitution Day, Session on Gender and Media.

To respond to the COVID-19 pandemic, the Department constituted a Departmental COVID Committee and Online Teaching Advisory Committee.

The details of all the above-mentioned activities and initiatives are available in sec 17 'Other Significant Information.

Publications

Books

- Arora, P., Sharma, S., & Sharma, Y. (Eds.). (2021) *Synergising Educational Concerns and Social needs*. Indian Council of Social Science Research & MacMillan Publishers India Private Ltd.
- Kumar, S.& Chaudhari, P. (2020), *Research Trends in Science and Mathematics Education* (Edited Book), APH Publishing Corporation, Ansari Roads, Daryaganj, New Delhi.
- Sharma, Y. & Gandhi, H. (2021). Inclusion in Schools: Perspectives and Possibilities. Shipra Publication, New Delhi.

Articles/ Chapters

Baniwal V. & Sharma R. (2020). South Asian Education Thinkers. In Sarangapani P.M., Pappu R. (eds) *Handbook of Education Systems in South Asia*. Global Education Systems. Springer, Singapore. ISBN: 9789811333095. https://link.springer.com/referenceworkentry/10.1007/978-981-13-3309-5 78-1

- Baniwal, V. (2020). Some Questions on the Discourse of Human Development in N. Ranganathan (ed.) Understanding Childhood and Adolescence. pp.402-405 New Delhi: SAGE Publications. 9789353882280.
- Baniwal, V. (2021). Review of Teaching Philosophy: A Guide By Steven M. Cahn. Routledge, 2018, pp.100, Philosophy, \$25. *Journal of Indian Council of Philosophical Research*. https://doi.org/10.1007/s40961-021-00238-6
- Baniwal, V. (April 2020). Explorations in Dialogue: An Introduction. MERI Journal of Education. XV(1). 1-5. ISSN 0974-2085.
- Baniwal, V. (October 2020). Considerations for Reflections on an Educational Policy. *MERI Journal of Education*. XV(2), pp.1-6. ISSN 0974-2085.
- Baniwal, V. & Chaudhary, A. (March 2021). Beyond Images: Implications of Krishnamurti's Ideas for Philosophical Counselling. *Philosophical Practice*. 16(1), pp.2644-2654.ISSN:1742-8181.
- Baniwal, V. (2020). Reflections on Martin Buber's Approach to Upanişads and Vedānta. *Comparative Literature: East & West.* 4(2), 118-136, DOI: 10.1080/25723618.2020.1854415. ISSN: 2572-3618
- Bedi, S. & Baniwal, V. (2020). Online Learning in Educational Institutions: Issues, Paradoxes and Possibilities. *Indian Journal of School Health and Wellbeing*. 6(2). pp.11-19. ISSN:2349-5464
- Bedi, S., Baniwal, V., & Diop, M.O. (May 2020). *Professional Counselling and Career Guidance for Holistic Education*. ScooNews. 4(10). 16-18. https://www.scoonews.com/news/professional-counselling-and-career-guidance-for-holistic-education-8935
- Chaudhari, P. R. (2020). Video Simulation in Biology Teaching at Higher Secondary Level: Challenges and Possibilities. In Sandeep Kumar and M Rajendran (Eds). *Anthology of Qualitative Research in Education*. New Delhi: VLM Publications.
- Gandhi, H. & Singh, P.K. (2021). Pedagogical Environments that Open Avenues to Thinking Mathematically in Large-sized Classrooms. *Education India Journal: A quarterly refereed journal of Dialogues on Education*. May 2021. 10 (2).
- Gandhi, H. (2020). Mathematical Doodling the What-if-not approach. *At Right Angles. A Resource for Mathematics Teachers*. July 2020. 7(II). 32-38
- Gandhi, H. (2021). Multi-literacy: A 21st Century skill required for sustenance of the next generation Synergising. In Pankaj Arora, Yukti Sharma & Saroj Sharma (Eds.). *Educational Concerns and Social needs*. Indian Council of Social Science Research & MacMillan Publishers India Private Ltd.
- Gandhi, H. et. al. (2021). Re-envisioning School Internship for Teacher Education. Institute of Life Long Learning, University of Delhi
- Gupta, S. (2020). *Understanding Socio-Psychological Attributes in the Child Development*, 94-110, B.A. Education, IGNOU.
- Ingole, M.R. (2021). Exploration of self-regulation through online learning. *Asia Pacific Journal of Contemporary Education and Communication Technology*,7(1), 34.-42. https://apiar.org.au/wp-content/uploads/2021/03/4_APJCECT_V7I1_pp34-42.pdf
- Kanvaria, V.K. & Dubey, V. (2020). English grammar mobile applications as teacher: A participatory quasi-experiment for learning, in A. Masih, H.K. Bhatia & A.I. Ahmad (Eds.) *Teacher education: The changing landscape* (190-205). New Delhi: VL Media Solutions.

- Kanvaria, V.K. & Dubey, V. (2020). ICT in higher education: Overcoming the challenges, in G.S. Latwal, S.K. Sharma, P. Mahajan & P. Kommers (Eds.) *Role of ICT in higher education* (411-422). USA: Apple Academic Press (Taylor and Francis Group).
- Kanvaria, V.K. & Kumari, A. (2020). Peeping into anxiety and causes amongst secondary school students. *Gitarattan Journal of Education*, 2(2), 69-87.
- Kanvaria, V.K. & Popli, M. (2020). An analytical understanding on teaching with technology in mathematical teaching-learning space, in S. Kumar & P. Chaudhari (Eds.) *Research trends in science and mathematics education* (104-120). New Delhi: APH Publishing Corporation.
- Kanvaria, V.K. (2020). Educational scenario and quality concerns in online digital distance learning during and after pandemic 2020. *Journal of the Academy of Psychology of Sao Paulo*, 40(99), 169-179.
- Kanvaria, V.K. (2021). Digitalization in education: A shift in learning, teaching and pedagogue-development, in S. Pal, T.Q. Cuong, & R.S.S. Nehru (Eds.) *Digital education pedagogy: Principles and paradigms* (23-48). USA: Apple Academic Press (Taylor and Francis Group).
- Niwas, R. (2020). 'Socio-Economic Status and Creative Potential of Scheduled Caste Students: A Qualitative Interpretation' 'Anthology of Qualitative Research in Education'.
- Ranjan, A & Baniwal, V. (2020). Reflective Engagement with the Field of Education: Experiences from the University of Delhi. In R.C. Patel & Sujata Srivastava (ed.) *School Internship Practices In India*. Vadodara: Inter-University Centre for Teachers Education (IUCTE), MSU Baroda. pp.69-106. ISBN: 9789354082320
- Singh, P.K. & Gandhi, H. (2020). Enhancing Teaching-Learning of Mathematics among Grade II Children using Storytelling Strategy. Indian Education Review. July 2020. 58 (5). 80-95

Journals

Published by the Department - None Number of Department teachers serving as Editor(s) / Member (s) of Editorial Board - 10

• Research Projects

- Gandhi, H. (2019-2021) IMPRESS Scheme, ICSSR, April 05, 2019 –April 04, 2021, Development of Mathematical Temperament in Large-sized Classrooms: A Feed-Forward for Policy Makers, Sanctioned Amount Rs. 8,00,000.00 (Rupees Eight Lakh only)
- Ingole, M. (2019-2022). Major Research Project funded by ICSSR-MHRD (2019-2022) Cyber-bullying of females at Indian higher education institutes: Exploration of status, issues, challenges and implementation of initiatives.
- Ingole, M. (2020-2021). Research project funded by Sampoerna University, Indonesia (2020-2021) on "Students' Perception in a Blended Learning Environment: Conceptual Framework to Classroom Investigation in Two Different Cultures".
- Kanvaria, V. K. (2020-2021) (Co-Project Director) ICSSR funded, MoE, Govt. of India (2019-21) Cyber-bullying of females at Indian higher education institutes: Exploration of status, issues, challenges and implementation of initiatives, Rs. 3,56,000.

• Seminars Organized

- Arora, P. (March 2021), Webinar on Understanding Education from Social Justice Perspective held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Baniwal, V. (2021). Six-day Workshop-cum-Scholars' Seminar on 'Pursuing a Philosophical Study in Education', held at the Department of Education, University of Delhi, Concluded on March 13, 2021 under the aegis of IASE, Delhi University.
- Behari, A. & Rajendran, M. (March 2021), Webinar Series on Teacher Education held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Chander, S. (March 2021), National Seminar on Inclusive Education and Collaboration held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Chaudhari, P.C. (2021). Organised One Week Virtual National Workshop on Development of Teaching Learning Resources in Science and Mathematics Education w.e.f February 6, 2021 under the aegis of IASE (MoE), University of Delhi.
- Chhabra, M. (2021). Webinar titled Perspectives in Science Education Funding agency/ support: IASE, MHRD on February 20, 2021.
- Gandhi, H. (2021). A two-day International webinar on Education, Assessment and Virtual world: A Socio-Philosophical Dialogue. Online Webinar via Department of Education. May 9-10, 2020.
- Kumar, G. & Kumar, R. (March 2021). National Workshop on Sanskrit Vagmay Mei Darshan held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Kumar, S. (2021), Workshop-cum-Content Development on Strengthening Qualitative Research in Education (SQRE) held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Lakhyani, S. (February-March 2021), Webinar / Lecture Series on Areas and Issues in Art Education held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Mishra, P.V. & Bala R. (March 2021), Content Development Workshop on Developing Materials for In-service Teachers to promote mentally healthy gender attitudes among middle school students held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Prasad, R. (March 2021), Content Development Workshop on Tools of Data Collection in Educational Research held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Rai, G. (March 2021), Webinar on Multilingual Education: Challenges and Prospects held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Ranganathan, N. (March 2021), Webinar Series for B.Ed. Mental Health Students held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Ranjan, A. (February 2021), Content Development Workshop on Education System in select countries: A comparative study held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Saxena, V. (March 2021), Content Development Workshop on Diversity and Inclusion held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Sharma, R. M. & Niwas, R. (March 2021), National Conference organized on Pedagogy of Social Science and Human Right Education held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Sharma, Y. (February 2021), Webinar on Evolving Perspectives of Environmental Education held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.

- Sinha, S. (March 2021). Workshop series on Understanding Reading and Writing held at Department of Education, University of Delhi under the aegis of IASE, Delhi University.
- Verma, S. (2021). One Week Virtual National Workshop on Learning Resource Development in Mathematics Education, w.e.f. February 07-28, 2021 under the aegis of IASE, Ministry of Education, Government of India.

7. Conferences Organized

Ingole, M. (2020). International Web conference on Transcending Science Education: Building Scientific attitude for the 21st Century at the Department of Education, University of Delhi. On September 26, 2020.

8. Seminar/Conference Presentations (National/International)

- Baniwal, V. (2021). 'Reflections on Krishnamurti's Ideas for Philosophical Counselling' on February 26, 2021at the six-day Krishnamurti and the Contemporary World Crises Virtual Conference- 2021 organised by Mount Saint Vincent University & Shastri Indo-Canadian Institute. (International)
- Chaudhari, P.C. (2020). *Impact of Multimedia Learning Package on Student Learning at Pre-Service Leve*. National Webinar on Teacher Education: Concerns, Challenges and Innovations held on July 1-4, 2020 at NCERT, New Delhi.
- Gupta, S. (2020). Participated in Faculty Development Programme in Entrepreneurship, Feb 24-March 7, 2020 organized by Malviya Centre for Innovation, Incubation and Entrepreneurship, IIT, BHU, Varanasi.
- Gupta, S. (2020). Participated in 2-Week Faculty Development Programme on Managing Online Classes and Co-Creating MOOCS 3.0 Teaching Learning Centre, Ramanujan College University of Delhi, July 25 - August 10, 2020.
- Gupta, S. (2021). Participated in Annual Refresher Course on Curriculum, Pedagogy and Evaluation for Higher Education, Swayam, December 1 to March 30, 2021.
- Gupta, S. (2021). Systems Approach to Open Schooling. Paper Presented in Global Web Conference on Impact of Engineering, Science and Management on Digital Transformation in January 2021, National Foundation for Entrepreneurship Development, Coimbatore, Tamil Nadu.
- Gupta, S. (2020). Participated in Webinar on Research Structuring, Statistical Insight and Publication Strategies, November 29-30, 2020 organized by National Foundation for Entrepreneurship Development, Coimbatore, Tamil Nadu.

- Ingole, M. (2020). Exploration of Self-regulation through Online Learning". Research paper presented in *Online conference on Multidisciplinary Academic Research (OCMAR-2020) Australia*. On July 30, 2020.
- Kanvaria, V.K. (2020). Achievement test construction and standardization. National Level Webinar on Research Tool Construction and Data Analysis, TNTEU, Chennai, Tamilnadu on July 22, 2020.
- Kanvaria, V.K. (2020). De-conceptualizing and re-conceptualizing innovative teaching skills. Five Days Online National FDP-cum-Seminar, DIMS, Meerut, UP on July 29, 2020.
- Kanvaria, V.K. (2020). Reading sincerity, important factors and challenges in online sessions during covid 19 times: An exploration. LSME Online International Conference on Role of Management, Education and Social Sciences in Responsible Research and Innovations: Challenges and Realities, London School of Management Education, UK on August 20, 2020.
- Kanvaria, V.K. (2020). E-tools for assessment and evaluation. One Week Continuous Professional Development Programme, DIET, Shimla, HP on August 22, 2020.
- Kanvaria, V.K. (2020). ICT for pedagogy of mathematics: A teacher as an evaluator. Webinar on Mathematics Education, TCP, Madurai, Tamil Nadu on November 20, 2020.
- Kanvaria, V.K. (2021). Tools for development of innovative ICT material for joyful mathematics teaching. Two Days Workshop on Development of Innovative ICT Materials for Joyful Mathematics Teaching, NCMA, Assam on February 17, 2021.
- Verma, S. (2020). Guest Speaker in National Webinar on Education Sector- Challenges and Opportunities in the present context on August 25, 2020 organised by Teerthanker Aadinath College of Education, TM University Moradabad.
- Verma, S. (2021). Inculcation of Values among school students through E- Learning: A study of parents and school teachers, Paper presented at the International Conference on Education Beyond Face-to-Face mode: Opportunities and Challenges, M S University of Baroda, Vadodara, Gujrat, India w.e.f. March 25-27, 2021.
- 10. Placement Details

Managed by the Central Placement Cell of DU

14. Extension and Outreach Activities

Yoga, Heritage Walks and Music for B.Ed. and M.Ed. students

15. Number of M.Phil./Ph.D. Degrees Awarded

Ph.D. : 20 M.Phil. : 14

16. Faculty Strength

Professor : 07 Associate Professor : 02 Assistant Professor : 26

17. Other Significant Information

Academic Enrichment Activities

Department of Education, under the aegis of the Institute of Advanced Studies in Education (IASE) scheme, sponsored by the Ministry of Human Resource Development of the Government of India, organized national level

conferences, seminars, dialogues, symposia, faculty development programmes, and content development workshops in which there was a wide participation from students, scholars, and academics from across the country. The themes of these academic activities included pedagogy, Multilingual Education, Diversity and Inclusion, Educational Research, Art Education, Assessment, and Mental Health during COVID-19.

Student Support Structures

Enabling Unit

The Department has been striving hard to improve the functioning of the Enabling Unit to support students with disabilities. The aim of the unit is to make students with disabilities feel at home and provide them opportunities for psychosocial well-being apart from facilitating their learning.

There are around 44 students across the various courses and programmes of study. The unit has a collection of Braille books in Social Science that is being used by the students. Recording of readings and lectures are done regularly making them available as and when needed. Around 170 voice-recording of readings, mostly in Hindi, are available in the Unit. Also, a significant number of Braille version of important books for students have been procured in 2020-2021.

A WhatsApp group of the unit has been functional since the past 3 years, which has been a major channel of audio communication between teachers in charge of the unit and students with disabilities. This mode has been most well used during the lock down period related to the covid pandemic. During the onset of lock down, teachers were engaged in addressing the concerns and anxieties of students with disabilities thus, boosting their morale especially during the preparation for open book examination. Mentoring and counselling of students in this challenging time was routinely carried out by the teachers of the unit. Every year, the unit supports the students in the procedure for procurement of scholarships and assistive devices like tailor made laptops for students with visual impairment. The Unit also tries to generate awareness among youth and develop sensitivity towards issues related to persons with disabilities.

Department Library

The Department has a rich collection of books in its library. 137 books were added to it in this year. The total numbers of books available in the library is 92,852. Additionally, a rich collection of books, reports, and policy documents are available in the 'Resource Centre for Elementary Education', which is open to researchers, teachers, and other practitioners in the field.

Department Website

Our Departmental prides itself in having a very updated, user-friendly website. It gives full details and information about all that we do. It can be accessed by visually challenged students too. So anyone requiring more information about our programmes and activities can visit our website where they will find reports and details.

Assessment

The Department ensured that all students are able to give OBE Annual Examination through online mode.

Special Events

Secular Traditions in Indian Poetry and Music

The Department organised a music concert "Secular Traditions in Indian Poetry and Music" performed by Prof. Subhendu Ghosh and Group in online mode. The intent was to highlight the peace and harmony of India that has persisted over the ages despite differences in religions, languages, and traditions of the people of India.

The programme was a musical journey through India's traditions of secular poetry, in a historical order, beginning with the 13th Century to the present day to demonstrate the rich and composite culture of India.

The music was composed and sung by Dr. Subhendu Ghosh and his group based on Hindustani ragas or other musical forms including traditional folk songs. The narrative included a number of icons of India - Hazrat Amir Khusro, Kabir, Mian Taan Sen, Bulle Shah, Lalan Faqir, Nazeer Akbarabadi, Ramprasad Bismil, Faiz Ahmed Faiz and Rabindranath Tagore.

International Yoga Day

The Department celebrated International Yoga Day on June 21, 2020 wherein several faculty members and non-teaching staff actively participated. There was a yoga expert who demonstrated different Asanas and Pranayam. He also gave tips on diet, lifestyle and how to be happy.

Rashtriya Ekta Diwas

The "Rashtriya Ekta Diwas" was observed on Thursday, October 31, 2020 in the Department of Education (CIE) in which a good number of faculty members, non-teaching staff and students participated. A Pledge taking ceremony was held in the Conference Room of the Department.

73rd Foundation Day

The Department celebrated its 73rd Foundation Day online on December 19, 2020. The theme of the event was 'The CIE Story: Retrospective of an Institutional Journey'. The speakers of the day were: Professor Nargis Panchapakesan, Professor Krishna Kumar, and Professor Shyam B. Menon.

Basu Memorial Lecture

The Department invited Prof. Faizan Mustafa, an eminent constitutional law expert who is presently working as the Vice-Chancellor of NALSAR University of Law, Hyderabad for the Basu Memorial Lecture on February 26, 2021. The Foundation which is annual event to commemorate Professor A. N. Basu the founder Principal of Central Institute of Education (CIE). The theme of his lecture was 'Constitutional Philosophy and Constitutionalism'. It was attended by a large number of alumni, students, scholars and teachers of the Faculty of Education.

Constitution Day

The Department celebrated Constitution Day on November 27, 2020. Students expressed themselves creatively through media like Poem, Song, Drawing/ Painting etc., in online mode. Students also participated in a Mock Parliament and they played the role of different leaders to discuss on various issues in society. The topic of Parliament was 'Constitutional Institutions and their role in Indian democracy'. Some B.Ed. Students prepared the quiz based on Constitutional and Social Issues.

Session on Gender and Media

The Department also organised a session on Gender and Media with B.Ed. Students on June 25, 2021. Apart from a conceptual discussion on Gender and related issues, students participated in the talk related to Media and Gender and how it affects the perception of teachers and students. A discussion on Gender Portrayal with the help of different advertisements and a Documentary on Gender Segregation was organised for students.

Initiatives to respond to COVID-19 Pandemic

Departmental COVID Committee

As a response to COVID-19, the Department constituted a Departmental COVID Committee to ensure physical safety, due care and maintenance of the campus, and positive mental health of all the students, faculty members, and non-teaching staff.

Online Teaching Advisory Committee

The Department constituted the 'Online Teaching Advisory Committee' to suggest ways in which online teaching can be conducted smoothly. The committee organised various sessions to enable teachers as well as students of the Department to continue teaching-learning process in the online mode.

Dr. Haneet Gandhi shares additional duty as Deputy Dean, Admission Branch, University of Delhi.

*All the information is as per data provided by the office and faculty members.

FACULTY OF HOMOEOPATHIC MEDICINE

NEHRU HOMOEOPATHIC MEDICAL COLLEGE

Major Activities and Achievements

Nehru Homoeopathic Medical College & Hospital under GNCT of Delhi, is imparting undergraduate course (B.H.M.S.) and 3 year Post Graduate courses {MD (Hom.)} in 3 subjects. This Institution has a fully functional OPD and IPD with 100 bedded facility in which patients are provided thorough individualized treatment, diagnostic facilities, Family planning services, Physiotherapy and other allied medical facilities.

NHMCH served as COVID Health Centre for appropriate management of COVID positive patients, in which observational research study to delineate Clinical Profile of COVID-19 patients was completed. COVID Testing centre is also functional and on-going research on prophylactic role of Homoeopathic Medicine in COVID-19 pandemic is being conducted. The Hospital was pro-actively involved in Immune booster homoeopathic medicine distribution as part of Immunity Campaign.

Further, the institute also participated actively in National Health Programs such as Pulse Polio immunization program, mainstreaming of AYUSH with the Family welfare services and International Yoga day celebrations.

Honors/Distinctions

Letter of appreciation received from Secretary Ministry of Health for serving the General Public during COVID-19 pandemic.

Publications

- Neeraj Gupta, RK Saxena, August- October 2020, 'An Overview of Covid-19 and its Strategic Management through Homoeopathic Approach: In Indian Perspective' Advancements In Homoeopathic Research, VOL. 5, No. 2, P 28-40.
- Jethani B., Kapoor A., Manchanda R.K., et al. Clinical Characteristics and Remedy Profiles of Patients with COVID-19: A Retrospective Cohort study. Homoeopathy 2020.
- Mathur M. Pituitary Microadenoma Treated with Individualized Homoeopathic Medicine: A case report. Homoeopathy.2020, Nov.' 109(4):243-247. doi: 10.1055/s-0040-1713383. Epub 2020 Aug 30. PMID: 32862414.

Research Projects

In the field of research, a number of Research projects are also being conducted in NHMC OPD in which emphasis is to establish clinical efficacy of homoeopathic treatment in varied medical conditions such as Psoriasis, Pediatrics, Arthritis, Gall stones, Vitiligo etc.

Conferences Organized

Various conferences were organized on Clinical management Guideline for COVID-19, Standard Operating Procedures for Nursing officers and support staff, BMW Management and IPC Protocol.

Seminar/Conferences Presentation (National/International)

- Dr. Bipin Jethani, Reader (NFSG), Department of Organon of Medicine, delivered presentation as Keynote Speaker in Kents Memorial Lecture on my experience at NHMC & Hospital as COVID Health Centre
- Dr. Bipin Jethani, Reader (NFSG), Department of Organon of Medicine, presented paper on "Learning from experience at NHMC and dispensaries in COVID-19 Pandemic" in CME organized by SDHA and NHMC Alumni association on 12th July, 2020.

Faculty Strength

Regular-22 Guest Faculty-10

FACULTY OF INTERDISCIPLINARY AND APPLIED SCIENCES

DEPARTMENT OF BIOCHEMISTRY

1. Major Activities and Achievements

The Department continued to improve its teaching-learning activities through online platforms during the trying times of Corona pandemic. Practical classes were held with real time video demonstrations and frequent interaction with the students. New M.Sc. students were oriented by special online interaction with all the faculties of the department followed by online Welcome party by senior students. Farewell was also organized using online mode. The Department successfully completed the fifth year of the UGC-SAP programme in the area of development of molecular strategies to combat various human diseases. The department organized a webinar on "Covid-19 Diagnostics, Therapeutics and Vaccines – Initiatives in India and Canada" and organised a seminar by Nobel Laureate Dr. Joachim Frank. Faculties were engaged in high-end research, Prof. Kundu was elected as Fellow of the Indian Academy of Biomedical Sciences, and Prof. Nag's review article figure was published in the cover page of a high impact journal. More importantly, department recruited an Assistant Professor, Dr. Dau Dayal in the department.

2. Honours/Distinctions

Faculty

- Prof. Suman Kundu Elected as Fellow of the Indian Academy of Biomedical Sciences, Lucknow (March 31, 2021)
- Prof. Debi P. Sarkar Invited as Member to participate in policy meeting of National Biotechnology Development Strategy (NBDS), DBT with stakeholders and international partners of 2020-25 on 15th February 2021 and 23rd February 2021.

Students

- Deeptashree Nandi, selected for oral presentation entitled, "Destabilization of Cdh1 by HPV16 E7 drives oncogenic transformation in cervical carcinomas: a perfect ambush" in the Young Scientist Award Session at the 14th International Symposium on Cancer Prevention and Therapeutics, 16th-17th March 2021, held at School of Life Sciences & Special Centre for Systems Medicine, Jawaharlal Nehru University, New Delhi, India.
- Deeptashree Nandi, awarded First prize for IACR Annual Essay Competition 2021 on "Viruses and Cancer Immune Therapy" at the 40th Annual Conference of Indian Association for Cancer Research organized by Institute of Life Sciences, Bhubaneswar, 1st March 2021. This is an open competition for post-graduate students and research scholars from Indian/Foreign Universities and Research Institutions.

3. Publications

- Ahuja, R., Panwar, N., Meena, J., Singh, M., **Sarkar, D.P.** & Panda, A.K. (2020). Natural products and polymeric nanocarriers for cancer treatment: a Review. *Environmental Chemistry Letters*, 18, 2021–2030.
- Awasthi, M., Gulati, S., **Sarkar, D.P.**, Tiwari, S., Kateriya, S., Ranjan, P. & Verma, S.K.. (2020). The Sialoside-Binding Pocket of SARS-CoV-2 Spike Glycoprotein Structurally Resembles MERS-CoV. *Viruses*, *12*, 909. doi:10.3390/v12090909.
- Chadha, J., Nandi, D., Atri, Y. & **Nag**, **A**. (2020). Significance of Human Microbiome in Breast Cancer: Tale of an invisible and an invincible. *Seminars in Cancer Biology*, 70, 112-127.
- Chattopadhyay, I., Nandi, D. & Nag, A. (2020). The pint-sized powerhouse: Illuminating the mighty role of the gut microbiome in improving the outcome of anti-cancer therapy. Seminars in Cancer Biology, 70, 98-111. A figure of the article has been published as the front cover page of the journal issue.
- Cheema, P.S., Nandi, D. & Nag, A. (2021). Exploring the therapeutic potential of Forkhead box O for outfoxing COVID-19, *Open Biology*, 11, 210069.
- Dey, S.K, Saini, M., Dhembla, C., Bhatt, S., Rajesh, A.S., Anand, V., Das, H.K. & **Kundu**, **S.** (2020). Suramin, Penciclovir and Anidulafungin bind nsp12, which governs the RNA-dependent-RNA polymerase activity of SARS-CoV-2, with similar interaction energy as Remdesivir-

- triphosphate, indicating potential in the treatment of COVID-19 infection. *OSFPreprints*, DOI: 10.31219/osf.io/urxwh
- Dey, S.K., Saini, M., Prabhakar, P., & **Kundu, S.** (2020). Dopamine β hydroxylase as a potential drug target to combat hypertension. *Expert Opinion on Investigational Drug*,. 29(9), 1043-1057. DOI: 10.1080/13543784.2020.1795830.
- Dhembla, C., Arya, R., Kumar, A., Kundu, S. & Sundd, M. (2021) L. major apo-acyl carrier protein forms ordered aggregates due to an exposed phenylalanine, while phosphopantetheine inhibits aggregation in the holo-form. International *Journal of Biological Macromolecule*, 179, 144-153. (https://doi.org/10.1016/j.ijbiomac.2021.02.215)
- Kaur, S., Angrish, N., Gupta, K., Tyagi, A.K. & **Khare, G**. (2021). Inhibition of ABCG2 efflux pumps renders the *Mycobacterium tuberculosis* hiding in mesenchymal stem cells responsive to antibiotic treatment. *Infection, Genetics and Evolution* 87, 104662.
- **Khare**, **G.**, Nangpal, P. & Tyagi, A.K. (2020) An Insight into the Importance of Ferritins in the Physiology of Mycobacterium tuberculosis: Unique Structural and Functional Properties. In: D. B. Singh, T. Tripathi (eds.), *Frontiers in Protein Structure, Function and Dynamics. Springer Nature Singapore Pte Ltd.* 2020. Pp 425-452.
- Kumar, G., Dey, S.K. & **Kundu**, **S.** (2020). Functional implications of vascular endothelium in regulation of endothelial nitric oxide synthesis to control blood pressure and cardiac functions. *Life Science*, *s* 259, 118377.
- Mukhi, N., **Kundu, S.** & Kaur, J. (2020). Coping with stress: Role of *Arabidopsis* phytoglobins in defence against *Sclerotinia sclerotiorum*", *Journal of Plant Biochemistry and Biotechnology*, 29, 804–815.
- Shandilya, M., Kumar, G., Gomkale, R., Singh, S., Khan, M.A., Kateriya, S. & **Kundu**, **S.** (2021). Multiple putative methemoglobin reductases in *C. reinhardtii* may support enzymatic functions for its multiple hemoglobins. *International Journal of Biological Macromolecule*, 171, 465-479. https://doi.org/10.1016/j.ijbiomac.2021.01.023.
- Sharma, A., Saini, M., Kundu, S., & Thelma, B.K. (2020). Computational insight into the three-dimensional structure of ADP Ribosylation factor like protein 15, a novel susceptibility gene for rheumatoid arthritis. *Journal of Biomolecular Structure and Dynamics*, 1-16. https://doi.org/10.1080/07391102.2020.1860826.
- Uppal, S., Khan, M.A. & **Kundu, S.** (2020). Identification and characterization of a recombinant cognate hemoglobin reductase from Synechocystis sp. PCC 6803. *International Journal of Biological Macromolecules*, *162*, 1054-1063. https://doi.org/10.1016/j.ijbiomac.2020.06.214.
- Uppal, S., Khan, M.A. & **Kundu, S.** (2020). Stability and Folding of the Unusually Stable Hemoglobin from Synechocystis is Subtly Optimized and Dependent on the Key Heme Pocket Residues". *Protein & Peptide Letters*, 28, 164 182. DOI: 10.2174/0929866527666200613220245

4. Journals

Two teachers, **Prof. Suman Kundu** and **Prof. Alo Nag**, served as Editorial Board Members and one of them, **Prof. Suman Kundu**, is serving as Editor-in-Chief of Journal of Proteins and Proteomics (A journal of the Proteomics Society, India)

5. Research Projects

- Faculty members of the department received a total grant of Rs.43,808 (for hiring the services) as UGC-SAP II grant for department project during 2020-21.
- **Professor Alo Nag -** Core Research Grant entitled, "Understanding the Mechanism of HBx mediated Manipulation of FoxM1 in Hepatocellular Carcinoma" funded by DST-SERB for three years (March 2021 to March 2024) of Rs.62.84 lacs.

• **Prof. Debi P.** Sarkar - Project entitled 'Utilization of Sendai virus-derived proteoliposomes to deliver the UGT1A1 gene by editing with CRISPR/Cas9 in rat hepatocytes", Project sanctioned for 95.00 Lakhs for three years in collaboration with JNU New Delhi.

6. Patents Filed/Granted

- **Prof. Alo Nag** "Novel anti-malarial liposomal formulation", **Prahlad Chandra Ghosh, Alo Nag**, Mohsin Raza, Aakriti Singal and Hina Bharti, Final Indian patent submitted (ID 201711016131), February 15, 2018; Published in November 2018; **Response of the first Examination filed in 2021.**
- **Prof. Suman Kundu** An Anti-hypertensive Cardio-protective Composition", **Suman Kundu**, Sanjay Kumar Dey, B.K. Thelma, G. Kovuru, Subir Kumar Maulik, Pankaj Prabhakar, Manisha Saini, Provisional Indian Patent Application No 201811005899, 16/02/2018, CAP Filed on 12/02/2019. Abstract of Patent published on page number 39660 in the Official Journal of the Patent Office, number 35/2019 on 30/08/2019. **Filed for examination on 04/01/2021**
- **Prof. Suman Kundu** "Novel Anti-hypertensive and Anti-Cardiac Hypertrophic Compounds", **Suman Kundu**, B.K. Thelma, Subir Kumar Maulik, Pankaj Prabhakar, Sanjay Kumar Dey), Final Indian Patent submitted (ID 201711036983), October 16, 2018; Abstract of Patent published on page number 25766 in the journal number 25/2019 on 21/06/2019. **Filed for examination on 04/01/2021**

7. Seminars Organized

- Webinar on "Covid-19 Diagnostics, Therapeutics and Vaccines Initiatives in India and Canada", was organized by Department of Biochemistry in association with Centre for Canadian Studies and Department of Finance and Business Economics, University of Delhi South Campus, December 14, 2020", Keynote Speakers: Prof. Vivek Goel, University of Toronto and Prof. Shahid Jameel, Ashoka University.
- Special webinar on "Single-particle Cryo-EM: Visualization of Biological Molecules in their Native States" delivered by Nobel Laureate Dr. Joachim Frank, Professor, Biochemistry and Molecular Biophysics & Biological Sciences, Columbia University, New York, USA, *The Nobel Prize in Chemistry 2017*, on 5th February 2021.

8. Seminar/Conference Presentations (National / International)

International

Prof. Alo Nag

• Invited to deliver a talk on "Molecular Mechanisms of HPV Mediated Oncogenesis" in the 14th International Symposium on Cancer Prevention and Therapeutics, 16th-17th March 2021, held at School of Life Sciences & Special Centre for Systems Medicine, Jawaharlal Nehru University, New Delhi, India.

National

Prof. Debi P. Sarkar

- Delivered two invited popular/inspiring talks (on line) on the occasion of Science Day celebrations of Central University of Allahabad (Forenoon), Allahabad and Central University of Rajasthan, Kishangarh (Afternoon), 1st March, 2021.
- Delivered a popular inspiring talk (virtual) at Department of Zoology, Jhargram Raj College (Government of West Bengal) and Department of Zoology, Garhbeta College under Vidyasagar University, entitled "Glorious Past – Exciting Present and Encouraging Future of Chemical Biology Research in India: From Basic Science and Translation Research" on 15th October 2020
- Delivered a popular inspiring talk (virtual) arranged by IIT, Kharagpur Chapter of Chemical Research Society of India entitled "Glorious Past Exciting Present and Encouraging Future of

Chemical Biology Research in India: From Basic Science and Translation Research" on 3rd October 2020

- Delivered a popular inspiring talk (virtual) at Swami Vivekananda University, Barrackpore, Kolkata, "Online Induction Programme Keynote address on 2nd Sept'2020"
- Delivered invited special webinar talk in a two days national webinar on: Integrated Strategies to Combat the Pandemic COVID-19 entitled "Rational of design of a vaccine against COVID19: Current Status and challenge", on August 20th and 21st, 2020 at Central University of Rajasthan.
- Delivered invited keynote webinar talk in a three-day national webinar on: Scientific Research and Technological Perspective During Covid 19 Pandemic Situation" at Central University of Gujarat (CUG), Gandhinagar, entitled "Rational of design of a vaccine against COVID19: Recent attempts and challenges", on July 24th 2020.
- Invited Webinar talk on "Alternate animal models in Biological Research (AAMBR-2020)" arranged by Director, CSIR-IITR on May 27, 2020.
- Invited Webinar talk on "Current situation of COVID-19 Infection: Long Term Global Societal Impacts" arranged by Director, IBSD (DBT, GOI, Manipur) on 23rd May 2020

9. National/International MoUs Signed

Collaborative Research Agreement (CRA or MoU) effective from 11th December, 2020 with M/s Sai Phytoceuticals Pvt. Ltd., Greater Kailash Part II, New Delhi 110048 on the topic "New Drug Candidates to Combat Hypertension and Cardiac Hypertrophy Designed against an Unconventional Target and Pathway"

10. Other Inter-Institutional Collaboration

- Prof. Suman Kundu collaborated with Prof. (Dr.) Pradip Kumar Panda, Professor & Head, PG Department of Roga Nidan, Government of Ayurvedic College & Hospital, Balangir, Odisha
- Prof. Debi P. Sarkar collaborated with Prof. Sandeep Saxena, School of Biotecnology, JNU, New D
- Prof. Alo Nag collaborated with Dr. Kulbhushan Sharma, Institute of Nuclear medicine and Allied Sciences, DRDO, Delhi.
- Dr. Garima Khare collaborated with Dr. Anupam Talukdar, Department of Life Sciences and Bioinformatics, Assam University, Silchar.
- Dr. Garima Khare collaborated with Dr. Pankaj Chetia, Department of Life Sciences, Dibrugarh University, Dibrugarh, Assam
- Dr. Dau Dayal collaborated with Institute of Evolution, University of Haifa, Mount Carmel Haifa, Israel
- Dr. Dau Dayal collaborated with Center for One Health Research, Virginia-Maryland College of Veterinary Medicine, Blacksburg, VA, USA.
- Dr. Dau Dayal collaborated with Edward Via College of Osteopathic Medicine, Monroe, LA, USA
- Dr. Dau Dayal collaborated with Department of Zoology, Banaras Hindu University, Varanasi, India
- Dr. Dau Dayal collaborated with Department of Biotechnology, UIET, MD University, Rohtak, India

11. Placement Details (Number and percentage of students placed)

• One Ph.D. student placed as post-doc

12. Extension and Outreach Activities

 Prof. Debi P. Sarkar - Participated in community service along with Delhi Police and UDSC Jt. Proctor and Security Officer for distribution of food packets on 7th April 2020 to nearby needy people during COVID-19 lockdown.

- Prof. Debi P. Sarkar Delivered a talk in a webinar meeting as a special invitee to inspire college students of Zoology Department of Jhargram Raj College and Garhbeta College, West Medinipur (under the Ministry of West Bengal) on 10th Nov., 2020.
- Prof. Debi P. Sarkar Delivered an invited inspirational talk, India International Science Festival (virtual under IISF, Shri Jayant Sahasrabudhe) to high school students of Imphal, Manipur (in presence of Honorable Education Minister, State Ministry of Manipur) arranged by the Director, IBSD, Manipur (DBT, GOI) IISF, India on 27th November, 2020.
- 13. Number of M.Phil./Ph.D. Degrees Awarded
 - Ph.D. : 02
- 14. Faculty Strength

Total: 06 (Six) - (Professor – 03, Associate Professor – 01 and Assistant Professor – 02)

15. Other Significant Information

One Assistant Professor (Dr. Dau Dayal) recruited in the Department

Research work of one faculty member highlighted on the cover page of a high-impact journal (Indranil Chattopadhyay, Deeptashree Nandi and **Alo Nag.** The pint-sized powerhouse: Illuminating the mighty role of the gut microbiome in improving the outcome of anti-cancer therapy. Seminars in Cancer Biology. 70 (2021) 98-111. A figure of the article was published on the front cover page of the journal issue.

DEPARTMENT OF BIOPHYSICS

1. Major Activities and Achievements:

The Department launched a new two-year MSc Biophysics course from the academic year 2020-2021. Prof. Subhendu Ghosh (superannuated on 29-Feb-2020) has been working on Membrane Biophysics, Ion Channels and Neuro-biophysics. The experiments involved electro-physiological methods, e.g. single-channel recording, patch-clamp. A special emphasis was given on learning, memory (cognition) and mathematical & computational neuroscience. Dr. Manisha Goel (Associate Professor) focuses on crystallographic structure determination and Bioinformatics. Her laboratory is involved in functional and structural characterization of various archaeal chaperones. Dr. Manish Kumar's lab is interested in understanding the principles governing protein sequence-structure-function correlation, genome annotation, evolution of antibiotic resistance and host-pathogen interaction in microbes.

2. Publications

The faculty members of the Department published a total of 05 (Five) research papers during Ac. Yr. 2020-21. List of publications is as follows:

- Garg, A., Singhal, N., & Kumar, M. (2020). Discerning novel drug targets for treating Mycobacterium avium ss. paratuberculosis-associated autoimmune disorders: an in-silico approach. *Brief Bioinform.* 22(3):bbaa195. doi: 10.1093/bib/bbaa195.
- Sharma, A., Kumari, S., & Goel M (2021). Uncovering the structure-function aspects of an archaeal CsaA protein. *Biochim. Biophys. Acta Proteins Proteom.* 1869(5), 140615.
- Singh, N.S., Singhal, N., Kumar, M., & Virdi, J.S. High Prevalence of Drug Resistance and Class 1 Integronsin Escherichia coli Isolated from River Yamuna, India: A Serious Public Health Risk. *Front Microbiol.* 12, 621564. doi: 10.3389/fmicb.2021.621564.
- Singhal, N., Pandey, D., Singh, N.S., Kumar, M., & Virdi, J.S. (2020). Exploring the genetic determinants underlying the differential production of an inducible chromosomal cephalosporinase BlaB in Yersinia enterocolitica biotypes 1A, 1B, 2 and 4. *Sci Rep.* 10(1), 10167. doi: 10.1038/s41598-020-67174-4.

- Singhal, N., Sharma, A., Aswal, M., Singh, N., Kumar, M., & Goel, M. (2021). Identification of Binding Partners of CsaA An Archaeal Chaperonic Protein of Picrophilustorridus. *Protein Pept Lett.* 28(6), 675-679.
- Singhal, N., Sharma, A., Kumari, S., Garg, A., Rai, R., Singh, N., Kumar, M., & Goel, M.. (2020)
 Biophysical and Biochemical Characterization of Nascent Polypeptide-Associated Complex of Picrophilustorridus and Elucidation of Its Interacting Partners. Front Microbiol.11, 915. doi: 10.3389/fmicb.2020.00915.

3. Journals:

Dr. Manish Kumar

• Editorial Board Member: Scientific Reports, Frontiers in Genetics (Section Bioinformatics, Computational Biology)

Dr. ManishaGoel

• Editorial Board Member: Frontiers in Genetics (Section Bioinformatics, Computational Biology)

4. Research Projects

- Characterizing the functional specificity of archaeal Cas4 (CRISPR associated protein 4) proteins for potential applications in genome editing strategies (SERB, March 2020-Mar 2022)
- The role of prosequences in modulating the structure of proteins. (ICMR, Nov 2020- Nov 2023)

5. Seminar/Conference Presentations

The faculty member delivered several invited talks:

Dr. Manish Kumar

- One-week online faculty development programme on the topic "Protein-Receptor Binding Chemistry" organized by Dr. Vikram Sarabhai Institute of Cell and Molecular Biology, The M S University of Baroda, Gujarat (17-22 May, 2021). Title of the Talk: An In-silico approach of exploring antibiotic resistance (May 18, 2021, 60 min)
- Faculty Induction Programme IV Organized by UGC-Human Resource Development Centre, Jawaharlal Nehru University, New Delhi (01-27 Feb, 2021). Title of the Talk: Applications of machine learning and data-science in modern biology (Feb 10, 2021, 90 min)

6. Other Inter Institutional Collaboration

Prof. Subhendu Ghosh has collaboration with IIT Bombay (Dept. of Bioscience & Bioengineering), IIT Madras (Dept. of Biotechnology), IIT Delhi (School of Biological Sciences) with joint Project Grant from DBT.

7. M. Phil./ Ph. D. Awarded

• Ph.D. awarded: 2

8. Faculty Strength: Permanent: 2

9. Other Significant Information

- Ms. DeekshaPandey member of Asia Pacific BioInformatics Network (APBionet) and contributing as a APBionet volunteer (2020 Present)
- Ms. Deeksha Pandey working is a recurring contributor at APBionetTalks (2020 -Present)
- Ms. Deeksha Pandey has been selected for the volunteer program in 19th International Conference on Bioinformatics, (InCoB 2020) for leadership and contribution for the success of InCoB 2020, (25-29, November 2020)

DEPARTMENT OF ELECTRONIC SCIENCE

1. Major Activities and Achievements:

The faculty members are actively engaged in research as well as supervision of research leading to the Ph.D degree in the field of optical electronics, semiconductors, microwaves and microelectronics. The Department has national and international collaborations and several research projects funded by the CSIR, DRDO etc. All faculty members in the department are effectively using virtual platforms such as Microsoft teams, google classroom etc to teach post-graduate students. Apart from this, the Department organizes seminars, lectures and talks on a regular basis. This year Visitors' programme was held on blended (Virtual and Offline) mode.

2. Honours/Distinctions:

- Received Best Poster Award in session in 5th International Conference on Emerging Electronics: IEEE-ICEE 2020 for paper titled "Effect of Interface Charges on InGaN and InGaAs Based Dopingless TFET and its Circuit Analysis".
- Received Best Poster Award in session in 5th International Conference on Emerging Electronics: IEEE-ICEE 2020 for paper titled "Investigation of Single Event Transients in Buffer- Free GaN-on-SiC HEMT"

3. Publications

Journals

- Birwal, A., Singh, S., Kanaujia, B. K., & Kumar, S. (2021). MIMO/Diversity Antenna with Neutralization Line for WLAN Applications. *MAPAN*, 1-10.
- Birwal, A., Singh, S., Kanaujia, B. K., & Kumar, S. (2020). Low-profile 2.4/5.8 GHz MIMO/diversity antenna for WLAN applications. *Journal of Electromagnetic Waves and Applications*, *34*(9), 1283-1299.
- Chaudhary, P., Kumar, A., Kumar, P., Kanaujia, B. K., & Birwal, A. (2020). Design of a new metasurface and its application for linear to circular polarisation conversion. *International Journal of Electronics*, 1-15.
- Dhingra, N. & Dell'Olio, F., (2020). Ultralow loss and high extinction ratio TM-pass polarizer in silicon photonics. *IEEE Photonics Journal* 12(6), 1-11.
- Dhingra, N., Kishor, K., Saxena, G. J. & Sharma, E. K., (2020). Efficient strip to slot waveguide mode converter using fast quasi-adiabatic approach. *Engineering Research Express* 2(3), 1-10
- Dubey, A., Narang, R., Saxena, M. & Gupta, M. (2020) "Investigation of single event transient effects in Junctionless Accumulation Mode MOSFET", *IEEE Transactions on Device and Materials Reliability*, 20, 604-608.
- Dubey, A., Narang, R., Saxena, M. & Gupta, M. (2021) "Total ionizing doze effects in junctionless accumulation mode MOSFET", Appl. Phys. A 127, 189. https://doi.org/10.1007/s00339-021-04313-2
- Garg, N., Pratap, Y., Gupta, M. & Kabra, S. (2020) "Reliability Assessment of GaAs/Al2O3 Junctionless FinFET in the presence of Interfacial layer defects and radiations", *IEEE Transactions on Device and Materials Reliability*, 20(2),
- Kaur, H., Jayasimhadri, M., Sahua, M.K., Rao, K.P., & Reddy, N.S. (2020). Synthesis of orange emitting Sm3+ doped sodium calcium silicate phosphor by sol-gel method for photonic device applications. *Ceramics International*. 46, 26434-26439.
- Nath, J. P., Dhingra, N.,Saxena, G. J. and Sharma, E. K.,(2020). Compact Mode Division
 (de)Multiplexer Based on Collaterally Coupled SOI Waveguides, *IEEE Photonics Technology Letters*, 32(10), 595-598.

- Pandey, P. & Kaur, H. (2020) Effect of ferroelectric parameters variation on the characteristics of polarity controllable–ferroelectric–field-effect transistors at elevated temperatures. *Semiconductor Science and Technology*, 35(12),
- Pasupuleti K. S., Maddaka, R., Park B. –G, Peta, K. R., Oh J. –E., Kim S-G. & Kim M. –D. (2020). Ag Nanowire-Plasmonic-Assisted Charge Separation in Hybrid Heterojunctions of Ppy-PEDOT:PSS/GaN Nanorods for Enhanced UV Photodetection. ACS Applied Materials & Interfaces. 12, 54181-54190.
- Pratap, Y., Kumar, S., Gupta, R.S. & Gupta Mridula (2021). Performance evaluation of dielectric modulation and metalloid T-shaped source/drain on gate-all-around junctionless transistor for improved analog/RF application. *J Mater Sci: Mater Electron 32*, 10943–10950. https://doi.org/10.1007/s10854-021-05754-4
- Sehra, K., Kumari, V., Gupta, M., Mishra, M., Rawal D. S., & Saxena. M. (2020) "Optimization of π

 – Gate AlGaN/AlN/ GaN HEMTs for Low Noise and High Gain Applications", Silicon, DOI

 10.1007/s12633-020-00805-7.
- Sehra, K., Kumari, V., Gupta, M., Mishra, M., Rawal D. S., & Saxena. M. (2021). "TCAD Investigation of Total Ionizing Dose (TID) Effects on Gallium Nitride HEMTs". *Silvaco's Simulation Standard*, *31*(1), 1 6.
- Sehra, K., Kumari, V., Gupta, M., Mishra, M., Rawal D. S., & Saxena. M. (2021). "Impact of Heavy Ion Particle Strike Induced Single Event Transients on Conventional and π – Gate AlGaN/GaN HEMTs". Semiconductor Science and Technology, 36, 035009 (1-10), DOI: 10.1088/1361-6641/abdba3.
- Sharma, M., Narang, R., Saxena, M., & Gupta, M. (2020) "Optimized DL-TFET Design for Enhancing its Performance Parameters by Using Different Engineering Methods", *IETE Technical Review*, DOI: https://doi.org/10.1080/02564602.2020.1758226.
- Singh, P., Kumari, V., Saxena, M. & Gupta, M. (2020) "Assessment of Dual-Gate AlGaN/GaN MISHEMT for high temperature DC to DC converter", Superlattices ad Microstructures, 144, 106574, DOI: https://doi.org/10.1016/j.spmi.2020.106574.
- Singhal, D., Singh, S., Kaushal, V., Birwal, A., and Patel, K. (2020). Wide Band Stop Response Using Interdigital Capacitor/CSRR DGS in Elliptical Microstrip Low-Pass Filter. *Journal of Microwaves, Optoelectronics and Electromagnetic Applications*, 19(4), 495-509.
- Yadav Hina, Ray K P and Gupta Mridula (2021). Differential Microstrip Patch Rectenna Featuring
 Consistent High Gain over a Wide Operating Bandwidth. *Microw Opt Technol Lett.* 63, 1470–1476.
 doi.org/10.1002/mop.32758.

4. Research Projects

• Funding Agency	Year/Period	• Title	Amount sanctioned in lakhs (Rs)
• CSIR	• 2017-2020	Modeling and Simulation of Gate Electrode Engineered and Dielectric Pocket steep Sub- threshold Swing Device for Low Power Digital Circuit Design and Optical Applications	25.00
• DRDO	• 2019- till date	Device Simulation for Thermal management of High power GaN HEMT	23.02
• IoE,	• 2021	Device Simulation for Radiation analysis of	5.00

	University of Delhi		GaN HEMT for High Power Applications	
•	IoE, University of Delhi	• 2021	Investigation of Reconfigurable FETs for ultra low voltage/low power Ion-sensing and Immuno-sensing Applications and the impact of process and temperature variability on sensing performance	2.50
•	IoE, University of Delhi	• 2021	Development of Metal Oxide hybrid Nano- structures by chemical growth for gas sensing applications	2.50
•	IoE, University of Delhi	• 2021	5G Multiple Antenna System and their application in RF Energy Harvesting	5.00

5. Seminars Organized:

- Two days Technical Webinar on MIMO Antennas for 5G Communications using CST Studio Suite during June 5 June 6, 2020
- Five days Technical Webinar on Modern Antenna Designs for 5G and related applications during 14
 18 Sept, 2020

6. Seminar/Conference Presentations (National/International)

- Invited talk on 'Satellite Communication" at Shaheed Rajguru College of Applied Sciences for Women University of Delhi on 27th January, 2021.
- Invited talk on 'Satellites A Conquest of Outer Space" at Deen Dayal Upadhyaya College, University of Delhi on 1st March, 2021.

7. Extension and Outreach activities:

- The Department is one of the nodal center to conduct online courses offered by IIRS-ISRO Dehradun. The following courses were conducted:
- (a) 65th course "Remote Sensing & Digital Image Analysis", 17 August to 11 Sept 2020.
- 10 students of the Department were attended this course online and 9 students were qualified in the exam conducted for the certificate
- (b) 66th course "Global Navigation Satellite System", September 14- 25, 2020
- 11 Students of Department have attended this course online and 10 Students of Department have qualified this course.

8. Number of M.Phil/Ph.D Degree Awarded:

Ph.D. - **05**

9. Faculty Strength:

Professor – 1, Assistant Professors – 4

10. Other Significant Information:

- Prof. Mridula Gupta Joint Dean Student Welfare South Campus from 09.11.2020 to till date
- Prof. Mridula Gupta, Chairman IEEE-EDS Delhi Chapter 2011-2016 & from 2019- till date
- **Prof. Mridula Gupta Excom Member** of Women In Engineering (WIE) IEEE Delhi Section Affinity Group, 2019-till date.

DEPARTMENT OF GENETICS

1. Major activities and achievements

The faculty members of the department of genetics have made notable scientific contributions. Research work from Prof. A. K. Pradhan's group led to the development of CMS-based and GM-based productive hybrids, several pure lines with improved quality and white rust resistance and identification of some promising combiners for heterosis breeding, and sequencing of brassica genome. Research highlights from Prof. Thelma lab include i) providing the first ever exome-wide mutation spectrum in known genes for Mendelian forms of Parkinson's disease; ii) demonstration of hypomorphic effect of a deep intronic variant in CENPJ in Seckel syndrome; iii) providing genetic evidence for cumulative contribution of genes of minor effect in schizophrenia; and iv) design and development of novel inhibitory molecules for two candidate proteins for rheumatoid arthritis. Prof. M.V Rajam's work has led to the identification and characterization of several novel genes involved in viral and fungal pathogenesis in tomato; and metamorphosis of insect pests of tomato, brinjal and cauliflower, and using RNAi-mediated silencing of these genes, they have demonstrated their potential for crop protection. Prof. P.K Burma's group has analyzed tapetum specific promoter A9 from Arabidopsis thaliana, which led to the identification of transcription factors involved in regulation of promoter. Dr. S. Sarkar group has demonstrated the novels insights about the pathogenesis of human neurodegenerative disorders and discovered several novel drug targets to restrict the disease development. Dr. Sarkar's grout has also demonstrated the essential role(s) of globin gene in development of nervous system. Dr. Jagreet Kaur's group have used set of geographically diverse Arabidopsis accessions (140 accessions) to uncover the genetic architecture underlying resistance to Alternaria brassicae, which can potentially help in developing resistant crops. Dr. Tapasya Srivastava's group have demonstrated a role of TET proteins in regulating cancer stem cell formation of glioma cells in hypoxia, and established SNP rs16969968 as a strong predictor of nicotine dependence and lung cancer risk in our north Indian cohort, in complete contrast with those of Asian countries. Dr. Aruns Devi Naorem's group is working towards understanding the role of prolyl isomerization by Parvulins, and reported that PinA, a D. discoideum homolog of S. cerevisiae Ess1 is important for growth and development. Dr. Kaustuv Datta's group has identified novel GTPase in the mitochondrial ribosomes which potentially respond to changes in ATP/ADP ratio and regulate cellular ability to perform respiratory functions.

2. Honours/Distinctions (2020-21)

Prof. Thelma

- selected as Mentor, ICMR capacity building project for National Mental Health Programme
- selected as EC member, Indian Society of Human Genetics
- selected as Expert member, Project advisory and monitoring committee of DBT-UMMID initiative
- selected as member, Sectional committee, Indian National Science Academy, New Delhi
- expert member, Selection committee, INSPIRE faculty program

Dr. Surajit Sarkar-

• Task force member- Star College Scheme, Department of Biotechnology (DBT), New Delhi.

Dr Tapasya Srivastava

• Member, Institutional Committee for Stem Cell Research, NII, New Delhi.

3. Publications

- Aqsa, Sarkar S. (2021) Age dependent trans-cellular propagation of human tau aggregates in Drosophila disease models. *Brain Res.* 1751, 147207.
- Bhattacharyya, U., Deshpande, S.N., Bhatia, T. & Thelma, B.K. (2021) Revisiting schizophrenia from an evolutionary perspective: an association study of recent evolutionary markers and schizophrenia. *Schizophr Bull.*, 47, 827-836.
- Bhattacharyya, U. & Thelma, B.K. (2020) Age-related gene expression alterations by SARS-CoV-2 infection contribute to poor prognosis in elderly. *J Genet.* 99, 80.
- Bhayana, L., Paritosh, K, Arora, H., Yadava, S.K., Singh, P., Nandan, D., Mukhopadhyay, A., Gupta, V., Pradhan, A.K. & Pental, D. (2020). A Mapped Locus on LG A6 of Brassica juncea Line Tumida Conferring Resistance to White Rust Contains a CNL Type R Gene. Front Plant Sci., 10, 1690.
- Degenhardt, F.,Thelma, B.K.,MAAIS Recruitment Center, Franke A; International IBD Genetics Consortium. (2021). Transethnic analysis of the human leukocyte antigen region for ulcerative colitis reveals not only shared but also ethnicity-specific disease associations. *Hum Mol Genet*. 30, 356-369.
- Gohain, B., Kumar, P., Malhotra, B., Augustine, R., Pradhan, A.K., & Bisht, N.C. (2021) A
 comprehensive Vis-NIRS equation for rapid quantification of seed glucosinolate content and
 composition across diverse Brassica oilseed chemotypes. *Food Chemistry*. 354, 129527.
- Gulzar, B., Mujib, A., Rajam, M.V., Zafar, N., Mamgain, J., Malik, M. & Syeed, R. (2021) Shotgun label-free proteomic and biochemical study of somatic embryos (cotyledonary and maturation stage) in Catharanthus roseus (L.) G. Don. 3. *Biotech.* 11 (2), 1-15.
- Harper, A.L., He, Z., Langer, S., Havlickova, L., Wang, L., Fellgett, A., Gupta, V., Pradhan, A. & Bancroft, I. (2020) Validation of an Associative Transcriptomics platform in the polyploid crop species Brassica juncea by dissection of the genetic architecture of agronomic and quality traits. *Plant J.*, 103, 1885-1893.
- Ismail, S., Tulsi, Naik, K.S., Rajam, M.V. & Mishra, R.K. (2020). Targeting genes involved in nucleopolyhedrovirus DNA multiplication through RNA interference technology to induce resistance against the virus in silkworms. *Mol. Biol. Rep.* 47(7), 5333-5342.
- Jaiwal, A., Natarajaswamy, K., & Rajam, M.V. (2020). RNA silencing of hormonal biosynthetic genes impairs larval growth and development in cotton bollworm, Helicoverpa armigera. *J. Biosci.* 45, 109.
- Kaur, R., Bhunia, R.K. & Rajam, M.V. (2020) MicroRNAs as potential targets for improving rice yield via plant architecture modulation: Recent studies and future perspectives. *J. Biosci.*, 45, 116.
- Klionsky D. J.,...Sarkar S. ..et al., (2021) Guidelines for the use and interpretation of assays for monitoring autophagy (4th edition). *Autophagy*. 17, 1-382.
- Kumar, S., Abbas, M.M., Govindappa, S.T., Muthane, U.B., Behari, M., Pandey, S., Juyal, R.C. & Thelma, B.K. (2021) Compound heterozygous variants in Wiskott-Aldrich syndrome like (WASL) gene segregating in a family with early onset Parkinson's disease. *Parkinsonism Relat Disord.*, 84, 61-67.
- Kumar, S., Yadav, N., Pandey, S., Muthane, U.B., Govindappa, S.T., Abbas, M.M., Behari, M. & Thelma, B.K. (2020) Novel and reported variants in Parkinson's disease genes confer high disease burden among Indians. *Parkinsonism Relat Disord*, 78, 46-52.
- Mahto, B.K., Singh, A., Pareek, M., Rajam, M.V., Dhar, R.S. & Reddy, P.M. (2020) Host-induced silencing of the Colletotrichum gloeosporioides conidial morphology 1 gene (CgCOM1) confers resistance against Anthracnose disease in chilli and tomato. *Plant Mol. Biol.* 104, 381-395.

- Mukhi, N., Kundu, S., Kaur, J. (2020) Coping with stress: role of Arabidopsis phytoglobins in defence against Sclerotinia sclerotiorum. *J. Plant Biochem. Biotechnol.*, 29, 804-815.
- Pandey, N., Tyagi, G., Kaur, P., Pradhan, S., Rajam, M.V. & Srivastava, T. (2020) Allicin
 Overcomes Hypoxia Mediated Cisplatin Resistance in Lung Cancer Cells through ROS Mediated
 Cell Death Pathway and by Suppressing Hypoxia Inducible Factors. *Cell Physiol Biochem*, 54, 748766
- Paritosh, K., Pradhan, A.K. & Pental, D. (2020) A highly contiguous genome assembly of Brassica nigra (BB) and revised nomenclature for the pseudochromosomes. *BMC Genomics*, 21, 887.
- Paritosh, K., Yadava, S.K., Singh, P., Bhayana, L., Mukhopadhyay, A., Gupta, V., Bisht, N.C.,
 Zhang, J., Kudrna, D.A., Copetti, D., Wing, R., Reddy, A., Lachagari. V.B., Pradhan, A.K., & Pental,
 D. (2020) A chromosome-scale assembly of allotetraploid Brassica juncea (AABB) elucidates
 comparative architecture of the A and B genomes. *Plant Biotechnol J.*, 19, 602-614.
- Pragati, & Sarkar, S. (2021) Shaggy functions downstream of dMyc and their concurrent downregulation confers additive rescue against tau toxicity in Drosophila. *Biofactors*, 47(3), 461-477. doi: 10.1002/biof.1721.
- Punchaichira, T.J., Kukshal, P., Bhatia, T., Deshpande, S.N. & Thelma, B.K. (2020) The effect of rs1076560 (DRD2) and rs4680 (COMT) on tardive dyskinesia and cognition in schizophrenia subjects. *Psychiatr Genet.*, 30, 125-135.
- Rajam, M.V. (2020). RNA silencing technology: A boon for crop improvement. J. Biosci., 45, 118.
- Sharma, A., Saini, M, Kundu, S. & Thelma, B.K. (2020). Computational insight into the three-dimensional structure of ADP ribosylation factor like protein 15, a novel susceptibility gene for rheumatoid arthritis. *J Biomol Struct Dyn.*, 23, 1-16.
- Singh, N., Mukherjee, S.K. & Rajam, M.V. (2020). Silencing of the ornithine decarboxylase gene of Fusarium oxysporum f. sp. lycopersici by host-induced RNAi confers resistance to Fusarium wilt in tomato. *Plant Mol. Biol. Rep.* 38, 419-429.
- Verma, R. & Kaur, J. (2021) Expression of barley oxalate oxidase confers resistance against Sclerotinia sclerotiorum in transgenic Brassica juncea cv Varuna. *Transgenic Res.* 30, 143-154.
- Yogindran, S. & Rajam, M.V. (2021) Host-derived artificial miRNA-mediated silencing of ecdysone receptor gene provides enhanced resistance to Helicoverpa armigera in tomato. *Genomics*. 113, 736-747.

4. Journals

Faculty member in editorial board

• Three (Prof. A. K. Pradhan, Prof. B. K. Thelma, Prof. M. V. Rajam)

5. Research Projects (Funding Agency, Year/Period, Title, Amount sanctioned)

Prof. BK Thelma:

• Funding Agency: Department of Biotechnology (DBT), Title: From new genetic findings in schizophrenia and Parkinson's disease to uncovering their causative mechanisms using contemporary in vitro tools, Period: 2019-2022, Amount sanctioned: Rs. 95.62 lakhs.

Prof. A. K. Pradhan,

- Agency: DBT-BBSRC (UK), Title: Genomics-led improvement of abiotic stress tolerance in mustard rape for economic and environmental sustainability (Coordinator and Principal Investigator), Period: 2018-2021. Amount sanctioned: 108.43 lakhs.
- Funding Agency: Department of Biotechnology (DBT), Title: Nutritional Improvement of Indian Oilseed Mustard Using CRISPR-Cas9 Mediated Genome Editing. Period: 2019-2022, Amount sanctioned: 53.45 lakhs.

Dr. Surajit Sarkar,

- Funding Agency: SERB, Title: Combinatorial effect of Myc and Glycogen Synthase Kinase 3 (GSK3) modulation in pathogenesis of human neurodegenerative tauopathies in Drosophila disease models. Period: 2019-2022, Amount sanctioned: Rs. 33.63 lakhs.
- Title: Excavating the aggregation dynamics and role of Neurofibrillary Tangles (NFTs) in pathogenesis of human tauopathies in Drosophila disease models (2018-2021), Funding Agency: Department of Biotechnology (DBT), Amount sanctioned: Rs. 57.6 lakhs.

Prof. M. V. Rajam-

 Funding Agency: Department of Biotechnology (DBT), Title: CRISPR/Cas9 mediated control of the Geminiviruses involved in Papaya leaf curl disease. Period: 2019 - 2022. Amount sanctioned: Rs. 55 lakhs.

Prof. Jagreet Kaur-

- Funding Agency: MHRD-STAR, Title: Optimizing the deployment of Host Mediated Pathogen Gene Silencing (HIGS) for enhancing resistance against Sclerotinia sclerotiorum, causal agent for stem rot in plants. Period: 2020-2023. Amount sanctioned: Rs.50.78 lakhs.
- Funding Agency: SERB, Title: Unraveling the genetic components underlying resistance against the
 phytopathogenic fungus Alternaria brassicae. Period: 2020-2023 Amount sanctioned: Rs. 41.24
 lakhs.

Dr. Kaustuv Datta-

• Funding Agency: SERB, Investigating the mechanism of Irc3p function to regulate carbon source dependent mitochondrial translation in Saccharomyces cerevisiae. Period: 2020-2023. Amount sanctioned: 52 lakhs.

6. Seminar/Conference Presentations

Prof. M. V. Rajam-

- Delivered a lecture on the webinar organized by the Dept of Biotechnology, IILM-CET, Greater Noida. Topic Bioescalator: Insights in to Biotechnology, Plant Science and Bioinformatics, May 11, 2020
- Delivered a lecture on the webinar organized by Chaitanya Deemed to be University, Warangal 2020
- Delivered a lecture on the webinar organized by Punjab Agriculture University, Ludhian. 2020
- Delivered a talk in "Professor Satish Maheshwari Memorial Web Conference: Harnessing Green Technology: In Harmony with Nature" on 12th June 2020.
- Annual Meeting of the Plant Tissue Culture Association (India) and International Conference, Indian Institute of Agricultural Biotechnology, 2020.

Dr. Surajit Sarkar-

 Invited talk in symposium on animal alternate animal models in biological research. May 2020, IITR-Lucknow, India.

7. Other Inter-Institutional Collaboration

- Indian Institute of Horticultural Research (IIHR), Bangalore on a project on "CRISPR/Cas9 mediated control of the Geminiviruses involved in Papaya leaf curl disease" as a collaborator (Co-PI).
- Collaborating with Dr Volkan Cevik University of Bath UK on a Royal society funded Project

8. Placement Details (Number and percentage of students placed; Number of Companies visited for Campus recruitment)

Outgoing M.Sc. and Ph.D. students opted for higher education (Ph.D/ Post-doctoral research work) in National and International Institutions.

9. Extension and Outreach Activities

Four white rust resistant mustard lines developed through marker-assisted backcross breeding are being evaluated by All India Co-ordinated Research Project on Rapeseed and Mustard.

10. Number of M.Phil/Ph.D Degrees Awarded

Ph.D.:

11. Faculty Strength:

Seven + Two (Superannuated faculty members)

DEPARTMENT OF MICROBIOLOGY

1. Major Activities and Achievements:

Prof. Swati Saha's laboratory investigates events linked to *Leishmania* DNA biology. Her group has examined transcriptional activation events that are regulated in a cell cycle stage-specific manner. They have also studies the writers and readers of histone modifications and is currently investigating the GNAT-family protein Elp3a, and SET-domain proteins SET2 and SET3. Prof. Rani Gupta's lab has successfully immobilized a catalytically efficient variant of GGT from *Bacillus atrophaeus* on chitosan coated iron nanoparticles, and utilized it in synthesizing an immunomodulatory peptide SCV-07 with recyclability of upto 5 cycles. The lab has also engineered a lipase Lip11 from *Yarrowia lipolytica* to counter substrate inhibition. Dr. Rajeev Kaul participated in a collaborative study on a mouse model of PPR virus infection, with an aim to develop an accessible laboratory animal model to elucidate protective and pathological roles of immune mediators during Peste des petits ruminants virus (PPRV) infection. The model could be useful for elucidating the contribution of immune cells in disease progression as well as to test anti-viral agents. Dr. Y. P. Khasa's laboratory works in the area of bioprocess development of recombinant protein of therapeutic importance, where he is targetting the expression of recombinant streptokinase, SUMO protease and many cytokines.

2. Publications:

- Bhadrecha, P., Bala, M., Khasa, Y. P., Arshi, A., Singh, J., & Kumar, M. (2020). *Hippophae rhamnoides* L. rhizobacteria exhibit diversified cellulase and pectinase activities. *Physiology and molecular biology of plants: an international journal of functional plant biology*, 26(5), 1075–1085. https://doi.org/10.1007/s12298-020-00778-2
- Jain, J., Gaur, S., Chaudhary, Y., & Kaul, R. (2020). The molecular biology of intracellular events during Coronavirus infection cycle. *Virusdisease*, 31(2), 75–79.
- Purdy, M. A., Harrison, T. J., Jameel, S., Meng, X. J., Okamoto, H., Van der Poel, W., Smith, D. B.,
 & Ictv Report Consortium (2017). ICTV Virus Taxonomy Profile: Hepeviridae. *The Journal of general virology*, 98(11), 2645–2646. https://doi.org/10.1099/jgv.0.000940
- Saha, S. (2020). Histone modifications and other facets of epigenetic regulation in trypanosomatids: leaving their mark. *mBio 11*, e01079-20.
- Saini, M., Kashyap, A., Bindal, S., Saini, K., & Gupta, R. (2021). Bacterial Gamma-Glutamyl Transpeptidase, an Emerging Biocatalyst: Insights Into Structure–Function Relationship and Its Biotechnological Applications. *Frontiers in microbiology, 12,* 441.
- Saini, M., Kalra, S., Kaushik, J. K., & Gupta, R. (2021). Functional characterization of the extra sequence in the large subunit of γ-glutamyl transpeptidase from Bacillus atrophaeus: Role in autoprocessing and activity. *Process Biochemistry*, 106, 199-212.

- Sharma, Y., Sarkar, R, Jain, A., Singh, S., Shekhar, C., Shanmugam, C., Dhanavelu, M., Tembhurne, P., Kaul, R. & Sehrawat, S. (2021). A Mouse Model of PPRV Infection for Elucidating Protective and Pathological Roles of Immune Cells. *Front Immunol.* 12, 630307.
- Yadav, A, Sharma, V, Pal, J, Gulati, P, Goel, M, Chandra, U, Bansal, N, Saha, S. (2020). DNA replication protein Cdc45 directly interacts with PCNA via its PIP box in Leishmania donovani and the Cdc45 PIP box is essential for cell survival. *PLoS Pathog.*, *16*(5), e1008190.

3. Research Projects

- Three new projects were sanctioned in the department, with a total grant of Rs. 541.92 lakhs during 2020-2021.
- BIRAC-sponsored BioNEST program "Fostering Innovation and technology development through BioIncubation" awarded to the Department of Microbiology. 2020-2023. PI Prof. Swati Saha, Rs. 444.67 Lakhs
- SERB, Characterization of the SET domain proteins SET2 and SET3 in Leishmania donovani. 2020-2023. Prof. Swati Saha, 58.1 lakhs
- DBT Development of a scalable expression platform for the overproduction of commercially important novel Ubiquitin-Like proteases (Ulps) from Schizosaccharomyces pombe in Escherichia coli. 2020-2022 Dr. Y. P. Khasa, Rs. 39.15 Lakhs

4. Seminar/Conference Presentations (National / International)

Total Number: Seven

- Swati Saha (2021). DNA replication in Leishmania donovani: towards finding new solutions to Leishmaniasis. Invited lecture given at the International Symposium on Sustainable Health 2021, SSSIHL, Prashanthi Nilayam (March, 2021, online mode)
- Swati Saha (2020). DNA replication protein Cdc45: uncovering new facets in Leishmania donovani.
 Invited lecture given at the National Conference on Frontiers in Biotechnology and Bioengineering 2020, JNTU, Hyderabad (July, 2020)
- Prof. Rani Gupta delivered an invited talk on "Bench Scale Process for the Synthesis of Theanine: A
 Nutraceutical from Green Tea" as an inaugural lecture at Miranda House, University of Delhi on
 23rd November 2020.
- Amuliya Kashyap gave an oral presentation on "A novel strategy of AOX-1p guided expression of amylase from Bacillus licheniformis in a Lipase+ Pichia pastoris host in presence of methyloleate" at online International Conference on Catalysis and Chemical Engineering" March 04-05, 2021.
- Dr.Rajeev Kaul delivered an invited talk on 'Science Writing & Research Ethics' in online course conducted by RLA college (DBT Star College) on 31-July, 2020
- Dr. Y. P. Khasa (2021) Resource person to deliver a talk titled "Expression of Recombinant Therapeutics in Heterologous Systems" on 18-03-2021 in the Refresher course- Summer school (Synthetic Biology) from March 16-29 2021 organized by UGC-Human Resource Development Centre Guru Nanak Dev University, Amritsar, Punjab-143005.
- Dr. Y. P. Khasa (2021) Resource person to deliver a talk titled "Bioprocess Development for Recombinant Proteins: Product development and Innovations" on 18-03-2021 in the Refresher course- Summer school (Synthetic Biology) from March 16-29 2021 organized by UGC-Human Resource Development Centre Guru Nanak Dev University, Amritsar, Punjab-143005.

5. National/International MoUs Signed

6. Other Inter-Institutional Collaboration
None

7. Students under Exchange Programme None

8. Placement Details (Number and percentage of students placed)

6 M.Sc. students and 2 Ph.D. students opted for higher education and industrial jobs (Ph.D., Post-doctorate, industry job etc.)

9. Extension and Outreach Activities

None

10. Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.: 2 M.Phil.: 0

11. Faculty Strength:

4

PHYSICAL EDUCATION & SPORTS SCIENCES(DPESS)

Major Activities and Achievements

Several seminars by national and international experts were organized in the department round the year. The department strengthened and re-organized its website to make it extremely informative. Faculties were engaged in high-end research towards understanding and developing strategies to different area of Physical Education and Sports Sciences. Successfully completed & carried out the online examinations and admission of BSc. (PE, HE) B.P.Ed, M.P.Ed and Ph.D.* Programme. DPESS Conducted Ph.D. Course Works. Faculty served as resource person for different national international conferences/ seminars.

* Pending at BRS level,: However one foreign student (Dessalegn Wase Mola) from Ethiopia have been admitted in the Department of Physical Education & Sports Sciences(University of

Honours/Distinctions

Delhi) for Ph.D. Programme,

- Dr Dhananjoy Shaw (as Officiating Principal) was organised A Blood Donation Camp on 25.02.2020 in the premises of the Institute in which a large number of Students, Teaching and Non-Teaching Staff (N = 100) took part with full zeal and enthusiasm. The blood donation camp is being organised in the institute with the collaboration of Red Cross Society of India for the last so many years.
- Dr Dhananjoy Shaw (as Officiating Principal) was organized a Free Health Check-up Camp, Venkateshwar Hospital, Dwarka in association with Indira Gandhi Institute of Physical Education and Sports Sciences on 27.02.2020. A large number of students and staff participated in the camp.
- Dr Dhananjoy Shaw panelist in Examiner to adjudicate a Ph.D. Thesis Design and Development of E-Learning Modules and its impact Among National Eligibility Test Aspirants in Physical Education Subject, Department in Physical Education and Yoga, Bharathidasan University, Tamil Nadu, India on June 2020.

- Dr Dhananjoy Shaw nominated as Subject Expert for Screening Cum Evaluation Committee for considering promotion of Assistant Professor in the Department of Physical Education on 08th December, 2020 at Satyawati College, University of Delhi.
- Dr Dhananjoy Shaw served as Expert to be associated with Screening cum Evaluation Committee for considering Promotion of Assistant Professor from one Academic Grade Pay (AGP) to the next higher AGP under Career Advancement Scheme 2010/2018 on 07th December, 2020 at Ram Lal Anand College, University of Delhi.

Publications

09 Research Papers Published during 2020-21.

- <u>Dhananjoy Shaw</u>, Deepak Singh, Manvinder Kaur, Umesh Kr. Ahlawat and Dinesh Bhatla, "Electromyographic activity of vastus lateralis muscle of dominant thigh (right) in relation to performance levels during the leg/knee extension exercise performance with 30 repetition maximum load", BLDE University Journal of Health Sciences 2020, 5 (2):194-199.
- <u>Dhananjoy Shaw</u> and Syed Murtaza Hussain Andrabi, "Development of 'T' Scale of Chair Sit and Reach Test of male Senior Citizens", International Journal of Health, Physical education, and computer science in Sports 2020, 39 (2): 36-41.
- <u>Dhananjoy Shaw</u> and Syed Murtaza Hussain Andrabi, "Development of T-scale of back scratch test of male senior citizens", International Journal of Health, Physical education, and computer science in Sports 2020, 39 (2): 42-47.
- <u>Dhananjoy Shaw</u>, Deepak Singh, Manvinder Kaur, Umesh Kr. Ahlawat and Dinesh Bhatla, "Effect of Performance Level on the Longitudinal ElectroMyoGraphic (EMG) Activity of Vastus Medialis (VM) and Vastus Lateralis(VL) Muscle after Induced Extreme Fatigue with a Work Load of 30 RM", BLDE University Journal of Health Sciences 2021, 6 (1): 49-55.
- Pawan Kumar, Anil Bali, Lalit Kapur and <u>Dhananjoy Shaw</u>, "Autonomic Functions of College Boys and Girls (A comparative Study)", International Journal of Physical Education, Sports and Health 2020, 7 (2):134-139.
- Parveen Singh Rathi and <u>J.P. Sharma</u>, "An Assessment of Hygiene Habits amongst School Rural and Urban Girls of South West Delhi", International Interdisciplinary Research Journal 2021, 2 (1): 197-202.
- Parveen Singh Rathi and <u>J.P. Sharma</u>, "A Comparative Study of Nutrition of Knowledge Amongst the Govt. and Private School Going Boys of South West Delhi", International Interdisciplinary Research Journal 2021, 2(1).
- Santosh Kumar Giri and <u>J. P. Sharma</u>, "A Study on Effect of Bhamari Pranyam Training on Systolic and Diastolic Blood Pressure of School Going Children", International Interdisciplinary Research Journal 2020, 10 (1): 136-149.
- <u>Sarita Tyagi</u>, "Motor Fitness Components of Government & Private School Boys of Delhi: A Comparative Analysis", The Eternity: An International Multidisciplinary Peer Reviewed Refereed Research Journal 2020, 4 (1): 221-228.

04 Books Published during 2020-21.

• <u>Dhananjoy Shaw</u>, "Yoga Asanas and their Benefits", Sports Publication 2020: 1-160.

- <u>Dhananjoy Shaw</u>, "Parable Global English Hindi Dictionary of Physical Education & Sports Sciences", Khel Sahitya Kendra 2020: 1-565.
- <u>Dhananjoy Shaw</u>, "Sports Training", Sports Publication 2020: 1-371.
- Dhananjoy Shaw, "Athletic Care and Rehabilitation", Sports Publication 2020: 1-548.

Journals

Department of Physical Education& Sports Sciences is publisher of

• Indian Journal of Physical Education & Sports Sciences

Editorial Board

Dr. Dhananjay Shaw, Associate Professor, I.G.I.P.E.S.S., University of Delhi

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Dr.Lalit Sharma, Associate Professor, I.G.I.P.E.S.S., University of Delhi

Dr.Rajbir Singh, Associate Professor, I.G.I.P.E.S.S., University of Delhi

Seminars/Webinar Organized

- <u>Dr Dhananjoy Shaw</u> served as Director of Two days workshop on "Mental Imagery for Sports Performance" held online from 25th Feb and 26th Feb, 2021 organized by Indira Gandhi Institute of Physical Education & Sports Sciences, University of Delhi.
- Indira Gandhi Institute of Physical Education & Sports Sciences and Bhaskaracharya College of Applied Sciences (Department of Physical Education), University of Delhi organized a National Webinar on "Obesity Management" on 29th May 2020.
- Indira Gandhi Institute of Physical Education & Sports Sciences and Bhaskaracharya College of Applied Sciences (Department of Physical Education), University of Delhi organized a National Webinar on "Being Healthy" on 9th June 2020.
- Dr <u>Sarita Tyagi</u> served as Organizing Secretary of Two days workshop on "Mental Imagery for Sports Performance" held online from 25th Feb and 26th Feb, 2021 organized by Indira Gandhi Institute of Physical Education & Sports Sciences, University of Delhi.

Conferences Organized

• 4th International Conference on Sports Psychology Serving Athletes and Coaches, E-Conference organized by Indira Gandhi Institute of Physical Education & Sports Sciences and Department of Physical Education & Sports Sciences, (University of Delhi) in collaboration with Sports Psychology Association of India (SPAI) on 9th, 10th & 12th March 2021.

Seminar/Conference Presentations (National/International)

- Dr Dhananjoy Shaw invited as Chairman in National Webinar on Obesity Management organized by Bhaskaracharya College of Applied Sciences, University of Delhi on 29th May 2020.
- Dr Dhananjoy Shaw delivered a Paper on Fitness Management Through Exercise and Nutrition for Boosting Immunity During this Crisis of Covid–19 in Tug of War Game Capsule Course–2020 from 12th to 18th June. 2020.

- Dr Dhananjoy Shaw participated as Resource Person in Online Tug of War Capsule Course–2020 on 12th to 18th June, 2020.
- Dr Dhananjoy Shaw participated as Resource Person on "A One day International day of Yoga on Yogasana and Meditation during Covid–9 on 21st June, 2020.
- Dr Dhananjoy Shaw participated as Resource Person on "Two days webinar on Extension services/social outreach on Yoga and Meditation Training Camp on 22nd and 23rd June, 2020.
- Dr Dhananjoy Shaw invited as a Speaker in the Webinar on Yoga Asana and Meditation to Boost Immunity on 21st July, 2020 organized by Acharya Narendra Dev College, University of Delhi.
- Dr Dhananjoy Shaw served as Expert in 96th Facebook Live Session on Physical Education and Sports in Physical Education Foundation of India (PEFI) NSPO Topic: Motor Action and Motor Qualities (Biomechanical Quantitative and Qualitative Approaches) on 24th October 2020.
- Dr Dhananjoy Shaw served as Eminent Speaker on Online Train the Trainer Programme for the Physical Education Teachers and Sports Coaches Theme: Way forward Towards Sustainable Growth in Physical Education and Sports Sciences Topic: Structure of Motor Action: Biomedical consideration for Teaching Learning and Training Research and Innovation organized by Physical Education Foundation of India (PEFI) in association with Ministry of Youth Affairs and Sports, Government of India on 05th November, 2020.
- Dr J. P. Sharma delivered a lecture as Resource Person on Role of Physical Education Sports to face the challenges of the of the Natural Calamities on dated 8th June 2020 in the webinar organised by the Department of Physical Education & Sports Sciences of S.P.M. College (D.U.) West Punjabi Bagh Delhi.
- Dr J. P. Sharma delivered a lecture as Resource Person on Role of Yoga in immunity Boosting during Covid-19 on dated 01st July 2020 in International Webinar on Yoga Ayurveda and Immunity organised by Indira Gandhi University, Meerpur, Rewari (Haryana).
- Dr J. P. Sharma delivered a lecture as Resource Person on Health & Physical Fitness on dated 29th April 2020 in the webinar organised by Kalindi College, University of Delhi.
- Dr Sarita Tyagi served as a Resource Person on "Psychological Aspects of Winning" in the Three Days Conference in 4th International & 31 National Conference organized by Indira Gandhi Institute of Physical Education & Sports Science, University of Delhi Jointly with Department of Physical Education & Sports Sciences, University of Delhi and Sports Psychology Association of India (SPAI) on Sports Psychology Serving Athletes and Coaches held on 9th, 10th & 12th March 2021.
- Dr Sarita Tyagi presented a paper on "Assessing Intensity of Training for Athletes" in One Week Faculty development program organized by YMCA College of Physical Education from 29th June to 3rd July 2020.
- Dr Dhananjoy Shaw participated in National Webinar on NAAC Assessment and Accreditation organized by Kishinchand Chellaram College, Hyderabad (Sind) from 21st to 25th April 2020.
- Dr Dhananjoy Shaw participated in National Webinar on Zoom VC Meet on Higher Education Post Covid–19 Challenges and Opportunities organized by PHD Chamber of Commerce and Industry PHDCCI on 11th April 2020.
- Dr Dhananjoy Shaw participated in National Webinar on Preventing Plagiarism: Producing Quality Research organized by Internal Quality Assurance Cell IQAC organized by Janki Devi Memorial College on 25th April 2020.

 Dr Dhananjoy Shaw participated as speaker in National Webinar on ICT Enabled Higher Education in India: Challenges and Opportunities organized by Guru Anand Dev Teaching Learning Centre of MHRD, SGTB Khalsa College, Delhi University on 217th April 2020.

Other Inter-Institutional Collaboration

- Indira Gandhi Institute of Physical Education & Sports Sciences, University of Delhi, organised A Blood Donation Camp with the collaboration of Red Cross Society of India, 2020.
- Collaboration with Bhaskaracharya College of Applied Sciences, University of Delhi, organized two National Webinar on "Obesity Management" and "Being Healthy" on 29th May and 9th June 2020 respectively.
- 4th International Conference on Sports Psychology Serving Athletes and Coaches, E-Conference organized by Indira Gandhi Institute of Physical Education & Sports Sciences and Department of Physical Education & Sports Sciences, (University of Delhi) in collaboration with Sports Psychology Association of India (SPAI) on 9th, 10th & 12th March 2021.

Placement Details (Number and percentage of students placed)

• 100% Placed or otherwise doing other courses

Extension and Outreach Activities

- Dr Dhananjoy Shaw participated as **Resource Person** in **Online Tug of War Capsule Course**–2020 on 12th to 18th June, 2020.
- Dr Dhananjoy Shaw participated as **Resource Person** on "A One day International day of Yoga on Yogasana and Meditation during Covid-19" on 21st June, 2020.
- Dr Dhananjoy Shaw participated as **Resource Person** on "two days webinar on Extension services/social outreach on Yoga and Meditation Training Camp on 22nd and 23rd June, 2020.
- Dr Dhananjoy Shaw invited as a **Speaker** in the webinar on **Yoga Asana and Meditation to Boost Immunity** on 21st July, 2020 organized by Acharya Narendra Dev College, University of Delhi.
- Dr Dhananjoy Shaw served as Expert in 96th Facebook Live Session on Physical Education and Sports in Physical Education Foundation of India (PEFI) NSPO Topic: Motor Action and Motor Qualities (Biomechanical Quantitative and Qualitative Approaches) on 24.10.2020.
- Dr Dhananjoy Shaw served as Eminent Speaker on Online Train the Trainer Programme for the Physical Education Teachers and Sports Coaches Theme: Way forward Towards Sustainable Growth in Physical Education and Sports Sciences Topic: Structure of Motor Action: Biomedical consideration for Teaching Learning and Training Research and Innovation organized by Physical Education Foundation of India (PEFI) in association with Ministry of Youth Affairs and Sports, Government of India on 05th November, 2020.

Number of Ph.D. Degree Awarded

• Thirteen PH.D. awarded

File No	Enrolment No	Gender	Student Name
3389	H-294/04	Male	Tarun Saini
3245	BMC-295/06	Female	Pavleen Kaur Sethi
3412	HR-616/07	Female	Divya Shukla
3422	MLN-504/06	Male	E.S.Narender
3421	SDC-170/15	Male	Manish Hooda
3687	ZHE-525/99	Male	Sandeep Kumar
3653	JDM-606/07	Female	Kumari Seema

3695	CPE-89/08	Male	Rajiv Godara
3580	DSC(E) -65/01	Male	Devender Kumar
3605	16DPESPHED000002	Male	Vaibhav Saxena
3563	IP-89/95	Female	Meenakshi Pahuja
3782	SDC-123/14	Male	Rahul Vashishtha
3867	CPE-26/05	Male	Mohit Kumar

Faculty Strength

Eight

Other Significant Information

- Dr Sarita Tyagi served as Nodal Officer and Convener for PG admissions (B.P.Ed., M.P.Ed., Ph.D.)
- Dr Sarita Tyagi served as **Subject expert** in Screening-cum-Evaluation committee for Physical Education Department, Kamala Nehru College, University of Delhi on 01st Jan 2021.
- Dr Sarita Tyagi served as **Subject expert** for the purpose of placement from Academic Grade Pay to Stage 2 for Physical Education Department, Mata Sundri College, University of Delhi on 17th Dec 2020.
- Dr Sarita Tyagi served as **Subject expert** for the purpose of placement from Academic Grade Pay to Stage 3 for Physical Education Department, Mata Sundri College, University of Delhi on 18th Dec 2020.
- Dr Sarita Tyagi appointed as **expert** for evaluation/verification of sports proficiency marks on 27,28 November & 1,2,3,&7 December, 2020 for B.P.Ed. & M.P.Ed. admissions, DPESS, University of Delhi.
- Dr Sarita Tyagi served as member of Moderation-com-Coordination committee for paper setting, Department of Physical Education & Sports Sciences, University of Delhi on 03rd March 2021.
- Dr Sarita Tyagi served as member Screening Committee to scrutinize applications for the post of Assistant Professor, Department of Physical education, Sri Guru Gobind Singh College of Commerce.

DEPARTMENT OF PLANT MOLECULAR BIOLOGY

1. Major activities and achievements:

The research focus of the Department has been to investigate the functions of genes involved in plant development and stress response, with a view to integrate them in the national effort to increase crop yields for our long-term food security. To this end, several genes of rice, namely CDPK29, Med14, Med26, MADS29 and TFIIb have been characterized. In wheat, the functions of genes such as *TaSERKs*, *TaHSF*, *TaZnF*, *TabZIP*, *TaHSP26*, *TaLTP1* & 2 and *TaMIPS2* were revealed, which showed their role in protecting plants at high temperatures. A redox-sensitive Green fluorescent protein has been used, which has indicated large increases in redox components both in the nuclei and the cytosol. Using the model plant *Arabidopsis thaliana* and rice, novel genes participating in calcium-mediated signaling under nutrient limitation and abiotic stresses have been revealed. A new gene silencing system has been developed for the use in crops such as barley, foxtail millet and maize.

2. Honours/Distinctions

Professor A.K.Tyagi

• Professor A.K. Sharma Memorial Lecture award, NASI, Prayagraj, 2020.

Professor P. Khurana

- Appointed **Member** of Inter-Academy Panel for Women in STEMM for a 4-year period.
- General Secretary (Outstation) of The National Academy of Sciences India, Prayagraj (2021).

3. Publications:

- Agarwal, P., & Khurana, P. (2020). TaZnF, a C3HC4 type RING zinc finger protein from triticum aestivum is involved in dehydration and salinity stress. *Journal of Plant Biochemistry and Biotechnology*, 29(3), 395-406. doi:10.1007/s13562-019-00546-8
- Akash, Parida, A.P., Srivastva, A., Mathur, S., Sharma, A.K. & Kumar, R. (2021). Identification, evolutionary profiling, and expression analysis of F-box superfamily genes under phosphate deficiency in tomato. *Plant Physiol. Biochem.* 162, 349-362.
- Babbar, R., Karpinska, B., Grover, A., & Foyer, C. H. (2021). Heat-Induced Oxidation of the Nuclei and Cytosol. *Frontiers in Plant Science*, 11, 1–16. https://doi.org/10.3389/fpls.2020.617779
- Balyan, S., Joseph, S. V., Jain, R., Mutum, R. D., & Raghuvanshi, S. (2020). Investigation into the miRNA/5' isomiRNAs function and drought-mediated miRNA processing in rice. *Functional and Integrative Genomics*, 20(4), 509-522. doi:10.1007/s10142-020-00731-2
- Bhaskar, A., Paul, L. K., Sharma, E., Jha, S., Jain, M., & Khurana, J. P. (2021). OsRR6, a type-A response regulator in rice, mediates cytokinin, light and stress responses when over-expressed in Arabidopsis. *Plant Physiology and Biochemistry*, 161, 98-112. doi:10.1016/j.plaphy.2021.01.047
- Bhatnagar, A., Singh, S., Khurana, J. P., & Burman, N. (2020). HY5-COP1: The central module of light signaling pathway. *Journal of Plant Biochemistry and Biotechnology*, 29(4), 590-610. doi:10.1007/s13562-020-00623-3
- Burman, N., Chandran, D., & Khurana, J. P. (2020). A Rapid and Highly Efficient Method for Transient Gene Expression in Rice Plants. Frontiers in Plant Science, 11. https://doi.org/10.3389/fpls.2020.584011
- Chaudhary, C., Sharma, N., & Khurana, P. (2021). Decoding the wheat awn transcriptome and overexpressing TaRca1β in rice for heat stress tolerance. *Plant Molecular Biology*, 105(1-2), 133-146. doi:10.1007/s11103-020-01073-0
- Daware, A., Parida, S. K., & Tyagi, A. K. (2020). Integrated Genomic Strategies for Cereal Genetic Enhancement: Combining QTL and Association Mapping. *Methods in molecular biology (Clifton, N.J.)*, 2072, 15–25. https://doi.org/10.1007/978-1-4939-9865-4_3
- Deveshwar, P., Prusty, A., Sharma, S., & Tyagi, A. K. (2020). Phytohormone-Mediated Molecular Mechanisms Involving Multiple Genes and QTL Govern Grain Number in Rice. Frontiers in Genetics, 11(November). https://doi.org/10.3389/fgene.2020.586462
- Deveshwar, P., Sharma, S., Prusty, A., Sinha, N., Zargar, S. M., Karwal, D., ... Tyagi, A. K. (2020).
 Analysis of rice nuclear-localized seed-expressed proteins and their database (RSNP-DB). Scientific Reports, 10(1), 15116. https://doi.org/10.1038/s41598-020-70713-8
- Gahlaut, V., Samtani, H., & Khurana, P. (2020). Genome-wide identification and expression profiling of cytosine-5 DNA methyltransferases during drought and heat stress in wheat (triticum aestivum). *Genomics*, 112(6), 4796-4807. doi:10.1016/j.ygeno.2020.08.031
- Giri, J., Parida, S. K., Raghuvanshi, S., & Tyagi, A. K. (2021). Emerging Molecular Strategies for Improving Rice Drought Tolerance. *Current genomics*, 22(1), 16–25. https://doi.org/10.2174/1389202921999201231205024
- Kant, R., Kumari, K., Mishra, P., Rai, R., Singh, K., & Dasgupta, I. (2021). Virus-induced gene silencing of Xa38 compromises the resistance towards bacterial blight disease of rice. *Physiological and Molecular Plant Pathology*, 113(April 2020), 101583. https://doi.org/10.1016/j.pmpp.2020.101583

- Kaur, P., Jindal, S., Yadav, B., Yadav, I., Mahato, A., Sharma, P., ... Singh, K. (2020). Comparative analysis of chromosome 2A molecular organization in diploid and hexaploid wheat. *Molecular Biology Reports*, 47(3), 1991–2003. https://doi.org/10.1007/s11033-020-05295-9
- Khurana, J. P., & Srinivasan, R. (2020). Editorial. Journal of Plant Biochemistry and Biotechnology, 29(4), 573–574. https://doi.org/10.1007/s13562-020-00631-3
- Kumar, A., Daware, A., Kumar, A., Kumar, V., Gopala Krishnan, S., Mondal, S., Patra, B. C., Singh, A. K., Tyagi, A. K., Parida, S. K., & Thakur, J. K. (2020). Genome-wide analysis of polymorphisms identified domestication-associated long low-diversity region carrying important rice grain size/weight quantitative trait loci. *The Plant journal: for cell and molecular biology*, 103(4), 1525–1547. https://doi.org/10.1111/tpj.14845
- Kumar, G. & Dasgupta, I. (2021) The titers of rice tungro bacilliform virus dictate the expression levels of genes related to cell wall dynamics in rice plants affected by tungro disease. *Archives of Virology*, 166, 1325–1336, doi.org/10.1007/s00705-021-05006-0.
- Kumar, G. & Dasgupta, I. (2021) Variability, Functions and Interactions of Plant Virus Movement Proteins: What Do We Know So Far? *Microorganisms*, *9*(4), 695, doi.org /10.3390/microorganisms9040695.
- Kumar, G. & Dasgupta, I. (2021) Transgenic approaches to develop virus resistance in rice. In: Genome Engineering for Crop Improvement, Concepts and Strategies in Plant Sciences, Sarmah, B. K. and Borah, B. K. (Ed.), Springer Nature Switzerland AG, doi.org/10.1007/978-3-030-63372-1_2.
- Kumar, R., Khungar, L., Shimphrui, R., Tiwari, L. D., Tripathi, G., Sarkar, N. K., ... Grover, A. (2020). AtHsp101 research sets course of action for the genetic improvement of crops against heat stress. *Journal of Plant Biochemistry and Biotechnology*, 29(4), 715–732. https://doi.org/10.1007/s13562-020-00624-2
- Li, S., Nayar, S., Jia, H., Kapoor, S., Wu, J., & Yukawa, Y. (2020). The Arabidopsis Hypoxia Inducible *AtR8* Long Non-Coding RNA also Contributes to Plant Defense and Root Elongation Coordinating with WRKY Genes under Low Levels of Salicylic Acid. *Non-coding RNA*, *6*(1), 8. https://doi.org/10.3390/ncrna6010008
- Maitra Majee, S., Sharma, E., Singh, B., & Khurana, J. P. (2020). Drought-induced protein (Di19-3) plays a role in auxin signaling by interacting with IAA14 in Arabidopsis. *Plant direct*, 4(6), e00234. https://doi.org/10.1002/pld3.234
- Malik, N., Ranjan, R., Parida, S. K., Agarwal, P., & Tyagi, A. K. (2020). Mediator subunit OsMED14_1 plays an important role in rice development. *Plant Journal*, 101(6), 1411-1429. doi:10.1111/tpj.14605
- Manjunatha, S. R., Gowda, M., Narayanaswamy, K. C., Jagadish, K. S., Dhanyalakshmi, K. H., Khurana, P., & Nataraja, K. N. (2021). Assessing the life cycle of pests, *Diaphania pulverulentalis* (Hampson) and *Maconellicoccus hirsutus* Green, reared on transgenic mulberry. *3 Biotech*, 11(2), 64. https://doi.org/10.1007/s13205-020-02621-7
- Meena, S., Deb, S., Samtani, H., & Khurana, P. (2020). Dissecting the Molecular Function of *Triticum aestivum STI* Family Members Under Heat Stress. *Frontiers in genetics*, 11, 873. https://doi.org/10.3389/fgene.2020.00873
- Negi, N., & Khurana, P. (2021). A salicylic acid inducible mulberry WRKY transcription factor, MiWRKY53 is involved in plant defence response. *Plant cell reports*, 10.1007/s00299-021-02710-8.
- Pandey, B. K., Verma, L., Prusty, A., Singh, A. P., Bennett, M. J., Tyagi, A. K., Giri, J., & Mehra, P. (2021). OsJAZ11 regulates phosphate starvation responses in rice. *Planta*, 254(1), 8. https://doi.org/10.1007/s00425-021-03657-6
- Pareek, A., Soni, V., Sopory, S. K., Khurana, J. P., Sowjanya Sree, K., Tyagi, A. K., . . . Govindjee, G. (2020). Satish Chandra Maheshwari (1933–2019)—a brilliant, passionate and an outstanding

- shining light for all of plant biology. *Physiology and Molecular Biology of Plants*, 26(6), 1087-1098. doi:10.1007/s12298-020-00794-2
- Parry, G., Provart, N. J., Brady, S. M., Uzilday, B., & Multinational Arabidopsis Steering Committee (2020). Current status of the multinational Arabidopsis community. *Plant direct*, *4*(7), e00248. https://doi.org/10.1002/pld3.248
- Sanyal, S. K., Mahiwal, S., Nambiar, D. M., & Pandey, G. K. (2020). CBL-CIPK module-mediated phosphoregulation: facts and hypothesis. *The Biochemical journal*, 477(5), 853–871. https://doi.org/10.1042/BCJ20190339
- Saripalli, G., Singh, K., Gautam, T., Kumar, S., Raghuvanshi, S., Prasad, P., . . . Gupta, P. K. (2020). Genome-wide analysis of H3K4me3 and H3K27me3 modifications due to Lr28 for leaf rust resistance in bread wheat (triticum aestivum). *Plant Molecular Biology*, 104(1-2), 113-136. doi:10.1007/s11103-020-01029-4
- Sarkar, N. K., Kotak, S., Agarwal, M., Kim, Y. K., & Grover, A. (2019). Silencing of class I small heat shock proteins affects seed-related attributes and thermotolerance in rice seedlings. *Planta*, 251(1), 26. https://doi.org/10.1007/s00425-019-03318-9
- Sharma, E., Borah, P., Kaur, A., Bhatnagar, A., Mohapatra, T., Kapoor, S., & Khurana, J. P. (2021). A comprehensive transcriptome analysis of contrasting rice cultivars highlights the role of auxin and ABA responsive genes in heat stress response. *Genomics*, 113(3), 1247-1261. doi:10.1016/j.ygeno.2021.03.007
- Sharma, N., Chaudhary, C., & Khurana, P. (2020). Wheat Myo-inositol phosphate synthase influences plant growth and stress responses via ethylene mediated signaling. *Scientific reports*, 10(1), 10766. https://doi.org/10.1038/s41598-020-67627-w
- Sharma, N., Chaudhary, C., & Khurana, P. (2020). Role of myo-inositol during skotomorphogenesis in Arabidopsis. *Scientific reports*, *10*(1), 17329. https://doi.org/10.1038/s41598-020-73677-x
- Singh, D., Yadav, R., Kaushik, S., Wadhwa, N., Kapoor, S., & Kapoor, M. (2020). Transcriptome Analysis of *ppdnmt2* and Identification of Superoxide Dismutase as a Novel Interactor of DNMT2 in the Moss *Physcomitrella patens*. *Frontiers in plant science*, *11*, 1185. https://doi.org/10.3389/fpls.2020.01185
- Singh, G., Sarkar, N. K., & Grover, A. (2021). Tango between Ethylene and HSFA2 Settles Heat Tolerance. *Trends in plant science*, 26(5), 429–432. https://doi.org/10.1016/j.tplants.2021.03.003
- Singh, N., & Pandey, G. K. (2020). Calcium signatures and signal transduction schemes during microbe interactions in Arabidopsis thaliana. *Journal of Plant Biochemistry and Biotechnology*, 29(4), 675–686. https://doi.org/10.1007/s13562-020-00604-6
- Srivastava, A. K., Shankar, A., Nalini Chandran, A. K., Sharma, M., Jung, K. H., Suprasanna, P., & Pandey, G. K. (2020). Emerging concepts of potassium homeostasis in plants. *Journal of experimental botany*, 71(2), 608–619. https://doi.org/10.1093/jxb/erz458
- Tiwari, L. D., Khungar, L., & Grover, A. (2020). AtHsc70-1 negatively regulates the basal heat tolerance in Arabidopsis thaliana through affecting the activity of HsfAs and Hsp101. *The Plant journal:* for cell and molecular biology, 103(6), 2069–2083. https://doi.org/10.1111/tpj.14883
- Tyagi, V., Parihar, V., Malik, G., Kalra, V., Kapoor, S., & Kapoor, M. (2020). The DEAD-box RNA helicase eIF4A regulates plant development and interacts with the hnRNP LIF2L1 in physcomitrella patens. *Molecular Genetics and Genomics*, 295(2), 373-389. doi:10.1007/s00438-019-01628-x
- Tyagi, V., Parihar, V., Singh, D., Kapoor, S., & Kapoor, M. (2021). The DEAD-box RNA helicase eIF4A1 interacts with the SWI2/SNF2-related chromatin remodelling ATPase DDM1 in the moss Physcomitrella. *Biochimica et biophysica acta. Proteins and proteomics*, 1869(3), 140592. https://doi.org/10.1016/j.bbapap.2020.140592

 Verma, A., Prakash, G., Ranjan, R., Tyagi, A. K., & Agarwal, P. (2021). Silencing of an Ubiquitin Ligase Increases Grain Width and Weight in *indica* Rice. *Frontiers in genetics*, 11, 600378. https://doi.org/10.3389/fgene.2020.600378

Edited Books:

- Pandey, G.K. (2020). Protein phosphatases and stress management in plants: Functional genomics perspective. Springer International Publishing, ISBN 9783030487324.
- Pandey, G.K. (2020). Protein kinases and stress signaling in plants: Functional genomics perspective.
 Wiley Blackwell, ISBN 9781119541516.
- Pandey, G.K. & Sanyal, S.K. (2020). Functional dissection of calcium homeostasis and transport machinery in plants. SpringerBriefs in Plant Science, DOI 10.1007/978-3-030-58502-0, ISBN 978-3-030-58501-3.
- Pandey, G.K. & Mahiwal, S. (2020). Role of potassium in plants. SpringerBriefs in Plant Science. SpringerBriefs in Plant Science, ISBN 978-3-030-45953-6.

Book chapters:

- Ahmed, I. & Pandey, G.K. (2020). Calcium transport elements and abiotic stress management:
 Machinery involved in generation of calcium signature in plants
 In Roychoudhary et al. (eds)
 Transporters and plant osmotic stress. Academic press, ISBN: 9780128179581
- Jha, S.K., & Pandey, G.K. (2020). Cation/H+ exchanger (CAX) in plants: roles in development and stress response. In Upadhayay SK (ed.) Calcium transport elements in plants. Academic press, ISBN: 9780128217924.
- Jha, S.K., Pandey, G.K. (2020). Multimember CNGC family in plants: Role in development and stress management. In Upadhayay SK (ed.) Calcium transport elements in plants. Elsevier. Academic press, ISBN: 9780128217924.

4. Journals published from Department:

Nil

Number of Department teachers are serving as Editor(s) Member(s)of editorial board of various scientific journals

Professor A. K. Tyagi

• Molecular and General Genomics, Transgenic Research, and Rice

Prof. J.P. Khurana

• Associate Editor, Frontiers in Sustainable Food Systems

Prof. Sanjay Kapoor

• Associate Editor, Rice

Professor G.K. Pandey

- Editorial Board member, Scientific Reports, NPG
- Academic Editor of PLoS One
- Associate Editor, Plant Molecular Biology Reporter
- Editorial Board member of Plant Signaling and Behavior
- Editorial Board member of Current Biotechnology
- Editorial Board member of Current Genomics

• Editor, Physiology and Molecular Biology of Plant

5. Research Projects:

Professor Akhilesh Kumar Tyagi

• Sub-project 1: Characterization of Gene Regulatory Networks and Transcriptional Mechanisms that Control Seed Development, under National Rice Functional Genomics Consortium Project entitled, Functional Characterization of Genetic and Epigenetic Regulatory Networks Involved in the Reproductive Development in Rice 2015-2021, DBT 167.4 Lakhs.

Professor Paramjit Khurana

- Multi Institutional Network Project on Mulberry Genomic Approaches (2018-2021).
- NW1: Genomic Resources for Mulberry: Indian Mulberry Nuclear Genome Sequencing, jointly with JNU, New Delhi. (85.34 lakhs).
- NW3A: Discovery and validation of growth and abiotic stress related genes in mulberry, jointly with GKVK, UAS, Bangalore. (89.62 lakhs).

Professor Indranil Dasgupta

• Development of a virus-inducible gene editing system for resistance against viruses, Biotechnology Industry Research Assistance Council 14-01-2021 to 13-07-2022, Rs. 30.0 lakhs).

Professor Sanjay Kapoor

- Development of a Cell-line based Starch Bio-factory System by Manipulating Components of Starch Regulatory and Biosynthetic Machinery in Tobacco BY-2 Cells Feb 13, 2020 – Feb 12, 2023, 53 Lakhs
- Sub-project IV: Characterization of Gene Regulatory Networks and Transcriptional Mechanisms that Control Male Gametophyte, under National Rice Functional Genomics Consortium Project entitled, Functional Characterization of Genetic and Epigenetic Regulatory Networks Involved in the Reproductive Development in Rice 2015-2021, DBT 167.4 Lakhs.

Prof. Arun Kumar Sharma

- Tomato Ripening Network. (2015-2021). DBT. 130.98 lakhs.
- Regulation of ripening in tomato by manipulation of epigenome (2016-2021). DBT 91.74 lakhs.

Professor G.K. Pandey

• Utilization of halophyte specific genes for improving abiotic stress tolerance in crop plants, BRNS, DAE, India, (02-07-20 to 01-07-2023, 31.58 lakhs)

Dr. Saurabh Raghuvanshi

 Mainstreaming rice landraces diversity in varietal development through genome-wide association studies: A model for large-scale utilization of gene bank collections of rice (March 2020-25) PI, DBT, 603 lakhs.

6. Patent filed/granted:

Patent filed

• Title - A method of infecting okra plants with virus using agrobacterium-mediated inoculation of cloned viral DNAs.

7. Seminars organized

None

8. Conferences organized

Professor A.K.Tyagi

- Nat. Conf. on Frontiers in Plant Biology, UoH, Hyderabad, 2020.
- NCRABS 2020, JMI, New Delhi, 2020 (key-note address).
- DU-LEAP Initiative, INSA, New Delhi, 2020.
- Webinar, Miranda House, Delhi University, Delhi, 2020.
- Webinar, Bharatyia Vidya Bhawan, New Delhi, 2020.
- Webinar, Nutrition in Times of Pandemics, INSA & NASI, Delhi, 2020.
- Webinar, Indo-Global Biodata Coalition, Delhi University, Delhi, 2020.
- Webinar, IGNTU, Amarkantak, 2020.
- Webinar, NASI-IBSD, Praygraj & Imphal, 2020.
- Webinar, IISF2020-Biodiversity Conclave, NBRI, Lucknow, 2020 (key-note address).

Professor P. Khurana

• Organized a National Webinar on behalf of NASI and Central University of Haryana (CuH) on "Effective Poshan (Nutrition) during Covid-19" on 24.09.2020.

9. Seminar/Conference Presentation

Professor P. Khurana

- Invited talk on "Meeting Nutritional Challenges of the EWS" in the Webinar on "Nutrition in the times of pandemic" jointly organized by NASI & INSA on September 22, 2020.
- Invited talk on "Meeting Nutritional Challenges for a Healthy Lifestyle" in the Webinar on 'Nutrition: A Weapon to Combat COVID-19' (Jointly organized by NASI & DBT-NIPGR) on October 1, 2020, for school children and students, researchers.
- Invited talk entitled "Scientific Writing and Presentation" in the Faculty Development Programme on "Innovation in Scientific Research Methods" October 14, 2020 organized under DBT Star college scheme 2019-2022, by Kirori Mal College, University of Delhi.
- Participated in the Webinar jointly organized by ICAR-National Institute of Abiotic Stress
 Management (NIASM), Baramati, India and the Alliance of Bioversity International and
 International Centre for Tropical Agriculture (CIAT), Asia-India, New Delhi on "Genomics
 Strategies for Improvement of Abiotic Stress Tolerance in Crop Plants" on November 27, 2020, at
 17:00 IST".
- Delivered a presentation on "The Art of Scientific Presentation and Writing" in the Workshop on Research Methodology (RM-20 conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-HRDC, University of Delhi on January 11, 2021.
- Delivered a presentation on "Scientific Grant Writing and Prospecting for Funds" in the Workshop on Research Methodology (RM-20 conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-HRDC, University of Delhi on January 11, 2021.
- Delivered the Closing remarks in the NASI-Varanasi Chapter joint Webinar under NASI New Initiatives on "Jagrukta Abhiyan for COVID-19 Pandemic", on January 12, 2021.
- Delivered a presentation on "The Art of Scientific Presentation and Writing" in the Workshop on Research Methodology (RM-20 conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-HRDC, University of Delhi on January 11, 2021.

- Delivered a presentation on "Scientific Grant Writing and Prospecting for Funds" in the Workshop on Research Methodology (RM-20 conducted by Centre for Professional Development in Higher Education (CPDHE), UGC-HRDC, University of Delhi on January 11, 2021.
- Delivered a presentation on February 3, 2021, entitled "Investigating the Role of PGPRs in Alleviating heat Stress Tolerance in Triticum aestivum L" in the 61st AMI conference organized by The Association of Microbiologists of India (AMI) and Indian Network for Soil Contamination Research (INSCR) in association with The Energy and Resources Institute (TERI), University of Delhi (DU) and Indian Agricultural Research Institute (IARI), New Delhi, from February 3-5, 2021.
- Delivered a presentation on "Scientific Grant Writing and Prospecting for Funds" in the National Level Workshop in "Frontiers in Science and Engineering by Women in Science" jointly organized by The National Academy of Sciences India (NASI) Delhi Chapter and Deen Dayal Upadhyaya College (University of Delhi) on February 10, 2021.
- Delivered a presentation on "Role of Genes and Genomics for Climate Resilient Crops" in memory of (Late) Mr SL Kochhar, Department of Botany, SGTB Khalsa College, University of Delhi, on March 22, 2021.

Professor G.K. Pandey

- Potassium deficiency imposed abiotic stress management in plants: A functional genomics intervention. Genomics Strategies for Improvement of Abiotic Stress Tolerance in Crop Plants, National Institute of Abiotic Stress Management, Baramati, Maharashtra, 27 November, 2020.
- A story of mitochondrial gate-keeper: What we know about VDAC and its function in plants? Current Trends in Plant Biochemistry and Biotechnology, National Virtual Conference, Society for Plant Biochemistry and Biotechnology, New Delhi and BITS Pilani, Goa, 20-21 November, 2020.

10. National/International MoU Signed:

Nil

11. Other Inter-institutional Collaboration:

Working on a research project "Identification of super donors and alleles for spikelet fertility and low chalkiness under thermal stress in rice" from NASF, ICAR as PI, with 4 CCPIs namely Madan Pal Singh, Division of Plant Physiology, ICAR-IARI, New Delhi; Girish Chandel, IGKV, Raipur; Manu Agarwal, University of Delhi Delhi and S.Vanisri, PJTSAU, Hyderabad.

The faculty members also have ongoing collaborative projects with JNU, New Delhi; GKVK, UAS, Bengaluru; IISc. Bengaluru; Osmania University, Hyderabad; NCBS, Bengaluru and IISER Thiruvananthapuram.

12. Students under Exchange Programme:

The PMB faculty members have collaborative projects with several institutions across India and abroad. A number of students from universities/institutions across India visit PMB for short duration for specialized experiments.

13. Placement Details (Number and percentage of students placed):

More than 70% of the students passing out of the Department are engaged in academic and research activities.

14. Extension and Outreach Activities:

The Departmental faculty members have interacted with college students in seminars and webinars, which constitute extension and outreach activities.

15. Number of M.Phil/Ph.D. Degrees awarded

Ph.D. awarded: 8

16. Faculty Strength

9

17. Other Significant Information –

The Department has established an advanced imaging facility for research activities in the year under review. This has been funded by Department of Science and Technology, Government of India. This facility consists of Confocal microscope, Scanning Electron microscope and Bioluminescence Imaging, which use the latest technology in the field. These facilities are expected to give a boost to the research activities in the Department.

FACULTY OF LAW

CAMPUS LAW CENTRE

FACULTY OF LAW

1. MAJOR ACTIVITIES AND ACHIEVEMENTS

The academic year 2020-21has been full of challenges as well as accomplishments of unique targets. There has been a physical closure of Faculty of Law subsequent to the national lockdown due to Corona pandemic. Nonetheless, academic and administrative derailing has not been allowed and a virtual set up of Faculty of Law has been created under the custody and guidance of Prof.(Dr.) Vandana as the Dean, Faculty of Law & Head, Department of Law. The LL.B, LL.M and the Ph.D course work classes went online. Academic heights have been retained remarkably due to the concerted efforts of all teaching and non teaching staff.

4. JOURNALS—

1. DELHI LAW REVIEW (DLR)

The Delhi Law Review (ISSN 0971-4936) is the flagship law journal of the Faculty of Law, University of Delhi and is one of the oldest law journals in the country in publication since 1972. The DLR is an annual double-blind peer reviewed journal publishing scholarly, original research articles, case notes, legislative comments and book reviews written by academicians, judges, legal professionals, and judicial officers from India and abroad on contemporary legal issues. So far, thirty-five volumes have been published and uploaded on the Faculty of Law website.

Vol(s) published between 1.1.2020 to 1.1.2021: **DLR Vol. XXXV** (2019-2020)

• DELHI LAW REVIEW (STUDENT EDITION)

The Delhi Law Review (Student Edition) is an annual, double-blind, student-reviewed journal of the Faculty of Law, University of Delhi. It was introduced with the objective of involving students in promoting academic research and facilitating debate on contemporary legal issues in India. The journal assumes an inter-disciplinary orientation and is wide enough to include national and international legal and policy-based issues within its sweep. As of 2020, seven volumes of the journal have been published and made available online that can be accessed on the Faculty of Law website. The journal covers original and unpublished manuscripts from academicians, authors, legal professionals and students from India and abroad.

Vol(s) published between 1.1.2020 to 1.1.2021: **SDLR Vol. VIII (2019-2020)**

$\underline{15.}$ NO. OF LLM/PH.D AWARDED IN FACULTY OF LAW DURING THE YEAR 1^{ST} APRIL, 2020 TO $\underline{1^{ST}}$ APRIL, 2021

ITEM 15. I.--Number of Ph.Ds Awarded in Faculty of law.

SS.N o	Name of Ph.D scholar	NameofDepartme nt/ Faculty	Nameof Guide's	Year of Registration of Scholar	Year of Award of Ph.D
1	Suresh Kumar Dhungana	Faculty of Law	Prof. Alka Chawla	2016	2020

2	Mausam	Faculty of Law	Prof. Rajni Abbi	2013	2020
3	Jemima K Yeptho	Faculty of Law	Prof. P.B Pankaja	2014	2020
4	Princy Chaturvedi	Faculty of Law	Prof. Vageshwari Deswal	2014	2020
5	Puranjay K. Vedi	Faculty of Law	Prof. Alka Chawla	2016	2020
6	Taniya Malik	Faculty of Law	Prof. Gunjan Gupta	2014	2020
7	Chanchal Kumar Singh	Faculty of Law	Prof. Sarbjit Kaur	2013	2020
8	Surender Mohit Singh	Faculty of Law	Prof. Kiran Gupta	2012	2020
9	Tanvi Saini	Faculty of Law	Dr. Sunanda Bharti	2014	2021
10	Harish Kumar Tiwari	Faculty of Law	Prof. Raman Mittal	2016	2021

ITEM 15.II.- List Of Students Who Have Submitted Their Ph.D Thesis in Faculty of Law.

Sr. No.	Name of Candidates	Topic
1	Mr. Santosh Kumar Supervisor- Prof. AnupamJha	"Corporate Social Responsibility & Protection of Human Rights: A Comparative Study"
2	Mr. Guruprakash Supervisor- Prof. V.K. Ahuja	"The Socio-Legal Dimensions of Special Constitutional Status to the State of Jammu and Kashmir"
3	Ms. Neha Supervisor-Prof. V.K. Ahuja	"Legal Protection of Persons With Physical Disabilities: National and International Perspectives"
4	Ms. Irwin Lalmuanpuii Hnamte Supervisor-Prof. V.K. Ahuja	"Protection of Traditional Cultural Expressions of Indigenous Peoples: A Comparative Study"

5	Mr. Akash Anand Supervisor- Prof. Manju Arora Relan	"Evolution and Development of Precautionary Principle in Furtherance of Environment Protection"
6	Ms. Monika Singhal Supervisor-Prof.(Dr.)Vageshwari	"Legal Recognition of Transgender as The Third Sex-A Comparative Study of Laws in Other Countries Vis-à-vis Indian Laws"
7	Ms. Katarzyna Supervisor-Dr.Siddharth Mishra	"The Legal Framework for European Investments in Indian in the Light of Revival of the Calvo Doctrine in International Investment Law.
8	Ms. Neha Gupta Supervisor- Prof. VedKumari	"Scientific Investigation in the Criminal Justice System: Problems and Prospects".
9	Ms. Tanya Narula Chaudhury Supervisor-Prof. Pinki Sharma	A Legal Study on the Implications of Basal III on Banking Regulations in India.
10	Mr. Deepak kaushik Supervisor-Dr. Poonam Dass	Applicability of International Trade Law Principles and Commitments over E –Commerce: Critical Analysis of a Borderless Cross- Border Trade
11	Anurag Bhardwaj Supervisor-Dr. Suman	Legal Regime Governing Food Adulteration in Developed and Developing Nations- A Study of U.S.A and India
12	Meghraj Supervisor-Dr. Shabnam	Regulation of Sand Mining in View of Biodiversity and Economic Development
13	Rashee Jain Gupta Supervisor- Prof. P.B. Pankaja	Legal Framework for Women Domestic Workers in India: Issues and Concerns
14	Meena Kumari Supervisor-Prof. (Dr.) P.B. Pankaja	An Insight into Law of Talaq in Muslim Personal Law in India.
15	Neha Kheria Supervisor-Prof. Pinki Sharma	Laws relating to Cyber Pornography with special reference to USA UK & India: A Legal Analysis
16	Grahan Nand Prasad Supervisor-Prof. Rajni Abbi	Corporate Governance and Shareholders Activism in India
17	Harishikesh Baruah Supervisor-Prof. Rajni Abbi	Competition Law, Evolution and Approach: A Need for Unified International Policy

18	Aanchal Mittal Supervisor-Dr. Sunanda Bharti	Legal Regulation of Advertising in India
18	Supervisor Dr. Sunanda Bharti	

ITEM 15.III.--List of Students who have submitted their LL.M. Dissertation In Faculty of Law.

Sl.No	Name	Title	Supervisor Name
1	Amit Kumar Pankaj	Humanitarian Intervention and State Sovereignty: Legal Dilemma	Dr. Gurpreet Singh
2	ANAND SETH	Human Rights and Arrest: Critical Analysis of the Indian Perspective	Dr. Vageshwari Deswal
3	ANMOL VASHIST	Sexual Offences Against Women In India: An Analysis Of Rights And Wrongs	Dr.Kalpana Sharma
4	Anurag Tripathi	The Rights of an Accused in Criminal Justice System	Dr. Alok Sharma
5	ARUSHI MAHAR	Judicial Reflections of Marital Rape in India: Need for Criminalisation	Dr. Sushmitha P. Mallaya
6	ASHISH BANDHU	Conflict Between Competition Commission of India And Telecom Regulatory Authority of India on the Basis of Jurisdiction	Dr.Parveen
7	Ashish Kumar Yadav	Indulgence of Indian Judiciary in Democratic Process With Special Reference to Electoral Reforms in The Last Two Decades	Dr. Monica Chaudhary
8	Bhanu Partap Singh	Situation of Undertrial Prisoners in the Indian Criminal Justice System: A Critical Study	Dr. Monica Chaudhary
9	DEEPAK	Corporate Criminal Liability with Special Reference to Contemperory Judicial Trends in India and other Nations	Dr.Rajni Abbi
10	DIVYA GUPTA	Efficacy of Juvenile System in Combating Juvenile Recidivism	Dr.Moatoshi AO

11	Ekta Garg	Legal Protection of Doctors From Workplace Violence - Analytical Study	Dr. Ajay Sonawane
12	Himani Arya	Capital Punishment: Whether to Abolish or Retain in India	Dr. Seema Singh
13	INSIA ARORA	Challenged Patriarchal Norms and Increase in Sexual Offences: A Study of Social Structure And Anomie	Dr. Suman Yadav
14	KAJAL GARG	"Triple Talaq and Halala in Islam: A Comparative Study in India and Islamic Countries"	Dr. Bhupesh
15	МОНІТ	Concept of Fair Use in Copyright With Reference To Education: A Comparative Study of India,UK And USA	Dr. Archa Vashishtha
16	MOHIT KUMAR	Should There be a Limit In Calling Article 142 of the Constitution of india?	Dr. Naresh Mahipal
17	MOHIT SEHRAWAT	Need For A Comprenensive Legal Framework Of Sports Law in India	Mr.Piyush Kumar
18	NARENDRA	Relevance of Restitution of Conjugal Rights In India: A Critique	Dr.Narender Kumar Bishnoi
19	PREETI THALAN	Ombudsman as a watchdog of Indian Administration - A Critical Analysis and a Comparison With Developed Countries	Dr.Ajay Kumar Sharma
20	Safi Irfanullah A	Envoronmental Impact Assessment in India: A Comparative Critical Analysis of the EIA 2006 Versus the Draft EIA 2020	Dr. Shaiwal Satyarthi
21	SAMPURAN AND	Status And Rights of Victims in the Criminal Justice System in India - A Critical Analyysis	Dr. Arti Aneja
22	SANJEET SINGH	Judicial Governance & Cost to Justice in India: The Economic Impact of Judicial Efficiency	Dr. Nitesh Saraswat
23	Sayed Aamir Ali	International Refugee Law vis-à-vis India's Response to Rohingya Crisis.	Dr. Priti Rana
24	SHELLY	Right to Maintenance Under Criminal Law - A Critical Study	Dr.Basuki Nath Dubey

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25	SONAKSHI KASHYAP	The Doctrine of Fair Dealing With Special Reference to Educational Purposes	Dr.Ashwini Siwal
26	Sugam Kumari	Protection of Rights of Elderly in Indian Legal Framework	Dr. Anjay Kumar
27	SUMAN MEENA	"Cruelty Against Married Women: A Critical Analysis Of Section 498a Of Indian Penal Code, 1860"	Prof. Kiran Gupta
28	SWATI SHARMA	Principles Involved in the Interpretation of the Constitution	Dr.Upendra Nath
29	TANUSHRE E BHALLA	Amalgamation of Sexual Minorities: Socio- Legal Challenges	Dr.Anju Vali Tikko
30	UJJWALA LAMORIA	From Philantropic to Mandatory : The Journey of CSR In The Indian Perspective	Mr.Nitesh Saraswat
31	Varsha Singh	Human Rights and the Environment, Its Impact on Public Health	Dr. Suman
32	VARTIKA	Demystifying Bitcoin: Evaluating It As a Safe source of Future Digital Currency	Dr. Ashiwini Siwal
33	VINEET KUMAR MISHRA	Relevance Of Peaceful Dispute Settlement Mechanism Under Law of Sea	Dr.Ashish Kumar
34	AAYUSH TRIPATHI	The Need to Repeal the Marital Rape Exemption Clause Under the Indian Penal Code,1860	Dr. Harleen Kaur
35	ABHIJIT BHATNAGA R	"Critical Study of Laws Relating to Civil Servants in India"	Dr. Anu
36	Aditi Jha	Shortcomings of Informtion Technology Act: Analytical Study of Cyber Defamation and Liability of Intermediaries	Dr. Poonam Dass
37	AKASHDEE P PANDEY	Plea Bargaining: Its Impact And implementation In Delhi	Dr. Alok Sharma
38	ANAND KUMAR	Constitutionality of Citizenship (Amandment) Act 2019: A Critical Analysis.	Dr. P.R.Kalidhass

39	ARPIT JAIN	Analysis of Law Of Domestic Arbitration In India.	Dr. Ashutosh Mishra
40	ARUN HOODA	"Procedure of Judicial Appointments In India: A Critical Appraisal"	Dr.Narender Nagarwal
41	ARUN KUMAR	Water Governance And Water Disputes: National And International Perspectives	Dr. Anupam Jha
42	ASHVINEE KUMAR MISHRA	Electoral Reforms to Strengthen Participatory Democracy In India: A Legal Study	Dr.Ravindra Kumar
43	ASTHA RATHORE	Dr.Shaiwal Satyarthi	
44	IMMANUEL LALSANHI M	Comparative Analysis of Abortion Laws In India And The United Kingdom	Dr. Sunanda Bharti
45	LUCKY	Factors Responsible For the Prevalence of Child Marriage In Malakhera Village, Rajasthan Dispite Prohibition By Law	Dr. Kavita
46	MANSI	"Women And the Law In India With Special Reference to Live In Relationships"	Dr. Vageshwari Deswal
47	MEENAKSH "Exploring The Socio Legal Status and Impact of Live-in-Relationship in India"		Prof. Vandana
48	MOHD. Issues And Challenges Of Copyright Law In India With Reference To Liability Of Internet Service Provider		Dr. Pushpa Kumar
49	MOHD. SAMEEN	I Role And Duties of Sehi In Protection Of Investors	
50	MOHIT KUMAR	Dimensions Of Competition Law and Its Development	Dr.Shivani Verma
51	N.P.HAIBIL A	A Socio-Legal Study of Crime Against Women In India- (With Special Reference to Indian Penal Code, 1860)	Dr.Alok Sharma

52	OM KUMAR RATHORE	Interplay of Transparency and Privacy Laws In Media: An Analysis of Laws and Ethics in Media Repoting	Dr.Namita Vashishtha		
53	PURU CHANDVAN SHI	From Forging Group identity to Individual Conscience: A Constituitional Review of Path of Future of Religious Freedom in India.	Dr.Rahul Kumar		
54	RAHUL DUTTA	Effectiveness of Tenth Schedule Under the Constitution of India 1			
55	RAHUL SAHU	"An Analytical Study of Euthanasia In India with Recent Judgements Of Supreme Court In Aruna Shanbaug's Case & Common Cause Case"	Dr. Upendra Nath		
56	RAHUL SHARMA	Status And Rights of Victims in the Criminal Justice System in India - A Critical Anaylysis	Dr.Narender Bishnoi		
57	Tapasya Sharma				
58	Vipin Kumar	Free Legal Aid: Its Origin and its Relevance With Respect to Latest Judical Trend in India	Dr. P.B. Pankaja		
59	Vivek Singh	The Electricity Act, 2003: A Critical Analysis	Dr. Ravindra Kumar		

ITEM NO. 16 – STRENGTH OF THE FACULTY

Name of the Centre	Assistant Professors	Associate Professors	Professors	Total Strength	
Campus Law Centre	37	0	6	43	
Law Centre-I	39	6	5	50	
Law Centre-II	38	1	6	45	

98th ANNUAL REPORT CAMPUS LAW CENTRE

1. Major Activities and Achievements

Campus Law Centre (CLC) has consistently been ranked among the top law education institutes in India. Owing to the unprecedented times of COVID 19, academic life of CLC switched to online mode.

CLC organized K.K. Luthra Memorial Moot Court Competition in January11th –17th, 2021. Due to pandemic, the competition was conducted virtually in an audio-visual mode. CLC hosted 68 teams from various legal institutions including several NLU's, Faculties of Law across the globe and 19 international teams from esteemed universities.

The Legal Aid Society of CLC held regular outreach and awareness programmes throughout the academic year. Debate & Discussions Society (DDS) hosted a plethora of events which include CONFERO, THE CLC OPINION PROJECT- TCOP, THE CLC TOWN HALL. The newly formed Corporate and Commercial Law Society started its functioning, aiming at creating a culture of initiative in becoming aware of the practical aspects of corporate law and commercial laws.

2. Honours/Distinctions

Professor (Dr.) Usha Tandon

1. Nominated Member other than Ex-Officio Member, of Delhi State Legal Services Authority 2021-23, Hon'ble Lt. Governor of National Capital Territory of Delhi

Professor (Dr.) Kamala Sankaran

Chairperson,	Gargi	College,	University	of Delhi	(University	Nominee	on th	e Governing	Body,	Gargi
College, Univ	versity	of Delhi)	(2020).							

☐ Member, Committee of Experts on the Application of Conventions and Recommendations, International Labour Organisation, Geneva

Dr. Narender Kumar Bison

1. Member, Academic Council, 2021-23, University of Delhi

3. Publications -12

- 1. Mahalwar, Vandana. (2020). Burgeoning right of publicity: An overview of the Indian experiences. *The Journal of World Intellectual Property*, 24, 28-40.
- 2. Mahalwar, Vandana. (2020). Dynamics of the right of publicity in India: An appraisal under intellectual property regime. *Contemporary Law Review*, 4(1).
- 3. Mahalwar, Vandana. (2021). On copyright protection. Economic & Political Weekly, 56(9).
- 4. Nakra, Neeru & Chawla, Alka. (2020). coalition between traditional knowledge and intellectual property laws: Probable potentiality. In Ahuja, V.K. & Vashishtha, Archa (Eds.), *Intellectual property rights contemporary developments*. Thomson Reuters.
- 5. Sankaran, Kamala. (2020). The Enforcement Crisis and Social Rights in India. In Sibnath Deb, G. Subhalakshmi, Kaustav Chakraborti (Eds.), *Upholding justice: Social, psychological and legal perspectives*. Routledge.
- 6. Sankaran, Kamala. (2020). Realising employer liability for informal workers: Lessons from India. In Martha Chen and Françoise Carré (Eds.). *The informal economy revisited*. Routledge.
- 7. Sankaran, Kamala. (2020). Emerging perspectives in labour regulation in the wake of COVID-19, *Indian Journal of Labour Economics*. Retrieved from https://doi.org/10.1007/s41027-020-00262-1.

- 8. Sankaran, Kamala. (2020). The Constitution and the right to livelihood. *Journal of Law Teachers of India*, 9,1-9.
- 9. Sharma, Ajay Kr. (2020). Majority dictates and minority rights: Oppression and mismanagement law and practice in India a primer for international business lawyers. *Business Law Review*, 41(4), 126-133.
- 10. Tandon, Usha. (2020). Justice for Delhi rape victim: a case for quality control post-conviction, Policy Brief Series No. 103, *TOAEP*, Florence. Retrieved from https://www.toaep.org/pbs-pdf/103-tando.
- 11. Yadav, Anita. (2021). Winds of change or winds of winter: The ethical considerations of artificial intelligence and autonomous weapon systems and their impact on international humanitarian law principles in exploration of technology globally and its legal dimensions. Thomson Reuters.
- 12. Yadav, Anita. (2020). Understanding accountability and responsibility of transnational corporations in international legal framework. *Mukt Shabd Journal*, *9*(4).
- 4. Please provide details in case serving as Editor(s)/Co-editor(s)/Member(s) of Editorial Board

International Journal

Professor (Dr.) Usha Tandon

1. Member, Editorial Board, NOUN Private and Property Law International Journal, Nigeria

Prof. (Dr.) Kamala Sankaran

- 2. Member, International Editorial Advisory Board, International Journal of Comparative Labour Law and Industrial Relations, (Kluwer Law)
- 3. Member, Editorial Board, University of Oxford Human Rights Hub Journal: (https://ohrh.law.ox.ac.uk/journal/

National Journal

Professor (Dr.) Usha Tandon

1. Chief Editor, National Journal of Comparative Law, (NJCL)

Prof. (Dr.) Kamala Sankaran

4. Member Editorial Advisory Board Indian Journal of Labour Economics: (Springer)

Dr. Narender Nagarwal

- **1.** Appointed as a Member Review Committee, Asian Journal of Social Science, Brill Academic Publisher, National University of Singapore, Singapore
- **2.** Appointed as Member Review Committee, Routledge International Publication "Asian Ethnicity" published from Finland

Dr. Harleen Kaur

3. Associate Editor, Droit Penale: Indian Law Journal on Crime & Criminology ISSN: 2456-7280 since May 2020.

Dr. Suman Yadav

- Editor in Editorial Board of Asia Pacific Law and Policy Review, ISSN No. 25814095, asiapacific.ccinternational.in
- 6. Editor in Editorial Board of Commonwealth Law Review Journal, ISSN No. 25813382, clrj.ccinternational.in

Dr. Anita Yadav

- Member of Editorial Board International Journal of Legal & Social Studies- IJLSS (ISSN-2394-1936) VOL VI, April 2020.
- 8. Reviewer for ILILR (Indian law Institute- LR) Journal e-ISSN-0976-1489 (UGC Journal No. 41792 at Sr. No.2634) in April, 2020.
- 9. Member of Editorial Board Law Audience Journal (e-ISSN- 2581-6705) from June 2020 to June 2022.
- 10. Commission member of IUCN WCEL Peace, Security and Conflict Specialist Group 2017-2020.
- 11. Got associated as a member of Advisory Board at 'pro bono' basis since July 2020 with annon-governmental organization (NGO) 'Vidhi Seva Evam Samajik Utthan Samiti' registered in Dehradun (registration number is UK06008072019001704), Uttarakhand.
- 5. Seminars / Workshops Organised

Total Number: 30

Details of important 10 are as under -

- 1. Prof. Bhagwati Prakash Sharma, Vice-Chancellor, Gautam Buddha University spoke on the New Education Policy 2020 under Abhigyan- the CLC lecture series, on 26th September 2020.
- 2. Prof. (Dr.) Kuldip Chand Agnihotri, Hon'ble Vice Chancellor, Central University of Himachal Pradesh, spoke on India's Response to China's Expansionist Policy under Abhigyan- the CLC lecture series, on 10th October 2020.
- 3. Dr. Latika Vashist, Assistant Professor, Indian Law Institute, Delhi spoke on CONSENT in Rape Laws under Abhigyan- the CLC lecture series, on 31st October 2020.
- 4. PADMA BHUSHAN Professor Ved P. Nanda, John Evans distinguished University Professor & Thompson G. Marsh Professor of University of Denver, spoke on Migrants & Refugees- Challenges for International Law & Policy, under Abhigyan- the CLC lecture series, on 6th April 2021.
- 5. Ms. Harshita Mishra, Ld. Metropolitan Magistrate & Secretary, DLSA (East) collaborated with District Legal Services Authority (East) to conduct a workshop on Child Rights and POCSO on 15th March, 2021.
- 6. Queen's Counsel, Former Solicitor General of India, Sr. Advocate, Shri. Harish Salve delivered a Keynote on the topic, 71 years of Constitution: Are we true to the dreams of its makers under the COURTROOM LEGENDS- Keynote Series by Debate & Discussions Society, CLC on 6th March 2021.
- Addl. Solicitor General of India, Senior Advocate, Shri. C S Vaidyanathan gave a keynote on Equal Opportunity and Meritocracy under COURTROOM LEGENDS- Keynote Series by Debate & Discussions Society, CLC on 19th March 2021.
- Former Solicitor General of India, Senior Advocate, Shri. Mohan Parasaran gave a Keynote on Evolution of Constitutional Law by Supreme Court of India, under the COURTROOM LEGENDS- Keynote Series by Debate & Discussions Society, CLC on 22nd March 2021.

- Former Solicitor General of India, Senior Advocate, Shri. Gopal Subramanium delivered a Keynote on Constitution as a Dynamic instrument of Change, under the COURTROOM LEGENDS- Keynote Series by Debate & Discussions Society, CLC on 31st March 2021.
- 10. The Solicitor General of India, Shri Tushar Mehta delivered a Keynote on Demystifying the Freedom of Speech & Expression, under the COURTROOM LEGENDS- Keynote Series by Debate & Discussions Society, CLC on 10th April 2021.

6. Seminar/Conference Presentations

Prof (Dr.) Usha Tandon-4

Prof (Dr.) Kamala Sankaran-10+

Dr. Alka Chawla-13

Dr. Seema Singh-15

Dr. Harleen Kaur-8

Dr. Kshitij Kumar Singh-7

Dr. Vandana Mahalwar-4

Dr. Cholaraja M-1

Dr. Narender Nagarwal-2

Dr. Rohit Moonka-1

Dr. Suman Yadav-2

Dr. Anita Yadav-18

Dr. Stanzin Chostak-1

Ms. Anumeha Mishra-1

7. Placement Details (Number and percentage of students placed)

Placement/Internship data (April 2020-March 2021)

Eight (8) Students of the Campus law Centre were provided with the Job Opportunities with Singh & Associates, Bharucha & Partners, Company Law Chamber and KPMG in addition to around Seventy Six (76) Students who were provided with the internship opportunities with Senior Advocates ,NGOs, top law firms and corporate houses such Bharucha And Partners, Alexis Journal of Public Policy & Law, Niti Nyaya, AZB and Partners, Nishith Desai Associates, ZEUS Law, Areness Attorneys, Resolver India, P&A Law Firm, Flour Daniel India, Wadhwa Law Chambers etc.

Total No. of students placed through PAC in 2020-21 (April 2020- March, 2021): 8

8. Extension and Outreach Activities

Legal Aid Society: The Legal Aid Society of Campus Law Centre has been playing a very important role in educating and sensitizing the students about importance of legal aid. 14 such activities were undertaken by the Legal Aid Society in the in the period between April 2020- March 2021.

9. Faculty Strength

- 1. 43 Permanent Faculty Members
- 2. 13 Guests

Status Quo till March 30, 2021.

98th ANNUAL REPORT University of Delhi LAW CENTRE-I Faculty of Law

1. Major Activities and Achievements

Law Centre-I capitalized on the new online learning environment by conducting various national webinars, workshops, lectures and training programs through the online mode. Law Centre-I organized 'Seminar Series on Social Justice' focusing on Social Justice for the Child; the Persons with Disabilities; the Tribal People and the Transgender Persons. Justice Madan B. Lokur, Judge, Supreme Court of Fiji and Former Judge, Supreme Court of India was the keynote speaker in these seminars. On the co-curricular front, the paralegal volunteers of the Legal Services Society of Law Centre-I have been instrumental in assisting the people of the marginalized sections ravaged by the pandemic, by closely working with the Delhi State Legal Services Authority (DSLSA). On the research front the faculty members have published research papers in Scopus indexed journals, books chapters, and books published by Oxford University Press, Routledge, Edward Elgar etc.

2. Honours / Distinctions

Dr. Sunanda Bharti, Associate Professor, at the Law Centre – I, received one of the 'Top 100 Legal Falcons 'Global Award by LexTalk World, the international media platform committed to bringing the legal fraternity together and recognising industry talent. Awarded on 7th April, 2021 in Dubai LexTalk World Conference for contributing (through writings) towards Intellectual Property laws, industry reach, recognition and impact.

3. Publications- 25

- 1. Bharti, Sunanda (2020). Copyright/moral rights in body art. In Ahuja, VK and Vashishtha, Archa (Eds.) *Intellectual property right: Contemporary developments*, 102-112. Thompson Reuters.
- 2. Bharti, Sunanda (2020). Step motherly treatment to famous marks by the trademarks act 1999. Journal of Advanced Legal Research in Intellectual Property Law, 1(1), 280-290.
- 3. Bharti, Sunanda (2020). What could be the possible dimensions of negotiation between university/college administration and student protestors—An academic enquiry. *Maadhyam International Online Journal*. Retrieved from https://maadhyaminternational.com/.
- 4. Bharti, Sunanda (2020). How should government negotiate with protestors. *The Indian Arbitrator*, 12(1). Retrieved from https://theindianarbitrator.com/articles/12/How%20should%20Government%20Negotiate%20with%20Protestors%3F%20%E2%80%93%20An%20Academic%20Enquiry%0A-%20Dr.%20Sunanda%20Bharti.

- 5. Dubey, Basukinath. (2020) Dimensions of maternity benefit in India: myth or reality. *Sodh Sarita*, 7(28). 170-174.
- 6. Garimella, Sai and Choudhary, Shivika. (2020) Future of legal education in the developing world. In John, Thomas, Rishi Gulati and Koehler, Ben (Eds.), The Elgar companion to the Hague conference on private international law: Elgar companions to international organisations series. 198–213. The Hague and London: Edward Elgar Publishing.
- 7. Kumari, Meena. (2020) Missing discourse on triple talaq and debate on muslim women (protection of rights on marriage) bill, 2019. *Army Institute of Law Journal 13*, 113-124.
- 8. Mallaya Susmitha (2020). A revisit to functioning of competition commission of India during the pandemic outbreak: some reflections. *Chartered Secretary*, *50*(8), 86-89.
- 9. Mallaya Susmitha (2020). Contouring legal education in India: an analysis of challenges posed by covid-19. *ILI Law Review* (Covid 19 Special Issue),147-161.
- 10. Mallaya Susmitha (2020). Contouring the role of directors in the banking companies: need for an ethical approach. *Company Law Journal 4*, 161-169.
- 11. Mallaya Susmitha (2020). Human rights as a discipline in legal education in India: An observation. *Indian Bar Review*: Special Issue on Human Rights, 47(4), 257-265.
- 12. Mallaya Susmitha (2021). Competition law and health care sector: Contemporary perspective. *Chartered Secretary*, *51*(2), 95-98.
- 13. Mallaya Susmitha. (2020). Centre-state legislative relations under Indian constitution- a review. In Singh Sehgal B.P. (Ed.), *Centre-state relations under Indian constitution-an assessment of its working in present scenario*, 131-137. New Delhi: Universal Academic Books Publishers.
- 14. Mallaya Susmitha. (2020). Corporate governance viz a viz banking sector in India. In Seema P.S and Preetha S (Eds.), *Critical essays on corporate laws in India*, 107-126. Directorate of Public Relations & Publications. Cochin: CUSAT.
- 15. Mishra, Archana. (2020). Hindu women's inheritance right in agricultural property myth or reality. In Singh, Dr. Kanwal DP and Goswami, Dr Shivani. (Eds.), *Vulnerability of women in contemporary times A socio legal perspective*, 185-206. New Delhi: Satyam Law International.
- 16. Misra, Siddhartha (2020). Right to food in Bangladesh. In Varun Chhachhar (Ed.), *Right to food in South Asia*, 202-239. Netherlands: Acumen Publishers.
- 17. Misra, Siddhartha (2021). Police system in India-issues and challenges. In Jospeter Mbuba (Ed.), *Global perspectives in policing and law enforcement*, 171-189. Maryland, USA: Lexington Books.
- 18. Misra, Siddhartha (2021). Word peace and Indian values message from the ancient Indian civilization. In Anupama Goel (Ed.), *Reflections on ancient Indian jurisprudence*, 111-126. New Delhi: Mohan Law House.
- 19. Misra, Siddhartha. & Kaszubska, K (2020). A BIT on India's reform of legal framework for investments. *Delhi Law Review*, *35*, 36-56.
- 20. Ranjan, Prabhash and Pushkar Anand (2020). Covid-19, India, and investor-state dispute settlement (ISDS): Will India be able to defend its public health measures? *Asia Pacific Law Review*, 28(1), 225-247.

- 21. Ranjan, Prabhash and Pushkar Anand (2020). Indian courts and bilateral investment treaty arbitration. *Indian Law Review*, 4(2), 199-220.
- 22. Ratnabali, K. (2020). *Biological weapons: Corona virus weapon of mass destruction*? New Delhi: Vij Books India Pvt. Ltd.
- 23. Ratnabali, K. (2020). *Martial law: Historical, comparative and constitutional perspective.* New Delhi: Vij Books India Pvt. Ltd.
- 24. Sinha, Amit Kumar and Anand, Pushkar (2021). Feminist overview of international investment law A preliminary inquiry. *Journal of International Economic Law*, 24(1), 99-125.
- 25. Sinha, Amit Kumar (2021). An inquiry into the scope of MFN provisions in bilateral investment treaties. *Brooklyn Journal of International Law*, 45(2), 679-743.
- 26. Verma, S. (2020). Fighting plutocracy during corona pandemic: India's economic stance in pursuit of autarky. *Sambodhi*, 43(4), 33-40.

Please refer to the details on website:

4. Journals

Published by the Centre – 01
 Journal of Law Teachers of India, since 2010, ISSN: 22311580.

 Number of teachers serving as Editor(s)/Member(s) of Editorial Board – 8

5. Research Projects -1

Dr. Sunanda Bharti, Co-PI - 'RISHII', **Resources for Internationalisation of Higher Educational Institutions in India**, an International Project under the Erasmus+ Programme funded by the European Commission, in collaboration with the University of Duesto, Bilbao Spain and the Tuning Academy. The Sanctioned grant is Euro 88, 420. The project started in 2019-20, and the duration is three years.

Seminars/Webinars - 55

Details of 10 are as follows:

- 2. Prof. B.T. Kaul, Former Chairperson, Delhi Judicial Academy spoke on 'Stages in a Criminal Case From Investigation to Trial' in a Law Centre I organized Webinar, on 28 June 2020
- 3. Prof. Kamala Sankaran spoke on 'Webinar on The Constitution and Right to Livelihood' in a Law Centre I organized Webinar, on 4 June 2020.
- 4. Dr. Balakrishna Pisupati, Chairman FLEDGE & Former Chairman, National Biodiversity Authority, India, spoke on COVID-19 and Climate Change: Issues and Challenges in Law Centre I organized National Webinar, on 17th May 2020.
- 5. Dr. Rajesh Singh, Deputy Librarian, Central Library, University of Delhi, spoke on Utilizing eresources, Maximizing Learning in Law Centre I organized a webinar, on 18th May 2020.
- Advocate Iram Majid, Mediation Expert and Director of IIAM spoke on 'Role of Young Lawyers in Alternative Dispute Resolution in Law Centre – I organized Webinar on 19th May 2020.

- 1. Mr. K.S. Sharma, Expert on Conflict Resolution, spoke on 'Prevention and Resolution of Conflicts' in Law Centre-I organised Webinar on 20th May 2020.
- 2. Hon'ble Dr. Justice Pushpendra Singh Bhati, Rajasthan High Court, Jaipur, spoke on 'Paradigm Shift in Indian Constitutional Interpretation'. In Law Centre I organized Webinar on 22nd May 2020.
- Mr Chetan S. Dhore, Advocate, Bombay High Court, spoke on 'The Arbitration & Conciliation Act, 1996: Overview, Analysis & Opportunities' in Law Centre- I organized Event as part of the Carrier-oriented Lecture Series on 25th May 2020.
- 4. Prof. Usha Razdan, Former Professor, Faculty of Law, University of Delhi, spoke on 'Theories of Punishment and Right of Hearing before Imposing Punishment' in Law Centre I organized Webinar on 27th May 2020.
- 5. Mr Rajshekhar Rao, Advocate, Supreme Court of India, spoke on 'Conversations on Insolvency and Bankruptcy Code' in Law Centre I organized Webinar on 29th May 2020.

7. Seminar/Conference Presentations - 11

Bharti, Sunanda- 1
Choudhary, Shivika- 1.
Dass, Poonam- 1.
Devi, Pooja- 1.
Mallaya Susmitha- 2.
Misra, Siddhartha- 1.
Munjal-Shankar, Diksha- 1
Yadav, Kavita- 3.

8. Extension and Outreach Activities

- 1. Para Legal Volunteers from Legal Services Society of the Law Centre I, volunteered to help Central District Legal Services Authority (CDLSA) to setup a help-desk, to help people in availing Online E-Coupons for Ration, and for registration of migrants on 24th May 2020.
- 2. Para Legal Volunteers from Legal Services Society of the Law Centre I, volunteered to help CDLSA in setting up a Help Desk for registering complaints related to domestic violence and migrants' registration on 24th May 2020.
- 3. The Para Legal Volunteers from Legal Services Society of the Law Centre I, participated in the Mental Health Awareness and Suicide Prevention Programme with special focus on elderly population at the Community Centre, Green Park Extension, New Delhi on 23rd September 2020.
- 4. The Para Legal Volunteers from Legal Services Society of the Law Centre I set up the help-desks for creating an awareness with regard to domestic violence, child abuse, sexual harassment, fundamental duties, Delhi State Legal Services Authority (DSLSA) Helpline (1516), Vidhik Sewa App, and other services provided by DSLSA.
- 5. The Para Legal Volunteers from Legal Services Society of the Law Centre I participated in the Night Shelter Duty to provide ground report regarding situation of food quality, sanitation etc.,

- and to create awareness regarding 'rain basera' to the homeless, from 10-15 Aug 2020, and 1-30 Nov 2020
- 6. The Para Legal Volunteers from the Legal Services Society of the Law Centre I participated at the Help Desk set at GB Road for creating an awareness among sex workers about their legal rights in the months of September and October in 2020, and in January 2021.
- 7. The Para Legal Volunteers from Legal Services Society of the Law Centre I, participated in the Project Samadhan under which a Counselling Centre was set up at Police Station Burari, Delhi, on 27 February 2021, where the Counsellor, and the Panel Advocate counseled the couples with distressed marriage. In cases where there were no chances of reconciliation, the counsels tried to persuade them to opt for pre-litigation and mediation.

9. Faculty Strength: 50

Law Centre-IIDEPARTMENT OF LAW

Law Centre II as the premiere institution is known for its qualitative teaching, research and other co-curricular and extra-curricular activities. The students of LC II took the legacy a step ahead by becoming the university toppers in a row. LC-II organized several webinars that facilitated interaction of students with distinguished legal luminaries. It organized the 2nd National Conference on Mediation and legal experts all over the country were brought on one platform to enlighten young minds. The magnanimous annual 'Justified' Moot was very successfully organized in virtual mode with tremendous efforts from teachers and students alike.

1. Honours/ Distinctions-

- Ms. Sunita Sevda, Student, 2017-2020, Law Centre-II awarded the Hira Lal Daga Memorial Medal. She was also awarded University Law Union Prize for securing the highest percentage of marks in the LL.B. Examination. She also received Late Justice Sh. Avadh Behari Rohtagi Gold Medal for securing highest marks in Indian Constitutional Law I & Indian Constitutional Law II. She also was the recipient of Sukhdevi Girdharilal Grover Prize.
- 2. Ms. Jasmin Sokhi, Mr. Deepak and Ms. Nandini won the 3rd Jagannath Memorial Moot Court Competition 2021 organised by the JIMS Engineering Management Technical Campus, School of Law on March 12-14, 2021.
- 3. Ms Anjali Singh awarded The Second Best Student Advocate of the Preliminary Rounds at NLU Jodhpur Antitrust Moot Court Competition 2021 (March 6-14, 2021)
- 4. Ms. Sasmitha K. of 1st year won the first prize in 1st National Online Memorial Writing Competition organized by Saveetha School of Law, Chennai. She also received a cash prize of Rs. 3000.

2. Publications- 21

- 1. Ahuja, V.K. (2021). *Public international law*. Second Edn. New Delhi: LexisNexis.
- 2. Ahuja, V.K., Mishra, Ashutosh & Acharya, Ashutosh. (2020). Mediation. Delhi: Satyam Law International.
- 3. Ahuja, V.K. & Vashishtha, Archa. (2020). *Intellectual property rights: contemporary developments* (Eds.). Thomson Reuters.

- 4. Ahuja, V.K. (2020). Contemporary developments in intellectual property rights: A prologue. In Ahuja, V.K. & Vashishtha, Archa (Eds.), *Intellectual property rights: Contemporary developments* (pp 3-18). Thomson Reuters.
- 5. Ahuja, V.K. (2021). Intellectual property rights and human rights. In Salpekar, Rashmi *et.al.*, (Eds.) *Intellectual property rights in the information age* (pp 15-21). Delhi: Satyam Law International.
- 6. Ahuja, V.K. (2020). International legal regime on nuclear disarmament: contemporary developments. *NLUJ Law Review*, 7(1), 142-76.
- 7. Ahuja, V.K. (2020). The Singapore convention on mediation and India. *Indian Journal of Law and Justice*, 11(2), 19-34.
- 8. Ahuja, V.K. (2020). Right to education of persons with disabilities: contemporary developments. *Journal of the National Human Rights Commission*, 19, 163-84.
- 9. Ahuja, V.K. (2020 Winter). Artificial intelligence and copyright: issues and challenges. *ILI Law Review*, 270-85.
- 10. Gupta, Kiran. (2021). Complexities of family laws in modern Sri Lanka. In Justice Jaspal Singh (Ed.), *Religion: State relations and family rights* (pp 170-183). Delhi: Satyam Law International.
- 11. Jha, Anupam.(2020). *International criminal law: theory and practice*, Satyam Law International, New Delhi.
- 12. Jha, Anupam, (2021). Law on letter of credit: An examination of judicial response in India. In V.K. Ahuja (Ed.), *International law and contemporary developments' essays in the honour of professor A.K. Koul*, New Delhi: Satyam Law International.
- 13. Jha, Anupam, (2020). Right to food in Nepal: A brief exploration. In Varun Chhachhar (Ed.). *Right to food in South Asia*, (pp. 39-55) Utrecht, The Netherlands: Acumen Publishers.
- 14. Jha, Anupam. (2019). Reports on international organizations and bodies: United Nations General Assembly (UNGA). In *30 Yearbook of International Environmental Law* (pp 520-527). England: Oxford University Press.
- 15. <u>Kumar, Ashish. (2020)</u> Mediation confidentiality: Need of protection and disclosure, an analysis. In Ahuja, V.K., Mishra, Ashutosh & Acharya, Ashutosh (Eds.), *Mediation* (pp 77-93). Delhi: Satyam Law International.
- 16. Kumar, Ashish. (2020). Methods of (alternative) dispute resolution mechanism in ancient India: Some reflections from Kautilya's Arthashastra. In Goel, A. (Ed.), *Reflections on Ancient Indian Jurisprudence in the Current Social and Judicial Set up*. (pp 99-110). New Delhi: Mohan Law House.
- 17. <u>Vashishtha, Namita. (2020). Social Security and Rights of Migrants under International Law: A Summary, Journal of Emerging Technologies and Innovative Research 7(12), 1238-45.</u>
- 18. Vashishtha, Archa. (2020). Legal protection of softwares: interface between copyright and patent law. In V.K Ahuja and Archa Vashishtha (Eds.), *Intellectual property rights: contemporary development*, Thomson Reuters.
- 19. Solanki, Swati. (2021). Reparative Rights for acid attack survivors under the indian criminal justice system. *Innovation: The Research Concept VI*(2) (E14-E20).

3. Journals Published by the Department—2

- 1. National Capital Law Journal, since 1996 (ISSN 0972-0936). Number of Department/Centre teachers serving on Editorial Board—2.
- 2. Delhi Journal of Contemporary Law, since 2018 (e ISSN 2582-4570).

Number of Department/Centre teachers serving on Editorial Board—2

4. Research Projects- 02

- i. Prof. Anupam, Jha is engaged in a project titled, 'Faculty Development Research Fund' (2020-21) funded by the Institute of Eminence University of Delhi. Grant Sanctioned-INR 1.75 Lakhs.
- ii. Prof. Vageshwari Deswal is engaged in a project on Agrarian Reforms (2019-21) funded by ICSSR. Grant sanctioned-INR 10 Lakhs.

5. Seminars Organized

- 1. Justice A. K. Tyagi, Judge, Punjab and Haryana High Court, Prof. (Dr.) R. N. Sharma, Dean, School of Law, IMS Unison University, Dehradun and Mr. Jatin Kalon, Research Scholar & Guest Faculty, Faculty of Law, University of Delhi, spoke in 'National Webinar on Doctrine of Mens Rea in Socio-Economic Offences With Special Reference to *M. H. George Case*', on February 26, 2021.
- 2. Prof. (Dr.) Poonam Saxena, Hon'ble Vice-Chancellor, National Law University, Jodhpur and Prof. (Dr.) Nishtha Jaswal, Hon'ble Vice-Chancellor, Himachal Pradesh National Law University, Shimla, in 'National Webinar, spoke on Role of Women in Higher Education', on March 8, 2021.
- 3. Prof. (Dr.) Gurdip Singh Bahri delivered a lecture in Webinar of Law Centre-II in celebrations of 'Ozone Day 2020' on September 16, 2020.
- 4. Dr. G. S Grewal, President of Delhi Medical Association, Mr. Zafar Iqbal, Former Indian hockey Player and Mr. Manindra Nath Thakur, Centre for Political Studies, JNU, spoke in National webinar on 'Gandhian thoughts and Fit India' organised by LC-II in collaboration with National Service Scheme, on October 2, 2020.
- 5. Hon'ble Ms. Justice Indira Banerjee, Judge, Supreme Court of India, Hon'ble Mr. Justice A. Muhamed Mustaque, Judge, High Court of Kerala, Hobble Mr. Justice M. Govindaraj, Judge, High Court of Madras, Mr. Roar Thun Waegger, Director, Wagger Negotiation Institute, Norway, Mr. Aloysius Goh, Founder and CEO, Sage Mediation, Singapore and Mr. Vinod Kumar, President, India SME Forum, spoke in International Webinar on 'Online Mediation: Is this the Future of Dispute Resolution? National and International Perspectives', on June 7, 2020.
- 6. Hon'ble Mr. Justice S. Ravindra Bhat, Judge, Supreme Court of India, Dr. Aniruddha Rajput, Member, UN International Law Commission, H. E. Dr. Kennedy Gastorn, Secretary General, Asian-African Legal Consultative Organization and Mr. O. P. Gupta, IAS, Controller General of Patents, Designs and Trademarks, Government of India, spoke in 'International Webinar on Patenting of Pharmaceutical Products and Pandemic COVID-19: Some Reflections on IPRs v. Human Rights', on May 24, 2020.
- 7. Prof. Poonam Saxena, Vice-Chancellor, National Law University, Jodhpur, in 'National Webinar, spoke on Proprietary Rights of Hindu and Muslim Females: Socio-Legal Perspectives', on May 27, 2020.

- 8. Hon'ble Ms. Justice Mukta Gupta, Judge, High Court of Delhi delivered a lecture on 'Admissibility of Electronic Evidence', on June 6, 2020.
- ix. Hon'ble Mr. Justice Rajiv Shakdher, Judge, Delhi High Court as chief guest and, Mr. Amarjit Singh Chandhiok, Senior Advocate, Mr. Satish Abarao Deshmukh, Vice-Chairman, Bar Council of India, Mr. Tejas Karia, Partner, Shardul Amarchand Mangaldas & Co., Ms. Vanita Bhargava, Partner, Khaitan & Co., Mr. Rahul Goel, Partner, Indus Law, Mr. Pradyuman Dubey, Partner, L&L Partners, Mr. Vikrant Singh Negi, Partner DSK Legal, Mr. Rohit Pandey, Advocate, Acting Secretary, Supreme Court Bar Association and Dr. Ranjeet Mehta, Principal Secretary, PHD Chamber of Commerce and Industry, as Panelists, spoke in the 'National Conference on effect of COVID-19 on Legal Profession and the Road Ahead', on June 20, 2020.

6. Seminar/Conference/ Presentations (National / International)/Special Lectures

- 1. Kalon, Mahavir Singh-1
- 2. Gupta, Kiran -11
- iii. Jha, Anupam 7
- iv. Singh, Shourie Anand 3
- v. Solanki, Swati -1.
- vi. Vashishtha, Namita 4

7. Placement Details (Number and percentage of students placed)

02 Students placed with Kapoor & Kapoor Law Firms Delhi. 03 other students placed from 2020 batch in January, 2021.

8. Faculty Strength – 43

9. Other Significant Information

- 1. Kalon, Mahavir Singh, appointed Governor's Representative at Chaudhary Charan Singh University, Sirsa, Haryana (2020).
- 2. Kalon, Mahavir Singh, appointed Governor's Nominee in Academic Council, Chaudhary Ranbir Singh University, Jind Haryana (2020).
- 3. Kalon, Mahavir Singh, appointed Governor Nominee as Member Executive Council, Maharishi Valmiki Sanskrit University, Kaithal, Haryana (2020).
- 4. Ahuja, V.K, appointed as Joint Director, Delhi School of Public Policy and Governance (Institute of Eminence), University of Delhi (2020).
- 5. Deswal, Vageshwari, nominated as member of University Court, BPSW University, Khanpur by the Governor of Haryana (2021).

FACULTY OF MANAGEMENT STUDIES

Major activities and achievements

The Faculty of Management Studies, University of Delhi (FMS) is one of the top management schools in India, enjoying a reputation for excellence both nationally and internationally. FMS attracts the brightest students from all parts of the country, from diverse academic backgrounds ranging from engineering to liberal arts. The students admission policy of FMS positively promotes diversity in terms of gender and socio-economic background. All MBA students are given the opportunity to intern with the most prominent companies in India. FMS is renowned both for the quality of its teaching and for its business and practitioner oriented research. FMS enjoys an enviable student placement record. Apart from the full time MBA program, FMS conducts the MBA Executive program,

the MBA Health Care Administration program, and the Doctoral program. Alumni from FMS occupy top positions in all walks of life including business, academics, administration, policy making and public life, in both the national and international spheres.

Publications

Agarwala, T. Tageja, N., Gill, G., Chaturvedi, V., & Rajput, N. (2020) 'Moderating Effects of Mentoring on Salesperson's Job stress -Job satisfaction Relationship: Study of Banking Sector in India'. Psychology and Education, 57 (9), 3330-3338.

Bardhan A., Das A. K., & Fageda, X. (2020). New regional aviation policy in India: Early indicators and lessons learnt. Journal of Air Transport Management, 88, 101870.

Bardhan, A. & K. Kumar, K., (2020). A choice-based model to reduce primary care load on tertiary hospitals. International Journal of Management Science and Engineering Management, 15(3), 155-164.

Das, D. and Yadav, C. (2020), "A framework of hiring strategy for manpower hiring in a hyper-local food delivery organization", Journal of Advances in Management Research, Vol. 18, No. 1, pp. 113 – 135.

Das, D., Kumar, R. and Rajak, M.K. (2020), "Designing a reverse logistics network for an e-commerce firm: A case study", Operations and Supply Chain Management: An International Journal, Vol. 13, No.1, pp. 48 – 63.

Dey, S, Chatterjee, P. & Jain, S. (2020). Lives and Livelihood: an exit strategy from lockdown, Economic & Political Weekly, 55(22), 38-44.

Dey, S. & Singh, K. (2020) An analysis of student engagement and personal well-being among business management students: a study of a premier business school in India. The International Journal of Business and Management Research, 13(1), 82-92.

Gupta, G. and Nagpal, S. (2020), 'Green Dimensions, Environment Orientation and Size: Impact Assessment on Operational Performance of Manufacturing Firms', Global Business Review, May, 1-14. https://doi.org/10.1177/0972150920919880 .

Gupta, G. and Singharia, K. (2021), Consumption of OTT Media Streaming in COVID-19 Lockdown: Insights from PLS Analysis, Vision Journal of Business Perspective, 25(1), (February), 1-11. https://doi.org/10.1177/0972262921989118.

Kalsie, A., Dhamija J. & Arora, A. (2020). The Measure of Financial Stability and its Impact on Foreign Direct Investment: Evidence from BRIC Nations. International Journal of Accounting & Finance Review; 5(2), 80-93 (ABCD)

Kalsie, A., & Singh, N. (2020). "Impact of Cash Deals and Related Industry Merger on Synergies Gains: A Case of Indian M&A". Indian Journal of Finance and Banking, 4(2), 99-117. (ABCD)

Singh Sengupta, Sunita, & Mondal, T. (2020). Environment and Sustainable Development: Vedic Insights. Shabdarnava - An International Peer Reviewed Refereed Journal of Multidisciplinary Research, 6 (11): 268-271.

Singh Sengupta, Sunita, (2020). Defining and Measuring: Energy Based Leadership Styles and Energy at Workplace. International Journal on Vedic Foundations of Management, 8 (1): 44-64.

Singh Sengupta, Sunita, (2020). Global Cities and Transformation of Boundaries: Integrating "Vasudhaiva Kutumbakam" in a Coronavirus Environment A Concept Note. International Journal on Vedic Foundations of Management, 8 (2): 92-96.

Singh Sengupta, Sunita, and Thakur, V. (2020). Classical Indian Epistemology for Modern Management Researches, International Journal of Vedic Foundations of Management, 8 (2): 26-42.

Singh Sengupta, Sunita, (2021). Integrating Stewardship and Spirituality into Financial Decision Making: A Concept Note. International Journal on Spirituality and Organizational Leadership, 9 (1): 43-60

Singh Sengupta, Sunita, & Mondal, T. (2021). Significance of Vedic education system in present time. International Journal of Sanskrit Research, 7(1): 371-376.

Singh Sengupta, Sunita, (2021). Level 5 Integral Leadership: Transcendence of Mind. The IUP Journal of Organizational Behaviour, 20 (2):7-24.

Singh, K. "Relationship between Demographic Factors and Student Engagement and Personal Well-Being Among Business Management Students, Journal of Knowledge Globalization. Vol.12, No.1, 2020, pp 73-103. ISSN 1938-7717

Singh, K. & Dey, S. "An analysis of student engagement and personal well-being among business management students: A study of a premier business school in India". The International Journal of Business and Management Research, Volume 13, Issue 1, 2020, pp 82-92. ISSN: 1938-0429.

Singh, K & Shrivastava S. . "Workplace Deviance in Virtual Workspace." Strategic HR Review. 2021. Emerald Publishing Limited, ISSN 1475-4398. DOI 10.1108/SHR-09-2020-008

Singhania, M. and Saini, N. (2020), "Revisiting environmental degradation and economic growth nexus using autoregressive distributed lag approach", International Journal of Productivity and Performance Management, 69(8): 1765-1796

Singhania, M. & Saini, N. (2020), Foreign Capital Inflows in Developed and Developing economies: Facts, Feature and Analysis, International Journal of Indian Culture and Business Management, 19(4): 465-490

Singhania, M. and Saini, N. (2021), "Demystifying Pollution Haven Hypothesis: Role of FDI", Journal of Business Research, 123: 516–528

Sinha Pankaj and Grover Naina, (2021). Interrelationship Among Competition, Diversification and Liquidity Creation: Evidence from Indian Banks, Margin—The Journal of Applied Economic Research, Vol 15: 2: 183–204.

Sinha, Pankaj, and Shah, P. et al., (2021) Prediction for the 2020 United States Presidential election using machine learning algorithm: Lasso regression, Journal of Prediction Markets, Vol. 15 No 2, 19-31.

Sinha Pankaj and Sawaliya Priya, (2021). Financial Constraints, Stock Returns and R&D in Indian Stock Market, Vision- The Journal of Business Perspective, Volume: 25 issue: 2, 192-200.

Sinha Pankaj & Grover, N. (2021). Determinants, Persistence and value implications of liquidity creation: An evidence from Indian Banks. Journal of Asia Business Studies. DOI 10.1108/JABS-06-2019-0192.

Sinha Pankaj and Navin Nitin, (2020). Performance of Self-help Groups in India, Economic Political Weekly, March 31, Vol LVI No 5, 36-43.

Sinha Pankaj and Sawaliya Priya, (2020). Behaviour of Asset Pricing in pre and post Crisis Period: evidence from India, Finance India, Vol XXXIV NO.3, 919- 942.

Research Projects

Agarwala, T., Co-Investigator in a research project by INCLEN Trust International and funded by Wellcome Trust International on 'Scoping the path to leadership in health research in India' (Report submitted April, 2020). Funding provided to INCLEN Trust International, New Delhi.

Singh Sengupta, Sunita, (December 2019) Ongoing research project on "Vedic Foundations of Indian Management" sponsored by ICSSR in for a period of two years under the Research Programme Scheme.

Singhania Monica, Principal Investigator, ICSSR Impress Project on ESG Disclosures: Comparative Sustainability Analysis of Developed and Developing Countries, June 21, 2019 onwards ongoing research project

Seminar/Conference Presentations (National/International)

Bardhan A.K. "Emerging optimization problems in transportation and Logistics", 26th International Conference of International Academy of Physical Sciences (CONIAPS-XXVI) on Convergence of Computing, Statistics and Operations Research - Empowering Youth for Sustainable Future held on 18th -20th December, 2020 organized by the Department of Mathematics and Computer Science, VSK University, Ballari.

Dey, S, Guest of Honor and Judge at the International Conference on Dimensions of a Pandemic: The Covid-19 Crisis. 11-12 February 2021. St. Xavier's College, Jaipur.

Gupta, G, Delivered a lecture on 'Revisiting Marketing in Covid-19 Era' in the Webinar organized by Dyal Singh College, University of Delhi on 14th May, 2020.

Gupta, G, Delivered a lecture on 'Reviving Post Pandemic: Opportunities and Impediments' in the Webinar organized by Shivaji College, University of Delhi on 16th May, 2020.

Gupta, G, Delivered a lecture on 'Relationship Marketing' in the Webinar organized by Shyama Prasad Mukherji College, University of Delhi on 31st October, 2020.

Kalsie, A., "Nexus between financial liberalization, financial stability index and crises" Conference Proceedings published by Taylor & Francis (T&F) as outcome of MDIM International Conference ICCBP 2021.

Kalsie, A., "Relationship Between Portfolio Flows and Currency Crisis: An Empirical Analysis" Conference Proceedings to be published by Taylor & Francis (T&F) as outcome of MDIM International Conference ICCBP 2021.

Kalsie, A., "Impact of Method of Payment on Acquirer Liquidity And Leverage in Merger & Acquisitions: A Case of Indian M&A" MDIM International Conference ICCBP 2021.

Singh Sengupta, Sunita, Participated as a panelist in the Panel Webinar on 28th April,2020 on "Future of Higher Education in Post COVID-19 Times", organized by Vice Chancellor. Amity University, Manesar Campus.

Singh Sengupta, Sunita, Delivered an online lecture on "Use of E-learning Strategies for Effective Mentoring, Spiritual Well-being and Peaceful Co-existence" on May, 8,2020 at 1.45 p.m.as a resource person in the two-day webinar entitled 'Role of E-learning during Lockdown: Academic Challenges and the Road Ahead' organized by Patna Women's College, Patna.

Singh Sengupta, Sunita, Organized an online lecture for FMS Ph.D. students on "Management and Liberal Arts" by Prof. Sanjoy Mukherjee, IIM Shilong on May 9, 2020 at 12.30 p.m.

Singh Sengupta, Sunita, Participated as a Panelist in a Webinar on "Towards a Meaningful University Education: Life Beyond High School" organized by Kumar Mangalam University on Saturday (May 16, 2020) at 12.00 p.m.

Singh Sengupta, Sunita, Participated as a speaker in the e-conference on "Rethinking Management Education" organized by the Department of Business Administration, Lucknow University on June 30,2020 from 4.00p.m.-4.30p.m.

Singh Sengupta, Sunita, Was invited as Chief Guest to deliver the keynote address in the National Level One Week E-Faculty Development Program on "Research Methodology and Data Analysis Using SPSS", July 6,2020 at 2.00p.m. organized by School of Management and Commerce, KR Manglam University.

Singh Sengupta, Sunita, Delivered an invited lecture on "Literature and Management" in Two Days National E-Conference on 'Reflections on Literature and Interdisciplinarity: Future of Research' organized by Pragyanam – Indica during August 8-9,2020.

Singh Sengupta, Sunita, Organized a Panel Discussion on "National Education Policy 2020: Prospects and Challenges" in collaboration with Department of Philosophy, University of Delhi on August 20, 2020 at TEN News digital platform from 3.30p.m- 4.30p.m.

Singh Sengupta, Sunita, Was invited as a speaker for the web meeting on New Education Policy during August 23-24, 2020 by Veda Research Institute.

Singh Sengupta, Sunita, Organized a Panel Discussion on "Impact of New Education Policy on Business Education" in collaboration with Department of Management Studies, Pondicherry University on September 5, 2020 at TEN News digital platform from 12.30p.m. 1.30p.m.

Singh Sengupta, Sunita, Was invited as a speaker in the Webinar on "Indian Identity and Cultural Continuity" during September 19-20, 2020 organized by Veda Research Institute, Tamil Nadu.

Singh Sengupta, Sunita Started a 9 webinar series from October 1-10, 2020 on "Vedic Foundations of Indian Management" as a part of my ICSSR Research Project.

Singh Sengupta, Sunita Delivered an invited online lecture on "Ahimsa: The Foundation of Cosmic Harmony" on October 3, 2020 organized by Association of Indian Philosophers International.

Singh Sengupta, Sunita Delivered an invited online lecture on "Compassionate Leadership: Insights from Lord Sri Ram" on November 23, 2020 in the Virtual Conference on "Sri Rama: An Embodiment of Compassion" organized by Association of Indian Philosophers International.

Singh Sengupta, Sunita Organized a Virtual International Conference on Integrating Spirituality and Organizational Leadership in Post Covid Times" on behalf of ISOL Global Foundation in collaboration with Florida International University, USA during December 17-19, 2020.

Singh Sengupta, Sunita Delivered an invited online lecture on "Compassionate Leadership: Insights from Budha" on January 16, 2021 in the Virtual Conference on "Lord Budha: An Epitome of Mahakaruna" organized by Association of Indian Philosophers International.

Singh Sengupta, Sunita Participated as a Panelist on the invitation of Dr. Stephanie Doscher, Director COIL – Florida International University as a panelist in the EURASIA – Higher Education Summit, Virtual Conference on March 5, 2021.

Singh Sengupta, Sunita Delivered a lecture on March 8, 2021 as an invited speaker in the Virual National Conference on Psychology in India and its Future Prospects organized by Lalit Narayan Mithila University.

Singh Sengupta, Sunita Delivered a lecture on Ancient Indian Contributions To Management Studies on March 12, 2021 in a 3 Day National Workshop on Indian Knowledge Systems and Higher Education with Reference to NEP 2020 organized by Department of Sanskrit, South Delhi Campus and Gandhi Bhavan during March 11-13, 2021.

Singh Sengupta, Sunita Delivered a lecture on "Creating Inclusive Organizations" on March 15, 2021 in the Refresher Course in Business Studies organized by Department of Business Management under UGC-HRDC of University of Calcutta.

Singh Sengupta, Sunita Delivered an invited online talk on "Vedic Foundations of Indian Management" in Dr. Vedavyas Memorial Lecture Series on April 11, 2021 at 7.30p.m.

Singh Sengupta, Sunita Participated as a Panelist in the virtual Panel Discussion on "The Challenges and Promise of Teaching Public Administration" on April 15, 2021 at the 2021 Annual Conference of American Society of Public Administration.

Singh Sengupta, Sunita Presented a paper entitled, "Integrating Spirituality and Organizational Leadership in Supply Chain Management: A Case Study of AURA" On May 2, 2021 in the online POMS 31st Annual Conference on Building a Sustainable, Responsible, and Resilient Global Future during April 30- May 5, 2021.

Suneja V (2020) "Forward looking vision for Higher Education with reference to the National Education Policy / Open Digital Education", National Education Policy and Online Digital Education: Ideas and Possibilities, Institute of Life Long Learning, University of Delhi, 12 October

Suneja V (2020) "Mr Sanjeev Bikchandani in Conversation with Prof Vivek Suneja", Innovator Talk Series, E Summit, March 7

Suneja V (2020) "The Future of Remote Work: The Social Versus The Technological", Entrepreneurship Conference, E Summit, March 7

Suneja V (2020) "Leadership in Turbulent Times: The World is Reset: What Lies Ahead", Dean's Address, FMS Founder's Day International Webinar, December 19

Suneja V (2021) "Philosophical Methods in Interdisciplinary Teaching", Philosophical Methodologies in Higher Education: Research and Teaching, Ramanujan College, University of Delhi, 24 March

Suneja V (2021) "Climb Every Mountain: Life's Lessons for Leading in Crisis", Dean's Address, FMS Forum, March 6

Suneja V (2021) "Leadership, Creativity and Commerce", Inaugural Address, FMS Forum, 13 February

Suneja V (2021) "National Education Policy 2020", Invited Lecture, Ramanujan College, University of Delhi, 22nd January

Other Inter-Institutional Collaboration

Sharma Sunil, Successfully delivered and completed Executive Leadership Development Program (ELDP) for M/S India Mart InterMesh Ltd, Noida and management development programs for M/S WAPCOS, Gurugram.

Placement Details (Number and percentage of student placed)

Number and percentage of students placed: 214 & 100%

Number of Companies visited for campus recruitment: 102

Extension and Outreach Activities

100+ Leadership Talk series Arthashastra (Guest Lectures), Corporate Competitions, Pre- placement talks etc.

Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.: 09

Faculty Strength: Nineteen (in post)

Other Significant Information

Gupta, G, Delivered 24 video lectures (30 minutes each) on 'Personal Selling' for Consortium for Educational Communication (An autonomous Inter-University Centre of UGC on electronic media).

Gupta, G, Completed FDP on 'Research Methodology and Technology Led Paradigm Shift in Teaching and Learning Process', P.G.D.A.V (Eve) College, University of Delhi, 4-12th August, 2020, New Delhi.

Gupta, G, Completed FDP on 'ICT Enhanced Teaching Learning and Creating MOOCs', Ramanujan College and Shivaji College, 18-25th August, 2020, New Delhi.

Gupta, G, Completed Workshop online Workshop on Leadership Development Programme (LDP-2) on the theme 'Personality Development and Leadership Skills', CPDHE, University of Delhi, 19–25th January, 2021, New Delhi.

Sharma Sunil, Chaired the Expert Group on review of Social Impact Assessment (SIA) of GoI Scheme of Delhi Mumbai Industrial Corridor (DMIC) and Eastern Dedicated Freight Corridor, Infrastructure Deptt., Govt of UP, Greater Noida.(2020-21)

Suneja V, Chairperson, New Education Policy Implementation Committee, University of Delhi

FACULTY OF MATHEMATICAL SCIENCES DEPARTMENT OF COMPUTER SCIENCE

Major Activities and Achievement

The Department offers two post graduate degree programmes MCA & M.Sc. Computer Science and a strong Ph. D. program with about 50 currently enrolled research scholars spanning research interests in diverse branches of Computer Science (Artificial Intelligence, Parallel Computing, Databases, Data Mining, Software Engineering, Computer Graphics, Networking, Web Technologies, Information Security, Algorithms and Bioinformatics). The department is amongst the first such departments that adopted the online teaching mode quickly during the COVID-19 pandemic and subsequent lockdown Faculty members reached out to the students for their problems to increase their participation in the classes. For easy accessibility of the study material, the faculty members shared video lectures/relevant study material with the students on Google classroom as soon as the license was made available by the university. Five new faculty members joined the department in the months of November/December

The details of the activities conducted for research scholars:

S.No.	Name of the Research Scholar	Date	Topic of discussion
1.	Ms. Deepali Bajaj	3/3/2021	Microservice and its Patterns

<u>Placements</u>: In all 60 jobs offers were received for MCA and M.Sc. students. Reputed software companies like Amazon, Cvent, Paytm, Accolite, Axtria, Nagarro, Thorogood, Infoedge, EYX, IVP, Josh Technologies, Truminds, To the new, Vectoscalar Technologies, EY etc. participated in campus placement process. Minimum and maximum salary packages were Rs. 3.5 LPA and Rs.30.5 LPA.

University of Delhi: Annual Report 2020-21

Student Activities: 16th edition of the Annual Technical Fest "SANKALAN" organized by the students of the Department of Computer Science. The festival was attended by 900 students (online) of Computer Science from colleges all over India.

Journal Publications

S.No	Department	Publication in	Publication in	Book	Book	Book	Total
		Peer-Reviewed	Peer-Reviewed	(International	(National	(Local	
		Journal	Journal	Publisher)	Publisher)	Publisher)	
		(International)	(National)				
1	Computer	7					7
	Science						

Seminar/Conference Presentations (National)

S.No	Expert Name	Date	Designation	Affiliation	Title of the Talk
1	Dr. Vikas Kumar	24-03-2021	Assistant Professor	Department of Computer Science, University of Delhi	Multi-label Classification with Matrix Factorization

Placement Details (Number and percentage of students placed)

- Number and percentage of students placed: Total number of students participate in placement drive 88/97, placed 60 students 82.50%
- Number of Companies visited for campus recruitment: 23

Extension and Outreach Activities

Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.: 06

Faculty Strength Permanent – 10

DEPARTMENT OF MATHEMATICS,

Major Activities and Achievements

The Department of Mathematics at the University of Delhi was established in 1947 and ever since its inception, the department has worked towards becoming a center of excellence for advanced research in various areas of Mathematics including Algebra, Analysis, Topology, Differential Equations ,Mathematical Programming. A strong commitment of the department to excell in teaching and research along with a practical approach towards education has attracted talented students from all over the country. The Department offers M.A./M.Sc. and M.Phil./Ph.D. programs in Mathematics. It is dedicated to providing the students with the environment and the infrastructure that helps them develop the potential for scholarship, creative work, professional realization, and service. Department has been receiving various support and grants including UGC's SAP-DRS, SAP-DSA, DST-FIST and DST-PURSE. The Department is ranked 10th in QS World University Ranking in India in 2021.

Honours/Distinctions

Ruchi Das is an editorial board member of Asian -European Journal of Mathematics, World Scientific.

<u>Tarun Das served as an expert in selection committees to appoint permanent faculties outside University of Delhi domain.</u>

Ajay Kumar joined the department as a NASI (The National Academy of Sciences, India) Senior Scientist Platinum Jubilee Fellow, after his retirement.

<u>Lalit Kumar is a member of editorial board of International Journal of Wavelets Multiresolution and Information Processing (IJWMIP). Publisher: World Scientific, Singapore.</u>

<u>Lalit Kumar is a member of editorial board of Mathematical Journal of Interdisciplinary Sciences. Publisher:</u> Chitkara University, Punjab.

C.S. Lalitha is University Representative on the Governing Body of Shaheed Bhagat Singh college w.e.f. March 27, 2020.

Pratima Rai is a member of Advisory committee of the Vintage: Journal of Thematic Analysis.

Sachi Srivastava was awarded INSA Teachers Award 2020.

Publications

S.No	Department	Publication in	Publication in	Book	Book	Book	Total
		Peer-Reviewed	Peer-Reviewed	(International	(National	(Local	
		Journal	Journal	Publisher)	Publisher)	Publisher)	
		(International)	(National)				
1		17	34				51

Research Projects

S1.	Project Title	Year/Pe	Funding Agency	Amount	
No.		riod		sanctioned	
				(yearly basis)	
1	"On Some Ring Extensions"- Atul	2019-21	DST-SERB (MATRICS	Rs 2,20,000/-	
	Gaur		Scheme)	,,,-	
	"A Study of Center and Closed Lie	2020 21	Faculty Research Programme	D = 1.75.000/	
2	Ideals of Vector-Valued Beurling	2020-21	Grant-IOE, University of Delhi	Rs. 1,75,000/-	
	Algebras "- Ranjana Jain		•		
3	"Discrete Gabor Frames and Their	2020-21	Faculty Research Programme	Rs. 1,75,000/-	
	Applications"- Lalit Kumar		Grant-IOE, University of Delhi		
4	"Scalarization Aspects in Vector and	2018-21	DST-SERB (MATRICS	Rs 2,20,000/-	
	Set Optimization"- C. S. Lalitha	2010 21	Scheme)	165 2,20,000/	
	"First and Second Order Constraint		Faculty Research Programme	D 4.77.000/	
5	Qualifications in Scalar and Vector	///////////////////////////////////////	//////-///	Grant-IOE, University of Delhi	Rs. 1,75,000/-
	Optimiztion"- C. S. Lalitha		Grant 102, Chrycisky of Benn		
	"Finite Group Actions on Product of				
6	Spaces of Type (0,0) and Borsuk-Ulam	2018-21	DST-SERB (MATRICS	Rs 2,20,000/-	
	Type Theorem for Product of	2010-21	Scheme)	Ks 2,20,000/-	
	Projective Spaces"- H. K. Singh				
	"Index of Finitistic Spaces and				
7	Transformation Groups on Projective	2018-21	DST-SERB (EMR Scheme)	Rs 5,83,990/-	
	Space"- H. K. Singh		·		

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8	"Study of the dynamics of exact solutions for the nonlinear evolution equations using Lie symmetry analysis"- Sachin Kumar	2020-23	DST-SERB (EEQ Scheme)	Rs 6,91,553/-
9	"Lie Symmetry Analysis and Dynamics of Physical Phenomena for Nonlinear Evolution Equations"- Sachin Kumar	2020-23	DST-SERB (MATRICS Scheme)	Rs 2,20,000/-
10	"Existence of a solution and controllability of functional differential systems"- Surendra Kumar	2020-21	Faculty Research Programme Grant-IOE, University of Delhi	Rs. 1,75,000/-
11	"Weighted Composition Operators that are close to an Isometry"- Sachi Srivastava	2020-21	Faculty Research Programme Grant-IOE, University of Delhi	Rs. 1,75,000/-
12	"Quantum Dynamical Semigroups and Perturbations"- Sachi Srivastava	2020-23	DST-SERB (MATRICS Scheme)	Rs 2,20,000/-
13	"Asymptotics of Solutions of Linear and Non-Linear Delay Differential Equations"-Sachi Srivastava	2020-23	SERB Core Research Grant	Rs. 10,59,468/-

Seminars and Colloquia Organized

Department of Mathematics organized an online Research Scholar seminar for M.Phil. Students on September 28, 2020. (Organizer: Atul Gaur)

Seminar/Conference Presentations

Ruchi Das: 2

Plenary talk on "Broadening Horizons of Transitivity and The Butterfly Effect in Dynamical Systems" at the Annual Conference of Indian Women and Mathematicians during March 27-28, 2021.

Invited talk on "Contributions from Indian Mathematicians at a glance" at the National Mathematics Day, H.P. University, Shimla on December 22, 2020.

Tarun Das: 2

Invited talk entitled "Sightseeing Stability in Pointwise Dynamics" at International Conference on Recent Trends in Mathematics, Math Vision 2020 Project, CNU, Korea on August 13, 2020.

Delivered two Lectures entitled "Sub-shifts of finite type" and "Transitivity leading to Smale's Theorem" in the Refresher course on Mathematics at the Department of Mathematics, Jammu University on 4th and 5th January 2021.

Atul Gaur: 1

Presented a paper entitled "Finite ring with *n* zero divisors" in the first National conference on "Applications on Mathematical Tools in Social Science and Sciences (Online)" held at Zakir Hussain college, University of Delhi during on October 17-18, 2020.

C. S. Lalitha: 4

Lecture on "Existence Theorems and Optimality Conditions for Minimization Problems", in the Refresher Course in Mathematics, Teaching Learning Centre, Ramanujan College, University of Delhi, on March 27, 2021.

Lecture on "Introduction to Variational Inequalities", in the Workshop on Nonlinear Optimization, Variational Inequalities and Artificial Intelligence, Manay Rachna University, on March 21, 2021.

Lecture on External and Internal Stability in Set Optimization, International Webinar on Advances in Operational Research for Optimal Humanosphere: 20-22, November, 2020 jointly organized by ORSI Tirupati Chapter, Indian Society for Probability and Statistics (ISPS) and S.V. University, Tirupati.

Lecture on Contributions of Mathematics to Sciences and Social Sciences National Conference on Applications of Mathematical Tools in Social Sciences and Sciences, Zakir Husain Delhi College, University of Delhi, October 17-8, 2020.

Lecture on Convex Optimization and Applications during The Digital International Conference on Applied Mathematical Sciences (DICAMS-2020) jointly organized by Department of Applied Sciences, Parul University, Vadodara and The Department of Mathematics, Gujarat university, Ahmedabad held on September 26-27, 2020.

Pratima Rai: 2

Invited talk on "Numerical Analysis of a class of singularly perturbed parabolic turning point problem with time delay" at "International Conference on Integrated Interdisciplinary Innovations in Engineering (ICIII-2020) from August 28-30, 2020 organized by University Institute of Engineering and Technology, Panjab University, Chandigarh under TEQIP-III.

Invited talk on "Scientific Research and Various Research Tools" at "Online National Level two day workshop on Research Methodology" held at Department of Mathematics, Goswami Ganesh Dutt Sanatan Dharam College, Hariana, Hoshiarpur, Punjab from 9-10th October, 2020.

Sachi Srivastava: 2

Invited talk on "Delay Semigroups and Stability" on occasion "Luma Day on Differential Equations and Semigroups" at the Universidad de Zaragoza (Spain) on February 1, 2021.

Invited talk on "Delay Semigroups and Polynomial Stability" at the Department Seminar, University of Newcastle on February 15, 2021.

Other Inter-Institutional Collaboration

Ruchi Das collaborated with Sejal Shah, Department of Mathematics, Faculty of Science, The M.S. University of Baroda, Vadodara.

Ruchi Das collaborated with Xinxing Wu, School of Mathematics and Statistics, Guizhou University of Finance and Economics, Guiyang, P. R. China

Atul Gaur collaborated with Hai Q. Dinh, Kent State University, USA.

Atul Gaur collaborated with Abhay Kumar Singh Indian Institute of Technology (ISM) Dhanbad

Ranjana Jain collaborated with Purnima Gupta, Department of Mathematics, Sri Venkateswara College, University of Delhi, Delhi.

Ajay Kumar collaborated with V Ravichandran, Department of Mathematics National Institute of Technology, Tiruchirappalli, Tamil Nadu, India.

Sachin Kumar collaborated with Behzad Ghanbari, Department of Basic Science, Kermanshah University of Technology, Kermanshah, Iran.

Sachin Kumar collaborated with Dumitru Baleanu, Institute of Space Sciences, Magurele-Bucharest, Romania.

Arvind Patel collaborated with Shobha Bagai, CIC, University of Delhi, Delhi.

Sachi Srivastava collaborated with Prof. Ralph Chill, TU Dresden, Dresden, Germany.

Sachi Srivastava collaborated with W. Arendt, Institute of Applied Analysis, University of Ulm, Ulm, Germany.

Sachi Srivastava collaborated with I. CHALENDAR Université Paris-Est, Marne-la-Vallée, France.

Sachi Srivastava collaborated with Prof. Franco Fagnola, Politechnico di Milano, Milan, Italy.

Sachi Srivastava collaborated with Prof. K. B. Sinha, JNCASR, Bangalore, India.

Placement Details (Number and percentage of students placed)

The department handles all aspects of placements of the students through its placement cell Ananya - the Placement Cell. The cell serves to act as an interface between the industry and the students. Ananya - the Placement Cell assures logistic support to the visiting companies at every stage of the placement process; right from arranging for tests, pre-placement talks and conducting final interviews. The placement cell also inculcates within students the ability to handle stress, pressure and tackle all emotional ambiguities through conducting workshops, interactive sessions with professionally trained people. The aim is to prepare our students to face real world challenges.

Total 27 (21 from Current batch & 6 from Old Batch) students were placed out of 108 students registered with the placement cell. Total 26 companies visited us (online). The average CTC offered to the students was 6.01 lakhs per annum while the highest CTC offered was 14.8 lakhs per annum.

Extension and Outreach Activities

Tarun Das is the Treasurer of the Indian Society for History of Mathematics.

Tarun Das delivered invited talk during Workshop on Analysis conducted by Department of Mathematics, Hindu College held on March 2, 2021.

Ranjana Jain delivered an invited talk entitled "Linear algebra behind the web search" in the Webinar "Trisectrix" at the Sri Venkateswara College, University of Delhi on January 28, 2021.

Ajay Kumar delivered two invited lectures on "Continuity and Uniform continuity" and "Introduction to Fourier Analysis", Jammu University during January 7 and January 12, 2021.

Ajay Kumar delivered two invited lectures on "Continuity and Uniform continuity" and "Introduction to Fourier Analysis", Panjab University. Jan. 19 and Jan. 20, 2021.

Surendra Kumar attended Refresher Course in Mathematics organized by Teaching Learning Centre, Ramanujan College, University of Delhi, during March 16-30, 2021.

C. S. Lalitha chaired the valedictory session at 53rd Annual Convention of the Operational Research Society of India and International Webinar "Role of Operations Research during Pandemic" in association with Operational Research Society of Nepal on December 20, 2020.

Pratima Rai participated in two week refresher course on "Sciences of Yoga and Meditation" organized by Center for Professional Development in Higher Education, HRDC, University of Delhi, from June 17-30, 2020.

Pratima Rai participated in online Faculty Development Programme on "Technology and Instructional Reforms with reference to Online Teaching, Learning & Evaluation" organized by "Centre for Academic Leadership and Education Management (CALEM), Panjab University, Chandigarh" from July 15-20, 2020.

Pratima Rai participated in online Faculty Development Programme on "E-content Generation and Managing Online Teaching" organized by "Aurbindo College (E), University of Delhi, in collaboration with Mahatma Hansraj, faculty Development Centre, Hansraj College, University of Delhi", from 11th-17th December, 2020.

H. K. Singh participated in online Refresher Course on Mathematics/ Operational Research/ Statistics and Computer Science on the theme 'From Zero to Infinity: A Journey of Knowledge held at the Centre for Professional development in Higher Education, University of Delhi, Delhi from December 2–15, 2020.

Sachi Srivastava is serving as the Executive Committee, Indian Women and Mathematics (initiative of NBHM).

Number of M.Phil./Ph.D. Awarded

Ph.D. - 15 M.Phil. - 05

Faculty strength

Permanent Faculty - 20

NBHM Visiting Professor- 01

Guest Faculty - 15

Post Doctoral Student - 01

Prof. Ruchi Das

Department of Operational Research

Major Activities and Achievements

Department of Operational Research since its inception has established itself as a leading centre for education and research in the area of optimization and data analytics. To ensure a holistic development of the students, apart from regular teaching and research, the department organizes a wide range of scholarly activities every year.

Publications

S.No	Department	Publication in	Publication in	Book	Book	Book	Total
		Peer-Reviewed	Peer-Reviewed	(International	(National	(Local	
		Journal	Journal	Publisher)	Publisher)	Publisher)	
		(International)	(National)				
1	Operation	25	29				54
	Research						

Number of Department Teachers serving as Editor(s)/Member(s) of Editorial Board

Professor Chandra K. Jaggi

Chief-Editor, International Journal of Scientific Research in Mathematical and Statistical Sciences, Published by International Scientific ResearchOrganization for Science, Engineering & Technology.

Associate Editor, OPSEARCH, Operational Research Society of India, Springer.

Associate Editor, International Journal of Systems Assurance Engineering and Management, Springer.

Associate Editor, The Gstf Journal of Mathematics, Statistics and Operations Research.

Member, Editorial Board, International Journal of Systems Science: Operations & Logistics, Taylor & Francis Group Ltd.

Member, Editorial Board, International Journal of Services Operations and Informatics, Inderscience Publishers Ltd.

Member, Editorial Board, American Journal of Operational Research, Scientific and Academic Publishing.

Member, Editorial Board, International Journal of Enterprise Computing And Business Systems.

Member, Editorial Board, Research Journal of Management Sciences, International Science CongressAssociation.

Professor P. C. Jha

Delivered Invited talk on Sustainable Supply Chain: An Overview at Indo-French Seminar on Optimization, Variational Analysis and Applications, Banaras Hindu University, Varanasi, U.P., from February 2-4, 2020.

Professor Pankaj Gupta

Associate Editor, Information Sciences (Elsevier).

Associate Editor, IEEE Transactions on Fuzzy Systems (IEEE Computational Intelligence Society).

Editor, Applied Soft Computing (Elsevier).

Associate Editor, International Journal of Fuzzy Systems (Springer).

Professor PreetiWanti Srivastava

Delivered invited talkonPartially Accelerated Reliability Demonstration Tests For A Two-Component Parallel System Under Periodic Inspection at International Virtual Conference on Advanced Statistical Techniques in Business and Industry A Regional Virtual Conference of International Society for Business and Industrial Statistics (ISBIS)In Conjunction with the Silver Jubilee Anniversary of the Department of Statistics, Cochin University of Science and Technology.(CUSAT) during Dec. 28-30, 2020

Professor Ompal Singh

Associate Editor of International Journal of System Assurance Engineering and Management, Springer.

Co-edited a book titled "Strategic System Assurance and Business Analytics", Asset Analytics Series, Springer Publications, published on June 2020 (https://doi.org/10.1007/978-981-15-3647-2).

Guest Edited a Special Issue on entitled "Quality, Reliability, IT and Business Operations" in International Journal of System Assurance Engineering and Management, Springer (Scopus, ESCI indexed). The issue got published on July 2020 (https://link.springer.com/journal/13198/volumes-and-issues/11-2/supplement).

Dr. Aditi Khanna

Guest Editor, Special Issue, Emerging Trendsin Inventory, SupplyChain & ReliabilityModeling in Yugoslav Journal of Operations Research, Vol. 30(3), 2020.

Member, Editorial Review Board, Amity Journal of Operations Management

Dr. Adarsh Anand

Guest Editor, Special Issue, Mathematical techniques applied in engineering and healthcare, Mathematics in Engineering, Science and Aerospace (MESA), Vol 10. (2), 2019.

Editorial Review Board, Amity Journal of Operations Management.

Editorial Board Member, International Journal of System Assurance and Engineering Management

Editorial Board Member, International Journal of Mathematical Engineering and Management Science.

Editorial Board Member, Journal of Graphic Era University.

Dr. VandanaKhaitan

Member of Editorial Review Board, Amity Journal of Operations Management

Research Projects

Professor C. K. Jaggi, Principal Investigator, sanctioned by Institute of Eminence, University of Delhi for the project "Humanitarian supply chain modelling to minimize the operational costs", Dec 31, 2020 to March 31, 2021, Rs. 3.50 Lakh.

Professor Pankaj Gupta

Principal Investigator, sanctioned SERB-DST Mathematical Research Impact Centric Support (MATRICS) for the project "Development of Multi-criteria Optimization Models under Uncertainty for Software Component Evaluation and Selection in the Component-Based Software Development", 2019-2022, Rs. 6.6 Lakh.

Principal Investigator, sanctioned project on "International Asset Allocation" jointly with Prof. Wei-Guo Zhang, South China University of Technology, Guangzhou, China from National Natural Science Foundation of China (No. 71720107002).

Prof. Pankaj Gupta, Principal Investigator, sanctioned by Institute of Eminence, University of Delhi for the project "Reimagining Urban Transportation using Artificial Intelligence", Dec 31, 2020 to March 31, 2021, Rs. 1.75 Lakh.

Dr. Mukesh Kumar Mehlawat, Principal Investigator, sanctioned SERB-DST Mathematical Research Impact Centric Support (MATRICS) for the project "Development of Multi-Criteria Decision Making Approaches for Real-World Decision Situations under Uncertainty", 2020-2023, Rs. 6.6 Lakh.

Dr. Mukesh Kumar Mehlawat, Principal Investigator, sanctioned by Institute of Eminence, University of Delhi for the project "Higher-Moment Portfolio: Optimization under Uncertainty", Dec 31, 2020 to March 31, 2021, Rs. 1.75 Lakh.

Dr. Aditi Khanna, Principal Investigator, sanctioned by Institute of Eminence, University of Delhi for the project "Sustainable inventory modelling with product recovery and waste management", Dec 31, 2020 to March 31, 2021, Rs. 1.75 Lakh.

Dr. VandanaKhaitan, Principal Investigator, sanctioned byInstitute of Eminence, University of Delhi for the project "Dependability analysis of 5G communication", Dec 31, 2020 to March 31, 2021, Rs. 1.74 Lakh.

Dr. Adarsh Anand, Principal Investigator, sanctioned by Institute of Eminence, University of Delhi for the project "Application of multi criteria decision making techniques for solving software engineering problem", Dec 31, 2020 to March 31, 2021, Rs. 1.74 Lakh.

Dr. Kaushal Kumar, Principal Investigator, sanctioned by Institute of Eminence, University of Delhi for the project "Antecedents and inhibitors for use of primary care services and their implications for Ayushman Bharat - Pradhan Mantri Jan Arogya Yojana", Dec 31, 2020 to March 31, 2021, Rs. 1.75 Lakh.

Seminars Organized

Professor Ompal Singh

General Co-Chair in the International Conference on Innovation Practices in Technology and Management (ICIPTM-2021 & INBUSH ERA-2021), Amity University, Noida, India, 17-19 Feb. 2021.

General Co-Chair in the International Conference on Intelligent engineering and Management (ICIEM), Amity University, London WC, UK, June 2020.

Dr. Adarsh Anand, Member, Organizing committee, 4th International Conference on Mathematical techniques in Engineering Applications, Dehradun, 4-5 December, 2020 (Organized by Graphic Era Hill University, Dehradun, India. Funding Agency: Graphic Era University).

Seminar/Conference Presentations

Professor Chandra K. Jaggi: 9

Delivered talk in a Three Days International Webinar On "Mathematical Modelling in the context of COVID-19 and the Global Crises" Mathematics Department and IEEE Student Branch, National Institute of Technology (NIT), Agartala, October 12-14, 2020 (Online).

Delivered talk in aInternational Conference on Soft Computing Techniques and Cost Optimization for Inventory Management, Department of Mathematics, Techno India University, West Bengal, October 10 – 11, 2020 (Online).

Delivered talk in a Digital International Conference on Inventory Modeling, Department of Mathematics, Gujarat University, Ahmedabad, August 22-23, 2020 (Online).

Delivered talk in a One week FDP "Applications of Optimization Techniques in Science and Engineering" B K Birla Institute of Engineering & Technology, Pilani, August 23 -27 2020. (Online).

Delivered talk in a Five Day E-Workshop on "Stochastic Modelling, Optimization and Soft Computing (SMOSC-2020)" Manipal University, Jaipur, August 10-14, 2020 (Online).

Delivered talk in a The Role of Applied Mathematics in Present Global Crises, Department of Applied Mathematics with Oceanology and Computer Programming, Vidyasagar University, Midnapore, August 5-7, 2020 (Webinar).

Delivered talk in a On Optimization in Inventory Management, Department of Mathematics, Assam University, Silchar, July 25-26, 2020 (Webinar).

Delivered talk in aInternational conference on Advancement in Interdisciplinary Research, Amity Institute of Information Technology, AUUP, Noida, July 24 – 26, 2020 (Webinar).

Delivered talk in a Two Day International e-Conference On "Emerging issues in Supply Chain Management: Interruption, Opportunities and Challenges" Department of Mathematics, KaziNazrul University, Asansol, June 6-7, 2020 (Webinar).

Professor Pankaj Gupta:4

Invited talk, "Impact of COVID-19 on supply chain operations in India: An NLP Approach" in the International Symposium on Computational Operations Research and Algorithmic Game Theory organized by Indian Statistical Institute, Delhi Centre, India, 31st March, 2021.

Invited talk, "Fuzzy Optimization" in the National Workshop (FDP) on Artificial Intelligence and Machine Learning-Basics and Applications organized by CALEM, Department of Education, Panjab University, Chandigarh, India, 23rd December, 2020.

Invited talk, "Impact of COVID-19 on supply chain operations in India" in the Seminar organized by Department of Mathematics, Panjab University, Chandigarh, India, 22nd July, 2020.

Invited talk, "An integrated multi-criteria optimization framework for sustainable transportation planning" in the International Conference on Recent Trends in Mathematics and Its Applications to Graphs, Networks and Petri Nets organized by School of Computational and Integrative Sciences, Jawaharlal Nehru University, New Delhi, 21st July, 2020.

Dr. Mukesh Kumar Mehlawat: 1

Lecture, "Paper Reviews and Post Submission Concerns" in Two Week (Online) Faculty Development Programme on "From Research to Publications" during 05th – 17th April, 2021 organized in collaboration with Department of Commerce, Acharya Narendra Dev College, University of Delhi.

Dr. VandanaKhaitan: 1

Invited Speaker, 2nd Conference on "Algebra, Analysis and Applications", School of Liberal Studies, Dr. B. R. Ambedkar University Delhi, April 2021.

Dr. Adarsh Anand: 1

Invited Talk, Software Maintenance and Patching in the 4th International Conference on Mathematical Techniques in Engineering Applications (ICMTEA 2020), organized by Graphic Era Deemed to be University, Dehradun, December 4-5, 2020.

Placement Details

Number and percentage of students placed:58 (45%)

Number of Companies visited for campus recruitment:19

Number of M.Phil./ Ph.D. Degrees Awarded

Ph.D. : 10

Faculty Strength

Permanent - 12

Department of Statistics Faculty of Mathematical Sciences

Major Activities and Achievements

The Department of Statistics is involved in carrying out research and teaching in diverse fields of Statistics. It has used the power of Statistics and knowledge of computers to contribute significantly in the area of research. The main thrust of the Department is to conduct basic and applied research and to develop trained manpower in the discipline of Statistics. The Department conducts three degree-oriented programmes, viz. M.A./ M. Sc. Statistics, M. Phil. and Ph.D. with a syllabus that incorporates emerging and core areas in different fields of Statistics. The Department also organizes special invited talks by eminent persons from India and abroad. Distinguished Professors visited the Department to deliver research talks and interact with the faculty and students. The Department has achieved a great success in suitable placement of students in reputed national and international companies/organizations.

Honours/Distinctions

Prof. Gurprit Grover

• Guest of honour for the talk on Applications of Statistics: Some Case Studies (8.02.2021). Organised by Sankhyiki: The Statistics Society Department of Statistics, PGDAV College in association with Department of Staistics University of Delhi.

Publications

S.No	Department	Publication in	Publication in	Book	Book	Book	Total
		Peer-Reviewed	Peer-Reviewed	(International	(National	(Local	
		Journal	Journal	Publisher)	Publisher)	Publisher)	
		(International)	(National)				
1	Statistics		18				18

Research Projects

Sl.No.	Project Title	Year/Period	Funding Agency	Amount Sanctioned
1	Event Modelling and Predictive	2020-2021	FRP grant of IoE,	3,50,000
	Analysis		DU	

Seminar/Conference Presentations (National/International)

Prof. Gurprit Grover: 1

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Guest of honour for the talk on Applications of Statistics: Some Case Studies (8.02.2021). Organised by Sankhyiki: The Statistics Society Department of Statistics, PGDAV College in association with Department of Staistics University of Delhi

Prof. Poonam Singh: 2

- Special Invited talk entitled "Efficient Mixture Designs Through Orthogonal Arrays Based on Difference Matrices" in Sixth International Conference on Statistics for Twenty-first Century-2020 (ICSTC 2020)" organized by the Department of Statistics, University of Kerala (virtual conference) during 16-19 December 2020.
- Invited talk entitled "Pandit Ishwar Chandra Vidyasagar-A Path-Breaking Reformer" as a resource person in a two day International webinar on Pandit Iswar Chandra Vidyasagar: An Erudite Social Reformer and Educationist organized by University BT & Evening College, Cooch Behar (B.Ed Section) during 25-26 September 2020.

Prof. Ranjita Pandey: 3

- Invited lecture at the Virtual Short Term Training Program on Data Science and Statistical Applications held during March 15-22, 2021 organised by Bharathiar University, Coimbatore, Tamil Nadu on March 19, 2021. The topic of talk was:
 - Scientific Evidence for Mathematical Reasoning.
- Invited lectures at Department of Psychology, School of Social Sciences, IGNOU on March 24,2021. The topics of talk were:
 - Multidimensional Scaling
 - Structural Equation Modeling.

Dr. Renu Garg: 1

Presented paper "Stress-Strength Reliability Estimation of Generalized Inverted Exponential Distribution Using Hybrid Censored Data" in three-day international conference on "Recent Advances in Computational Mathematics & Engineering" organized by B K Birla Institute of Engineering & Technology, Pilani, Rajasthan during March 19-21, 2021.

Placement Details (Number and percentage of students placed)

- Number of students placed: 42
- Percentage of students placed: 60.86%
- Number of Companies visited for campus recruitment: 18

Extension and Outreach Activities

- 1. Yoga and Pranayama for Stress Management on June 21 2020.
- 2. Analytics as a career option for Statisticians talk session onOctober 17, 2020.
- 3. Storytelling and Data Visualization in Analytics talk session on November 7, 2020.
- 4. Workplace Expectations followed by a project demo & a Q&A session on November 22, 2020.
- 5. Cloth Collection Drive and distribution January 10- 15, 2021.
- 6. Invited talk by Prof. Bimal Sinha, University of Maryland, Baltimore County (UMBC), United States of America on "An Introduction to Statistical Meta-Analysis with an Application", on January 21, 2021.
- 7. Essay Writing Competition on February 21, 2021.
- 8. International Mother Language Day on February 21, 2021.
- 9. Invited talk by Dr. Y. Kifle, Department of Mathematics & Statistics, University of Maryland Baltimore Country (UMBC), USA, on "Comparison of local powers of some exact tests for a common mean of independent normal with unknown and unequal variances" on March 17,2021.

Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.: 07(Ms. Sakshi Kaushik, Mr. Sharwan Kumar, Mr. Narendra Kumar, Mr. Ashok Kumar, Ms. Anshika Bhatnagar, Mr. Anurag Sharma, Ms. Shikha Sehgal)

Faculty Strength

Permanent : 03 Ad-hoc :03

Other Significant Information

The Department has its own placement cell called Credence. It has been created in the year 2004. With an objective to provide a platform for the placements of students pursuing M.A./M.Sc. Statistics from University of Delhi. Through the placement cell, students get an opportunity to interact with organizations in corporate world. In the year 2020-21, 53 (till date) students got placed through the Placement Cell. The Department has its own website statistics.du.ac.in. The information about faculty, research scholars, other staff of the department, courses run the department, syllabus and other relevant information can be found on the department website. The Department has two well-equipped fully computerized laboratories with the latest computing facilities to the students and researchers

FACULTY OF MEDICAL SCIENCES ANATOMY (LHMC)

1. Major Activities and Achievements:

- Department is actively involved in managing Covid Pandemic: All Faculty was involved in COVID
 related duties Airport Covid Screening, Covid Control room, Fever clinic, YMCA Covid centre,
 Markaz Covid screening. Rapid response team, Covid Sampling, Covid Ward and Covid sero-survey.
- 2. Department has successfully transitioned to full fledged Online teaching of UG and PG students wef March 20th 2020 till date in compliance to Covid pandemic restrictions.
- 3. Faculty has continued with academic research and published more than eight articles in national and international scientific journals.

2. Honours/Distinctions:

- a. 77 Distinctions secured by students of Undergraduate MBBS Batch 2019 in the subject of Anatomy in the Ist MBBS Annual Professinal Examination
- b. Dr. Sneh Agarwal received a **letter of appreciation** Ref.No.F. No.: CET-2020/397 Dated: 09.10.2020 Sub: Regarding The successful completion of Online Computer Based Test (**CBT**)-(**CET-2020**) for setting up of Question paper for CET-2020 and its successful completion.
- c. Dr. Sheetal Joshi secured first position in Scientific Oral paper competition titled Cadaver As Our First Teacher Reflections Of Medical Students on Encounter with Body Donor's Family at International Conference on Health Humanities (Virtual) on 10th to 12th Sept, 2020 under Aegis of SSAHE& SSIMS & RC
- d. Dr. Minakshi Malhotra scored distinction in the Hindi Pragya Pariksha held on 24/11/2020.
- e. Dr. Prashant Kumar received Certificate of appreciation as COVID -19 Warrior by TB & RD / Pulmonary Medicine Department, LHMC, New Delhi (Dec. 2020)

3. Publications: (NATIONAL & INTERNATIONAL)

- Singh D, Agarwal S (2021). Morphological Study of Psoas MinorMuscles with Embryological Basisand Clinical Insights. Journal of Clinical and Diagnostic Research. 2021 Apr, Vol-15(4): AC10-AC14.DOI:10.7860/JCDR/2021/47305.14782
- 2. Agarwal S, Agarwal BB, Dhamija N, Patankar RV (2020). Academics and training of residents in pandemic norm of physical distancing and restrained surgeons Remembering Osler and Halsted! Indian J Colo-Rectal Surg:2:55-7
- 3. Agarwal BB, Agarwal S, Mital K.(2020)Looking forward to a post-COVID era: A mentor's perspective. Indian J Colo-Rectal Surg;3(1):1
- 4. Singh D, Malhotra M, Agarwal S (2020). Variation in the Axillary Artery Pattern- Case Report. JCDR: 2020 Aug;14(8):01-04.
- 5. Sophia L, Tuli A, Bathla S, Agarwal S.(2020) Dual blood supply to the left lobe of liver-an embryological and clinical significance of aberrant accessory left hepatic artery. J Anat Sci. J Anat Sci. 2020 Dec;28(2): 49-55
- 6. Upadhayay P, Hansdak R, Agarwal S.(2021) Aberrant origin of obturator artery: A case report. International Journal of Anatomy Radiology and Surgery. DOI: 10.7860/IJARS/2021/46286:2666
- 7. Chaware P, Santoshi J A, Chaurasia A, singh U (2021). Correlation Between the Thickness of Anterolateral Ligament and Lateral Collateral Ligament of the Knee. JMSC Cureus 13(1): e12668. doi:10.7759/cureus.12668.
- 8. Sophia L, Singh D, Xalxo N, Yadav A, Agarwal S, Singh U, Jain P (2021). Upper limb arterial pattern: clinical correlation and embryological perspective. J Vascular Brasileiro 2021; 20:e20210008. https://doi.org/10.1590/1677-5449.210008

4. Journals Published/ Edited

- Dr. Sneh Agarwal:Reviewer for Indian Journal for Surgery, JASI, ACB, JCDR, International Journal of Applied and Basic Medical Research
- **Dr. Anjoo Yadav:**Reviewer for Indian Journal of Clinical Anatomy and Physiology, Indian Journal of Anatomy & Surgery of Head, Neck & Brain.
- **Dr. Sheetal Joshi:**Faculty reviewer for Snell's Clinical Anatomy by regions 1/e.

5. Seminars/ Conferences organized:

S.No.	Faculty Member	Organiser(s	Name, Venue & Date
)	
1.	Dr. Sneh Agarwal	Department	Online conduction of Classes for MBBS Batch
	Dr. Sohinder Kaur	of Anatomy,	2019 (Theory & Practicals) & Sent-up
	Dr. Kulwinder Kaur	LHMC,	Examinations wef April 2020 via Schoology
	Dr. Sheetal Joshi	New Delhi	App & Microsoft Teams Platform
	Dr. Minakshi Malhotra		
	Dr. Prashant Kumar		
	Dr. Pooja Jain		
	Dr.ShilpaBathla		
	Dr.Ranjeeta Hansdak		
	Dr. Urvashi Singh		

2.	Dr. Sheetal Joshi (Co-convener & Facilitator)	1	Awareness Session about Stem Cell Transplant By Student Leadership Mission – Organ Donation Awareness Group under MEU on 13th Dec'20 (Zoom Platform)

- 6. Seminars/Conferences Presentations (National/ International):
- **Dr. Sheetal Joshi :**Guest Speaker on "Best Practices in Anatomy Education on the topic Can the Dead help in Making Better Doctors?" on 10th October, 2020 KMC Manipal
- **Dr Shilpa Bathla :**presented Oral Paper entitled "National Online conference on "Challenges in implementation of Competency Based Medical Education" organised in SRM MC & RC, Tamil Nadu on 6th & 7th Nov., 2020

7. Faculty Strength: 11 Director-Professor: 2

Professor: 4

Associate Professor: 1 Assistant Professor: 4

8. **Ph. D.Degrees awarded**: Dr. Sohinder Kaur Director Professor, received her Ph.D. degree in Jan 2021

9. Other Significant Information:

- Department's Contribution towards managing Covid Pandemic: All Faculty was involved in COVID related duties –Airport Covid Screening, Covid Control room, Fever clinic, YMCA Covid centre, Markaz Covid screening. Rapid response team, Covid Sampling, Covid Wardand Covid sero-survey.
- **Embalming:** 138bodies were embalmed during the period 2020-2021 for teaching of medical students as well as in public service (LHMC being nodal centre for Embalming).
- **Body Donation Activities:** were conducted by the Department of Anatomy. Body donors were registered and Certificate of Appreciation issued. Donor families were felicitated annually by the department for their noble deed.
- Initiatives to maintain equilibrium in regular UG & PG Teaching: Regular physical classes for UG 2019 batch were suspended wef 13.3.2020 due to Lockdown imposed with the Covid-19 Pandemic. Classes were shifted to Online mode wef 20.3.2020 On Schoology App initially and later on Teams Microsoft App.
- Regular online teaching for Undergraduates: -Lectures & Practicals conducted on Microsoft Teams app.Lectures also uploaded on Schoology App.
- Measures taken to ensure safety of faculty & staff:
- 1. Regular & periodic sanitization of the dept.
- 2. Fumigation of the dept. if any member turned COVID positive.
- 3. Proper isolation, social distancing, personal hygiene observed strictly by all members.
- 4. Appropriate quarantine measures taken for COVID positive members.

ANATOMY (UCMS)

1. Major Activities and Achievements:

Laboratories equipped for research in neuroanatomy, osteology, histology, gross anatomy and anthropometry are available for faculty and postgraduate students for conducting research.

The Department participates in teaching of MBBS, MD Anatomy, B.Sc. Physiotherapy, B.Sc. (Nursing), B.Sc. (Radiography), Medical Lab. Technology (one-year in-service course), and Laboratory Attendant's training (six-week in-service course). The Department offers assistance to other departments e.g. Neurosurgery and ENT, in conducting CME from time to time. Major thrust area of research is in Gross Anatomy of all the regions of human body.

The department is also an active collaborator and organizer of various cadaveric workshops for post-graduate training and skills training in surgical and allied disciplines. Citizens of India donate their bodies to DehDaan Samiti. The department accepts the donated bodies from this organization for teaching the undergraduate medical students and for research purposes.

2. Honours/Distinctions

Dr. Renu Chauhan

- 1. Member of advisory board of Rohtak University.
- 2. Member of the ACADEMIC COMMITTEE of Wellness Health &You.
- 3. Member of Physicians' Forum of India.
- 4. Member of DNB Neurosurgery.
- 5. Member of advisory board National Journal of Clinical Anatomy.
- 6. Reviewer of Journal of Anatomical society of India.
- 7. Reviewer of Journal Advances in human Biology.
- 8. Reviewer of Journal of Clinical and Diagnostic Research.
- 9. Anatomy expert for faculty recruitment at GIMS, Greater Noida,
- 10. External member in the faculty Board of Studies (Anatomy)SMS&R, Sharda University Greater Noida for Year 2020-21.
- 11. Joint editor of Journal of Anatomical Society of India.
- 12. Anatomy Expert for a period of 3 years (2018-2021) of Meerut University
- 13. Appointed as Paper setter & examiner for MBBS, MD anatomy and MSc Anatomy examination Of various Universities including Delhi University.
- 14. Appointed as Head Anatomy, FMS, Delhi University.

Dr. Sunita Kalra

- 1. Promoted as Director Professor w.e.f.June' 2020.
- 2. Nodal officer for 97th annual report, of faculty of Medical Sciences, appointed by Dean Faculty of Medical Sciences, University of Delhi, January'2021.
- 3. Member committee constituted to incorporate the provisions of Amended Graduate Medical Education Regulations, (Part I & Part II) in the UG ordinance related to UG (MBBS/BDS) of faculty of Medical Sciences, University of Delhi. January'2021.
- 4. Deputy Superintendent of MD/MS & PG Diploma(annual)examination' UCMS, June'2020.
- 5. Superintendent of examinations, MBBS (Supple), examinations, UCMS, February'2021.
- 6. Reviewer of journal of Anatomical society of India.
- 7. Appointed as Paper setter & examiner for MBBS examination OF University of Delhi, at UCMS, New Delhi, February'2021.
- 8. Appointed as Paper setter & examiner for MBBS examination at Jamia Hamdard, New Delhi, February'2021.
- 9. Appointed as Paper setter for Baba Farid University, Punjab.
- 10. Appointed as Paper setter for Sri Guru Ram Das University of Health Sciences, Sri Amritsar.

Dr. Rakhee Sharma

- Appointed as Assistant Professor in the Department of Anatomy. (DOJ 12-01-2021)

Dr. Ankana Saha

- Appointed as Assistant Professor in the Department of Anatomy. (DOJ 20-01-2021)

3. Publications

Dr. Renu Chauhan

1. Khan A M, Patra S, Vaney N, Mehndiratta M, Chauhan R. Rapid transition to online practical classes in preclinical subjects during COVID-19: Experience from a medical college in North India. MJAFI 7.7: 2021 Science Direct S161-S167.

Books:

- 2. Published book Essentials of Genetics- Renu Chauhan. Avichal publishing company, New Delhi, India. Second Edition 2021.
- **3.** Published a chapter "Embryology and Anatomy of Placenta" Renu Chauhan pg 3-9 in the book-PLACENTA (Basic to accreta) Sigh and Goel Publisher Evangel 2021.

Dr. Sunita Kalra

1. Sonu and Kalra S. An undocumented rare branching pattern of external Carotid artery. International Journal of Anatomical Research. 2020; 8(4.1):7767-7770.

4. Research Projects

- a) Morphometric Analysis Of Anterior Cruciate Ligament A Cadaveric Study By Dr. Pravallika Galla (2018-2020) Funded By The Institution.
- b) Evaluation Of Important Anatomical Landmarks IninteriorAnd Exterior Of Cranial Base- A Morphometric Study By Dr Pankaj Gupta(2018-2020) Funded By The Institution.
- Morphological And Morphometric Analysis Of Coronary Sinus A Cadaveric Study By Dr Sana Zafir (2019-2021) Funded By The Institution.
- d) Variations And Morphometric Analysis Of Right Coronary Artery By DrNamaschivayam GR (2019-2021) Funded By The Institution.

5. Seminar/Conference Presentations

Dr Renu Chauhan

- a) An online presentation on "Impact of Covid on teaching dissection" on 19.12.2020 organised by Thieme publisher
- b) An online presentation on "Can the dead help in making better doctors? "Best Practices in Anatomy education" on 10.10.2020.

Dr. Sunita Kalra

- e-CME on "Digital Medical Illustration for Anatomists". Organized by Vinayak Mission's Kirupananda Variyar Medical College & Hospitals, Salem. On 29th August'2020
- International E-Conference on "Emerging trends in Research Emphasis on Basic Medical Sciences", Organized by Aarupadai Veedu Medical College, Pondicherry. 17th September 2020 to 19th September 2020.
- 3. E anatomica National Anatomy webinar on "Pineal gland: Glimpses into the Marvels of Nature" Organized by King George's Medical University, Lucknow on 24.10.2020
- 4. E anatomica National Anatomy webinar on "Imaging anatomy of liver segments" Organized by King George's Medical University, Lucknow on 31.10.2020
- 5. E anatomica National Anatomy webinar on "Anatomical research in times of Covid-19" Organized by King George's Medical University, Lucknow on 07.11.2020
- 6. eCME-:" Contemporary and Evolving Prospectives in Anatomy Learning" Organized by King George's Medical University, Lucknow on 20th and 21st February 2021
- 7. International Virtual anatomy Conference" Organized by King George's Medical University, Lucknow, February '2021.
- 8. Online CME: "21X3 What's up with Down Syndrome" organized by All India Institute of Medical Sciences, Mangalgiri, on 21.3.2021

10. Faculty Strength - 4

- a) Professor 2
- **b)** Assistant Professor 2

ANAESTHESIOLOGY (LHMC)

1. Major Activities and Achievements

BLS training for LHMC interns and faculty every Saturday. Trauma technician training course of MOHFW is done by the department.ISA monthly meet, Delhi chapter was conducted on 11th Sept 2021. Webinar on Obstetric anesthesia under ISA Delhi was conducted on 18th Sept 2020. Also hands-on workshop for PG students of Anesthisiology was done on Regional Anesthesia on 5th sept 2020. Mechanical ventilation workshop for all the departments of L.H.M.C was conducted on the Aug – Sep 2020. Also 3 days AHA accredited ACLS and BLS training course was conducted on 10-12th March 2021.

2. Publications:

- Pandey Maitree. Phenotype in acute respiratory distress syndrome. Critical care update 2020
- Singh Ranju, Kaur Manpreet. Thyroid storm: Does dexmedetomidine have a role? Indian J Anaesth 2020; 64: 716-7.
- Singh Ranju, Jain Aruna. Perioperative anaphylaxis Have we seen it all? Indian Anaesth 2020;64: 209-10
- Singh Ranju, Saini Surbhi, Jain Aruna. Late-onset postpartum eclampsia: Do not ignore the headache! Indian J Case Reports 2020; 6:647-648.
- Malhotra R, Kumar N*, Jain A. Cost identification analysis of general anaesthesia. J Anaesth Clin Pharmacol 2020;36;219-26 (Original Research)
- Kumar N. Bioethics: Principles, issues and cases. Anesth Analg 2020;130: e144-5. (Book review)
- Bajwa SJS, Kumar N, Mehdiratta L. The ten essential 'T's' imparting impetus to research in anaesthesiology. Ind J Anaesth 2020; 64:551-5. (Editorial)
- Bhattacharya PK, Nair SG, Kumar N, Natarajan P, Chhanwal H. Critical care as a career for anaesthesiologists. Indian J Anaesth. 2021;65(1):48-53. (Special Article)
- Kumar, N. Obstetric Anesthesia: A Case Based and Visual Approach, Anesthesia & Analgesia: February 2021 Volume 132 Issue 2 p e18 (Book review)
- Kumar, N. Epidural Technique in Obstetric Anesthesia, Anesthesia & Analgesia: March 2021 Volume 132 Issue 3 p e40 (Book review)

4. Journals

- ASSISTANT EDITOR: Indian Journal of Anaesthesia.
- MEMBER OF EDITORIAL BOARD: World Journal of Anesthesiology, Austin Journal of Anesthesia, Journal of Emergency Medicine and Intensive Care.

5. Research Projects (non funded) Dr. Ranju Singh

- 1. Principal investigator for study titled "Anaesthetic Management of Covid Positive Patients a comparison with non-Covid parturients being done in the dept of Anaesthesia, LHMC
- 2. Co- investigator for study titled "Perioperative Course of Covid Positive Pediatric Patients, being done in the dept of Anaesthesia, LHMC

8. Conferences Organized

- 1. BLS training for LHMC interns and faculty every Saturday
- 2. Trauma technician training course of MOHFW
- 3. ISA monthly meet on 11th Sept 2020
- 4. Webinar on Obstetric anesthesia under ISA Delhi on 18th Sept 2020
- 5. hands-on workshop for PG students on Regional Anesthesia on 5th sept 2020
- 6. Mechanical ventilation workshop Aug Sep 2020
- 7. AHA accredited ACLS and BLS training course 10-12th March 2021

8. Seminar/Conference Presentations (National / International)

S. No	Date	Торіс	PG	Moderator
1	03.07.2020 Fri	Nutrition – Basic principles of planning nutrition in ICU. Indication, contraindications, advantages & disadvantages of enteral and parenteral nutrition	Dr. Santosh Dr. Zeli	Dr. Anshu J
2	24.07.2020 Fri	Sterilization techniques for equipment/environment in ICU & O.T.	Dr. Kaustubh Dr. Saloni	Dr. Maitree
3	19.10.2020 Monday	Mitral Stenosis	Dr. Sanjana	Dr. Usha Dr. Garima
4	18.01.2021 Monday	Geriatric Patient for cataract surgery	Dr. Vishal	Dr. Anshu Sr Dr. Anil
5	01.03.2021 Monday	Orthopaedic procedure - Neck Femur - THR, TKR	Dr. Neha	Dr. Upma Dr. Vidhi
6	09.12.2020 Wednesday	Chr. Renal failure	Dr. Eashwar	Dr. Nishant Dr. Pranita
7	06.01.2021 Wednesday	PIH	Dr. Neethu	Dr. Ranju Dr. Vidhi
8	21.12.2020 Monday	Respiratory failure – patho physiology, anaesthetic considerations & management	Dr. Ashutosh Dr. Shubham	Dr. Nishant
9	06.01.2021 Wednesday	COPD/restrictive lung disease – Pathophysiology, preop preparation, and Anaesthetic consideration for non	Dr. Ayushi Dr. Sahir	Dr. Nitin
10	15.02.2021 Monday	Obesity	Dr. Zeli	Dr. Garima Dr. Raksha

9. Academic Participation of faculty in conference, workshops, Seminars, CME

S No	Name &	Role/Topic	Organizer	Name of the
	Designation			conference, Venue
	Faculty			, Date

	Members			
1	Dr Maitree Pandey Director Professor and Head	Moderated a presentation titled "early weaning scores "in the monthly meet of Delhi chapter of ISA	Dept Of Anesthesia, LHMC under ISA Delhi Chapter	Webinar, on 11th September 2020
		Lecture on "Hypertensive disorders of pregnancy"	Dept of Anesthesia, LHMC for the Delhi chapter of ISA.	Webinar on 18th September 2020
		Judge for E poster competition	SGRH for the ISA Annual Conference 2020	Webinar on 2 nd to 4 th October 2020
		Instructor in BLS and ACLS course	AHA accredited	March 2021 held in LHMC and associated Hospital Delhi
		Faculty in Case discussion on PIH in Post Graduate Pre Exam Course	ABVIMS	RML hospital Delhi from 6-14 th February 2021.
		Completed successfully an online course – "Basic Course in Biomedical Research	ICMR and ICE	March 2020
2	Dr Ranju Singh	External subject expert for interview board for Assistant professors	ESI, Faridabad	ESI, Faridabad on 28th August 2020
	Director Professor	Chief organized for a hands-on workshop for PG students on Regional Anesthesia	Dept of Anesthesia. LHMC	Seminar room, Dept Of Anaesthesia, LHMC on 5th September 2020
		Lecture on "Bronchoscopic Removal of Foreign Body in Children: Perioperative Challenges" for DNB Anesthesiology students	National Board of Examination	Webinar on 9th September 2020
		Moderated a presentation titled "Anaesthetic Management of Covid Positive Parturient for Caesarean Delivery" – A comparison with Non Covid Parturients" in the monthly meet of Delhi chapter of ISA	Dept Of Anaesthesia, LHMC under ISA Delhi Chapter	Webinar, on 11th September 2020
		Moderated a presentation titled "Epidermolysis Bullosa – Tread Carefully" in the monthly meet of Delhi chapter of ISA	Dept Of Anaesthesia, LHMC under ISA Delhi Chapter	Webinar, on 11th September 2020
		Lecture on "Anaesthetic Management of PIH Patients for LSCS"	Dept of Anaesthesia, LHMC for the Delhi chapter of ISA.	Webinar on 18th September 2020
		Completed successfully an online add on legal course on "Medical Jurisprudence"	Delhi State Legal Services in collaboration with Medical Education Cell, LHMC	August & September 2020
		Completed successfully an online course on "Airway Matters"	University College London	September 2020
		Lecture on "When an Anaesthesiologist Encounters A Pregnant Patient with	SGRH for the ISA Annual Conference	Webinar on 3rd October 2020

	I	Troums on 2nd O-talan 2020	2020	<u> </u>
		Trauma on 3rd October 2020, organized by SGRH for the ISA Annual Conference 2020	2020	
		External subject expert for interview board for Assistant professors	ESI, Faridabad	ESI, Faridabad on 28th October 2020
		Lecture on "Systems of Care" at hands on workshop for nursing officers	DSRUD at RGSSH, Tahirpur, Delhi.	Auditorium, RGSSH, Delhi 9th of November 2020
		Moderated and conducted the case discussion on "Diabetes & Its Anesthetic Concerns in a Patient for MRM	APPEC 2021	RML on 12th February 2021.
		Instructor at the AHA accredited BLS & ACLS	BSAH,	BSAH, Rohini, New Delhi from 22nd – 24th February, 2021
		Chaired a session on Pediatric Anaesthesia	1st International & 30th National Conference of Research Society of Anaesthesiology Clinical Pharmacology (RSACPCON 2021)	Online on 7th March 2021
		Organized & coordinated the AHA accredited BLS & ACLS course	AHA accredited	LHMC, New Delhi from 11th - 13th March, 2021
		Attended a workshop on MCQ Writing,	DNB	New Delhi on 8th March 2021
		Panelist on the panel discussion titled "Common everyday problems in pediatric anaesthesia"	IAPA Webcon, Annual Conference on	27th March 2021
		Completed successfully an online course - "Basic Course in Biomedical Research with 81%	conducted by ICMR & Indian College of Epidemiology	September - December 2020, proctored exam, on 21st March 2021
3.	Dr. Anshu Gupta Professor	COVID- 19 in obstetric patients	Dept Of Anaesthesia, LHMC under ISA Delhi Chapter	Webinar, on 11th September 2020
			Dept of Anaesthesia, LHMC for the Delhi chapter of ISA.	Webinar on 18th September 2020
		.Chaired sessions on Blood transfusion and Cataract surgery in elderly patient in Pre Post Graduate Exam Course	ABVIMS and RML hospital	6-14 th February 2021.
		5.Instructor in BLS and ACLS course	Baba sahib Ambedkar Hospital Delhi	22-24 th February2021
		6.Participated as faculty(panelist) in Symposium on Obstetrics Central zone PG assembly	PGIRML Lucknow UP	5 th -7 th march 2021
4.	Dr. Nishant Kumar	Arterial Blood Gas: Guest lecture for DNB students	Mata Chanan Devi Hospital, New	

			Delhi.	
		Panel discussion on perioperative AKI	ISACON	New Delhi held in Apr. 2019
		Oxygen Therapy in COVID 19	ISA Delhi	July 2020
		Online Lecture and offline workshop on Mechanical ventilation	LHMC	June 2020
		ISA Monthly meet organized by LHMC: guided a case series presentation Unusual complications of PIH: presented a case series in ISA monthly meet held in September 2020	ISA Monthly meet organized by LHMC	Sep 2020
		Completed successfully an online add on legal course on "Medical Jurisprudence"	Delhi State Legal Services in collaboration with Medical Education Cell, LHMC	August & September 2020
		Faculty for panel discussion on perioperative AKI at ISACON Delhi 2020 held in Oct 2020	ISACON Delhi	Oct 2020
		Guided PG students for their free papers and posters in ISA Delhi Annual conference October, 2020 1) A study of relationship between bispectral index values and age adjusted minimum alveolar concentration during the maintenance phase of general anaesthesia in elective pediatric surgery. 2) A Comparative study to evaluate I/V Fentanyl along with Dexmedetomidine, Magnesium sulphate or saline on stress Hormone Response to endotracheal intubation.	ISA Delhi	October 2020
		Completed successfully an online course – "Basic Course in Biomedical Research	conducted by ICMR & Indian College of Epidemiology	March 2020
		Lecture on: Oxygen and Airway in COVID.	CME organized by ISA Delhi branch	
5.	Dr. Anshu Gupta, Associate Professor,	Faculty, Organizer, ISA Executive member Lecture Topic: Role of Ultrasound in Hypertensive Disorders of Pregnancy"	L.H.M.C & ISA Delhi	L.H.M.C on 18.09.2020
		Faculty, Organizer, ISA Executive: Conducted Quiz	L.H.M.C & ISA Delhi	L.H.M.C on 11.09.2020
		Lecture, Topic: "Neonatal Emergencies"	APPEC ABVIMS &R.M.L.H, Delhi	2021 at R.M.L.H On 10.02.21
		Lecture & workstations taken & organizer in "AHA accredited ACLS & B.L.S Topic of lecture: Difference in adult and pediatric B.L.S	AHA accredited ACLS & B.L.S L.H.M.C satellite centre	at L.H.M.C on 10.03.2021 to 12.03.2021
		Difference in adult and pediatric B.L.S Successfully completed "Indian Diploma	IPSA, Max Saket	3.03.2021

		of Regional Anesthesia part 2" and cleared.	Hospital	
6.	Dr. Upma	Anesthesia for Foreign body bronchus at	APPEC-21	6th-14th Feb,2021.
	Batra Bhatia	Anaesthesia Postgraduate Pre		ABVIMS, Dr. RML
	Associate	Examination Course		Hospital New Delhi
	Professor			

- 10. Other Inter-Institutional Collaboration:
- 1) AIIMS: PG students sent for cardiac anesthesia and neuroanesthesia postings
- 2) RML: PTT students sent for burns, neurology and trauma postings

ANAESTHESIOLOGY, CRITICAL CARE AND PAIN MEDICINE (UCMS)

1. Major Activities and Achievements

The department of Anaesthesiology has been functioning as the center of all COVID-19 patient care and training related to critically ill COVID-19 patients (oxygen therapy, BiPAPA, Non-invasive and invasive ventilation) since the attached Guru Teg Bahadur Hospital was converted to a fully COVID dedicated centre in June 2020. The department not only managed patients in multiple ICUs, Covid OTs for emergency cesareans etc., resuscitation calls, transfer calls, but also catered to Mucormycosis case load in the operation theatres and ICUs.

A new 500 bedded state of the art facility was developed at the Ramlila Ground adjacent to the hospital for which the department has contributed significantly since its inception.

2. Honours /distinctions

Dr Ashok Kumar Saxena:

1. International Association for Study of Pain (IASP), USA, Award for "Excellence in pain research and management in developing countries", 18th World Congress on Pain 2020.

Dr RS Rautela

- 2. Overall administration of the hospital including the triage area, main casualty
- 3. Setting up of facilities for Covid-19 patients in the hospital, call centers for public communication

3. Publications

- Saxena AK, Khrolia D, Chilkoti GT, Gondode PG, Sharma T, Thakur G, Banerjee BD. (2021)
 Modulation of the extracellular Signal-Regulated Protein Kinase and Tissue Inhibitors of
 Matrix Metalloproteases-1 Gene in Chronic Neuropathic Pain. Accepted for publication in
 Indian J Palliat Care.
- Shaboo SS, Saxena AK, Choudhary S, Banerjee A, Behl A. (2021) Redefining the efficacy of SG guided pudendal nerve block in pudendal neuralgia in the vulnerable section of the society. Accepted for publication in Indian J Pain.
- 3. <u>Choudhary S, Saxena AK, Bajaj M, Banerjee A.</u> (2020) A comprehensive review of complications following ultrasound-guided blocks: "Continue D'avancer". Indian J Pain: 34 (3): 160-163
- 4. Kaur N, Kumar R, Jain A, Saxena AK. (2020) Sensory changes and Postmastectomy Pain following preservation of intercostobrachial nerve in breast cancer surgery: a prospective randomized study. Indian J Surg Oncol;1193-1195
- 5. Saxena AK, Malik A. (2020) The dawn of a new era on research on precision medicine for pain and the scope of diagnostic biomarkers: Is it a "neurologic pain signature" and is it construct validation?? Indian J Pain;34:1-2.
- 6. Saxena AK, Choudhary S, Gaur D. (2020) "Abdominal pain" in COVID-19 patients: A conundrum for the pain physician. Indian J Pain. 30 (2);128-130.
- 7. Agarwal R, Sharma K, Mehndiratta M, Mohta M, Srivastava H, Anthonio AE. (2021) Role of repeat procalcitonin estimation at 48 hours for outcome in pregnancy associated sepsis: a prospective observational study. ObstetGynecol Sci. 64 (1): 27-33.

- 8. Tyagi A, Ramanujam M, Sethi AK, Mohta M. (2021) Clinical utility of epidural volume extension following reduced intrathecal doses: a randomized controlled trial. Brazilian J Anesth, 71;31-37.
- Garg D, Tyagi A, Kumar M. Intraabdominal pressure and its relationship with organ dysfunction in patients scheduled for elective cesarean section: Effect of supine vs. lateral tilt position. Accepted for publication in <u>Acta Obstet Gynecol</u> Scand.https://doi.org/10.1111/aogs.13965
- 10. Sharma A, Tyagi A, Singal A. (2020) Posterior reversible encephalopathy syndrome in Wegener's granulomatosis: A rare occurrence. Indian J Anaesth. 64 (6): 538-539.
- 11. Chilkoti GT, Gondode P, Tiwari S. "MDI or Nebulization in moderate to severe Covid-19 disease with COPD: which one is better?" (ASJA-D-20-00107R2) has been accepted for publication in Ain- Shams Journal of Anesthesiology.
- 12. Chilkoti GT, Malik A, Mohta M, Saxena AK. Hydroxychloroquine in COVID-19 patients on chronic Pregabalin therapy- Is it safe?" ID JOACP_587_20 accepted for publication in Journal of Anaesthesiology and Clinical Pharmacology.
- 13. Chilkoti GT, Jain N, Mohta M, Saxena AK. (2020) Perioperative concerns in Pott's spine: A review. J AnaesthesiolClinPharmacol; 36: 443-449.
- 14. Chilkoti GT, Agarwal M, Mohta M, Saxena AK, Sharma CS, Ahmed Z. (2020) A randomised preliminary study to compare the performance of fibreoptic bronchoscope and laryngeal mask airway CTrach (LMA CTrach) for visualisation of laryngeal structures at the end of thyroidectomy. Indian J Anaesth. 64(8):704-709.
- 15. Chilkoti GT, Karthik G, Rautela R. (2020) Evaluation of postoperative analgesic efficacy and perioperative hemodynamic changes with low dose intravenous dexmedetomidine infusion in patients undergoing laparoscopic cholecystectomy A randomised, double-blinded, placebocontrolled trial. J Anaesthesio lClin Pharmacol. 36(1):72-77.
- 16. Salhotra R. (2020) Ultrasound-guided truncal/plane blocks: Are they safe in anticoagulated patients? J Anaesthesiol Clin Pharmacol. 36(1):118-20.
- 17. Yadav N, Chaudhary S, Gahlot D, Salhotra R. (2020) Comparison of intrathecal hyperbaric bupivacaine, isobaric levobupivacaine and isobaric ropivacaine with fentanyl as adjuvant in knee arthroscopy: A randomised controlled study. Indian Journal of Clinical Anaesthesia. 7(4):594-99.
- 18. Saxena A, Kapoor R, Saxena AK. (2020) A Unique Presentation of Posterior Reversible Encephalopathy Syndrome. Journal of Anaesthesia and Critical Care Case Reports. 6(1): 22-24.

Chapters in Books

- 19. Mohta M. Maternal Morbidity and Mortality: An Anesthesiologist's Role and Perspective. In: Sehgal R, Trikha A (eds). Yearbook of Anesthesiology 10, 2021. Jaypee Brothers Medical Publishers, N. Delhi.
- 20. Tyagi A,Salhotra R. Frailty and Anaesthesia. In: Yearbook of Anesthesiology 9. Eds: Sehgal R, Trikha A; (2020); Jaypee Brothers Medical Publishers (P) Ltd.

4. Journals

Number of department teachers serving as Editors/members of Editorial board: 3

5. Seminars organized

1. The department organized, in association with Indian Society of Anaesthesiologists - Delhi Chapter, a monthly clinical meeting on 4th December 2020.

6. Seminar/Conference presentations

Dr. Ashok Kumar Saxena:

- 1. Faculty for APPEC-21(Anaesthesia Post graduate course) organized by ABVIMS and RML hospital, New Delhi. Moderated a session on Chronic Pain and Cancer Pain.
- 2. Faculty for 59th Annual Virtual Conference of ISA, Delhi branch (ISACON 2020)
- 3. Invited as Faculty by The National Board of Examinations (NBE), New Delhi, for the workshop and framing of OSCEs for DNB Examinations.
- 4. Delivered a talk on Pathophysiology, diagnosis and management of Neuropathic pain during a webinar

organized by Indian Society for Study of Pain (ISSP)

Dr. Sujata Chaudhary

5. Faculty for APPEC 2021 (Anaesthesia Postgraduates Pre Examination Course) held by department of anaesthesia ABVIMS& DR RML Hospital, New delhi .Took a session on COPD for Laparoscopic Cholecystectomy

Dr. MedhaMohta

- 6. Faculty for 59th Annual Virtual Conference of the Indian Society of Anaesthesiologists, Delhi Branch (ISACON 2020). Delivered a lecture on "Myths and facts of anaesthesia for elderly"
- 7. Faculty for Anaesthesia Postgraduate Pre Examination Course (APPEC 21) organised by Department of Anaesthesia, ABVIMS, Dr. RML Hospital 2nd 4th October, 2020

Dr. Asha Tyagi

- 8. Patient with IHD for Spine surgery. In: Anaesthesia Postgraduate Pre-Examination Course (APPEC-21); Online platform; Organised by ABVIMS and Dr. RML Hospital, Delhi; 6th-14th Feb, 2021. (Case Discussion).
- 9. Judge for paper presentation. In: National Conference of RSACP (Research Society of Anaesthesiology and Clinical Pharmacology), Online conference; 6th March 2021.

Dr. Rashmi Salhotra

- 10. Teaching and training of the medical and paramedical staff on Oxygen therapy for Covid-19
- 11. Faculty for online lecture on "TURP" on 9th February 2021 in APPEC-21 organized by ABVIMS, Dr. RML Hospital, Delhi 5th-6th September 2020

Dr. Vibhor Gupta:

- 12. Faculty for online lecture in APPEC-21 organized by ABVIMS, Dr. RML Hospital, Delhi 6th 14th February 2021
- 7. Faculty strength: Teaching faculty: 13; Non-teaching faculty: 06

ANAESTHESIOLOGY (MAMC)

Major Activities and Achievements

- Setting up of multiple COVID ICUs and OT
- Formulation of SOPs for management of COVID patient in the ICU and OT
- Provided Anaesthesia services to >260 pregnant covid patients for caesarean delivery. (Highest number in the country)
- Provided treatment to over 10,000 COVID patients in the pandemic
- Members of various administrative committees and forums for care of COVID patients
- Webinar on "Learnings from COVID" in collaboration with MAMC CHS Teachers Association
- Teaching and Training of Healthcare workers on Oxygen Therapy
- Inauguration and starting of Airway Skill Lab (4th Floor OT Block)
- Monthly Clinical Meeting of ISA Delhi Chapter November 2021

Honours/Distinctions:

- 1st prize "T.N. Jha Awards for post graduate student" at ISACON 2020
- 2nd prize "T.N. Jha Awards for post graduate student" at ISACON 2020
- 1st Prize in poster competition in ISACON 2020, Delhi Chapter
- 1st Prize in Free paper received in ISACON 2020
- 1st prize in free paper received by in ISACON 2020
- 1st prize in verbal scientific presentation "Faculty under 40" Yuva ISACON 2020

- 3rd prize in free paper presentation in YUVA ISACON 2020
- 2nd Prize won in poster presentation in YUVA ISACON 2020

Publications:

- 1. Agarwal, M. (2020). Book Review- A Guide to Pediatric Anesthesia, 2nd ed.: Sims C, Weber D, Johnson C, eds. Anesthesia & Analgesia ,131(2), e66-e67
- 2. Agarwal, G. Gupta, L. (2020). Still's disease and anaesthetic concerns: A case report. Indian Journal of Clinical Anaesthesia, 7(1):195-197.doi: 10.18231/j.ijca.2020.035
- 3. Agrawal, P. Wadhwa, B. Gaba, P. Saxena, K. (2020) Neuraxial anesthesia in a COVID -19 positive preeclamptic parturient with thrombocytopenia for emergency cesarean section: an anaesthetic challenge. Critical Care Obstetrics and Gynecology ,6 (5:17). doi:10.36648/2471-9803.6.5.17
- 4. Bains, L. Mishra, A. Gupta, L. Singh, R. Lal, P. (2020). Surgery in Covid 19 Times: A Comprehensive Review. MAMC Journal of Medical Science, 6 (3),163-75.doi:10.4103/mamcjms.mamcjms_83_20.
- 5. Bains, L. Mishra, A. Kaur, D. Lal, P. Gupta, L. Malhotra, V. (2020). Attitude and beliefs about surgical safety checklist in a North Indian tertiary care hospital, a decade later of World Health Organisation checklist. Journal of Patient Saftey & Infection Control, 8,39-47. doi: 10.4103/jpsic.jpsic_16_20.
- 6. Bansal, A. Gupta, L. (2020). "There's always a First Time": My experience in COVID ICU as "Corona warrior". MAMC Journal of Medical Science, 6,145-7. doi: 10.4103/mamcjms.mamcjms_60_20.
- 7. Bhalotra, AR (2020). Awake supraglottic airway guided flexible bronchoscopic intubation. Korean Journal of Anesthesiology ,73(2),173-174 doi: https://doi.org/10.4097/kja.20013
- 8. Bhalotra, AR. Book chapter in 9th year book of ICA on "Gas Embolism An Update"
- 9. Bhalotra, AR. Saran, A. Sood,R.(2020). Use of an Airway Exchange Catheter for Removal of an I-Gel Airway. Turkish Journal of Anaesthesiology & Reanimation, 48(4),342-3.
- 10. Choudhary, N. Bhalotra, AR. Magoon, R. (2021) The role of magnesium in perioperative management of intracranial aneurysm surgery: A case series. Saudi Journal of Anaesthesia,15,219-21
- 11. Choudhary, N. Saxena, KN. Wadhwa, B. Magoon, R. (2020). Labour analgesia in cardiac parturients: A personalised approach! Indian Journal of Anaesthesia,64,999-1001
- 12. Choudhary, N. Singh, R. Bhalotra, AR. Magoon, R. (2020) Effect of intraoperative intravenous lignocaine infusion on the haemodynamic stability and postoperative recovery following intracranial aneurysm surgery: A case series. Brief Communication. Indian Journal of Anaesthesia, 64 (15), 205-8
- 13. Chugh, V. Bhalotra, AR. (2020) Double Nebulisation for Airway Anaesthesia. Turkish Journal of Anaesthesiology & Reanimation, 48(1), 82-3.
- 14. Dhiman, S. Bhalotra, AR. Kumari, R. Sharma, KR, Verma, UC. (2020) Magnesium Sulfate and Fentanyl for Facilitating Awake Fiberoptic Nasotracheal Intubation: A Randomized Study. Annals of Anaesthesiology & Critical Care. Online ahead of Print; 4(1): e90482. doi: 10.5812/aacc.90482.
- 15. Gahlot, D. Saxena, KN. Wadhwa, B. (2020) Cesarean section in a parturient with giant lung cyst. Journal of Obstetric Anaesthesia & Critical Care, 10,51-3.
- 16. Gupta, A. Sural, S. Gupta, A. Rousa, S. Koner, BC. Bhalotra, AR. Chawla, R. (2020). Exposure to Mycobacteria influences disease progression in COVID-19 patients . Research Square [+https://doi.org/10.21203/rs.3.rs-56141/v1+]
- 17. Gupta, B. Chaudhary, K. Hayaran, N. Neogi, S. Anesthetic considerations in patients with cystic pulmonary adenomatoid malformations (Review article). Accepted in Journal of Anesthesiology Clinical Pharmacology.
- 18. Gupta, D. Bhalotra, AR. Singh, R. (2020) Audit on Practices of Stress Ulcer Prophylaxis in Intensive Care Unit Patients. Indian Journal of Critical Care Medicine, 24(3),160-167. DOI: 10.5005/jp-journals-10071-23368

- Gupta, D. Mangwana, P. Sharma, R. Wadhwa, B. Kerai, S. (2020) Intravenous Clonidine versus Intraperitoneal Clonidine for Postoperative Analgesia After Total Abdominal Hysterectomy: A Randomised Controlled Trial. Turkish Journal of Anaesthesiology & Reanimation. 10.5152/TJAR.2020.55938 [Epub Ahead of Print]
- 20. Gupta, L. (2020). Inception of journal of medical evidence: Changing perceptions and triggering innovation. Journal of Medical Evidence, 1,162. DOI: 10.4103/JME.JME 180 20.
- 21. Gupta, L. Drugs In Anaesthesia, 1st edition, 2020
- 22. Gupta, L. Agarwal G. (2020). "Suction: Most Neglected Part of Equipment Check-Up". Acta Scientific Paediatrics, 3.4, 01. DOI: 10.31080/ASPE.2020.03.022
- 23. Husain, F. Wadhwa, B. Saxena KN. (2021); Evidence Guided, Experience Based and Patient Compatible 3-Step Protocol for Managing Moderate to Severe Category of COVID19 infections. IAR Journal of Anaesthesiology and Critical Care, 2(1), 12-14.
- 24. Prashant, HT. Kerai, S. Saxena, KN. Wadhwa, B. Gaba, P. (2021). Comparison of cuff inflation method to curvature control modification in thermosoftened endotracheal tubes during nasotracheal intubation-a prospective randomized controlled study. Indian Journal of Anaesthesia,65(5),369-376
- 25. Jain, A. Wadhwa, B. Saxena, KN. (2020). Preventing inadvertent Endobronchial intubation: Upper incisor to manubriosternal joint length as a predictor of airway length in children. Pediatric Anesthesia, 30,1240–1244. https://doi.org/10.1111/pan.14023
- 26. Jain, G. Sharma, A. Gupta, L. (2020) A Novel Technique to Prevent Head and Neck Injuries during Prone Positioning. Madridge Journal of Case Report & Studies, 4(1): 174-175. Doi: 10.18689/mjcrs-1000145
- 27. Kerai, S. Singh, R. Saxena, KN. Desai, S. Bhalotra, AR. (2021). A retrospective study on experience of high flow nasal cannula oxygen in adult patients of COVID-19 admitted to intensive care units accepted for publication in Indian Journal of Critical Care Medicine.
- 28. Kerai, S. Saxena, KN. (2020). Intensivists perspectives on COVID-19.Indian Journal of Medical Biochemistry, 24(3), 134-6
- 29. Kumar, A. Kohli, A. (2020) Challenges in airway management of trauma patients: An update. Indian Journal of Clinical Anaesthesia ,7(1),39-45
- 30. Kumar, D. Kumar, A. Kohli, A. (2020). Safety comparison between high flow nasal cannula and non-invasive positive pressure ventilation for COVID-19 patients. Eurasian Journal of Pulmunology, 22, 191-2.
- 31. Kumar,D. Wadhawan,S. Kohli,A. Bhadoria,P. Kumar,A. Transversus abdominis plane block versus wound site infiltration using 0.25% bupivacaine for post-operative analgesia after caesarean delivery performed under subarachnoid block. Accepted for publication in 'Indian Journal of Clinical Anesthesia'
- 32. Kumari,R.Bhalotra,AR.Dhiman,S.(2020) Effects of perioperative infusion of lidocaine versus dexmedetomidine on postoperative pain and recovery in patients undergoing laparoscopic cholecystectomy: A randomized trial. International Journal of Medical Anesthesiology 2020; 3(2): 70-75
- 33. Saba,S. Bhalotra,AR. (2020).Does intravenous dexamethasone prolong the analgesia following supraclavicular brachial plexus block: A randomised controlled study. Journal of Anesthesiology and Reanimation Specialist's Society,28(4),267-74 doi: 10.5222/jarss.2020.37450
- 34. Saha, M. Saxena, KN. Wadhwa,B. (2020). Comparative study of recovery of airway reflexes and cognitive function following sevoflurane versus desflurane anaesthesia. Indian Journal of Anesthesia, 65(4), 282-8
- 35. Sharma,S. Bhalotra,AR. Awal,S.(2020) Changes in Lung Function Parameters after Total Intravenous Anaesthesia and Balanced Anaesthesia with Desflurane: A Prospective Randomised Study. Turkish Journal of Anaesthesiology & Reanimation, 48(1), 17-23
- 36. Sharma, S. Bhalotra, AR. Awal, S. (2020) Re: Attribution of Delayed Poor Lung Function to Desflurane-Based Balanced Anaesthesia Might be Inappropriate: Our Reply to Sharma et al.'s article. Turkish Journal of Anaesthesiology & Reanimation, 48(6),512-513. doi: 10.5152/TJAR.2020.030520

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- 37. Sherif, MJ. Kumar, R. Aggarwal, M. Gupta, L. Kumar, N. (2020). Ambu®AuraGainTM and I-gelTM as barriers to dye placed in the oropharynx- a preliminary study. Trends in Anaesthesia and Critical Care, 30.DOI: 10.1016/j.tacc.2019.12.046.
- 38. Singh,R. Sood,N. Singh, A. Seth,A. Gupta,L.(2020) A comparative evaluation of the analgesic efficacy of low doses of intrathecal neostigmine and bupivacaine with plain bupivacaine in lower limb surgery. Indian Journal of Clinical Anaesthesia, 7(4),1-7
- 39. Wadhwa B Chapter on 'Newer anti coagulants in Anesthesia' in the tenth issue of yearbook of Anesthesiology 2021 Edition

Journals

b) Number of Department teachers serving as editor(s)/member (s) of editorial board:05

Dr Kirti Nath Saxena

- 1. Editorial board member of Journal of Anesthesiology and clinical Pharmacology
- 2. Editorial board member of Journal of Obstetric Anesthesia and critical care
- 3. Editorial board member of Northern journal of ISA
- 4. Editorial board member of Medical journal of DY Patil university
- 5. Editorial board member of Journal of Anesthesiology and Pain Research
- 6. Editorial board member of Anesthesia-intensive care and pain therapy.
- 7. Editorial board member of Anaesthesia & Critical Care Medicine Journal
- 8. Editorial board member of MAMC Journal

Dr Neelam Prasad

1. Editorial board member of MAMC Journal of Medical Sciences

Dr Kapil Chaudhary

- 1. Editorial board member of MAMC Journal of Medical Sciences
- 2. Editorial board member of Indian Journal of Clinical Anaesthesia

Dr Amit Kohli:

- 1. Associate Editor of Indian Journal of Anaesthesia (Northern supplement)
- 2. Associate Editor of Indian Journal of Clinical Anaesthesia

Dr Lalit Gupta

- 1. Editor In Chief ofIndian journal of Clinical anaesthesia (January 2021) (https://www.ijca.in/boards/editorial-board)
- 2. Executive Editor for SAR Journal of Medical Case Reports. (February 2020) (https://sarmedjournals.com/sarjmcr/)
- 3. On Editorial board member of Practique Clinique et Investigation. (April 2020) (http://www.tridhascholars.org/clinical-practice-investigation-editorial-board.php)
- On Editorial board member of Journal of Advanced Research in Medical Science & Technology (ISSN: 2394-6539). (February 2020) (http://medicaljournalshouse.com/index.php/Journal-MedicalSci-MedTechnology/about/editorialTeam)
- 5. On Editorial board member of Journal of Medical Care Research and Review. (January 2020) (http://mcrr.info/index.php/mcrr/editorial_board)

1. Research projects

- a) Ongoing project
- 1. Comparative evaluation of laryngeal mask airway blockbuster versus intubating laryngeal mask airway for intubation. Dr Ankit Sinha, Dr Kirti Nath Saxena, Dr Bharti Wadhwa

- Comparative evaluation of TuoRen TM videolaryngoscope versus Mackintosh laryngoscope for laryngoscope and intubation in pediatric age group. Dr Pallavi Doda, Dr Kirti Nath Saxena, Dr Bharti Wadhwa
- 3. Comparative evaluation of median approach versus Taylor's approach for success and ease of administration of subarachnoid block. Dr Neha Gupta, Dr Kirti Nath Saxena, Dr Bharti Wadhwa
- Comparative evaluation of pre-mixed versus sequential administration of fentanyl as an adjuvant to hyperbaric bupivacaine for subarachnoid block in caesarean section.
 Dr Aakirthi Chaurasia, Dr Bharti Wadhwa, Dr Kirti Nath Saxena
- 5. Pre-operative evaluation of voice as a Predictor of difficult laryngoscopy. Dr Aditi Yadav, Dr Kirti Nath Saxena, Dr Bharti Wadhwa
- 6. To evaluate correlation of ss genotype of 5httlpr gene with post-operative nausea and Vomiting in patients undergoing elective Surgery. Dr Aditya Tiwari, Dr Kirti Nath Saxena, Dr Bharti Wadhwa
- 7. Comparative evaluation of LMA Protector Versus LMA Proseal in anesthetised Paralysed patients. Dr Garima Bhatt, Dr Kirti Nath Saxena, Dr Bharti Wadhwa
- 8. Comparative evaluation of Intra-peritoneal instillation of bupivacaine with Magnesium sulfate versus Bupivacaine with Dexmedetomidine for post-operative pain relief after Laparoscopic cholecystectomy. Dr Abhishek Yadav, Dr Bharti Wadhwa, Dr Kirti Nath Saxena
- To evaluate the effect of intravenous Magnesium sulphate infusion on Subarachnoid block characteristics for Caesarean section in preeclamptic Parturient. Dr Simran Sein, Dr Bharti Wadhwa, Dr Kirti Nath Saxena
- 10. To evaluate the efficacy of transversus Abdominis plane block versus epidural Block for post-operative analgesia Following lower segment cesarean section. Dr Vatsala Gupta, Dr Bharti Wadhwa, Dr Kirti Nath Saxena
- 11. To evaluate the efficacy of combination of Dexamethasone and Spironolactone on the time to clinical recovery and freedom from supplemental oxygen dependence in COVID-19 patients. Dr Bharti Wadhwa, Dr Kirti N Saxena, Dr Farah Hussain, Dr Sukhyanti Kerai, Dr Vikas Malhotra, Dr Nalini.
- 12. Dr Bharti Wadhwa, Dr Prachi Gaba, Dr Kirti Saxena, Dr Kavita Sharma, Dr Kapil Chaudhary. Retrospective analysis of the outcome of anesthesia procedures in COVID-19 parturient undergoing Cesarean delivery in a tertiary care hospital in Delhi, India
- 13. Amit Kohli, Kirti N Saxena, Sonia Wadhawan, Karthik Raman: Correlation of patients profile and biomarkers with outcomes in covid-19 icu patients: a retrospective analysis
- 14. Comparison of different methods of nasogastric tube insertion in patients undergoing surgeries under general anaesthesia. Dr Kirti Nath Saxena, Dr Sukhyanti Kerai, Dr Bharti Wadhwa
- 15. Dr Lalit Gupta, Dr Kirti N Saxena, Dr Kapil chaudhary, Dr Lovenish Bains "A randomized controlled trial of oxygen delivery through nasal cannula or simple face mask versus non-invasive PEEP (NIP) masks in patients with confirmed COVID 19 infection".
- 16. Dr Farah Husain, Dr Bharti Wadhwa, Dr Kirti N Saxena. Evidence Guided, Experience Based and Patient Compatible 3-Step Protocol for Managing Moderate to Severe Category of COVID19 infections
- 17. Evidence of presence of SARs-COVID virus in atmospheric air and surfaces of dedicated COVID hospital. Dr Kirti N Saxena
- 18. Association of blood group, serum zinc levels, serum ACE2 levels and gene polymorphism with clinical outcome of patients of COVID-19. Dr Bharti Wadhwa
- 19. The prospective study on the surface sampling of coronavirus disease 2019 (COVID19) in a designated COVID19 health care centre (WHO unity Protocol). Dr Bharti Wadhwa
- Dr Bharti Wadhwa, Co investigators for A Multicentre, Phase 2, Randomised Study to Assess the Efficacy and Safety of Bemcentinib for the Treatment of COVID-19 in Hospitalised Patients. Study: BGBC020/VZA88328

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- 21. Use of proseal laryngeal mask airway with pressure-controlled ventilation with positive end expiratory pressure in improving oxygenation in paediatric population. Dr. Arpit Singh, Dr. UC Verma, Dr. Kavita Rani Sharma, Dr Anju R. Bhalotra, Dr Mona Arya.
- 22. Comparison of postoperative stress in children receiving standard perioperative care versus perioperative conditioning by measurement of salivary cortisol levels. Dr. Himanshee Rathi, Dr. UC Verma, Dr. Kavita Rani Sharma, Dr Anju R. Bhalotra.
- 23. Role of pleth variability index in predicting the incidence of post spinal hypotension in parturients undergoing caesarean delivery. Dr. Merin Sara Abraham, Dr. UC Verma, Dr. Kavita Rani Sharma, Dr Anju R. Bhalotra, Dr Mona Arya.
- 24. Use of nasal cannula for apneoic oxygenation in children undergoing elective surgery inder general anaesthesia a randomised controlled study. Dr. Sohini Ray, Dr Anju R. Bhalotra, Dr. UC Verma, Dr. Kavita Rani Sharma, Dr Mona Arya.
- 25. Effect of intra operative hemispheric synchronised sounds on depth of anaesthesia and postoperative pain relief in children undergoing infra-umbilical surgeries. Dr. Nishitha Vashist, Dr. Kavita Rani Sharma, Dr. UC Verma, Dr Anju R. Bhalotra.
- 26. Effect of left lateral tilt on perfusion index in lower limb of the parturients during caesarean section. Dr. Gunjan Kamra, Dr. Kavita Rani Sharma, Dr. UC Verma, Dr Anju R. Bhalotra.
- 27. Evaluation of perfusion index and plethysmographic variability index as determinants of hypotension following induction with propofol. Dr Suraj Deepak Desai, Dr Anju R Bhalotra, Dr UC Verma, Dr Rahil Singh.
- 28. Effect of music therapy on perioperative analgesic requirement in patients undergoing spine surgery under general anaesthesia: A preliminary study. Dr Mousumi Saha, Dr Anju R. Bhalotra, Dr Rahil Singh, Dr UC Verma.
- 29. Evaluation of pulse oximeter derived perfusion index as predictor for incidence of hypotension during spinal anaesthesia in elderly. Dr Khusboo, Dr Anju R Bhalotra, Dr UC Verma, Dr Rahil Singh.
- 30. Comparative evaluation of efficacy of two different doses of nebulized Ketamine for premedication in children. Dr Khushboo, Dr Anju R. Bhalotra, Dr Rahil Singh, Dr UC Verma.
- 31. Desflurane consumption in patients undergoing laproscopic sleeve gastrectomy receiving Lidocaine versus Dexmedetomidine infusion. Dr Heena Naaz, Dr Anju R. Bhalotra, Dr Rahil Singh, Dr UC Verma.
- 32. Comparative evaluation of combined Pec I and SAP block vs thoracic paravertebral block for postoperative analgesia in patients undergoing modified radical mastectomy. Dr Venkatesh, Dr Sonia Wadhawan, Dr Poonam Bhadoria, Dr Amit Kohli
- 33. Role of intubating bougie or stylet for ease of intubation with reinforced endotracheal tube using Airtraq videolaryngoscope. Dr Theresa, Dr Sonia Wadhawan, Dr Poonam Bhadoria, Dr Amit Kohli
- 34. Effect of hypotensive anaesthesia on cerebral oxygen saturation during functional endoscopic sinus surgery under controlled ventilation. Dr Nisha, Dr Poonam Bhadoria, Dr Sonia Wadhawan, Dr Amit Kohli
- 35. Effect of high flow nasal cannula vs Venturi mask oxygenation after planned extubation in Intensive care unit patients. Dr Mohan, Dr Poonam Bhadoria, Dr Sonia Wadhawan, Dr Amit Kohli
- 36. Airtraq optical laryngoscope vs Mc Grath video laryngoscope for endotracheal intubation in the pediatric patients undergoing elective surgery. Dr Nity, Dr Poonam Bhadoria, Dr Sonia Wadhawan, Dr Amit Kohli
- 37. A comparative evaluation of goal directed and conventional intraoperative fluid therapy in major surgeries under General Anaesthesia. Dr Karthik, Dr Amit Kohli, Dr Poonam Bhadoria, Dr Sonia Wadhawan
- 38. C MAC Video laryngoscope VS Tuoren Video laryngoscope for endotracheal intubation in paediatric population undergoing general anaesthesia. Dr Ashika Johney, Dr. Sonia Wadhawan, Dr. Poonam Bhadoria, Dr. Simmi K Ratan, Dr. Amit Kohli

- 39. Comparative evaluation of dexmedetomidine and fentanyl with regards to recovery characteristics in patients undergoing laparoscopic sterilization under TIVA with propofol. Dr Vivek R, Dr Sonia Wadhawan, Dr Poonam Bhadoria, Dr Amit Kohli
- 40. A comparative evaluation of pulse pressure variation guided goal directed fluid therapy with conventional intraoperative fluid therapy in exploratory laparotomies under general anaesthesia. Dr Arshi Agrawal, Dr Amit Kohli, Dr. Poonam Bhadoria, Dr. Sonia wadhawan
- 41. Comparative evaluation of LMA Protector and endotracheal tube in thyroid and parathyroid surgeries under general anaesthesia. Dr Rinki Choudhary, Dr Amit Kohli, Dr Poonam Bhadoria, Dr Sonia Wadhawan
- 42. Comparative evaluation of Tuoren Videolaryngoscope vs CMAC Videolaryngoscope for endotracheal intubation in adult patients with simulated cervical spine injury. Dr Neha sharma, Dr Sonia Wadhawan, Dr Poonam Bhadoria, Dr Amit Kohli
- 43. Evaluation of hemodynamics and incidence of post dural puncture headache following spinal anaesthesia using Taylor's approach in patients undergoing infra-umbilical surgery. Dr Rahul Kumar Sharma, Dr Munisha Agarwal, Dr Neelam Prasad
- 44. Readiness to discharge time from post anaesthesia care unit based on orthostatic blood pressure testing following subarachnoid block in patients undergoing infra-umbilical surgery. Dr Harsh Anand, Dr Munisha Agarwal, Dr Neelam Prasad
- 45. Evaluation of the effect of intravenous ondansetron on hemodynamics following induction with propofol in adult patients undergoing surgery under general anaesthesia. Dr Lekshmi S, Dr Munisha Agarwal, Dr Neelam Prasad
- 46. Assessment of awareness and knowledge about Anaesthesia and Anaesthesiologist among patients undergoing surgery in a tertiary care hospital. Dr Tanzin Dikit Negi,Dr Munisha Agarwal
- 47. Comparative evaluation of scalpel and cannula cricothyroidotomy for emergency front of neck access in cannot intubate cannot oxygenate scenario. Dr Ravi Kumar, Dr Munisha Agarwal
- 48. To evaluate the effect of visual distraction on induction compliance in pediatric population. Dr Lalremruati Chhakchhuak, Dr Neelam Prasad, Dr Munisha Agarwal
- 49. To assess preoperative six minute walk test as a predictor of quality of recovery after major non-cardiac surgery. Dr Sumit, Dr Neelam Prasad, Dr Munisha Agarwal
- 50. To assess preoperative six minutes walk test as a predictor of quality of recovery after major non-cardiac surgery in post covid-19 patients. Dr Anupama, Dr Neelam Prasad, Dr Munisha Agarwal
- 51. To evaluate the use of telemedicine in Preanesthetic evaluation in patient undergoing surgery. Dr Venkateswaran V, Dr Neelam Prasad, Dr Munisha Agarwal
- 52. Effect of opioid free anaesthesia on postoperative recovery in patients undergoing laparoscopic cholecystectomy. Dr Geeta Chauhan, Dr Anju R Bhalotra, Dr Kavita R Sharma, Dr Mona Arya.
- 53. Comparitive evaluation of nebulized versus intravenous dexmedetomidine on intubating conditions during awake fiberoptic intubation. Dr Athira P Menon, Dr Anju R Bhalotra, Dr Kavita R Sharma, Dr Mona Arya.
- 54. Effect of intravenous lignocaine infusion on subarachnoid anaesthesia in patients undergoing total knee replacement. Dr Amulya Umesh Kodkani, Dr Anju R Bhalotra, Dr Kavita R Sharma, Dr Mona Arya.
- 55. Comparative evaluation of crico-mental distance based and weight based criteria for proseal LMA size selection in adult patients. Dr Nimith Prabhakar, Dr Kavita R Sharma, Dr Kirti N Saxena, Dr Anju R Bhalotra, Dr Mona Arya
- 56. Comparative evaluation of postoperative cognitive dysfunction in elderly patients following general anaesthesia using isoflurane and desflurane. Dr Upasana, Dr Kavita R Sharma, Dr Kirti N Saxena, Dr Anju R Bhalotra, Dr Mona Arya
- 57. Comparative evaluation of perioperative analgesic and sedative effects of music in adult patients undergoing lower limb orthopaedic surgery under spinal anaesthesia. Dr Prince Singh, Dr Kavita R Sharma, Dr Kirti N Saxena, Dr Anju R Bhalotra, Dr Mona Arya

- 58. Comparison of SOFA score with and without lactate as outcome predictor among patients admitted in ICU in a tertiary care hospital. Dr Sushmita, Dr Lalita Choudary, Dr Mona Arya
- 59. Comparison of intravenous dexmedetomine, magnesium sulphate and esmolol for attenuation of pressor response to laryngoscopy and endotracheal intubation. Dr Kajol, Dr Lalita Choudary, Dr Mona Arya
- 60. Comparison of Sequential organ failure assessment score (SOFA) alone versus SOFA with procalcitonin in outcome prediction among patients admitted in Intensive care unit in a tertiary care hospital. Dr Priyanka, Dr Lalita Chaudhary, Dr Kapil Chaudhary, Dr Lalit Gupta, Dr Binita Goswami
- 61. Comparison of Sequential organ failure assessment score (SOFA) alone versus SOFA with Interleukin 6 in outcome prediction among patients admitted in Intensive care unit in a tertiary care hospital. Dr Shashank, Dr Lalita Chaudhary, Dr Kapil Chaudhary, Dr Lalit Gupta, Dr Binita Goswami
- 62. Comparison of Sequential organ failure assessment score (SOFA) alone versus SOFA with D-dimer in outcome prediction among patients admitted in Intensive care unit in a tertiary care hospital. Dr Vipin, Dr Lalita Chaudhary, Dr Kapil Chaudhary, Dr Lalit Gupta, Dr Binita Goswami
- 63. To evaluate the role of pre-operative ultrasound assessment of airway in predicting difficult mask ventilation. Dr Vishrantkumar K Kushal Shetty , Dr Kapil Chaudhary, DR JS Dali, Dr kavita Rani Sharma, Dr Sapna
- 64. To evaluate the role of midazolam premedication in facilitating face mask ventilation during induction of general anaesthesia. Dr Roshita Singh, Dr Kapil Chaudhary, Dr Kavita Rani Sharma, Dr Lalit Gupta
- 65. To compare the effect of rocuronium administration before and after checking mask ventilation on the efficacy of face mask ventilation in patients with normal airway. Dr Megha, Dr Kapil Chaudhary, Dr Kavita Rani Sharma, Dr Lalit Gupta
- 66. Comparative evaluation of different oxygen flow rates through nasal canula on the efficacy of preoxygenation . Dr Kapil Chaudhary, Dr JS Dali, Dr Amardeep Singh, Dr Mona Arya
- 67. A randomized controlled trial of oxygen delivery through nasal cannula or simple face mask versus non-invasive PEEP (NIP) masks in patients with confirmed COVID 19 infection. Dr Lalit Gupta, Dr Kirti N Saxena, Dr Kapil Chaudhary, Dr Lovenish Bains
- 68. Controlled Evaluation of Angiotensin Receptor Blockers for COVID-19 respiratory disease: Prospective, Double blinded, Multicentric, Randomised controlled trial.

(b)Details of thesis completed during current year

- 69. Correlation of pain perception and fentanyl consumption after major abdominal surgery with CGRP 4218 T/C polymorphisms.Dr Prashant HT, Dr Kirti Nath Saxena, Dr Bharti Wadhwa
- 70. Comparative evaluation of effect of operating table height on spinal needle entry angle, ergonomics and comfort of anaesthesiologist. Dr Akula Vijay Kumar, Dr Kirti Nath Saxena, Dr Bharti Wadhwa
- 71. Comparative evaluation of baseline heart rate and perfusion index as predictors of post spinal hypotension in parturients undergoing caesarean section. Dr Saurabh Gaur, Dr Bharti Wadhwa, Dr Kirti Nath Saxena
- 72. Dr Sukhyanti, Dr Rahil, Dr K N Saxena. A retrospective study on experience of high flow nasal cannula oxygen in critically ill COVID-19 adult patients admitted to intensive care unit
- 73. Dr Sukhyanti, Dr Rahil, Dr K N Saxena Assessment of risk factors for coronavirus disease 2019 (COVID-19) in health care workers: a case control study
- 74. Dr Rahil, Dr K N Saxena, Dr Sukhyanti .A survey on assessment of side effects of hydroxychloroquine prophylaxis doses in health care works working in Intensive care units

- 75. Dr Pallavi, Dr Sukhyanti, Dr K N Saxena Professional quality of life in ICU professionals during COVID-19 pandemic: a prospective observational cross-sectional study
- 76. Evaluation of Perfusion index as a determinant of depth of Anaesthesia: correlation with minimum alveolar concentration and bispectral index. Dr. Suraj Desai, Dr Anju R. Bhalotra, Dr. UC Verma, Dr. KN Saxena, Dr. Kavita Rani Sharma
- 77. Evaluation of effect of head flexion and extension on depth of orotracheal tube in children. Dr. Praveen Kumar, Dr. UC Verma, Dr Kavita R. Sharma, Dr Anju R. Bhalotra.
- 78. Comparative evaluation of ventilation using intraoral mask versus conventional face mask. Dr Keshav Gaur, Dr UC Verma, Dr Kavita R. Sharma, Dr Anju R. Bhalotra.
- 79. Evaluation of perfusion index and plethysmographic variability index as determinants of hypotension following induction with propofol. Dr Suraj Deepak Desai, Dr Anju R Bhalotra, Dr Rahil Singh, Dr UC Verma
- 80. Comparative evaluation of postoperative cognitive dysfunction following general anaesrhesia with propofol and isoflurane in elderly patients. Dr Neetha Prabhu, Dr Kavita R. Sharma, Dr. UC Verma, Dr Anju R. Bhalotra.
- 81. A comparative evaluation of two techniques of two-handed mask ventilation in obese adult patients. Dr Ghazala, Dr Kavita R. Sharma, Dr. UC Verma, Dr Anju R. Bhalotra.
- 82. Efficacy of granisetron for prevention of post spinal anaesthesia shivering, nausea and vomiting in parturients undergoing Caesarean section. Dr Amardeep Singh, Dr JS Dali, Dr Mona Arya, Dr Kapil Chaudhary
- 83. Efficacy of high-volume low-concentration intraperitoneal bupivacaine irrigation for postoperative analgesia in patients undergoing laparoscopic cholecystectomy. Dr Swati Panwar, Dr JS Dali, Dr Mona Arya, Dr Kapil Chaudhary, Dr Sushanto Neogi.
- 84. Best position for laryngeal mask airway removal in deep plane of anaesthesia in children. Dr Kavita Rani Sharma, Dr Shweta Dhiman, Dr Anju R Bhalotra
- 85. Audit about awareness of anaesthesia as a speciality among doctors. Dr Kapil Chaudhary
- 86. Comparative evaluation of different oxygen flow rates through nasal canula on the efficacy of preoxygenation. Dr Kapil Chaudhary, Dr JS Dali, Dr Amardeep Singh, Dr Mona Arya: pilot study done; submitted for College Ethics Committee approval.
- 87. Comparative evaluation of airtraq optical laryngoscope with Macintosh laryngoscope for endotracheal intubation in the paediatric population. Dr.Shruti Kumari. Dr Sonia Wadhawan, Dr Poonam Bhadoria, Dr Amit Kohli
- 88. Comparison of airtraq and McGrath video laryngoscope for endotracheal intubation in simulated cervical spine injury patients. Dr Shweta Jain, Dr Poonam Bhadoria, Dr Sonia Wadhawan, Dr Amit Kohli
- 89. Comparison of C- mac video laryngoscope and flexible fiberoptic bronchoscope for awake endotracheal intubation in adult patients. Dr Nimma Suresh Chandra, Dr Poonam Bhadoria, Dr Sonia Wadhawan, Dr Amit Kohli
- 90. Comparison of two methods for facilitating navigation of thermosoftened endotracheal tube during nasotracheal intubation. Dr Kirti Nath Saxena, Dr Prashant HT, Dr Sukhyanti Kerai, Dr Bharti Wadhwa
- 91. Effect of aromatherapy with saline, 70% isopropyl alcohol and ginger oil on postoperative nausea and vomiting in patients of day care laproscopic cholecystectomy –a prospective, randomized, comparative study. Dr Gaurav Agarwal, Dr Kirti N Saxena, Dr Bharti Wadhwa
- 92. Comparison of partially flexed knee position & traditional sitting position for ease of spinal needle placement. Dr Sheetal, DrMunisha Agarwal, Dr Rakesh Kumar, Dr Neelam Prasad

- 93. Efficacy of preoperative oral glucose loading for attenuating perioperative stress response to surgery under general anaesthesia. Dr Archana, Dr Munisha Agarwal, Dr Rakesh Kumar, Dr Neelam Prasad, Dr Binita Goswami
- 94. Efficacy of preoperative newer information technology device (video clip) with intranasal dexmedetomidine to allay preoperative anxiety in pediatric population. Dr Mithun KA, Dr Neelam Prasad, Dr Munisha Agarwal
- 95. Effect of music therapy on perioperative analgesic requirement in patients undergoing spine surgery under general anaesthesia: A preliminary study. Dr Mousumi Saha, Dr Anju R. Bhalotra, Dr Rahil Singh,, Dr UC Verma.
- 96. Evaluation of pulse oximeter derived perfusion index as predictor for incidence of hypotension during spinal anaesthesia in elderly. Dr Khusboo, Dr Anju R Bhalotra, Dr Rahil Singh, Dr UC Verma.
- 97. Comparative evaluation of efficacy of two different doses of nebulized Ketamine for premedication in children. Dr Khushboo, Dr Anju R. Bhalotra, Dr Rahil Singh, Dr UC Verma.
- 98. Desflurane consumption in patients undergoing laproscopic sleeve gastrectomy receiving Lidocaine versus Dexmedetomidine infusion. Dr Heena Naaz, Dr Anju R. Bhalotra, Dr Rahil Singh, Dr UC Verma.
- 2. Seminar organized: Workshops on oxygen therapy in COVID-19 patients
- 3. Conferences organized: Monthly Meet of Delhi Chapter ISA (Nov 2020)
- 4. Seminar/conference presentations (National/International):

Dr Kirti N Saxena

- 1. Delhi branch ISA Annual meet on 3.10.20. as faculty
- 2. Online CME by ICA on October 2020 as faculty
- 3. Monthly meet ISA Delhi Chapter 21 Nov 2020 as faculty
- 4. Invited as a speaker for Anaesthesia Postgraduate Pre Examination Course (APPEC-21) to be held from 6th-14th Feb,2021 at RML hospital

DR Munisha Agarwal

- ÁSI Surgery Zoom Webinar :30th June 2020 as faculty
- ISACON 2020 organised by Sir Gangaram Hospital, Delhi 3rd Oct'2020 as faculty
- Invited as a speaker for Anaesthesia Postgraduate Pre Examination Course (APPEC- 21) to be held from 6th-14th Feb,2021 at RML hospital

Dr Anju R Bhalotra

- 1. Participated as a faculty (Speaker) in the 59th Annual Virtual Conference of the Indian Society of Anaesthesiologists, Delhi Branch (ISACON 2020) which was organised by the Department of Anaesthesiology Sir Ganga Ram Hospital on 4th October, 2020. Participated in panel discussion on paediatric Anaesthesia.
- 2. Lecture on anaesthesia for CD in ICA Academics webinar on Obstetric Anaesthesia on 14 Nov 2020
- 3. Invited as a speaker for Anaesthesia Postgraduate Pre Examination Course (APPEC-21) to be held from 6th-14th Feb,2021 at RML hospital. Took lecture on Total Intravenous Anasethesia on12.02.2020.
- 4. Speaker at Paediatric surgery update on 11th March 2021. Took lecture on "Anaesthetic Considerations in a Pediatric Patient".

Dr Sonia Wadhawan

- 1. Obstetric Anaesthesia Webinar organised by ICA on 28th Oct 2020.
- 2. Invited as a speaker for Anaesthesia Postgraduate Pre Examination Course (APPEC-21) to be held from 6th-14th Feb,2021 at RML hospital

Dr Bharti Wadhwa

- Examiner for Diploma Anesthesiology examination Delhi University, July 2020
- Setting up of COVID OT at LNH
- Organizing Secretary for workshop on Ultrasound guided regional anesthesia (URAW) organized by Department of Anaesthesiology, MAMC (March 2020)
- Examiner for MD Anaesthesiology Final Examination. Pt. B.D. Sharma University of Health Sciences, Rohtak May 2019 (Setting up of Theory paper)
- Peer reviewer of Journal of Neonatal Surgery
- National NBE Webinar Coordinator in the speciality of Anaesthesia.
- Inspector for NBE accreditation at Artemis Hospital Gurugram, September 2020
- Inspector for NBE accreditation at Ivy Hospital Mohali, February 2020
- Examiner for Final DNB Practical Examination Anesthesiology held at Sir Ganga Ram Hospital, New Delhi November 2020
- Examiner for Final DNB Practical Examination Anesthesiology held at SGT University, Gurugram March 2021
- Member expert committee of HIMS, DGHS, GNCTD Delhi govt with regard to Health Helpline Service Provider Call Centre Project
- Member Expert Committee constituted by DGHS H&FW, GNCTD for inspection of standard treatment for COVID management in Delhi Hospitals

Dr Kapil Chaudhary

- 1. ISA Yuva Conference on 5-6 sept 2020
- 2. National airway Conference 2020 held in oct 2020

Dr Amit Kohli

- 1. Webinar organized by lapguru.com on impact of COVID-19 on anaesthesia practice 23 April 2020.
- 2. First YUVA ISACON National conference on 5^{th} and 6^{th} September 2020
- 3. Webinar on oxygenation and ventilation in COVID-19 organized by ISA Gujrat state branch on 5th Nov 2020
- 4.Invited as a speaker for Anaesthesia Postgraduate Pre Examination Course (APPEC-21) to be held from 6th-14th Feb,2021 at RML hospital

Dr Lalit Gupta

- 1. **Round Table panelist** for "Human Development after Pandemic COVID-19" for BRICS Educational Internship Programme
- 2. As a **Key Speaker** for NBE Anesthesiology webinar: Non-operating Room Anaesthesia on, December 30, 2020.
- 3. As a **Key Speaker** in RSACP academic Webinar Series 2020 for anaesthetic consideration for Radiological Imaging in Children-CT,MRI on November 3,2020.
- 4. As a **Key Speaker** in International Webinar Series "Reference Manager Software: Know all about it?" in International Webinar Series "Cornerstone of Scientific Publication" organized by IESRF in collaboration with IP Innovative Publication Pvt. Ltd. on October 31, 2020
- 5. Participated in "**Panel Discussion**: How are Publishers Building Trust in the Peer Review System?" by Enago Academy, a global leader in editing and publication support service on September 23, 2020.
- 6. **Co-organizer and Technical coordinator for** International Peer Review workshop 2020 held on 19th, 20th, 26th and 27th September 2020 (organized by IP innovative Publication Pvt. Limited).

- 7. **Key Speaker for** "Reference Manager Software: what is it and what can it do?" in International Peer Review workshop 2020 held on 26th September 2020 (organized by IP innovative Publication Pvt. Limited).
- 8. **Key Speaker for** "Quantitative and Qualitative Analysis of Peer Review?" in International Peer Review workshop 2020 held on 19th September 2020. (Organized by IP innovative Publication Pvt. Limited).
- 9. Certificate of Completion for the Webinar "Cornerstone of Scientific Publication" held on 17th August 2020 by IESR Foundation
- 10. Indian Associate for Front Line COVID-19 Critical Care Alliance, Prophylaxis & Treatment Protocols for COVID-19Worldwide MATH+ associates
- 11. Round Table panelist for "Human Development after Pandemic COVID-19" for BRICS Educational Internship Programme
- 12. Part of Draft Recommendations made by the BRICS Working Group "Education and Science" for the BRICS Civil Forum in 2020.(August 26,2020; September 2,2020)

Dr Rahil Singh

- 1) ISA clinical meet in the month of Nov 2020, Moderated a paper titled 'A retrospective study on experience of high flow nasal cannula oxygen in adult patients 'in ISA clinical meet in Nov 2020.
- 3) Paediatric Perioperative Life Support online course (e-PPLS) on 10th and 11th April2021.
- 4) NMC Revised Basic Course Workshop from 7th to 9th April 2021 at NMC Regional Centre; Department of Medical Education, Maulana Azad Medical College New Delhi.

Dr Sukhyanti Kerai

ISA clinical meet in the month of Nov 2020, Moderated a paper titled 'A retrospective study on experience of high flow nasal cannula oxygen in adult patients 'in ISA clinical meet in Nov 2020.

11.Other inter-institutional collaboration:

Dr Munisha Agarwal

- 1. Was appointed Nodal In- charge Covid ICUs, LNH, Delhi for Covi-19 Pandemic.
- 2. Was member of 'Treatment Guidelines for Covid-19' committee, Newer Drugs for Covid-19' committee, Covid-19 Quarantine Committee, 'Death Review committee, of LNH, Delhi
- 3. Chairperson of Inspection committee for Management of Covid-19 appointed by the Delhi Govt.
- 4. Chairperson of Purchase committee CPA of Delhi Govt. for HFNO, BIPAP Machines, Oxygen concentrators.
- 5. Appointed member of 'Medical Assessment and Rating Board' National Medical Commission.
- 6. ICMR Project Review Committee
- 7. Founder member of Airway Management Foundation
- 8. Examiner: For MD Examinations 2020, Delhi University, held at MAMC, Delhi, July 2020.
- 9. Conducted Inspections for National Medical Commission for multiple medical colleges in India for UG and PG courses
- 10. Conducted Inspection for National Board of Examination, ESI Hospital, Jhilmil, Delhi on 6.10.20.

Dr Kirti Nath Saxena

- 1. UPSC expert for interview for selecting Professor for GMC Chandigarh on 12.10.2020
- **2.** Expert in Committee recommendation for staff in department of Anaesthesia at ESI medical college Hyderabad on 16.7.2020

- 3. External expert in Technical Advisory committee Meeting at CNBC on 22.6.6.2020
- 4. Evaluated thesis of AIIMS, Rishikesh, Pt.B.D. Sharma University of Health Sciences, Rohtak, Shri Guru Ram Das Institute of Medical Sciences and Research, Amritsar, University of Kolkatta, NBE
- 5. Rater for the McMaster Online Rating of Evidence (MORE) System offered through the Health Information Research Unit of McMaster University, Canada
- **6.** Member of courses committee for Anesthesiology, University of Delhi

Dr Anju R Bhalotra

- 1. Nominated as external expert for filling up the post of Assistant Professor (Anesthesia) in teaching subcadre on contract basis in VMMC & safdarjung hospital, New Delhi On 26.8.2020
- 2. Invited to NBE Dwarka Office from 22nd August to 05th September 2020 for Moderation of Question Paper in the specialty of Anaesthesiology.
- 3. Appointed as expert for selection of Senior Residents at LNH.
- 4. Appointed to Specialist Board in Anaesthesia NBE
- 5. Invited to NBE, Dwarka Office, New Delhi for assessment of answer sheets of practical OSCE Stations in Anaesthesiology on 12th November 2020.
- 6. Appointed as external examiner for online evaluation of thesis/ e-thesis, AIIMS, New Delhi in Nov 2020
- 7. Invitied as a faculty to participate in the Post exam Question paper review workshops of FMGE held on 04.12.2020 in the specialty of Anaesthesiology on 9TH December 2020.
- 8. Appointed as member of committee for procurement of oxygen concentrators for Delhi Govt through CPA during Covid Pandemic
- 9. Appointed as examiner for assessment of DNB Thesis in the specialty of Anaesthesiology.
- 10. Appointed as expert reviewer for reviewing manuscript for Expert Review of Medical Devices
- 11. Invited to NBE Dwarka Office, New Delhi for assessment of answer sheets of practical OSCE Stations in the specialty of <u>ANAESTHESIOLOGY</u> on <u>8TH MARCH 2021</u> (10:00 AM Onwards).
- **12.** Invited as subject matter expert for OSCE writing workshop at Hotel Taj Vivanta, Metro Station Road, Sector-21, Dwarka, New Delhi-110075 on 7th & 8th February 2021 in the specialty of Anaesthesiology.

Dr Sonia Wadhawan

- 1. Member of expert committee constituted by Delhi Government to Inspect the COVID-19 treatment facilities at various Delhi hospitals in August 2020.
- 2. Reviewer for Journal JOACP.
- 3. Reviewed the book title "South Asian Edition of Stoelting's Pharmacology & Physiology,5th edition," published by Wolters Kluwer
- 4. Appraiser for start of DNB Anaesthesiology program at
 - -Central hospital, NF Railways Mailgaon, Guwahati 28th January 2020
 - -Kalpana Chawla Govt Medical College, Model Town Karnal, Haryana, Feb 19th 2020
 - -Mata Chanan Devi Hospital, New Delhi on 30th July 2020
- 5. Member of Maternal Death Review Committee for Deptt. Of Obst. & Gynae, Lok Nayak Hospital.
- 6. Appointed as Member of the Sexual harassment committee at LNH.
- 7. Appointed as Member (deptt of Anaesthesiology) of the administrative committee for the day to day functioning of the Post graduate Medical Foundation and Training cell (PGMET)
- 8. External examiner for PDCC Practical exam in paediatric Anaesthesia in King George's Medical University, Lucknow on 3rd Nov 2020
- 9. Moderation of question paper in the specialty of Anaesthesiology (theory paper) by NBE
- 10. Examiner for the Practical exam for DNB Anaesthesiology held on 21st July 2020 at Gangaram Hospital, New Delhi.
- 11. Onsite assessment of DNB practical OSCE station on 22nd July 2020

- 12. Set the theory paper for IP University MD Anaesthesiology exam in July 2020 and was the Examiner for the practical exam for MD Anaesthesiology held at Dr Ram Manohar Lohia Hospital
- 13. Preparation of OSCE questions for DNB Anaesthesiology 2020
- 14. Assessed theory answer sheets of **ANAESTHESIOLOGY Paper** in Dec 2020
- 15. Assessor for thesis for NBE, AIIMS Rishikesh, KGMU, Lucknow, PGI Chandigarh and BFUH Punjab in 2020.

Dr Bharti Wadhwa

- 1. Examiner for Diploma Anesthesiology examination Delhi University, July 2020
- 2. Organizing Secretary for workshop on Ultrasound guided regional anesthesia (URAW) organized by Department of Anaesthesiology, MAMC (March 2020)
- 3. Examiner for MD Anaesthesiology Final Examination. Pt. B.D. Sharma University of Health Sciences, Rohtak May 2020
- 4. Peer reviewer of Journal of Neonatal Surgery
- 5. National NBE Webinar Coordinator in the speciality of Anaesthesia.
- 6. Inspector for NBE accreditation at Artemis Hospital Gurugram, September 2020
- 7. Inspector for NBE accreditation at Ivy Hospital Mohali, February 2020
- 8. Examiner for Final DNB Practical Examination Anesthesiology held at Sir Ganga Ram Hospital, New Delhi November 2020
- 9. Examiner for Final Practical PG Exam at SGT University Gurugram
- 10. Vice President of MAMC CHS TA

Dr Kapil Chaudhary

1. Reviewer for Indian Journal of Clinical Anaesthesia during 2020.

Dr Amit Kohli

- 1. Reviewer of Journals in Anaesthesiology:
 - (a) Indian Journal of Anaesthesia
 - (b) Anesthesia Intensive Care and Pain therapy &
 - (c) Case studies in Anesthesia
- 2. Executive member at Gurukool, MAMC
- 3. Member at TAFT review board LN Hospital
- 4. Appointed as expert for assessment of thesis of NBE trainees
- 5. Appointed as expert for assessment of thesis of AIIMS Delhi and PGIMS Rohtak

Dr Sukhyanti Kerai

Reviewer for BMC Anesthesiology & Journal of Pain Research

Faculty Strength: 20 (15 regular and 05 contractual)

ANAESTHESIOLOGY (GIPMER)

Faculty members: 12

Major Activities and Achievements

• The Anaesthesia Dept. was actively involved in preparation and management of the Covid pandemic. The faculty members were at the forefront of clinical management of Covid patients in the OTs and ICUs, formulating and implementing Covid-specific SOPs, and teaching and training of health care workers about prevention of transmission of infection, oxygen therapy, ventilator management and Basic Life Support practices in Covid patients.

Honours/ Distinctions

- **Dr. V Datt**: FIACTA teacher accreditation for Cardiac-thoracic Anaesthesia.
- Dr. P Ganjoo: Head of Education Committee of Indian Society of Neuroanaesthesiology and Critical
 Care (ISNACC); Awarded 'Certificate of Recognition' by the Editorial Board of Journal of
 Neuroanaesthesiology and Critical Care (JNACC) for contribution as Section Editor for the year 2020.
- **Dr. S Virmani**: FIACTA teacher accreditation for Cardiac-thoracic Anaesthesia.
- Dr. AH Choudhuri: Received the Presidential Citation for outstanding contribution to Critical care
 medicine from Indian Society of Critical Care Medicine (ISCCM) in 2020; Elected as National executive
 member of ISCCM for 2020-22.
- Dr Rachna Wadhwa successfully completed the course of Fellowship of Indian Association of Cardiovascular Thoracic Anaesthesiologists (FIACTA) in 2020.
- The Neuro-anaesthesia team was awarded the 3rd prize for paper presentation at DNACON 21 conference, organized by the Delhi Neurological Association on 05.02.21.

Publications

- Datt V, Wadhwa R, Kumar M, Agarwal S. Senning palliation surgery for d-transposition of great arteries: is there a role for it? open access. Clin Surg. 2021; 2 (6): 3085.
- Virmani S, Datt V, Tempe DK, Minhas HS, Meher R, Goswami AD, Sharma S, Malik I. Spontaneous bag mask ventilation for establishing cardiopulmonary bypass via mid-sternotomy in patients with severe tracheal stenosis: a series of three patients. Ann Card Anaesth. 2020; 23 (2): 241-245.
- Wadhwa R, Sawhney C, Tempe DK.Gender Bias-An Indian Perspective. J Cardiothorac Vasc Anesth. 2020; S1053-0770 (20): 30506-1.
- **Khurana P, Ganjoo P,** Duggal S, <u>Kiro KL</u>, Dhanwani L, **Tandon MS**, Singh D, Jagetia A. Perioperative practices and outcome of neurosurgery during the Covid-19 pandemic: institutional experience and retrospective observational analysis. Indian Journal of Neurosurgery. E-first publication 2021. DOI: 10.1055/s-0041-1729463.
- Kumar P, Bodeliwala S, Aher R, Jagetia A., Srivastava AK, Singh D, Ganjoo P. Evaluation of ischemia following clipping of anterior circulation aneurysms with respect to temporary clipping using diffusion-weighted magnetic resonance imaging: a prospective study. Indian J Neurosurg 2020. DOI 10.1055/s-0039-3402625.

- Duggal S, Khurana P, Ganjoo P, Das N. Anesthetic challenges in the management of intracranial aneurysm clipping in a patient with hypertrophic cardiomyopathy. J Neuroanaesthesiol Crit Care. E-first publication 19.11.2020. DOI: 10.1055/s-0040-1716425.
- Wadhwa R, Ganjoo P, Ahluwalia P, Singh D. Delayed oesophageal perforation after cervical spine surgery: a lesser known devil. Indian J Clin Anaesthesia 2021; 8 (1): 144–147.
- Singh D, Dutta G, Jagetia A, Singh H, Srivastava AK, Tandon M, Ganjoo P. Microvascular decompression for trigeminal neuralgia: experience of a tertiary care center in India and a brief review of literature. Neurol India 2021; 69: 206-12.
- Faisal I, **Ganjoo P**. Cerebral aneurysm surgery in a patient with chronic renal failure: perioperative concerns and conflicts. Int. J Sci Research 2021; 10: 58-59. DOI: 10.36106/ijsr/4002026.
- Choudhuri AH, Duggal S, Ahuja B, Biswas PS. The efficacy and safety of hydroxychloroquine (HCQ) in treatment of COVID-19: a systematic review and meta-analysis. Indian J Med Microbiol. 2021; 39 (2): 159-170.
- Choudhuri AH, Duggal S, Ahuja B, Uppal R. An observational study on the effects of delayed initiation of end-of-life care in terminally ill young adults in the intensive care unit. Indian J Palliat Care 2021; 27: 31-4.
- Biswas PS, Sen D, Choudhuri AH, Makkar D, Kapoor M, Goyal A. Association of demographic, clinical, laboratory, and radiological characteristics with outcomes of COVID-19 patients: a systematic review and meta-analysis. J Microbiol Infect D 2020; 10 (03): 121-135.
- Duggal S, Ahuja B, Biswas PS, Choudhuri AH. A survey of physicians' appreciation and knowledge about airway safety measures in the wake of COVID-19 pandemic. J Anaesthesiol Clin Pharmacol 2020; 36: 350-8.
- Choudhuri AH, Sharma A, Uppal R. Effects of delayed initiation of End-of-Life (EOL) care in terminally ill intensive care unit (ICU) patients. Indian J Crit Care Med 2020; 24 (6): 404-8.

Book Chapters

- Tandon MS, Goswami A, Verma V. Management of patients with scoliosis. In Prabhakar H (ed).
 Problem Based Learning Discussions in Neuroanesthesia and Neurocritical Care. 1st edition; Springer Inc 2020: p 291-232.
- Tandon MS, Kiro KL, Gupta P, Singh D. Transfusion practice in Jehowahs witness. In Prabhakar H (ed). Transfusion Practice in Clinical Neurosciences. 1st editon; Springer Inc (In Press).

Number of teachers serving as Editors/members of Editorial board

Dr Pragati Ganjoo:Section editor for original articles, Journal of Neuroanaesthesiology and Critical Care; Peer reviewer: Journal of Neuroanaesthesiology and Critical Care, Neurology India, Journal of Anaesthesiology and Clinical Pharmacology.

Dr Vishnu Datt: Editorial board of the "Annals of cardiac anesthesia; Editorial board of- Indian Journal of Anaesthesia and Analgesia.

Dr Monica S Tandon: Section Editor for review articles in Journal of Neuroanesthesiology and Critical Care; Coeditor for Transfusion Practice in Clinical Neurosciences. 1st edition. Springer Inc (In Press).

Dr Sanjula Virmani: Editorial board of the Annals of cardiac anesthesia.

Dr Anirban Hom Choudhuri: Editorial board member of Journal of Anesthesiology & Clinical Pharmacology; Peer reviewer: Indian Journal of Critical care Medicine, Journal of Critical Care, Indian Journal of Anaesthesia. **Dr Rachna Wadhwa**: Associate Editor, Indian Journal of Clinical Anaesthesia; Editorial board of Indian Journal of Anaesthesia and Analgesia.

Research Projects (Non-funded)

- Impact of anaemia and peri-operative transfusion on morbidity and mortality in adult patients undergoing cardiac surgery- A prospective observational study. Datt V, Tomar A et al.
- Pre-emptive role of low dose milrinone infusion intra-operatively in patients with left ventricular dysfunction undergoing off-pump coronary artery bypass (opcab) surgery. Datt V, Kumar M.
- Comparison of effects of dexmedetomidine-isoflurane combination with dexmedetomidine-propofol combination on electrocorticography in patients undergoing electrocorticography-guided epilepsy surgery: A prospective, randomized study. Kutum C, **Khurana P**, **Ganjoo P**, et al.
- Neurological and obstetric outcomes in pregnant neurosurgical patients: Ganjoo P.
- Anesthesia for craniosynostosis: our experience with syndromic children. Ganjoo P, Kiro KL.
- Evaluation of factors affecting surgical outcome of clipping of intracranial aneurysms. Jadhav AC,
 Jagetia A, Ganjoo P.
- Efficacy of intranasal dexmedetomidine as an adjuvant during transnasal transsphenoidal pituitary tumor resection surgeries. Tandon MS, Kiro KL.
- A study of perioperative results and complications of neurosurgery in patients of geriatric age group" A study of the Dissertation.Modi P, **Tandon MS**.
- Comparative efficacy of levosimendan versus milrinone in patients with severe pulmonary hypertension undergoing elective mitral valve replacement surgery. Virmani S.

• Use of dexmedetomidine in attenuating the stress response to laryngoscopy and intubation in patients undergoing mitral valve replacement for severe mitral stenosis. Virmani S, Khurana P.

Seminars Organized:

Dr A H Choudhuri

- Procalcitonin- status update (webinar) on 9th October 2020.
- Research Methodology workshop (webinar) on 29th May 2020.
- Post COVID illness- critical update (webinar) on 15th March 2021.
- COVID- trends in diagnosis & management (webinar) on 27th March 2021.

Conferences Organized

Dr A H Choudhuri: 7th Annual Conference on Critical Care Advances in the millennium (mini ACCORDION 2021) on virtual platform on 9th January 2021.

Seminar/Conference Presentations

Dr Vishnu Datt

Chairperson- session in 9th perioperative echo webinar slated during December 2nd - 4th, 2020 at Medanta the Medicity, Gurugram;

Chaired a session on cardiac anesthesia in annual ISACON Delhi branch on 2nd October 2020;

Chaired and moderated the SCA Delhi NCR annual meeting: a zoom webinar. TIVA in covid - part 3 on 17thoctober, 2020:

Attended webinars on balanced crystalloids solution in priming heart-lung machine: advantages and limitation. organized by aesculap academy asia pacific, baxter anaesthesia team, on 23-01-21,

Attended, pitstop webinar on myocardial protection using newer volatile anaesthetic agents on 27-11-2020, hemodynamic monitoring in cardiac anesthesia - present and future on 24-10-2020, mechanical circulatory support 2020 on 16-10-20, postgraduate assembly on 'TIVA in cardiac practice course' on 26-09-20.

Dr P Ganjoo

Chairpersonfor Pro-Con debate on "Anaesthetics are Neuroprotective versus Neurotoxic" at 22nd Annual Virtual Conference of ISNACC (2021) on 24th – 26th January 2021;

Panelist for discussion on "Acid base and Electrolytes disturbances in Paediatric Craniopharyngioma" at 3rd Annual Conference of Society of Neurocritical Care (SNCC-India)- Virtual, organized by Medanta, the Medicity, Gurugram, on 27th - 29th November 2020;

Session moderator for session on "Addressing the Grey Areas in Management of Stroke" in the 1st Annual Conference of Neurocritical Care Society of India (NCSI) and Annual Critical Care Update (ANCU-2020)-Virtual, organized by Artemis Hospital, Gurugram on 2nd- 4th October 2020;

Chairperson for session on "TBI and Anaesthesia for intracranial SOL" in Anaesthesia Postgraduate Preexamination course (APPEC 21), organized by Dept. of Anaesthesia, ABVIMS, Dr. RML Hospital on 11.2.2021.

Dr Monica S Tandon

Chaired two (2) sessions at the 22nd Annual Conference of the Indian Society of Neuro-anaesthesiology and Critical Care (ISNACC), organized by ISNACC, from 24.01.21 -26.01.21; Chairperson at 3rd Annual Conference of SNCC, conducted from 27.11.21 – 29.11.21. Topic of the session- "Stroke- Ischemic and hemorrhagic".

Dr Sanjula Virmani

Chairperson: Hemostasis and cardiac surgery. Invited faculty and chair the session for the topic '3D Echo exam of LV function'.

Dr Anirban Hom Choudhuri

Delivered talks on

- "Statistical methods in research" 27th Annual Conference of Indian Society of Critical Care Medicine on 26-28 Feb, 2021;
- "How to choose the right antibiotic in ICU?" at ISA PG Assembly at RML Hospital, Lucknow on 6th March, 2021:
- "The future of antibacterials" and "Have we been able to diagnose AKI earlier in critical care?" at 10th Annual Conference of UP/UK chapter of ISCCM at Bareilly on18-20th March, 2021;
- "Skin & soft tissue catastrophe" at the 9th Annual Refresher Course of Critical Care Medicine of ISCCM Gurugram at Medanta Hospital, Gurugram on 11-15th March, 2021;
- "Ethics & legality of withholding life support in ICU" at E-Criticare organized by ISCCM on 8th & 9th Nov, 2020; "Refractory hypoxemia in ARDS" in the International Critical care Conference organized by Bangladesh society of Anesthesiology on 17-19th October, 2020.

Dr Kiran Lata Kiro

Faculty at 3rd Annual Conference of Society of Neurocritical Care (SNCC-India) – "Virtual" organized by Medanta, Gurugram, held from November 27th to 29th, 2020.

Participated as panelist in a discussion on Acid Base & Electrolyte disturbances in pediatric craniopharyngioma; Faculty at 22nd Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC 2021) "virtual" organized by ISNACC office, held from 24th to 26th January 2021. Chaired session; Faculty at APPEC 2021 (Anaesthesia Postgraduate Pre-Examination Course) Organised by Department of Anaesthesia, ABVIMS, Dr. RML Hospital & held from 6 to 14 February 2021. Delivered a lecture on Anaesthetic concerns in Intracranial SOL (supratentorial/posterior fossa tumors);

Paper presentation on "Neuro-anaesthetic considerations of Intracranial Aneurysms in Children: An institutional experience" at the 22nd Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC 2021) "virtual" organized by ISNACC office, held from 24th to 26th January 2021; Paper presentation on "An unusual cause of perioperative cardiac arrest in a patient of Trigeminal Neuralgia" at the 23rd Annual Conference of Delhi Neurological Association (DNACON 2021) virtual, held from 5th to 7th

Dr Priyanka Khurana

February 2021.

Invited as a panelist in Panel discussion – Neurocritical care management of spine trauma in the 3rd Annual Conference of the Society of Neurocritical Care (SNCC) – Virtual, from the 27th-29th November 2020;

Delivered a web seminar on 'Neuromonitoring in Anaesthesia and Critical Care' on 11.11.20, organised by National Board of Education; Faculty at 22nd Annual Conference of Indian Society of Neuroanaesthesiology and Critical Care (ISNACC 2021) "virtual" organized by ISNACC office, held from 24th to 26th January 2021. Chaired a session on Anaesthesia and Cognitive outcome in elderly;

Paper presentation on "Adenosine Induced Cardiac Standstill for facilitating Giant Aneurysmal clipping: A Case Report" at monthly clinical meeting of Delhi Neurological Association on 3.10.2020;

Paper presentation on "A retrospective analysis to study the prevalence of COVID- 19 infection among Health Care Workers in Neurosurgical Practice in a Tertiary care hospital" presented at ISNACC 2021 held from 24th to 26th January.

Dr Rachna Wadhwa

Delivered a lecture online- Temperature regulation and applied physics for temperature monitoring on 06-02-2021 in the event-APPEC- Anaesthesia Post-graduate Pre-examination course-21 – organised by Department of Anaesthesia, ABVIMS, Dr RML Hospital, New Delhi;

Delivered lecture on – NORA- Risk benefit analysis for optimizing outcomes. -as a faculty in ISACON 2020 organised by Sir Ganga Ram Hospital, New Delhi on 02-10-2020;

Attended as a delegate in Criticare Feb 2021;

Attended the webinars- Critical Incidents and Near Misses during anaesthesia, Essentials of NIV: Online course on 13-12-2020, Intravenous fluid therapy conclave, Simulation Lab- recovery parameters using suprane, 9 th Perioperative ECHO webinar, Myocardial protection using newer volatile anaesthetic agents, Haemodynamic Monitoring in cardiac anaesthesia- Present and future organised by Acta Mumbai, Post graduate assembly on TIVA in Cardiac Practice- TIVA for CABG, International Peer Review Workshop, LVAD- Basics to Advanced-organised by Acta Mumbai, IACTA TEE Webinar;

Attended various seminars and updates on COVID management, Ventilation strategies in COVID.

Other Inter-Institutional Collaboration:

Dr. P Ganjoo, Dr. MS Tandon.

Members of Doctoral Committee for PhD thesis in Neuroanesthesiology, AIIMS Delhi, Candidate: Dr Indu Kapoor. Title: OPIoid sparing Anesthesia Technique for supratentorial craniotomy in geriatric patients [OPIATE]: a randomized open labelled study.

Extension and Outreach Activities

Dr Pragati Ganjoo (Service to the community)

- At 'MUSKAAN Parent Association for the Care and Empowerment of Individuals with Intellectual Disability', New Delhi: Member of Executive committee; Medical advisor for the Training and Employment Center, Vasant Kunj and Residential Unit, Dera Village, Delhi
- Recipient of the 'Gaurav Samman' award by the Kashmiri Samiti Delhi for contribution towards welfare
 of Kashmiri Pandit Community Migrants in Delhi.

Faculty Strength: 12 Permanent Faculty and 4 Contractual Faculty.

Other significant information:

Dr Vishnu Datt

Appointed as examiner for the fellowship exit examination in the specialty of cardiac anaesthesia held at Medanta institute of critical care and anaesthesia, Gurgaon on/from 28th & 29th November 2020.

Dr P Ganjoo

Examiner for thesis evaluation of DM Neuroanaesthesiology candidate of AIIMS, New Delhi in November 2020.

Dr MS Tandon

External Examiner for DM Neuroanesthesia examination, All India Institute of Medical Sciences, New Delhi, conducted on 08.06.2020.

Dr P Ganjoo and Dr MS Tandon

Technical experts on panel of Examiners: DM Neuroanesthesia at All India Institute of Medical Sciences, New Delhi; PDCC Neuroanaesthesia at Sanjay Gandhi Postgraduate Institute of Medical Sciences, Lucknow, UP; PDCC Neuroanaesthesia, King George Medical College, Lucknow UP; ISNACC PDF Neuroanaesthesia. Technical advisors to Selection Committee: Faculty selection for Dept. of Neuro-anesthesiology and Critical Care at All India Institute of Medical Sciences, New Delhi.

BIOCHEMISTRY (UCMS)

1. Major Activities and Achievements

The Department has made significant progress in undergraduate and post graduate training as well as research. Currently there are 08 students registered for Ph.D under various faculty members, 01 post doc research associate and 01 MD student. Many faculty members were invited for presenting research papers at reputed national and international conferences. Many of them are also holding eminent positions in various national and international expert /technical/reviewer committees. Currently there are three ongoing research projects in the Department of Biochemistry. The faculty members have published many research articles individually as well as in collaboration with other departments, in peer reviewed International/National journals of high impact factor.

2. Honours/Distinctions

- a) Dr S.B. Sharma appointed as President of DC-ISAR from Jan 2021 to Jan, 2023.
- b) Dr Mohit Mehndiratta received certificate of Merit in 9th Annual CME of Clinical Biochemistry, 2020, and on Topic- Cardiovascular Risk Stratification in Patients and Healthy Population, Role of Laboratory Medicine organized by Sir Ganga Ram Hospital and Association of Clinical Biochemists of India- Delhi Chapter on 9th December, 2020.

3. Publications

- 1. Agarwal R, Sharma K, Mehndiratta, M., Mohta, M., Srivastava, H., & Anthonio, A. E. (2020). Role of repeat procalcitonin estimation at 48 hours for outcome in pregnancy associated sepsis: a prospective observational study. Obstetrics & Gynecology Science, 64(1), 27-33.
- 2. Agarwal R, Goyal P, Mohta M, & Kar R (2021). Comparison of Sequential Organ Failure Assessment (SOFA) and Sepsis in Obstetrics Score (SOS) in Women with Pregnancy-Associated Sepsis with Respect to Critical Care Admission and Mortality: A Prospective Observational Study. The Journal of Obstetrics and Gynecology of India, 71(1), 45-51.
- 3. Asia P, Sharma A, Ahirwar A K, Garg S, John J E, & Gopal N (2021). The study of ischemia modified albumin as an early biomarker of epilepsy in adolescent population: a cross-sectional study. Hormone Molecular Biology and Clinical Investigation. doi: 10.1515.
- 4. Chakraborty P, Jayachandran S, Padalkar P, Sitlhou L, Chakraborty, S, Kar R, Bhaumik S, & Srivastava M (2020). Exposure to Nitrogen Dioxide (NO 2) from Vehicular Emission Could Increase the COVID-19 Pandemic Fatality in India: A Perspective. Bulletin of environmental contamination and toxicology, 105(2), 198-204.
- 5. Dhull R S, Jain R, Deepthi B, Cheong H I, Saha A, Mehndiratta M, &Basu S (2020). Vitamin D-dependent rickets (VDDR) type 1: case series of two siblings with a CYP27B1 mutation and review of the literature. Brazilian Journal of Nephrology, 42, 494-497.
- 6. Garg, P. K., Chishi, N., Kumar, R., Latha, T. K., Rai, S., Banerjee, B. D., & Gupta, S. (2021). Organochlorine Pesticide Tissue Levels in Benign and Malignant Breast Disease: A Comparative Exploratory Study. Journal of Environmental Pathology, Toxicology and Oncology, 40(1), 43-50.
- 7. Ghanshela, R., Banerjee, B. D., Siddarth, M., & Gupta, S. (2020). DNA repair gene polymorphism (XPA and XPG) and risk of urinary bladder cancer in North-Indian population. Meta Gene, 24, 1-7.
- 8. Gupta, P., Agarwal, R., Bhaskaran, S., Garg, S., Mehndiratta, M., Radhakrishnan, G., & Narang, D. (2020). Evaluation of maternal plasma platelet activating factor acetylhydrolaseactivity and mRNA expression in pre-eclampsia: a case control study. Journal of Obstetrics and Gynaecology, 1-7.
- 9. Jain, A., Aggarwal, R., Gupta, N., Mehndiratta, M., Gogoi, P., Batra, P., & Agarwal, R. (2020). Reduced fetal urine production rate—An early marker of fetal inflammatory response syndrome in cases of preterm premature rupture of membranes: A Prospective Cohort Study. Authorea Preprints.
- 10. Khurana, N., Sharma, P., Bhagat, S., Sharma, S.,B. (2021). "Modulation of Antidiabetic and Antioxidative Status in Experimental Diabetic Rats following Intake of a Novel Succinamic Acid Derivative(α-HSA)". International . Jr. Diabetes, 2(1), 68-75.
- 11. Kumar, K., Kumari, P., Avasthi, R., Ahmed, R. S., Jaid, M., & Kumar, R. (2020). Glycemic Variation in Patients of Acute Coronary Syndrome with Hyperglycaemia and its Relationship with Oxidative Stress: A Pilot Study. Journal of Advanced Research in Medicine (E-ISSN: 2349-7181 & P-ISSN: 2394-7047), 7(3), 16-19.
- 12. Kumar, R., Deshmukh, P. S., Sharma, S., & Banerjee, B. D. (2021). Effect of mobile phone signal radiation on epigenetic modulation in the hippocampus of Wistar rat. Environmental Research, 192, 110297.
- 13. Mehndiratta, M., Anthonio A.E., Rao., R., Kar, R., Garg, S., Gupta, B., Suneja, A., Puri, D., (2020). Pre-analytical storage temperature affects telomere length and mRNA expression of hTERT. RUHS Journal of Health Sciences,5(4):186-190
- 14. Mehndiratta M., Pasha E.M., Chandra N., Anthonio A.,E. (2021). Quality indicators for evaluating errors in the pre-analytical phase. J Lab Physicians (Accepted for publication)
- 15. Rai, S., Garg, P. K., Bhatt, S., Latha, T. K., Verma, A. K., Banerjee, B. D., & Singh, M. P. (2020). The diagnostic role of microRNA 21 in patients with nonsmall cell lung cancer: An exploratory study. Lung India: Official Organ of Indian Chest Society, 37(6), 501.
- 16. Rathore, A., Sharma, R., Kar, R., Tandon, A., Suneja, A., &Guleria, K. (2021). Role of Cervical Phosphorylated Insulin-Like Growth Factor-Binding Protein 1 (phIGFBP1) for Prediction of Successful Induction Among Primigravida with Prolonged Pregnancy. The Journal of Obstetrics and Gynecology of India, 71(1), 38-44.
- 17. Shah, H. K., Sharma, T., & Banerjee, B. D. (2020). Organochlorine pesticides induce inflammation, ROS production, and DNA damage in human epithelial ovary cells: An in vitro study. Chemosphere, 246, 125691. 2.
- 18. Smilie, C., Shah, D., Batra, P., Ahmed, R. S., & Gupta, P. (2020). Prevalence and predictors of hypocalcaemia in severe acute malnutrition. Public Health Nutrition, 23(17), 3181-3186.

19. Tyagi, S., Siddarth, M., Mishra, B. K., Banerjee, B. D., Urfi, A. J., & Madhu, S. V. (2021). High levels of organochlorine pesticides in drinking water as a risk factor for type 2 diabetes: A study in north India. Environmental Pollution, 271, 116287.

4. Journals

Number of Department teachers serving as Editor(s)/Member(s) of Editorial Board: 1. Dr Seema Garg

5. Research Projects

Dr Seema Garg

- 1. Self funded: Assessment of the factors affecting pre-test preparation of patients for esti-mation of blood glucose levels on going 2020-21
- Self funded: COVID-19 Transmission: A Positive Perspective 2020-21 (completed)

6. Seminar/Conference Presentations

- 1. Dr Mohit Mehndiratta resourced faculty in the "Revised Basic Course Workshop in Medical Education Technologies" conducted by medical Education Unit, University College of Medical Sciences & GTB Hospital, Delhi from 23rd to 25th March 2021.
- 2. Keynote Speaker in Webinar on "Implementation of CBME: concepts, concerns and challenges" organised by ELSEVIER on 20th August 2020
- 7. Faculty Strength 10

8. Other Significant Information

Dr. Seema Garg received copyright - Gopal N, Amle D, Garg S. Copyright for OSLER model for assessment of medical students in clinical Biochemistry, copyright no. L -92593/2020 dated 06/07/2020

BIOCHEMISTRY (MAMC)

Major Activities and Achievements

The Department is involved in conducting teaching-learning activities for MBBS, BDS and B.Sc. Nursing students as well as postgraduate MD Biochemistry students. The department has able and qualified faculties, senior and junior residents and other supporting staff. It runs a 24 hrs Clinical Biochemistry lab where various routine and emergency Biochemistry tests are performed using automated Clinical Chemistry analyzers. In addition, special tests like hormone assays, tumor markers, vitamin levels (Vit D, Vit B12, Folate) and Iron profile studies using Electrochemiluminescence based analyzers are also carried out. The department is also performing serum protein electrophoresis using capillary electrophoresis technique along with Immunotyping, molecular diagnostic tests (BCR-Abl mutation, JAK-2 mutation detection etc), porphyrin assays and stone analysis tests.

The department is also involved in research on various aspects of health and diseases like Diabetes, Atherosclerosis, Breast cancer, ovarian cancer and effect of pesticides on health using cell culture experiments, animal and human studies. During COVID-19 pandemic, it carried our research on mode of transmission and pathogenesis of SARS-CoV-2 infection.

Publications during the period:

1. Das, S., & Koner, B. (2020). Pre-analytical, analytical, and post-analytical considerations while processing samples of COVID-19 patients: Perspective from a clinical chemistry laboratory in India. *Asian Journal of Medical Sciences*, 11(5), 112-115. https://doi.org/10.3126/ajms.v11i5.29296

- 2. Bains, L., Saini, R., Hadke, N., Koner, B., Singh, R., & Lal, P. (2020). Evaluation of oxidative stress response in endoscopic and Lichtenstein hernia repair: A randomized control study. *International Journal of Abdominal Wall and Hernia Surgery*, *3*(4), 148.
- 3. Vashistha, P., Gupta, A. K., Arya, M., Kumar Singh, V., Dubey, A., & Chandra Koner, B. (2020). Biclonal gammopathay in a case of severe COVID-19. Clinica chimica acta; international journal of clinical chemistry, 511, 342–345.
- 4. <u>Shrestha</u> S, <u>Singh VK</u>, <u>Sarkar</u> SK, <u>Shanmugasundaram</u> B, <u>Jeevaratnam</u> K, <u>Koner BC</u>. (2020) Effect of sub-toxic exposure to Malathion on glucose uptake and insulin signaling in L6 myoblast derived myotubes. Drug Chem Toxicol, 43(6):663-670.
- 3. Kumar A, Prasoon P, Kumari C, Pareek V, Faiq MA, Narayan RK, **Kulandhasamy M**, Kant K (2021). SARS-CoV-2-specific virulence factors in COVID-19. J Med Virol. 93(3):1343-1350. doi: 10.1002/jmv.26615. Epub 2020 Nov 1. PMID: 33085084.
- 4. Kumar A, Narayan RK, Kumari C, Faiq MA, **Kulandhasamy M**, Kant K, Pareek V (2020). SARS-CoV-2 cell entry receptor ACE2 mediated endothelial dysfunction leads to vascular thrombosis in COVID-19 patients. Med Hypotheses. 145:110320. doi: 10.1016/j.mehy.2020.110320. Epub 2020 Sep 30. PMID: 33032170; PMCID: PMC7525265.
- 5. Kumar A, Prasoon P, Sekhawat PS, Pareek V, Faiq MA, Kumari C, Narayan RK, **Kulandhasamy M**, Kant K (2020). Pathogenesis guided therapeutic management of COVID-19: an immunological perspective. Int Rev Immunol. 1-18. doi: 10.1080/08830185.2020.1840566. Epub ahead of print. PMID: 33111578.
- 6. Kumar A, Faiq MA, Pareek V, Raza K, Narayan RK, Prasoon P, Kumar P, **Kulandhasamy M**, Kumari C, Kant K, Singh HN, Qadri R, Pandey SN, Kumar S (2020). Relevance of SARS-CoV-2 related factors ACE2 and TMPRSS2 expressions in gastrointestinal tissue with pathogenesis of digestive symptoms, diabetes-associated mortality, and disease recurrence in COVID-19 patients. Med Hypotheses. 144:110271. doi: 10.1016/j.mehy.2020.110271. Epub 2020 Sep 13. PMID: 33254575; PMCID: PMC7487155.
- 8. Sen P, **Makwana N, Goswami B** (2020). COVID-19: Symphony or Cacophony of Immunology. Indian J Med Biochem 24 (2):66-75.
- 9. Agrawal H, Singh S, Gupta N, **Goswami B** (2020). Social Distancing and COVID-19: Correspondence. Indian J Med Biochem 24 (2):87-88.
- 10. Gulia R, **Goswami B** (2020). Creatine Kinase-MB measurement using Immunoinhibition methodology. How much is the interference? Panacea J Med Sci 10(2):114-119.
- 11. Gupta B, Agrawal H, Gupta N, **Goswami B** (2020). COVID-19 and Surface Transmission. Indian Journal of Medical Biochemistry. 24(2).
- 12. Gupta N, **Goswami B** (2020). Letter to the Editor: Acharya Prafulla Chandra Ray, Hydroxychloroquine and COVID-19. Indian J Surg 82, 293–294.
- 13. Ray PS, **Goswami B** (2020). COVID-19 and Hyperinflammatory Syndrome. Indian Journal of Biochemistry, op.niscair.res.in
- 14. Puri M, Jain A, **Goswami B**, Garg M (2021). Association of Cardiometabolic Index and Insulin Resistance with Serum Levels of Peroxisome Proliferator Activated Receptor-γ in Polycystic Ovary Syndrome. Indian Journal of Medical Biochemistry 24(2):50-54.
- 15. Sen P, Khurana V, Patra S, **Goswami B**, Gupta N (2021). Assessment of the effect of social media usage and covid-19 pandemic news updates on the mental well-being of students during the lockdown in india. International Journal of Scientific Research.
- 16. Dubey A, Bansal A, **Sonkar SC**, **Goswami B, Makwane N**, Manchanda V, **Koner BC** (2020). In-house assembled protective devices in laboratory safety against SARS-nCoV-2 in clinical biochemistry laboratory of a COVID dedicated hospital.Preprint | medRxiv .ID: ppmedrxiv-20155713.
- 17. R Rani, **T Gursahani**, B Goswami (2020). Medical entrants' expectations from academic and administrative milieu-a questionnaire based study.IJSR 9(5): 9-11.

- 18. Kumar S, Jain A, **Goswami B**, Singh A (2020). Role of Follicle-stimulating Hormone Receptor Gene (ser680asn) Polymorphism in Patients with Polycystic Ovarian Syndrome. Int J Cur Res Rev 12(15):61-65.
- 19. **Khurana V**,Jamatia E, Rani R, **Goswami B** (2020). High creatine kinase-muscle brain levels greatly exceeding total creatine kinase levels in a 2-month-old infant. Indian Journal of Health Sciences 13(3):250-53.
- 20. Zutshi DV, Gupta MD, Girish MP, Bansal A, Batra V, **Saijpaul R**, Mahajan B, Tyagi S, Yusuf J, Mukhopadhyay S (2020). Evaluation of systemic inflammatory and thrombotic markers of cardiovascular risk among young Indian oral tobacco users. Indian Heart J. 72(5):389-393. doi: 10.1016/j.ihj.2020.08.005. Epub 2020 Aug 11.PMID: 33189199
- 21. Biswas BK, Guru SA, Sumi MP, Jamatia E, Gupta RK, Lali P, **Koner BC**, Saxena A, Mir R (2020). Natural Killer Cells Expanded and Preactivated Exhibit Enhanced Antitumor Activity against Different Tumor Cells in Vitro. Asian Pac J Cancer Prev 21(6):1595-1605.
- **22.** Mahapatra H, Kumar A, Kulshreshtha B, **Chirkara A** (2020). Effect of vitamin D on endothelial function in early diabetic nephropathy, *Nephrology Dialysis Transplantation*, 35(S3).

Journals:

Dr. Binita Goswami is serving as Associate Editor of Indian Journal of Medical Biochemistry.

Research Projects

- a) Ongoing projects:
- 1. MRU funded project of Rs. 2.5 lakhs, entitled "Effect of exposure to Bisphenol A and its analogue plasticizers on production of thyroid hormones in transformed thyroid cell line and on function of thyroid hormone in rat L6 myoblast derived myotubes." **Dr. B.C. Koner**
- 2. MRU project entitled "Evaluation of a rapid kit detecting IgG and IgM antibody against multiple proteins of SARS CoV-2 for sero-prevalence of COVID-19 patients" **Dr. B.C Koner**
- 3. MRU project entitled "Detection of COVID-19 antigen from different biological samples like saliva, serum, urine, nasopharyngeal and stool by rapid antigen kit coated with single or multiple SARS-CoV-2 antigens." **Pr. B.C. Koner**
- MRU project entitled "Exploration of possible air borne transmission of virus causing COVID-19". Dr B.C. Koner
- 5. MRU project entitled "In-house assembled protective devices in laboratory safety against SARS-nCoV2 in the clinical biochemistry laboratory of a COVID dedicated hospital" **Dr B.C. Koner**
- 6. GNCT funded project of Rs. 3 lakhs, entitled "Association of NADH dehydrogenase subunit 1 (*ND1*) gene polymorphism and serum leptin levels in pre-eclampsia patients". **Dr. L. Chandra**
- 7. GNCT funded project of Rs. 3 lakhs, entitled "Assessment of Serum Leptin levels and tRNA Leu(UUR) gene and ND1 gene polymorphism in Gestational Diabetes Mellitus patients". **Dr. L. Chandra.**
- 8. Correlation of inflammatory mediators, anti oxidant status and viral load in COVID-19 patients with associated comorbid conditions: A pilot study. **Dr. S. Kaushik & Dr. Rajni Saijpaul.**
- 9. MRU funded project of Rs. 3 lakhs, entitled "Association of pesticide levels and their genetic determinants with ovarian reserve in females with primary infertility." **Dr. B. Goswami**
- 10. Association between nutritional and inflammatory biomarkers in COVID-19 patients with chronic kidney disease. **Dr. S. Kaushik**
- 11. The apoptotic effect of hydroethanolic cinnamon extract on apoptosis in breast cancer. Dr. B. Goswami
- 12. Prevalence of Non thryroidal illness in COVID-19 patients. Dr. B. Goswami
- 13. Evaluation of distribution of EML-4 ALK translocation and EGFR mutation positivity assay among Non small cell lung cancer patients and their correlation with effect of particulate pollution. **Dr. B. Goswami**
- **14.** Association of blood group, serum zinc levels, serum ACE2 levels and gene polymorphism with clinical outcome in patients of COVID-19. **Dr. Anubhuti**

15. Evaluation of genetic susceptibility of vascular epithelial dysfunction in pregnant Indian females with Pre Eclampsia. **Dr. Anubhuti**

b) Details of thesis completed during current year:

A) M.D. Thesis:

Evaluation of interaction between lindane and arsenic exposures in inducing insulin resistance in rat L6
myoblast derived myotube.

Supervisor: Dr. B.C. Koner Candidate: Dr. Priti

II. Association of serum Resistin level and MMP-9 gene (1562 C/T) polymorphism in Coronary artery disease and Diabetes Mellitus.

Supervisor: Dr. L. Chandra Candidate: Dr. Sandeep Tiwari

III. Association between Fibroblast Growth Factor Receptor 2 (FGFR2) gene polymorphism (rs2981582) and Survivin expression in breast cancer

Supervisor: Dr. B. Goswami Candidate: Dr. Lucy

IV. Evaluation of serum levels of osteopontin and folate receptor alpha as diagnostic and prognostic biomarkers of ovarian carcinoma.

Supervisor: Dr. S. Kaushik Candidate: Dr. Kruti

B) PhD thesis:

"Role of pesticides on pathogenesis of diabetes mellitus". PhD defence viva conducted.

Supervisor: Dr. BC Koner Candidate: Mr. Vijay Kumar Singh

Seminar/ Conference presentations:

- **1.** A paper titled 'Evaluation of interaction between Lindane and Arsenic exposures in inducing insulin resistance in rat L6 myoblast derived myotubes was presented by resident **Dr. Preeti** in National PG update cum CME AMBION 2020 held in October 2020
- 2. A paper titled 'Role of IL6 and calcium levels in severity assessment of COVID 19 was orally presented by resident **Dr. Vatsala** in n National PG update cum CME AMBION 2020 held in October 2020 and won the **best paper award.**
- 3. 4. A paper titled 'Acute intermittent Porphyria -an elusive diagnosis' was presented by resident **Dr. Shailata Prisi** in n National PG update cum CME AMBION 2020 held in October 2020

Faculty strength: 8

BIOCHEMISTRY (VPCI)

1. Major activities and achievements:

- (i) We are providing **Diagnostic services** for **indoor & outdoor patients** by analyzing the samples using fully automatic Autoanalyzers. The total tests done for the period 01.04.20 to 31.03.21were more than 50,000.
- (ii) MRU-ICMRproject (**Prof. Vishwajeet Rohil, P.I of the project**): In the studies to elucidate the role of Ellagic acid and its derivative via Calreticulin Transacetylase in the gene expression profile of lung carcinogenesis, significant upregulation of Cyclin dependent kinase inhibitor 1A (p21Cip1) and Micro RNA31 (mir31) are observed in the transfected group treated with EAPA+VA above the transfected VA group which is indicative EAPA potentiates the effect of VA in transfected A549 cell line.

2. Honors/Distinctions:

Prof. Vishwajeet Rohil:

- (i) Nominated as an Expert by Vice Chancellor, University of Madras to evaluate the publications of Dr. T Sumathi, Associate Professor to assess her eligibility for considering her promotion.
- Nominated as an External Expert of External Board Review committee at Defence Institute of (ii) Physiology and Allied Sciences.
- Nominated as DBT Nominee for Institutional Biosafety Committee at Defence Institute of (iii) Physiology and Allied Sciences.

3. Publications:

- 1. Manoj Kumar, Vishwajeet Rohil, Rajendra Singh, Anil Meena, Bhagwaan S Patidar, Sanjay Goel, Rajendra Prasad, Sunil K Chhabra, Surendra Kumar Bansal. Whole Erythrocyte Membranes Protein Profiling and their correlation with GAPDH, FEV1% and Oxidant/Antioxidant status in Asthma. Communicated for Elsevier's online submission system for Biochimica et Biophysica Acta -Biomembranes.
- 2. Sahoo SS, Choudhary OK, Bhadra J, Katri BC. Association of BTNL2 Gene Nucleotide Polymorphism with Knee Osteoarthritis. RUDN Journal of Medicine, 2021; 25(2): 89-95.

5. Research Projects:

Three

(i) Research project:

(a) Funding Agency:

(d) Amount sanctioned

(b) Year/Period:

(c) Title:

Prof. Vishwajeet Rohil as Principal Investigator

MRU (ICMR)

Commenced in Feb., 2017

"To elucidate the role of Ellagic acid and its derivative via CRTAase in the gene expression profile of lung carcinogenesis".

Total 3 Crores sanctioned for MRU for all the projects

(ii) (a) Funding Agency ICMR-SRF (Mr. Manoj Kumar)

Prof. Vishwajeet Rohil as Supervisor

(b) Year/period

(c) Title

05.09.2018 (for Three years)

"Characterization of proteins differentially expressed erythrocyte membrane in bronchial asthma: Identification and purification of one protein and its correlation with severity of the disease

(d) Amount sanctioned

Rs. 7.20 Lakhs

(iii) (a) Funding Agency

(b) Year/period

(c) Title

Ph.D. student (Mr. Anil Meena)

Prof. Vishwajeet Rohil as Co-Supervisor

"A study on CRHR1 and GR gene polymorphism and their correlation with the expression of various inflammatory cytokines in asthma in North Indian population"(Thesis submitted)

Seminar/Conference Presentations

Prof. Vishwaieet Rohil

1. AttendedWebinar organized by Association of Clinical Biochemists of India (ACBI)."Non-alcoholic fatty liver disease: An under recognized cause with emerging importance". Held on 6th January, 2021 India.

- 2. AttendedWebinar organized by Association of Clinical Biochemists of India (ACBI). "Practical applications of Six Sigma in Clinical Laboratory Medicine". Held on 5th February, 2021 India.
- 3. Participated in "Workshop on Biostatistics" on 25.02.2021 at VP Chest Institute.
- 4. Participated in "Workshop-cum-Training Programme" on Proposal Writing and Ethical Issues in Biomedical Research on 11.03.2021 at VP Chest Institute.
- 5. AttendedWebinar organized by Association of Clinical Biochemists of India (ACBI). "Flow cytometry & its Application in Laboratory Diagnostics". Held on 26th March, 2021 India.

Dr Jayeeta Bhadra

- 1. Participated in Webinar "Practical Applications of Six Sigma in Clinical Laboratory Medicine" on 05.02.2021 organized by Association of Clinical Biochemists of India.
- 2. Participated in "Workshop on Biostatistics" on 25.02.2021 at VP Chest Institute.
- 3. Participated in "Workshop-cum-Training Programme" on Proposal Writing and Ethical Issues in Biomedical Research on 11.03.2021 at VP Chest Institute.
- 4. Participated in Webinar "Flow cytometry & its applications in laboratory diagnostics" on 26.03.2021 organized by Association of Clinical Biochemists of India.

Other Inter-Institutional Collaboration

- **Prof. Vishwajeet Rohil, is Co-Supervisor for PhD theses of Ms. Smriti Gupta:** Dept of . Biochemistry **Under Supervison:** Dr. Ajit Kumar, Head, Dept. of Chemistry, SRM University, Delhi-NCR, Sonepat, Haryana.
- Dr. Anuj Bhatnagar, Rajan Babu Institute for Pulmonary Medicine & Tuberculosis (RBIPMT), New Delhi

Placement Details (Number and percentage of students placed)

* Number and percentage of students placed

- 100%

Number of M.Phil./ Ph.D. Degrees Awarded -One

Faculty Strength

- Two

BIOCHEMISTRY(GIPMER)

Major Activities and Achievements

For maintaining the quality of test reports the Dept participates in CMC Vellore EQAS Program for routine chemistry, special tests and coagulation profile. Deptt organized symposium on 'Biomarkers for the management of critical illness: An Update'. On an average 1,80,000 tests per month are performed. Department provides training to the students from other agencies and they got trained for different techniques. One PG student has joined the department in 2020. Deptt Published six paper in national and international journals.

Publications

- Dabla P.K, Sharma S, Puri V. Disturbed calcium-vitamin D metabolism in patients on anti-epileptic drugs. In press. J Syst Integr Neurosci, 2020.
- Sharma S, Dabla P.K, Gupta A.N. Association of 25 (OH) vitamin D levels with carotid intima media thickness in elderly north Indians. In press.Biomed Res Clin Prac, 2020.
- Gruson D, Bernardini S, Dabla P.K, Gouget B, Stankovic S. Integration of artificial intelligence and laboratory medicine: opportunities for cardiovascular medicine. Accepted. Clinical Chemistry and Laboratory Medicine (CCLM). In Press. Available online 4 June 2020.
- Sharma S, Dabla P K, Serdarevic N. Association between carotid-intima media thickness and trigyceride glucose index in hypertension. World Journal of Pharmacy and Pharmaceutical Sciences. 2020: 9; 9. Mohit.Gupta,GirishMP,AnandKategari,VishalBatra,PuneetGupta,AnkitBansal, JamalYusuf,ShwetaGoswami,AbhijitDas,RajniSaijpaul,BhawnaMahajan,SaibalMukhopadhyay,VijayTre han,SanjayTyagi. Epidemiological profile and management patterns of acute myocardial infarction in very young patients from a tertiary care center. Indian Heart Journal. Volume 72, Issue 1, 2020, Pages 32-39
- Gandhoke CS, Syal SK, Gupta RH, Singh D, Sharma J, Mahajan B Tandon M, Trehan VK, Bansal A.
 Study of the Clinical, Electrocardiographic and Biochemical Spectrum of Cardiovascular Complications in Patients With Aneurysmal Subarachnoid Hemorrhage An Initial Experience at a Tertiary Centre in India. MAMC J Med Sci 2020;6:113-20.
- Evaluation of systemic inflammatory and thrombotic markers of cardiovascular risk among young Indian oral tobacco users Dhananjay V. Zutshi, Mohit D. Gupta, M.P. Girisha, Ankit Bansala, Vishal Batra,
 Rajni Saijpaul, Bhawna Mahajan, Sanjay Tyagi, Jamal Yusuf, Saibal Mukhopadhyay. Indian Heart Journal 2020; 72 (5): 389-393
- Ashish sachan, Sundeep Saluja, Phani kumar nekarakanti, Nimisha Sinha, Bhawna Mahajan, Hirdaya H
 Nag, Pramod K Mishra. Raised CA19–9 and CEA have prognostic relevance in gallbladder carcinoma.
 BMC Cancer 2020; 20(1) DOI: 10.1186/s12885-020-07334-x
- Prevalence of cirrhotic cardiomyopathy and its relationship with serum pro-brain natriuretic peptide, hepatorenal syndrome, spontaneous bacterial peritonitis, and mortality N. Kapoor, V. Mehta, Bhawna.
 Singh, R. Karna, S. Kumar & P. Kar. Indian Indian J Gastroenterol 2020 DOI 10.1007/s12664-020-01083-2

- Highly Sensitive Cardiac Troponin T as a Biomarker of Myocardial Injury in Acyanotic Congenital Heart
 Disease Rishika Das, RN Mandal,, Anurag Agarwal, Sumod Kurian, Bhawna Mahajan. Disease. Int J
 Pediatr Res 2020; 6:069. doi. org/10.23937/2469-5769/1510069
- Bhawna Mahajan, Kalpana Singh, Mamta P Sumi. Antibody in SARS-CoV-2 Infection: Helpful in Combating COVID-19? Indian J Med Biochem 2020; 24 (2
- 1. Chawla Ranjna, Nair Rukamani, Mukherjee Somnath, Meitei Yendrembam Ibotombi, Sood V R.
 Outcome of six months of yogic practices on psychological parameters in patients suffering from hypothyroidism International Journal of Applied Ayurved Research(IJAAR) VOLUME 4 Issue 6 Jan-Feb 2020 pp513-528
- Ranjna Chawla, Rukamani Nair, Somnath Mukherjee. Effect of Six Months of Naturopathy Practice
 on Psychological Parameters in Hypothyroid Patients International Journal of Science and Research
 (IJSR) Volume 9 Issue 3, March 2020
- 3. Ranjna Chawla, Rukamani Nair, Somnath Mukherjee, Yendrenbam Ibotombi Meitei, V R Sood, B.K
 Roy Impact of six months of naturopathy on symptom score and anthropometric parameters in patients
 suffering from hypothyroidism International Journal of Multidisciplinary Approach and Studies Volume
 07, No.2, Mar Apr 2020

Abstract

- Ankush Singhal, Manju Subberwal, Ranjna Chawla. Improving laboratory performance using six sigma- our experience in GIPMER a tertiary care Hospital. Abstract sent to 8th annual CME of clinical biochemistry hosted by Sir Ganga Ram Hospital on 25th April 2019
- Pradeep Kumar Dabla, Dr Shikha Sharma, Dr Vinod Puri. Reproductive Dysfunction & Role of Anticonvulsant Drugs in Epileptic Women. APFCB Congress 2019, India

Journals

Teachers serving as Editors-

Dr Pradeep Kumar Dabla

- 1. Editorial board Member: World Journal of Diabetes; Number ID: 03764245; ISSN: 1948-9358 (online).
- Editorial Board Member; Clinical Chemistry and Laboratory Medicine; OCLC number: 475036853ISSN: 1434-6621 (print); 1437-4331 (web)
- 3. Ambassador Bentham Science publishers.

Research Projects

On going project- PROJECT Co- Investigator for the Project submitted to Department of science and technology under SATYAM scheme. Efficacy of Yoga in Controlling subclinical hypothyroidism" 3rd Jan 2020-2nd Jan 2022

- Significance of inflammatory markers in patients of oesophageal carcinoma undergoing neoadjuvant chemotherapy versus neadjuvant chemoradiotherapy. Dr Pradeep Kumar Dabla –Co-Supervisor
- Significance of inflammatory markers in cancer cervix treated with one drug vs two drug concurrent chemoradiation. Dr Pradeep Kumar Dabla –Co-Supervisor
- Role of Sodium channel SCN1A gene mutations & GABA receptor gene alterations in drug resistance epilepsy –a study from tertiary care centre - Dr Pradeep Kumar Dabla –Principal Investigator (Project funded by DST, Ministry of Science & Technology)
- "To evaluate the efficacy of daily VitaminD therapy versus Stoss therapy in nutritional rickets in Indian children". Dr Pradeep Kumar Dabla –Co Investigator
- "Evaluation of Electrolytes Derangement in Critically Sick Patients". Dr Pradeep Kumar Dabla –
 Principal Investigator
- Influence of Endothelin-1 gene and Endothelin-1 Receptor A Gene Polymorphisms on Pulmonary Arterial Hypertension Associated with Rheumatic Mitral Valve Disease. (Project funded by DST) Dr Bhawna Mahajan - Co-Investigator
- Correlation between Clinical Symptoms, MRI Findings, and Synovial Fluid Levels of TNF-α and Matrix Metalloproteinase in Patients with Temporomandibular Joint Internal Derangement.(Project funded by CSIR) Dr Bhawna Mahajan Co-Investigator
- Systemic and local tissue expression of sclerostin in calcific rheumatic mitral stenosis : an observational study. Dr Bhawna Mahajan Co-Guide
- Efficacy of Naturopathy and Yoga in Controlling Hypothyroidis 24th March 2017-23rd March
 2019(Project funded by AYUSH Ministry of Health and family) Dr Ranjna Chawla Co-Investigator
- Dr Ranjna Chawla-Project co- Investigator for the Project funded by AYUSH Ministry of Health and family welfare ,Govt of India "Efficacy of Naturopathy and Yoga in Controlling Hypothyroidism" 24th March 2017-23rd March 2019

Details of thesis completed during current year

- To study the risk factors and MFHTR gene polymorphisms in recurrent pregnancy loss. Dr Manju Subberwal-Co-guide
- An analysis of deep vein thrombosis in burn patients-A randomized and control study of thromboprophylaxis with low molecular weight heparin. Dr Manju Subberwal-Coguide
- Evaluation of systemic and tissue levels of cytokines of Th17/Th1 axis in patients with Rheumatic heart disease (RHD): An observational study.Dr Manju Subberwal Co-Guide
- Level of citrulline and arginine in critically in children and their value as prognostic marker in PICU. . Dr Manju Subberwal - Co- Guide.
- Effect of antiepileptic drugs on calcium metabolism and reproductive hormones in epileptic patients.Dr Pradeep Kumar Dabla –Co-Guide

 Role of IL-10 & TNF-Alpha in Tendon repair and calcium metabolism. Dr Pradeep Kumar Dabla –Co-Supervisor

Conferences attended

Webinar attended by Dr. Manju Subberwal & Dr. Ranjna Chawla

- 1. Attended webinar COVID Specimen Management & Safety of Specimen Handlers Speaker: Dr. Neelam VarmaProf. & Head –Hematology, PGIMER, Chandigarh on 17th April 2020
- 2. Attended "Infection Management Webinar ".Topic (I): Assessing platelet count in patients with acute infection- a cautionary tale
 - Speaker: Dr. Sukesh NairProfessor in Hematology CMC, Vellore, Tamil Nadu Topic (II):Laboratory Biosafety guidelines in handling and processing of COVID-19 samples.Speaker:Dr. Anjali Kelkar
 - Sr. Associate Prof in Pathology, Bharati Vidyapeeth Hospital, Pune, on 24th April 2020 organized by Beckman Coulter
- 3. Attended Lab Management in Critical COVID Patients and Infection Prevention Dr. Yatin Mehta, Institute of Critical Care and Anesthesiology Medanta The Medicity, Gurgaon on 27th April 2020
- 4. Attended webinar- COVID 19 Post Lockdown of Apollo Chennai doctor Dr V R Yamunadevi , Apollo, hospital, Chennai on 6th May 2020
- 5. Attended QC Webinar Series Part 2 EQAS Interpretation: End of Cycle Report Speaker: Mr Siva Sankar Kalivela July 29, 2020
- 6 Attended Tranasia Webinar 12- Covid 19: Relevance of serology test Speaker: Dr Sonal saxena on 26th August 2020
- 7. Attended Webinar by PACT (preanalytical analytical think tank) on coagulation in covid what have we learnt so far on 22nd Oct 2020
- 8. Attended Webinar by PACT (preanalytical analytical think tank) on ABG in critically ill patients: covid and beyond on 19th Nov 2020
- 9. Attended the webinar "COVID-19: Fast results for timely decisions" on 27th November 2020

Faculty Strength - 4

COMMUNITY MEDICINE (UCMS)

1. Major Activities and Achievements

The department was instrumental with the leadership of its faculty member Dr Arun K Sharma in creating IT infrastructure to start online classes in the college in the wake of COVID-19 pandemic by procuring and installing the network and providing training to faculty in coordination with Medical Education Unit. The department conducted online training programs for front line health care workers, i.e. nurses, resident doctors, interns, and faculty of UCMS and GTB Hospital regarding Covid related care. Due to COVID-19 Pandemic (2020), started a "Community Connect Programme" (CCI) with a concept to establish a link with the community & front-line workers in Department of Community on Google Meet so to Provide IEC about health issues from time to time to the beneficiaries & the Frontline Workers.

2. Honours/Distinctions

- 1. Member, National Causality Assessment Committee for AEFI related to COVID-19 Vaccines. Dr Sanjay Chaturvedi
- 2. Member, Medical Expert Committee, National Health Authority of India. Dr Sanjay Chaturvedi
- 3. Invited Lecture at Indian Institute of Science, Bengaluru, entitled "COVID-19 pandemic: lessons for a better conceptual framework." 9 Sep 2020. Dr Sanjay Chaturvedi

- 4. Invited Lecture at Dept of Anthropology, University of Delhi, entitled "Inductive and/or deductive? Distinct, seemingly opposing yet complementary approaches to research." 27 Jul 2020. Dr Sanjay Chaturvedi
- 5. Working as University Head, Department of Community Medicine, FMSc, Delhi University Dr SK Bhasin
- 6. Appointed Director of ICMR-National Institute of Implementation Research in Non-Communicable Diseases (March 2021) Dr AK Sharma
- 7. Appointed member of the Empowered Group on Communication Dr AK Sharma
- 8. Honorary secretary, Maternal, Infant and Young Child Nutrition National Working Group of Indian Association of Preventive and Social Medicine Dr Khan Amir Maroof
- 9. Honorary secretary, Consortium Against Rabies, a not for profit national organization working in the field of rabies elimination in India. Dr Khan Amir Maroof
- 10. Was awarded the 2nd prize for best paper presentation at International Virtual Conference on Public Health, Innovation and technology, organized by BioLeagues Worldwide, 30th Nov. to 1st Dec. 2020. Dr Madhu Upadhyay
- 11. As a member of District Surveillance Team and Rapid Response Team participated in implementing the cluster containment plan for COVID 19 in the North-east and Shahdara districts of Delhi. Dr Madhu Upadhyay
- 12. Certified as Faculty by Indian College of Obstetricians & Gynecologist. 2021.(FICOG -2020) Dr Anita Gupta
- 13. Task force for preparing an eLearning Program on MIYCN by IIPH-Delhi, PHFI, Alive &Thrive and WeCan (2021) Dr Anita Gupta
- 14. Task force In Development of the online MIYCN training modules for medical collegeto a project of IPE Global & Alive & Thrive-India (2020-2021). Dr Anita Gupta
- 15. Technical adviser/Task Force of BPNI. "Formulated COVID -19 & Breastfeeding -an update by BPNI" as technical adviser group & submitted to MOHFW, GOI to develop guidelines about Breastfeeding in covid. (2020) Dr Anita Gupta

3. **Publications**

- 1. Arora, N.K., Das, M.K., Poluru, R., INCLEN Vaccine Safety Study Group. (2020). A Prospective Cohort Study on the Safety of Infant Pentavalent (DTwP-HBV-Hib) and Oral Polio Vaccines in Two South Indian Districts. Pediatr Infect Dis J;39:389-6.
- 2. Behera, S., Maroof, K.A., Tiwari, P.K. (2020). Complementary Feeding Status of Children Residing Urban Slum of East Delhi. Int J Med Public Health. (2020);10:126-9.
- 3. Chaturvedi, S. (2020). COVID-19 pandemic: Are we witnessing the first world war [editorial]? Indian J Public Health.;64:99-101.
- 4. Cherian, V., Saini, N.K., Sharma, A.K., Joel, P. (2021). Prevalence and predictors of vaccine hesitancy in an urbanized agglomeration of New Delhi, India. Journal of Public Health. 2021. doi:10.1093/pubmed/fdab007
- 5. Dengri, C., Aggarwal, Y., Moond, V., Khan, A.M. (2020). Volunteering to organize quiz events: What motivates medical students? Educ Health.; 33:81-2.]
- 6. Dugg, P., Chhabra, P., Sharma, A.K. (2020). Contraceptive use and unmet need for family planning among HIV-positive women: A hospital-based study. Indian J Public Health;64:32-8.
- 7. Gupta, U., Upadhyay, M.K., Sharma, R. (2020). Socio-clinical profile of patients seeking treatment for cancer in a teaching hospital in east Delhi, India. J Family Med Prim Care.;9:2763-8
- 8. Gupta, U., Upadhyay, M.K., Sharma, R. Assessment of Health-related Quality of Life in cancer patients undergoing treatment using Health Utilities Index (HUI-3[®]) in east Delhi, India. Indian J Cancer. Accepted for publication in June (2020).
- 9. Khan, A.M., Patra, S. (2020) Bloom of online teaching in the era of Covid 19 pandemic: boon or bane for medical education. National Journal of Medical and Allied Sciences. 9:1-5.
- 10. Khan, A.M., Patra, S., Gupta, P., Sharma, A.K., Jain, A.K. (2021). Rapid transition to online teaching program during COVID-19 lockdown: Experience from a medical college of India. J Edu Health Promot;10:99.
- 11. Khan, A.M., Patra, S., Vaney, N., Mehndiratta, M., Chauhan, R. (2021). Rapid transition to online practical classes in preclinical subjects during COVID-19: Experience from a medical college in North India. Medical Journal Armed Forces India. 77:S161-S167.

- 12. Kumar, A., Khan, A.M., Saini, N., Shah, D. (2020). Prevalence of Non-exclusive Breastfeeding and Associated Out-of-pocket Expenditure on Feeding and Treatment of Morbidity Among Infants Aged 0-6 Month in an Urban Slum. Indian Pediatr;57:1135-8.
- 13. Maroof, K.A., Gupta, P., Singh, N., Dhaliwal, U., Singh, S. (2020). Evaluation of a faculty development workshop aimed at development and implementation of a competency-based curriculum for medical undergraduates. J Family Med Prim Care; 9:2226-31.
- 14. Patra, S. (2020). Corona Devi, WhatsApp chit-chat, and a movie. Research & Humanities in Medical Education; 7:177-8.
- 15. Patra, S., Khan, A.M., Upadhyay, M.K., Sharma, R., Rajoura, O.P., Bhasin, S.K. (2020). Module to facilitate self-directed learning among medical undergraduates: Development and implementation. J Educ Health Promot;9:231.
- 16. Rana, M., Kundapur, R., Maroof, A., Chaudhari, V., Kadri, A., Kumar, P., Zodpey, S., Agrawal, A., Bapat N. (2020). Way ahead Post Covid-19 lockdown in India. Indian J Community Health [Internet]. [cited (2020) Apr 20]; 32; 2-Special issue:175-83.
- 17. Ranganathan, R., Amir, M.K., Chhabra, P. (2020). Antenatal care, care at birth, and breastfeeding during the Coronavirus (COVID-19) pandemic. Indian J Community Health [Internet]. (2020) [cited (2020)Apr.17];32:17 -20.
- 18. Ranjitha, R., Khan, A.M. (2020). Routine immunization services during the coronavirus (COVID-19) pandemic. Indian J Comm Health;32(2-Special Issue):236-9.
- 19. Sharma, A.K., Baliyan, P. (2020). Air pollution and COVID-19: Is the connectworthitsweight? Indian J Public Health;64:S132-4.
- 20. Sharma, A.K., Saini, P., Chhabra, S.K., Ghosh, C., Baliyan, P. (2020). Air pollution and weather as determinants of acute attacks of asthma: Spatiotemporal approach. Indian J Public Health;64:124-9.
- 21. Sharma, S., Upadhyay, M.K. (2020). Epidemiological profile of trauma victims attending a tertiary care hospital in Delhi and application of Haddon Matrix to identify risk factors of road traffic accidents. Indian Journal of Public Health Research and Development. February. 11:856-61.
- 22. Titoria, R., Upadhyay, M., Chaturvedi, S. (2020). Quality of Routine Immunization Service: Perception of clients. Indian Journal of public Health;64: 44-9.
- 23. Upadhyay, M.K., Patra, S., Khan, A.M. (2020) Ensuring availability of food for child nutrition amidst the COVID 19 pandemic: Challenges and Way forward. Indian J Comm Health;32(2-Special Issue):251-4.
- 24. Vaish, K., Patra, S., Chhabra, P. (2020). Nutritional status among elderly: A community-based cross-sectional study. Indian Journal of Public Health; 64:266-73.
- 25. Vaish, K., Patra, S., Chhabra, P. (2020). Functional disability among elderly: A community-based cross-sectional study. J Family Med Prim Care;9:253-58.

4. Journals

Number of Department teachers serving as Editor(s)/Member(s) of Editorial Board -Three

5. Research Projects

- 1. ICMR, 2021-2023 Spatial Epidemiological Approach to Malaria Elimination Research (SEAMER). Rs 83,45,000/- (Dr AK Sharma)
- 2. Quality assessment of MIYCN services under Poshan Abhiyaanby engaging Community Medicine departments of Medical Colleges in Uttar Pradesh and Bihar a pilot project. Indian Association of Preventive and Social Medicine with support from Alive & Thrive India. 2019 2021. (Dr Pragti Chhabra, Dr Khan Amir Maroof, Dr Anita Gupta)
- 3. Office of the Principal Scientific Advisor to the Govt. of India, routed through the Indian Institute of Technology, Delhi, Feb. 2021 to Feb. 2022, Industrial stakeholders' engagement in air pollution control in Delhi- a behavioral change communication based approach, 8 lacs. (Dr Madhu K Upadhyay)

6. Seminars Organized

- 1. Increasing Burden of COPD: A Discussion, 19 December 2020 Dr AK Sharma
- 2. How to make your facility Baby Friendly- In context to Breastfeeding- in collaboration with MIYCN-IAPSM and Delhi GynaecologistForum 1st Aug 2020 Dr Anita Gupta (online)
- 3. Difficulties During Breastfeeding in collaboration with MIYCN-IAPSM and Delhi GynaecologistForum 5th Aug 2020 Dr Anita Gupta (online)
- 4. Myths & Misconceptions about Breastfeeding- in collaboration with MIYCN-IAPSM and Delhi Gynaecologist Forum -6^{th} Aug 2020 Dr Anita Gupta (online)

7. Conferences Organized

1. 'Poshancon 2020', the first National Conference of Maternal, Infant and Young Child Nutrition National Working group of IAPSM on 16th and 17th October 2020 on zoom platform. - Dr Pragti Chhabra, Dr Khan Amir Maroof, Dr Anita Gupta

8. Seminar/Conference Presentations (National/International)

- 1. 1st Workshop for revision of National AEFI Guidelines. 21-23 May 2020. Dr Sanjay Chaturvedi
- 2. WHO core group consultation on NITAGs' evaluation. 10 Jul 2020. Dr Sanjay Chaturvedi
- 3. 2nd Workshop for revision of National AEFI Guidelines. 18 Aug 2020. Dr Sanjay Chaturvedi
- 4. Meeting of India Expert Advisory Group on Polio. 1 Oct 2020. Dr Sanjay Chaturvedi
- 5. Meeting of National AEFI Committee. 15 Dec 2020. Dr Sanjay Chaturvedi
- 6. ICMR Expert group meeting to discuss MCH research priority for North East. 7 Jan 2021. Dr Sanjay Chaturvedi
- 7. 14th Vaccine Congress (Online Edition), 28th to 29thSeptember, 2020. Dr Madhu Upadhyay
- 8. International Virtual Conference on Public Health, Innovation and technology, organized by BioLeagues Worldwide, 30th Nov. to 1st Dec. 2020. Dr Madhu Upadhyay
- 9. Attended an International e-Conference & delivered a lecture on "Breast Feeding In Covid19 & Special Circumstances" organized by MahadevanandaMahavidyalaya, West Bengal, August (2020) Dr Anita Gupta 10. Attended a webinar with a theme 'support breastfeeding for healthier planet 'as a faculty byNutri Car Association, of FAHS (Faculty of Allied Health Sciences),Department of Nutrition & Dietetics, for students and /Faculties of SGT (Shree Guru Gobind Singh Tricentenary University) University, Gurugram, Haryana on 12 August 2020. to deliver a lecture on "Breastfeeding Best practice the way forward" Dr Anita Gupta
- 11. Attended & delivered a session on" Breastfeeding by Working Mothers" in a webinar Organized by Department of Pediatrics, JNMCH, AMU Aligarh in collaboration of IAP Aligarhwith a Theme of world breastfeeding week of 2020: "Support Breastfeeding for a Healthier planet".— Dr Anita Gupta
- 12. Invited as an expert faculty to talk about "Breastfeeding: Physiological aspects and complications "on 5August 2020 in a webinar by the Department of Nutrition and Dietetics, Faculty of Allied Health Sciences, MRIIRS (Manav Rachna International Institute of Research and Studies)in association with Indian Dietic Association, Delhi chapter. Dr Anita Gupta

9. Extension and Outreach Activities

- 1. Session on 'Benefits of breast feeding' at Community Connect Initiative organized by Department of Community Medicine, UCMS and GTB Hospital, MIYCN IAPSM and ICDS North East Delhi on 24th August 2020 for ICDS supervisors, Anganwadi workers and mothers via Google meet Dr Pragti Chhabra, Dr Anita Gupta, Dr Khan Amir Maroof
- 2. Session on 'Nutrition during pregnancy and lactation' at Community Connect Initiative organized by Department of Community Medicine, UCMS and GTB Hospital, MIYCN IAPSM and ICDS Kusumpur Pahari project Delhi on 14th September 2020 for ICDS supervisors, Anganwadi workers and mothers via Google meet Dr Pragti Chhabra, Dr Anita Gupta, Dr Khan Amir Maroof
- 3. Session on 'Nutrition during pregnancy and lactation' at Community Connect Initiative organized by Department of Community Medicine, UCMS and GTB Hospital, MIYCN IAPSM and ICDS Khanpurproject Delhi on 14th September 2020 for ICDS supervisors, Anganwadi workers and mothers via Google meet Dr Pragti Chhabra, Dr Anita Gupta
- 4. Session on 'Benefits of breast feeding' at Community Connect Initiative organized by Department of Community Medicine, UCMS and GTB Hospital, MIYCN IAPSM and ICDS Anand Mansarovarproject Delhi on 9th October 2020 for ICDS supervisors, Anganwadi workers and mothers via Google meet Dr Pragti Chhabra, Dr Anita Gupta
- 5. Session on "Health Issues in adolescent health" in programme for adolescent girls at Girls Observation Home, Sanskar Ashram complex, Department of Women and Child Development, GNCT Delhi on 8.2.21. Dr Pragti Chhabra, Dr Anita Gupta
- 6. Invited as an expert on DD News 'Doctors Speak' Program on questions related to women health & COVID -19 on 11May 2021. Dr Anita Gupta
- 7. Invited as an expert to deliver a message for general public on "Nutrition for women-at all age" for a story on Nutrition to be telecast in "KIDS TIME" program by DD News on 20 September 2020 Dr Anita Gupta

- 8. Invited by DD News for "Total Health a Live Program" as an expert on the occasion of Nutrition Month celebration to talk on Nutrition Requirement & its Importance for women, child & Adolescents, on 6September, 2020. Dr Anita Gupta
- 9. Invited as an Expert for a TV show about 'Stanpaan: Shishuke Poshan ka aadhaar'by VigyanPrasar (VP) an autonomous organization of the Department of Science and Technology, Govt. of India on 22July2020
- 10. Invited by D D News Total Health as an expert for public awareness about COVID & Breastfeeding on 26April, 2020.
- 11. Invited as an expert to talk on "Breastfeeding during Covid "2nd August 2020. Through Healing Our Earth –A Global platform–started at covid times to heal each other having international response of more than 18000 engagement)
- 12. Invited by IMumz (an online platform to connect to more than 20000 ANC and Lactating mothers) for Ask me anything with Dr Anita Gupta in episode 82 Topic: All about breastfeeding and lactation on 25^{th} June 2020 and in August 2020.

10. Faculty Strenght: 9

COMMUNITY MEDICINE (LHMC)

1. Major Activities and Achievements

The Department actively participated in many SARS CoV2 pandemic related duties. Faculty and residents were posted as part of District Rapid Response Team for technical support in prevention and control measures in New Delhi district and advised Delhi Government regarding all containment and contact tracing activities at the field level. Faculty members were part of Central teams sent to various states for providing expert guidance and supervision of Covid control activities.

Dr. Manish K. Goel was deputed to Japan as part of Central Team for Screening & evacuation of Indians from 'Diamond Princess'. Residents from Department also participated in screening activities at IGI Airport and Nizamuddin Containment zone, Covid Care Centre at YMCA and also Covid ward duties. Contribution was also made in managing COVID Control room of LHMC hospital as well as MoHFW Control Room situated at Nirman Bhawan.

Inspite of restrictions because of pandemic and shut down of physical classes, all academic activities continued as a result of rapid and efficient shift to online mode of teaching. Many webinars and awareness generation activities were carried out by the department during and after lockdown period.

2. Publications:

- 1. Acharya AS, Debbarma S, Rasania SK, Tiwari N, Bachani D, Khandekar J. Risk assessment of Diabetes using the Indian Diabetes Risk Score in an urban resettlement colony of East Delhi. Indian J Comm Health. 2020;32(2):354-358.
- 2. Gupta A, Acharya AS, Rasania SK, Ray TK, Jain SK. Prevalence and risk factors of soil transmitted helminth infections in school age children (6–14 years) A cross sectional study in an urban resettlement colony of Delhi. Indian J Public Health 2020;64:333-8.
- 3. Singh M, Raina S, Parashar M, Gupta E, Goswami S, Gandhi MK. Is calorie intake the fundamental driver of Non-communicable diseases in India A systematic review. Indian J Public Health 2020; 64:161-167.
- 4. M Parashar, B Joseph, J Kaur, M Singh. The Effect of structured training program on awareness and behaviour regarding self-breast examination among community health workers. J. of the Scientific Society 2020; 47 (1): 8.
- 5. Yadav K, Ray Laskar A, Rasania SK. A study on stigma and apprehensions related to COVID-19 among healthcare professionals in Delhi. Int J Comm Med Public Health. 2020 Nov; 7(11):4547-4553

- 6. Priyanka, Goel MK, Rasania SK. A study of factors influencing academic performance of undergraduate medical students. Indian J Community Fam Med 2020; 6:137-43.
- 7. Verma D, Acharya AS, Bachani D, Seth A. Factors affecting adherence to treatment in children living with HIV. Indian J Sex Transm Dis 2020;41:181-7
- 8. Sangma R.V.N, Rasania S.K, Prasuna JG, Das R, Jais M. Diarrhoeal diseases and its relation to WASH practices and MPN count among under-five children residing in Resettlement colony, Delhi. Indian J of Comm Health 2020; 32 (3): 512-517
- Thakur A, Laskar AR, Acharya AS, Rasania SK, Jain A. Diet and dialogue skills: An innovative approach to diet demonstration by medical students of Lady Hardinge medical college. Indian J Community Med 2021; 46:134-6.
- 10. Prabhakar T, Goel MK, Acharya AS, Rasania SK. Prevalence and pattern of non-communicable diseases among elderly in a sub-urban area of Delhi. Indian J Community Health 2021;33(1):75-81.
- 11. Sahu R, Laskar AR, Yadav AK, Kunte R, Faujdar DS, Working Group et al. Acute Gastroenteritis Outbreak in a School Associated with Religious Ceremony in Mirzapur District, U.P, India. Ind J Pub Health. 2021 Jan; 65(1): S18-22.
- 12. Priyanka, Rasania SK. Self reported psychological impact of Covid-19 pandemic among general population of India. International Journal of Current Medical and Pharmaceutical Research 2021;7(1):5485-8.
- 13. Priyanka, Gupta E. Predicting Risk of Diabetes using Indian Diabetes Risk Score in Adult Population of Faridabad. Ann Community Health 2021;9(1):102-107.
- 14. Banerjee B, Arora E, Singh P, Budh N, Mishra P. Capacity building and assessment of grass root workers regarding their role in prevention and management of the COVID-19 pandemic at a rural health care facility in Delhi. Int J Adv Community Med 2021;4(1):40-43.
- 15. Arora E et al. Knowledge and perception about the ongoing COVID-19 pandemic among patients attending a rural primary health care facility in Delhi. International Journal Of Community Medicine And Public Health. Available at:

 https://www.ijcmph.com/index.php/ijcmph/article/view/7463.doi:http://dx.doi.org/10.18203/2394-

3. Journals

Dr. Manish K. Goel: Associate editor IJOYAH

4. Research Projects

6040.ijcmph20210849

- STS project under ICMR, Anxiety Levels and Physical Health among School going Adolescent Girl Students of Delhi, Ms. Riva Mehta- Project I/c: Dr. Manish K. Goel
- Ford foundation funded project entitled "Assessment of cardiovascular and stroke risk using WHO/ISH risk prediction charts in people aged >40 years in Palam area of Delhi"

5. Seminar / Workshops Organized: (Total numbers- 4)

- Webinar on "Life after Lockdown" in Dept. Community Medicine on 20/05/2020
- Webinar on Newer Contraceptive Methods as part of World Population Day campaign and "Jansankhya stirta pakhwada" or "Service Delivery fortnight" was held on 17/07/2020
- Webinar on "COVID-19, Vector Borne diseases and Air Pollution" on 24/10/2020
- Webinar on Avian Influenza :a new threat in collaboration with Department of Community Medicine, Maulana Azad Medical College and National Centre for Disease Control under the aegis of IAPSM on 23/01/2021

6. Seminar/ Conference Presentations (National/ International)

- Singh K, Ghai A, **Acharya AS**, Rasania S.K, Khandekar J. Adherence to treatment in Type II Diabetes Mellitus patients: a cross sectional study from East Delhi.Paper presented at National IAPSMCON conference organised by PGIMER Chandigarh from 18th to 21st March 2021
- Vaz RP, Acharya AS, Rasania SK. Prevalence of Chronic Obstructive Pulmonary Disease among auto rickshaw drivers of East Delhi: A cross-sectional study. Paper presented at National IAPSMCON conference organised by PGIMER Chandigarh from 18th to 21st March 2021
- Vaz RP, Gupta A, Acharya AS, Rasania SK A study on prevalence of Soil Transmitted Helminthiasis
 and it's relationship with nutritional status among school age children (6-14 years). Paper presented at
 National IAPSMCON conference organised by PGIMER Chandigarh from 18th to 21st March 2021
- Prabhakar T, Goel MK, **Acharya AS**. Mono-morbidity and multi-morbidity among elderly suffering from non-communicable diseases. Poster presented at: Public Health in 21st Century: Current Challenges & Future Opportunities. 48th Annual National Conference of Indian Association of Preventive and Social Medicine; 2021Mar 19-2; Chandigarh.
- Priyanka, Goel MK, Rasania SK. Perception of medical students regarding medical profession: Is there
 a change during graduation course. Oral presentation at National IAPSMCON conference organised by
 PGIMER Chandigarh from 18th to 21st March 2021
- Lall D.P, Dhiman B, Goel M.K, Laskar A.R. Barriers in treatment seeking related to surgical
 conditions in India: a viewpoint. Poster presentation at National IAPSMCON conference organised by
 PGIMER Chandigarh from 18th to 21st March 2021

7. Other Inter-Institutional Collaboration

- Collaborating for Post graduate Diploma in Maternal and Child Health with Indira Gandhi National Open University (IGNOU)
- Collaborating with the other departments for training Pre Hospital Trauma technicians.

8. Extension and outreach activities

- Community Medicine Unit, Kalawati Saran Children Hospital: The department provides the following **Promotive and Preventive Health Services** to the children attending Child Health Promotion Clinic (CHPC).
- Counseling for immunization
- Growth monitoring&Nutritional Counseling
- Health education sessions
- Counseling for family welfare
- Screening and Counseling for accompanying Adults with regard to Non Communicable Diseases.

9. Faculty strength: 13

COMMUNITY MEDICINE (MAMC)

Name of Faculty: 12

1. Research Scheme:

(a) Ongoing project:

Dr. Nandini Sharma-

Ongoing Projects

- Principal investigator: Impact of Air Pollution on Public Health An Observational Study, funded by Delhi Pollution Control Committee (DPCC)
- o *Principal Investigator*: Building capacity to prevent Cyberbullying in India and the U.S.: A cross cultural collaboration, funded by Ministry of Human Resources Development (MHRD)
- Principal investigator: The Management of Latent TB in India: present status and a feasibility of expansion model, funded by RNTCP, Govt of NCT Delhi
- Principal Investigator: The development of a Health and demographic surveillance site with focus on epidemiological survey of Dengue and Chikungunya in an urban resettlement colony and slum in Delhi. Funded by Biotechnology Industry Research Assistance Council (BIRAC)
- o *Principal investigator*: The prevalence and trends of SARS COV-2 infection in Delhi: A population based sero epidemiological study, Govt of NCT, Delhi
- o Principal investigator: Understanding human Covid-19 infections: a DBT India Consortium
- Principal investigator: Implementation of the INH-Rifapentine preventive therapy for latent tuberculosis infection in high-risk household tuberculosis contacts in India: a community-based pilot, funded by Central TB Division, GOI
- Co- Principal investigator: A mixed method exploratory studyon policy, perception and practices of health promotion in Government health care facilities of Delhi, funded by CHEB
- o *Co-Principal investigator:* Assessment of home based newborn care(HBNC)for competency and operational ease in the setting of Delhi, funded by Govt of NCT, Delhi.

Projects completed in 2020

- o *Principal investigator*: Risk Factors and Treatment seeking pathways among patients of Multi Drug resistant Tuberculosis funded by RNTCP.
- o *Co-principal Investigator*: Use of Novel In-vitro Diagnostic Technologies NAOR platform, Terasystem Breath Analyzer, VIRION™ test and Voice Pattern test and RT-PCR for rapid testing of SARS-CoV2 in Indian Population sponsored by the Defence Institute of Physiology and Allied Sciences (DIPAS), Defence Research and Development Organisation, August 2020

Dr. Suneela Garg-

- Study of Menstrual hygiene practices among adolescent girls in rural and urban resettlement areas of Delhi PI: Dr. Suneela Garg Co-PI: Dr M.M. Singh, Dr. Nidhi Bhatnagar, Dr. AmodBorle. Funding agency: Directorate of Health Sciences Govt. of NCT of Delhi
- 2. Addressing Smokeless Tobacco and Building research Capacity in South Asia ASTRA PI: Dr Suneela Garg, Co PI: Dr M M Singh, Dr. Nidhi Bhatnagar, Dr. AmodBorle, Dr Ravi Kaushik
- **3.** Hydroxychloroquine Prophylaxis for COVID-19 Infection among Healthcare A Workers: A Proof-of-Concept, Observational Study ICMR Dr Suneela Garg Dr MM Singh Dr AmodBorle Dr Nidhi Bhatnagar (ICMR Project)

- **4.** Assessment of Behaviour change in smokeless tobacco users due to COVID-19 Pandemic Dr Suneela Garg, Dr Chetana Deshmukh, Dr MM Singh, Dr AmodBorle, Dr Nidhi Bhatnagar Dr Amanjot Singh, Dr Parag Bharadwaj (ASTRA Project)
- 5. A combined model study to investigate the challenges faced by frontline health managers at district level in the time of pandemic of covid-19 multicentric approach: Dr MM Singh Dr Suneela Garg Dr AmodBorle Dr Nidhi Bhatnagar Dr Warisha Mariam Dr Madan Mohan Manji (ICMR Project- Delhi site)
- **6.** Seroprevalence of antiSARSCoV 2 antibodies in Indore, Madhya Pradesh: a community based cross sectional study- Salil Sakalle1, Satish Saroshe1, Harish Shukla1, Anita Mutha1, AmeyaVaze2 Arpit Arora3, Aditya Athotra4, Sudarshan Ramaswamy4, Arania Jain5 Meera Dhuria4, Anil D. Patil4, Arvind Rai4, Suneela Garg6, Sudhir K. Jain4, Jyoti Bindal1, Sujeet K. Singh (NCDC Project)
- 7. Experience of setting up of control room for COVID-19 at NCDC, New Delhi. Kaushal K, Dhuria M, Mariam W, Jain SK, Singh S, Garg S, Arun Chauhan, Ram Singh (NCDC Project)
- **8.** Seroprevalence of SARS-CoV-2 antibodies in Delhi: A population based cross sectional study Dr Sujeet Singh Dr Meera Dhuriya Dr Panna Lal Dr Nidhi Bhatnagar Dr Suneela Garg Dr Jugal Kishore Dr NutanMundeja (Supported by NCDC)

Dr. M. M. Singh-

1.Study of Menstrual hygiene practices among adolescent girls in rural and urban resettlement areas of Delhi PI:

Dr. Suneela Garg Co-PI: Dr M.M. Singh, Dr. Nidhi Bhatnagar, Dr. AmodBorle

Funding agency: Directorate of Health Sciences Govt. of NCT of Delhi

2. Addressing Smokeless Tobacco and Building research Capacity in South Asia ASTRA

PI: Dr Suneela Garg, Co PI: Dr M M Singh, Dr. Nidhi Bhatnagar, Dr. AmodBorle, Dr Ravi Kaushik

- 3.Hydroxychloroquine Prophylaxis for COVID-19 Infection among Healthcare A Workers: A Proof-of-Concept, Observational Study ICMR Dr Suneela Garg Dr MM Singh Dr AmodBorle Dr Nidhi Bhatnagar (ICMR Project)
- 4.Assessment of Behaviour change in smokeless tobacco users due to COVID-19 Pandemic Dr Suneela Garg, Dr Chetana Deshmukh, Dr MM Singh, Dr AmodBorle, Dr Nidhi Bhatnagar Dr Amanjot Singh, Dr Parag Bharadwaj (ASTRA Project)
- 5.A combined model study to investigate the challenges faced by frontline health managers at district level in the time of pandemic of covid-19 multicentric approach: Dr MM Singh Dr Suneela Garg Dr AmodBorle Dr Nidhi Bhatnagar Dr Warisha Mariam Dr Madan Mohan Manji (ICMR Project- Delhi site)

Dr. Bratati Banerjee-

Principal Investigator in research project titled "A mixed method exploratory study on policy, perception and practices of health promotion in government health care facilities of Delhi", funded by CHEB -2020-21

Dr. Pragya Sharma-

Ongoing-

1.PI-- Seroprevalence of COVID infection among health care workers in MAMC and associated hospitals using indigenous ELISA kit

Co- PI- Dr. Panna Lal, Dr. Nandini Sharma, Dr. Ritika Bakshi

2.PI- The prevalence and risk factors among health care workers for the SARS- CoV-2 infection at a tertiary care Covid-19 hospital in Delhi, India: A cohort study

Co-PI: Dr. Saurav Basu, Dr. Warisha Mariam

3.PI- A Prospective study on the transmission dynamics of coronavirus disease 2019 (Covid-19) among household contacts in Delhi, India

Co-PI- Dr. MM Singh, Dr Shivani Rao, Dr. Saurav Basu, Dr. Warisha Mariam

- -UNDER SUBMISSION-
- 4.Assessment of home-based newborn care (HBNC) for competency and operational ease in the setting of Delhi.

Completed-

Seroprevalence of COVID infection among health care workers in MAMC and associated hospitals using indigenous ELISA kit

Dr Nidhi Bhatnagar

As Principal Investigator

- 1. Reflection on Community Medicine Specialty in the time of pandemic.
- 2. Quality of Life of Healthcare workers during COVID-19 Pandemic in India
- 3. Perception of COVID 19 vaccine among healthcare workers of Delhi

Co-PI

- 1) Addressing Smokeless tobacco use and building research capacity in South Asia (ASTRA) in collaboration with University of York funded by NIHR UK.
 - Completed Project This year (Jan Dec 2020)
- 2) Menstrual hygiene practices among adolescent girls in rural and urban resettlement areas of Delhi funded by National Health Mission.
- Willingness and Perception regarding COVID-19 Vaccine among Vaccinees of a tertiary care hospital in Delhi.
- 4) A mixed method exploratory study on policy, perception and practices of health promotion in government health care facilities of Delhi", funded by CHEB 2020-21

Dr. Amod L. Borle-

As Principal Investigator:

- 1) Effect of mobile phone addiction on risk factors for non-communicable diseases in adolescents in an urban resettlement colony of Delhi
- 2) Assessment of knowledge regarding Rashtriya Kishor SwasthyaKaryakram (RKSK) among Adolescents and challenges and opportunities for implementation of Programme in Delhi.
- 3) Willingness and Perception regarding COVID-19 Vaccine among Vaccinees of a tertiary care hospital in Delhi.

As Co- Investigator in following funded projects:

- 5) Addressing Smokeless tobacco use and building research capacity in South Asia (ASTRA) in collaboration with University of York funded by NIHR UK.
 - Completed Project This year (Jan Dec 2020)
- 6) A Combined model study to investigate the challenges faced by Frontline health managers at district level in this time of Pandemic of COVID-19-Multicentric approach funded by ICMR.
- 7) Hydroxychloroquine Prophylaxis for COVID-19 Infection Among Healthcare Workers: A Proof-of-Concept, Observational Study funded by ICMR
- 8) Menstrual hygiene practices among adolescent girls in rural and urban resettlement areas of Delhi funded by National Health Mission.

Dr. Shivani Rao-

- 1) The development of health and demographic surveillance site with focus on epidemiological survey of dengue and Chikungunya in an urban resettlement colony and slum in Delhi: a prospective observational study' (funded by World bank)
- 2) A prospective study on the transmission dynamics of coronavirus disease 2019 (COVID-19) among household contacts in Delhi,India. (started in Dec 2020) funded by WHO
- 3)Model based training and skill development for breast self-examination among reproductive age group community women
- 4)Perceived stress and coping mechanisms among Undergraduate medical students.
- 5) Thyroid dysfunction in women of reproductive age women in urban resettlement colony of Delhi
- 6) Prevalence of skin diseases among adult males in urban area of Delhi- Co supervisor
- 7) Assessment of model-based training and skill development for breast self-examination among reproductive age group women A community-based study

Ph.D. - 9

Dr. Suneela Garg-

- -20 Trainees from IGNOU for Post Graduate Diploma in Geriatric Medicine 2020
 - **2.** <u>Training course/Conferences/Workshops organized:</u>

Dr. Amod L. Borle-

- 1) Pub Med Search and Reference Management
- 2) Geographic information system using QGIS
 - 3. <u>Publications during the period:</u>
- 1. Rathi A, Naagar S, Kumar V, Lal P, Goel S. "Sexual assault and associated factors among the cases reported in a tertiary care hospital of Delhi" published in National Medical Journal of India 2019, Vol 32(6): 344-346.
- 2. Parashar M, Singh M, Lal P. "Life satisfaction and correlates among working women of a tertiary care health sector: A cross sectional study from Delhi, India" published in Med J DY Patil vidyapeeth 2018, 11: 406-11
- **3.** Banerjee B, Banerjee R, Ingle GK, Mishra P, Sharma N, Garg S. Effectiveness of Child-To-Child Approach in Preventing Unintentional Childhood Injuries and Their Consequences: A Non-Randomized Cluster-Controlled Trial. Indian pediatrics. 2021 Feb 19.
- **4.** Basu S, Sharma N, Mase SU, Sachdeva KS. Ethical issues in expanding latent TB management in high burden countries. Indian J Med Ethics. 2020 Jan 1;5(1):53-6.
- **5.** Sharma N, Basu S, Chopra KK, Sharma P. Awareness and perspectives on expansion of latent TB management among public-sector physicians and medical trainees in Delhi, India. Indian J Tuberc. 2020;67(2):208-212. doi:10.1016/j.ijtb.2020.02.003
- **6.** Singh K, Bali J, Singh A, Sharma N. COVID 19: Understanding the Disease to Implement Containment Strategies. MAMC J Med Sci 2020;6:7-16
- 7. Marimuthu Y, Nagappa B, Sharma N, Basu S, Chopra KK. COVID-19 and tuberculosis: A mathematical model based forecasting in Delhi, India. Indian J Tuberc. 2020;67(2):177-181. doi:10.1016/j.ijtb.20
- 8. Design and rationale of an intelligent algorithm to detect Burnout in Healthcare workers in COVID era using ECG and artificiaL intelligence: The BRUCEE-LI study Mohit D. Gupta, Ankit Bansal, Prattay G. Sarkar, M.P. Girish, Manish Jha, Jamal Yusuf, Suresh Kumar, Satish Kumar, Ajeet Jain, Sanjeev Kathuria, Rajni Saijpaul, Anurag Mishra, Vikas Malhotra,

- Rakesh Yadav , S. Ramakrishanan , Rajeev K. Malhotra , Vishal Batra , Manu Kumar Shetty , Nandini Sharma , Saibal Mukhopadhyay, Anubha Gupta
- 9. Development of a fast SARS-CoV-2 IgG ELISA, based on receptor-binding domain, and its comparative evaluation using temporally segregated samples from RT-PCR positive individuals- Farha Mehdi, Souvick Chattopadhyay, Ramachandran Thiruvengadam, Sarla Yadav, Manjit Kumar, Sangita Kumari Sinha, Sandeep Goswami, Pallavi Kshetrapal, Nitya Wadhwa, Uma Chandramouli Natchu, Shailaja Sopory, BapuKoundinyaDesiraju, Anil Kumar Pandey, Asim Das, Nikhil Verma, Nandini Sharma, Pragya Sharma, VanditaBhartia, MuditaGosain, Rakesh Lodha, UrpoLamminmäki, Tripti Shrivastava, Shinjini Bhatnagar,

 Gaurav

 Batra Manuscript ID: 618097
- **10.** Sharma N. Responding to the COVID-19 Pandemic: the Experience and the Road Ahead for the Largest Medical College in India's Capital City. MAMC Journal of Medical Sciences. 2020 Sep 1;6(3):151.
- **11.** Sharma N, Banerjee B, Rao S, Borle AL, Bhatnagar N, Sharma P, Kumar R, Singh MM, Lal P, Meena GS, Garg S. Response to COVID-19: Best Practices From the Department of Community Medicine of a Medical College in Delhi. MAMC Journal of Medical Sciences. 2020 Sep 1;6(3):156.
- **12.** Basu S, Rustagi R, Sharma P, Sharma N, Laul A. Perceived awareness, practices and perspectives on COVID-19 management among medical doctors in India: A repeated cross-sectional study. Population Medicine. 2020 Dec 8;2(December):1-6.
- **13.** Gupta MD, Bansal A, Sarkar PG, Girish MP, Jha M, Yusuf J, Kumar S, Kumar S, Jain A, Kathuria S, Saijpaul R, Mishra A, Malhotra V, Yadav R, Ramakrishanan S, Malhotra RK, Batra V, Shetty MK, Sharma N, Mukhopadhyay S, Garg S, Gupta A. Design and rationale of an intelligent algorithm to detect BuRnoUt in HeaLthcare workers in COVID era using ECG and artificiaL intelligence: The BRUCEE-LI study. Indian Heart J. 2021 Jan-Feb;73(1):109-113. doi: 10.1016/j.ihj.2020.11.145. Epub 2020 Nov 24. PMID: 33714394; PMCID: PMC7683295.
- 14. Vikas Manchanda, Tanu Sagar, NaziaNagi, Oves Siddiqui, Abhishek Yadav, Nitin Arora, Faria Hasan, Kavita Meena, Pradeep Bharti, Neha Rana, Sikander Hayat, SanchitaTuteja, Ajeet Yadav, Devyani Puri, Palak PummaKhyati, Ananya Arora, Jainandra Sunidhi, Shreya, Suresh Kumar, Nandini Sharma. Clinical characteristic and epidemiological features of SARS CoV-2 disease patients from a COVID-19 designated hospital in New Delhi
- **15.** Basu S; Sharma N, Sharma P, MD Sociodemographic determinants of the adoption of a contract tracing application during the COVID-19 epidemic in Delhi, India Health Policy and Technology, 2020
- **16.** Basu S, Sharma R, Sharma P, Sharma N. Addiction-like behavior associated with social media usage in undergraduate students of a government medical college in Delhi, India. Indian J Psychiatry. 2020
- 17. Sharma N, Bhatnagar A, Basu S, et al . Comparison of patient treatment pathways among multidrug-resistant and drug-sensitive TB cases in Delhi, India: a cross-sectional study. Accepted for publication in the Indian Journal of Tuberculosis
- **18.** Rustagi R, Basu S, Sharma P, Sharma N. The effectiveness of a dose based reporting tool in reducing vaccine wastage at a primary care clinic in Delhi, India: an operational research study. Accepted for Publication in Human Vaccine and Immunotherapeutics
- 19. Basu S, Marimathu Y, Sharma P, Sharma N, Gangadharan P, Santra S. Attitude towards mobile learning among resident doctors involved in undergraduate medical education at a government medical college in Delhi, India. Accepted for publication in the Journal of Education and Health Promotion
- **20.** Basu S, Sharma P, Rustagi R, Sharma R, Sharma N. Measuring internet gaming addiction among Indian medical students: development and preliminary psychometric properties of a new scale. Accepted for publication in the Industrial Psychiatry
- **21.** Basu S, Sharma N .Ethical considerations and preparedness in the management of the COVID-19 pandemic in India: evolving an ethical framework, accepted in IJE
- **22.** Rustagi R, Basu S, Sharma P, Sharma N. The effectiveness of a dose based reporting tool in reducing vaccine wastage at a primary care clinic in Delhi, India: an operational research study. Accepted for Publication in Human Vaccine and Immunotherapeutics
- 23. Basu S, Marimathu Y, Sharma P, Sharma N, Gangadharan P, Santra S. Attitude towards mobile learning among resident doctors involved in undergraduate medical education at a government medical college in Delhi, India. Accepted for publication in the Journal of Education and Health Promotion

- **24.** Basu S, Sharma P, Rustagi R, Sharma R, Sharma N. Measuring internet gaming addiction among Indian medical students: development and preliminary psychometric properties of a new scale. Accepted for publication in the Industrial Psychiatry
- **25.** Basu S, Sharma N, Ethical considerations and preparedness in the management of the COVID-19 pandemic in India: evolving an ethical framework; accepted in Indian Journal of Medical Ethics
- **26.** Santra S, Garg S, Basu S, Sharma N, Singh MM, et al. The effect of a mHealth intervention on antituberculosis medication adherence in Delhi, India: a quasi- experimental study'. Accepted for publication in Indian Journal of Public Health.
- 27. Basu S, Sharma N, Sharma P, Sociodemographic determinants of the adoption of a contract tracing application during the COVID-19 epidemic in Delhi, India Health Policy and Technology Manuscript Number: HLPT-D-20-00440R1 Accepted
- **28.** Mahmood F Bhutta,aXingkuanBu,b Patricia Castellanos de Muñoz,cSuneela Garg d & Kelvin Konge: Training for hearing care providers *Bulletin of the World Health Organization* 2019;97:691-698.
- **29.** Dahiya N, Aggarwal K, Singh MM, Garg S, Kumar R;Knowledge, attitude, and practice regarding the screening of cervical cancer among women in New Delhi, India Tzu Chi Journal Year: 2019 September | Volume: 31 | Issue: 4 | Page: 240-243
- **30.** Garg S, Singh MM, Hossain S, Arora I. Health and social implications of gender-based violence. Paripex Indian Journal of Research. Volume-8 | Issue-6 | June-2019 | PRINT ISSN No. 2250 1991
- **31.** Mangla V, Singh MM, Garg S, Koner BC, Anuradha S. Vitamin d deficiency and associated factors in type 2 diabetes mellitus patients in a tertiary care hospital in delhi: a cross sectional study. International Journal of Scientific research. 2019;8(3):53-55.
- **32.** The Hindi Version of the Breastfeeding Self-Efficacy Scale-Short Form: Reliability and Validity Assessment, Saurav Basu, Suneela Garg, Akashdeep Sharma, Ekta Arora, M.M SinghIndian Journal of Community Medicine | Volume 45 | Issue 3 | July-September 2020
- **33.** Mariam W, Garg S, Singh MM, Koner BC, Anuradha S.Vitamin D status, determinants and relationship with biochemical profile in women with Type 2 Diabetes Mellitus in Delhi, India. Diabetes & Metabolic Syndrome: Clinical Research & Reviews.2019;13(2):1517-1521.
- **34.** Basu S, Garg S, Sharma N, Singh MM. Enhancing Medication Adherence through Improved Patient-provider Communication: The 6A's of Intervention. J Assoc Physicians India 2019 Jul;67(7):69-71 PMID: 31559773
- **35.** Basu S, Garg S, Sharma N, Singh MM. Improving the assessment of medication adherence: Challenges and considerations with a focus on low-resource settings. Tzu Chi Med J. 2019 Apr-Jun;31(2):73-80.
- **36.** Dahiya N, Aggarwal K, Singh MC, Garg S, Kumar R. Knowledge, attitude and practices regarding the screening of cervical cancer among women in New Delhi, India. Tzu Chi Med J. 2019 Apr-Jun;31(4):240-3.
- 37. Basu S, Garg S, Singh MM, Kohli C. Knowledge and practices related to the use of personal audio devices and associated health risks among medical students in Delhi. J Educ Health Promot 2019 15;8:42. Epub 2019 Feb 15.
- **38.** Basu S, Budh N, Garg S, Singh MM, Sharma A. Postpartum depression burden and associated factors in mothers of infants at an urban primary health center in Delhi, India. Tzu Chi Med J [Epub ahead of print] [cited 2020 Oct 7]

- **39.** Letter to editor "SurakshitMatritvaAashwasan (SUMAN)" published in the current issue of Advances in Medical Dental and Health Sciences. Volume 2, Issue 4, Oct-Dec, 2019
- **40.** Basu S, Mariam W, Santra S, Garg S. Re-exposure animal bite management among incident animal bite cases in a secondary care Hospital in Delhi, India IJPHYear: 2020 | Volume: 64 | Issue: 1 | Page: 72-74
- **41.** Garg S, Singh MM, Ruchir R, EngtipiK, Bala I. Magnitude of Domestic Violence and its Socio-Demographic Correlates among Pregnant Women in Delhi. Journal of Family Medicine and Primary Care 8(11):3634 · November 2019
- **42.** Budh N, Arora E, Garg S, Zika Virus-An Emerging Threat. Indian Journal of Communicable Diseases: IJCD_9726_2019
- **43.** Budh N, Arora E, Garg S, West Nile Fever- A Remerging Threat To Public Health . Indian Journal of Communicable Diseases : IJCD_9722_2019
- **44.** Garg S, Basu S, Baswal D, Mariam W, Rustagi R. Training of health workers for Maternal Death Surveillance and Response program in India: knowledge assessment and analytical evaluation. Journal of Midwifery and Reproductive Health. 2020;8(1):2041-9.
- **45.** Hossain S, Garg S, "The Launch of the Malaria Vaccine", International Journal of ScienceandResearch(IJSR), https://www.ijsr.net/search_index_results_paperid.php?id=ART20197745, Volume 8 Issue 5, May 2019, 527 528
- **46.** Bhavsar A, Tam C, Garg S, Jammy GR, Taurel AF, Chong SN, Nealon N Estimated dengue force of infection and burden of primary infections among Indian children, BMC Public Health 19, Article No 1116 (2019) PMID 31412836, BMC Public Health 19, Article No 1116 (2019) PMID 31412836
- 47. Tobacco: An invisible threat for COVID 19 Suneela Garg, Chetana Deshmukh, Indian Journal of Community Health INDIAN JOURNAL OF COMMUNITY HEALTH/ VOL 32/ NO 02 (SPECIAL ISSUE)/ APRIL2020
- **48.** Garg S, Gangadharan N, Bhatnagar N, Singh MM, Raina SK, Galwankar S. Telemedicine: Embracing virtual care during COVID-19 pandemic. Jr of Family Medicine and Primary Care Year: 2020 | Volume: 9 | Issue: 9 | Page: 4516-4520
- **49.** Garg S, Bhatnagar N, Singh MM, Borle AL, Raina SK, Kumar R, Galwankar S, Strengthening public healthcare systems in India; Learning lessons in COVID-19 pandemic Jr of Family Medicine and Primary Care Year: 2020 | Volume: 9 | Issue: 12 | Page: 5853-5857
- **50.** Garg S, Deshmukh C. Tobacco: An invisible and immediate threat for COVID 19. Indian J Community Health. 2020 Apr 18;32(2 Special):248–50.
- **51.** Garg S, Deshmukh C, Singh MM. Wilson B Challenges of deaf and hearing impaired in the masked world of COVID 19 ,Indian Journal of Community Medicine (Accepted for publication -manuscript no.IJCM_581_20)
- **52.** Garg S, Deshmukh C, Singh MM, Bhatnagar N, Borle A. Critical Interpretative Synthesis of Herd Immunity for COVID-19 Pandemic, Journal of Family Medicine and Primary care (Accepted for publication: jfmpc_1127_20)

- **53.** Garg S, Bisht U, Singh MM, "A review on online counselling in COVID-19 pandemic: Indian perspective" The International Journal of Indian Psychology, ISSN 2348-5396 (e) ISSN: 2349-3429, 2020
- **54.** Garg S, Basu S, Rustagi R, Borle AL; Primary Health Care Facility Preparedness for Outpatient Service Provision During the COVID-19 Pandemic in India: Cross-Sectional Study JMIR Public Health Surveill 2020 Jun 1;6(2):e19927. doi: 10.2196/19927.
- 55. Sakalle S, Saroshe S, Shukla H, Mutha A, Vaze A, Arora A, AthotraA, Ramaswamy S, Jain A, Dhuria M, Patil AD, Rai A, Garg S, Jain SK, Binda J, Singh SK Seroprevalence of anti-SARS-CoV-2 antibodies in Indore, Madhya Pradesh: a community-based cross-sectional study, August 2020. J Family Med Prim Care 2020; DOI:10.4103/jfmpc.jfmpc_2015_20
- **56.** Kaushal K, Dhuria M, Mariam W, Jain SK, Singh S, GargS, et al. Experience of setting up of control room for COVID-19 at NCDC, New Delhi. J Family Med Prim Care 2020; DOI: 10.4103/jfmpc_jfmpc_1826_20
- 57. Dr. Sunil Kumar Raina, Dr. Raman Kumar, Dr. S. Natrajan, Dr. Ishwar Gilada, Dr. Suneela Garg, Dr. AC Dhariwal, Dr. Sagar Galvankar, Dr. Sunil D Khaparde, Dr. Ramesh Bhat, Dr Uday Bodhankar, Dr. Praveen Agarwal India's need for long term solutions to Covid-19 like pandemics A policy paper by Organized Medicine Academic Guild. Accepted for publication In Journal of Family Medicine and Primary Care
- 58. Banerjee B, Banerjee R. Role of tobacco in SARS-CoV-2 and COVID-19: A scoping review. International Journal of Non-Communicable Diseases 2020;5:70-5.
- 59. Banerjee B. COVID-19 Containment: Legal Framework for Regulatory Approach. Journal of Comprehensive Health 2020;8(2):
- 60. Banerjee B. COVID-19 and Beyond: The Way Forward for Public Health in India. Indian Journal of Communicable Diseases 2020;6(1):13-20
- 61. Banerjee R, Banerjee B. Public Perspective and Adherence to Government Directives in the Face of COVID-19 Situation in India. MAMC Journal of Medical Sciences 2020;6:90-96.
- 62. Basu Mallick D, Dutt D, Banerjee B, Bhattacharjee A. Quality of life or oral and oropharyngeal cancer patients attending a tertiary care institute in Kolkata. International Journal of Community Medicine and Public Health 2020;7(1):243-249.
- **63.** Basu S, Yadav P, Banerjee B, Yadav A. The effect of a clinic-based behavioral intervention in promoting enrolment in a text-message tobacco cessation program at a rural primary health clinic in Delhi, India. Tobacco Prevention and Cessation 2020;6(May):27 7. https://doi.org/10.18332/tpc/120382
- **64.** Lachyan AS, Fui WM, Banerjee B, Zaki RA. Situational Analysis: Gerontechnology and Older Persons Wellbeing in developing countries. International Journal of Medical and Pharmaceutical Research 2020;1(1):08-21.
- **65.** Lachyan AS, Khan AM, Zaki RA, Banerjee B. Effect of community-based intervention on awareness of dengue and its prevention among urban poor community in India a systematic review approach. International Journal of Community Medicine and Public Health 2020;7:5182-9.
- **66.** Pangtey R, Basu S, Meena GS, Banerjee B. Perceived Stress and its Epidemiological and Behavioral Correlates in an Urban Area of Delhi, India: A Community-Based Cross-Sectional Study. Indian Journal of Psychological Medicine · January 2020 DOI: 10.4103/IJPSYM_IJPSYM_528_18
- **67.** Dahiya N, Aggarwal K, Kumar R. Prevalence and correlates of antenatal depression among women registered at antenatal clinic in North India. Tzu Chi Med J 2020;32:267-71.
- **68.** Basu S, Engtipi K, Kumar R. Determinants of adherence to antihypertensive treatment among patients attending a primary care clinic with limited medical armamentarium in Delhi, India: A qualitative study. First Published September 17, 2020 Research
- **69.** Sharma N, Basu S, Khanna A, Sharma P, Chopra KK, Chandra S. Adherence to Isoniazid Preventive Therapy among children living with Tuberculosis patients in Delhi, India: an exploratory prospective study. Indian Journal of Tuberculosis. 2021

- **70.** Basu S, Rustagi R, Sharma P, Sharma N. Perceived awareness, practices and perspectives on COVID-19 management among medical doctors in India: A repeated cross-sectional study. Population Medicine. 2020
- **71.** Rustagi R, Basu S, Sharma P, Sharma N. The effectiveness of a dose based reporting tool in reducing vaccine wastage at primary care clinics in Delhi, India: an operational research study. Human Vaccines and Immunotherapeutics. 2020
- **72.** Sharma P, Chawla R, Bakshi R, Saxena S, Basu S, et al. Seroprevalence of antibodies to SARS-CoV-2 and their predictors among employees of a teaching hospital in New Delhi, India. Osong Public Health & Research Perspectives. 2021 (Accepted for publication)
- 73. Rustagi R, Sharma P, Basu S, et al. A survey of Anaemia burden and its predictors among the undergraduates enrolled in a government medical college of Delhi. Journal of Datta Megha Institute of Mediscal Sciences. 2020 (Accepted for publication)
- **74.** Sharma P, Marimuthu Y, Basu S, Mala N. The feasibility and effectiveness of Tuberculosis screening for intensified case finding among antenatal women in secondary and tertiary care hospitals in Delhi, India. (Under Review Indian J Tuberculosis). 2021
- **75.** Sharma P, Yamini M, Mid upper arm circumference for assessment of undernutrition: Is it diagnostically accurate in pregnant women in Delhi, India? in journal "Journal of Preventive Medicine and Public Health"
- **76.** Sharma P, Yamini M,The feasibility and effectiveness of Tuberculosis screening for intensified case finding among antenatal women in a secondary and tertiary care hospital in Delhi, India in journal "Journal of Global Infectious Diseases"
- 77. Shivani Rao , Ajay Raj Sethuraman , Pandurang VithalThatkar. Incidence of dengue in the Islands. International Journal of Community Medicine and Public Health | September 2020 | Vol 7 | Issue 9

Books/Chapters/Contributed:

Dr. Nandini Sharma-Clinical approach to Covid - 19 in India, Published by IJCP. Chapter on Epidemiology

Dr. Suneela Garg-POLICY DOCUMENT FOR COVID-19-LIKE PANDEMICS PREPAREDNESS Need for long term solutions to Covid-19 like pandemics: Organized Medicine Academic Guild

Dr. Bratati Banerjee-

- 1. Banerjee B. The Friendly Four Take Safety Pledge. New Delhi (India): ShabdankurPrakashan; 2020
- 2. Banerjee B, Ingle GK. Prevention of Injuries in Children and Adolescents. New Delhi (India): ShabdankurPrakashan; 2020 (Hindi)

Dr Nidhi Bhatnagar-COVID-19 Global and National Response Lessons for the future, Independent Commission on Development and Health in India. Voluntary Health Association of India.

Dr. Amod L. Borle-

- a) Contributed to E Learning Module of FICCI on COVID 19 for Health Workers
- **b**) Contributed to Basic Course in Tobacco Control Course modules by RCTC, PGI Chandigarh in collaboration with The Union and WHO.

4. <u>Conferences/workshops attended:</u>

Dr. Panna Lal-

(1) Attended virtual dissemination workshop for the study titled "Menstrual Hygiene Practices among Adolescent Girls in Rural and Urban Resettlement areas of Delhi organized by Dept. Of Community Medicine on 7th November, 2020

Dr. Suneela Garg-

- Attended WHO meeting and presented paper on promoting ear and hearing care in schools of SEAR Region.
- Attended ASTRA consortium at York,UK (20th to 25th January 2020) and presented on Youth Survey on Smokeless tobacco.

WEBINARS

- 1. Webinar on "Infrastructure: Future Pandemic Friendly Infrastructure (25th April 2020) -Dr Suneela Garg
- 2. Webinar on "Containment of COVID-19 (6th May 2020) -Dr Suneela Garg
- 3. Webinar on "New Collateral Benefits and loses of COVID-(9th May 2020) -Dr Suneela Garg
- **4.** Webinar on "Emerging controls in emerging & Triage Area in view of Modes of Covid-19 transmission (18th July) -Dr Suneela Garg
- 5. Webinar "Reopening the clinics" (19th July) Dr Suneela Garg
- **6.** Webinar "School reopening Implementing safety Norms AMIDST COVID-19 (19th July) Dr Suneela Garg
- 7. HPN webisode "New norms of workers Health" (23rd July) Dr Suneela Garg
- **8.** Webinar "Role of e-mediation on outline Dispute Redressed" (25th July) Dr Suneela Garg
- 9. FICCI: "Post Covid Health Care World. The New Beginning" (31st July) Dr Suneela Garg
- **10.** Vision 2020 : Will Covid-19 surge back again ? Heart care Foundation of India (8th August) Dr Suneela Garg
- 11. FICCI working Group on COVID -19 administration (17th Nov.) Dr Suneela Garg
- 12. Discussion for FICCI "Module for vaccine administration (20th Nov.) Dr Suneela Garg
- **13.** Academia IAPSM eCONNECT: "COVID-19 Epidemiological Situation in India: Delhi Mumbai Gujrat (18th Dec. 2020) Dr Suneela Garg

ZOOM MEETINGS

- Recovery is rule in COVID-19 and Death Is exceptional, unusual COVID Manifestation (4th July 2020) Dr Suneela Garg
- COVID-19 Vaccine Update (11th July 2020): Dr Suneela Garg
- HCFI: Engineering Controls in Emergency & Triage area in view of modes of covid 19
- Transmission (18thjuly) Dr Suneela Garg
- Consent in COVID era- Need for Change (1st August) Dr Suneela Garg
- Decoding of usage of Masks during Covid-19 (17th August) Dr Suneela Garg
- HCFI: Post Covid-19 inflammation (22nd August) Dr Suneela Garg
- HCFI :Fake News Infodemic(5th Sep.) Dr Suneela Garg
- HCFI: Considerations for Wearing Face Masks in Pandemic era in different situations (12th Sep. Dr Suneela Garg
- HCFI: Lateral Thinking in Covid -19 era (19th Sep.) Dr Suneela Garg
- HCFI: Covid 19 Reinfection!! (26th Sep.) Dr Suneela Garg
- HCFI :Vaccine UPDATE (10th Oct.)Dr Suneela Garg
- HCFI: Quality of Face Masks (17th Oct.): Dr Suneela Garg
- HCFI :Cohorting during Unlocking Different approaches (24th Oct.) Dr Suneela Garg
- HCFI :What to do when opinion differs regarding usefulness of a particular drug in presence of varying sceintific reports! (31st Oct.) Dr Suneela Garg
- HCFI: Is my Covid serious (7th Nov.) Dr Suneela Garg
- HCFI :Diwali Celebrations Understanding spiritual Meaning (14th Nov.) Dr Suneela Garg
- HCFI :Covid vaccines in India (21st Nov.) Dr Suneela Garg
- HCFI: Sharing of Personal & Professional Learnings from Covid 19 Pandemic (28th Nov.) Dr Suneela Garg

- HCFI: Covid 19 virus is infectious for 10 days in Human being as per reports why quarantine/ isolate for 14 -17 days?: Dr Suneela Garg
- Treatment strategies for COVID-19 Infection (12th Dec.): Dr Suneela Garg
- HCFI: Time to unite to combat vaccine hesitancy (19th Dec.): Dr Suneela Garg
- HCFI: New Variants COVID-19 (26th Dec.) Dr Suneela Garg
- HCFI: Round Up activities year 2020 (2nd Jan. 2021)Dr Suneela Garg
- HCFI: Consensus document on covid 19 vaccine myths (9th Jan. 2021): Dr Suneela Garg
- HCFI: Covid 19 vaccine Indications and contraindications (16th Jan. 2021): Dr Suneela Garg
- HCFI: Covid 19 vaccine Why CRP less than 1? (23rd Jan. 20211) Dr Suneela Garg
- HCFI: Unanswered questions on Covid 19 vaccine! (30th Jan. 20211) Dr Suneela Garg
- Adverse events including Deaths following vaccinations (6th Feb. 2021) Dr Suneela Garg
- HCFI: Types of antibodies post vaccination as well Natural Infection (13th Feb. 2021) Dr. Suneela Garg
- OMAG Zoom meeting to discuss annual meeting and Speed up of Vaccine Coverage (14th Feb. 2021) Dr. Suneela Garg
- HCFI: Rise of Cases in Mumbai (20th Feb. 2021) Dr. Suneela Garg
- HCFI: Immunity Passport in respect of Covid 19 (27th Feb. 2021) Dr. Suneela Garg

Dr. Bratati Banerjee-

- Attended 64th National IPHA Conference, at All India Institute of Medical Sciences, New Delhi
- Moderator in IPHACON National Quiz Committee, at 64th Annual National Conference of Indian Public Health Association 2020

Dr. Rajesh Kumar-

- a) 47th National Annual Conference of IAPSM Conf 2020 India, Mahabalipuram Tamil Nadu.
- b) Workshop on QGIS, MAM College
- c) Epi-collect workshop, MAMC

Dr. Pragya Sharma-

Conducted Trainings for Medical Officers throughout Delhi for the Delhi serosurvey.

Dr Nidhi Bhatnagar

- a) Participated in Annual symposium and meeting at University of York, UK as a part of ASTRA Project team from $22^{nd} 24^{th}$ Jan 2020
- b) Participated in e-connect initiative of IAPSM presenting the status of COVID 19 pandemic in Delhi.

Dr. Amod L. Borle-

- $\boldsymbol{c)} \quad \text{Annual Conference of the IAPSM at Mahabalipuram on } 28\text{-}30 \text{ Jan } 2020$
- d) Participated in Annual symposium and meeting at University of York, UK as a part of ASTRA Project team from $22^{nd} 24^{th}$ Jan 2020
- e) Workshops Attended: Total-9

Dr. Shivani Rao-

- a) Participated in workshop 18th& 19th February 2020 at Delhi secretariat- strengthening family planning program through reinforcing standards and protocols
- b) Attended training Programme on COVID vaccine on 24 DEC 2020 at MAMC

5. Significant Events (Honors to Faculty)

Dr. Amod L. Borle-

As a Guest faculty at state & District level training under NPCDCS in Jan – March 2020.

Faculty for PGDGM course of IGNOU.

6. Fellowship

Dr. Shivani Rao-

Joined FAIMER Fellowship 2019- 2021 associated with the Foundation for Advancement of International Medical Education and Research (FAIMER), Philadelphia, USA

7. Representation on expert Committee/Bodies: -

Dr. Panna Lal-

- 1. Member of Rapid Response Team to tackle COVID-19 in L N Hospital Under IDSP
- 2. Member of Interview Board for selection of Bank Medical Consultants (General Physician) for the Dispensaries of Reserve Bank of India located in its staff colonies at New Delhi held on 14th December, 2020.
- 3. Chair Person of the Selection Committee for Walk-in- Interview of Candidates for the post of Senior Resident (Community Medicine) on Regular Basis held on 17th December at MAMC
- **4.** Chair Person of the Selection Committee for Walk-in- Interview of Candidates for the post of Research Assistant conducted by Dept. Of Community Medicine in collaboration with CHEB on 4th November, 2020 at MAMC
- **5.** Chair Person of the Selection Committee for Walk-in- Interview of Candidates for the post of field investigator conducted by Dept. Of Community Medicine for WHO UNITY Project entitled 'A prospective study on the transmission dynamics of Corona virus disease-2019 among household contacts in Delhi" on 2nd January, 2021 at MAMC
- **6.** External Examiner for Practical/ Oral Examination of MD in Community Medicine held at B P S Government Medical College for Women Khanpur Kalan, Soipat, Haryana. from 24July, 2020.
- 7. External Examiner for Evaluation of the Thesis Entitled "Socio demographic factors........ Care Hospital" submitted to Pt B. B. Sharma University of Health Sciences for MD degree in Community Medicine by Dr. Tarun Kumar.
- **8.** Internal External Examiner for Annual Practical/Clinical / Viva voce/ Written Examination (Regular & supplementary) of MD (Community Medicine) Maulana Azad Medical, New Delhi held in May & December 2020.

Dr. Nandini Sharma-

- 1. Chairperson of the State task force, Delhi for Revised National Tuberculosis Control Programme implementation
- **2.** Member of Environmental Assessment and Management of Water Resources Projects Sectional Committee, WRD 24 of Bureau of Indian Standards
- **3.** Member of committee for the monitoring of the implementation of plans on environmental safeguard measures in ISP and OSP projects
- 4. Member of Operational Research committee of RNTCP Govt of NCT Delhi
- 5. Member of Operational Research committee of RNTCP Min. of Health and family welfare Govt of India

- **6.** Expert member CBSE for UGC NET exam
- 7. Chairperson Committee for finalizing a comprehensive and composite proposal for facilitating Training and Exchange Programs on Management Skills and Staff Skills of the in-service Medical Professionals/Paramedicals/Nursing Staff of the Department of H&FW, Govt. of NCT of Delhi in National and International institutes of repute
- 8. Member of Research advisory committee of Model Rural Health Research unit (MRHRU) of ICMR in Una H.P.
- 9. Convener- Specialists board in discipline of Community Medicine- National Board of Examinations
- **10.** Chairperson of committee constituted to develop the Standard Operating Procedure for management of anemia (including appropriate referral and follow up of each client) depending on grade/severity of anemia or special needs/status (eg. pregnancy & its stage etc.) by Govt of NCT, Delhi.

Dr GS Meena

- 1. Nodal Officer for MAMC Post Graduate Admissions Delhi University
- 2. Nodal officer for DBT Student's Scholarship
- 3. Member Shops, Café, and Kiosk Committee
- 4. Member Convocation Reception committee
- 5. Chairman / Member MAMC IT, LAN & Server Committee
- **6.** Chairman Anti Ragging Committee
- 7. Faculty Adviser for Students Sports Committee
- 8. Nodal Officer for IDSP (Integrated Disease Surveillance Project)
- **9.** Selection Committee Member Senior Residents
- 10. In-charge Departmental Senior Residents
- 11. Resource person for Sound Hearing 2030
- 12. Resource Person for AIIMS, Rajasthan University, & National Board of Examination
- 13. Expert Member, AIIMS, and National Urban Health Mission
- 14. Invited as Reviewer of International journal "Vaccine"
- 15. Presentation / resource person-Sound Hearing2030

Dr. Suneela Garg-

- 1. Dr. Suneela Garg attended "meeting for finalisation of Radio Programmes under NPPCD at MoHFW GOI (January 2020)
- 2. Dr. Suneela Garg attended 2nd "Technical Steering committee for Norms for involvement of sub-division hospitals under NPPCD at MoHFW GOI (November 2020)
- **3.** Skill development Courses by Delhi University; Development of Home health AID for elderly Accredited by National Skill Development Council
- 4. Expert for e learning programme on Smokeless tobacco control organized by NICPR(November 2020)
- 5. Expert for Scientific Advisory Committee to NICPR, Noida
- **6.** Advisor: Niti Aayog on Clinical Trials and sustainable development goals.
- 7. Expert for University court meeting, Delhi University (18th November 2019)
- **8.** Expert for evaluation of Youth study data collection for ASTRA (October 2019 January 2020)
- **9.** Expert for National AIDS Control Organization for recruiting consultants.(2nd January 2020)
- 10. Expert for Radio sponsored programme under NPPCD.
- 11. Expert in IPHA conference at AIIMS, Delhi (29th February to 2nd March 2020)

- **12.** Clinical Protocol and Case Management in Covid 19 Jointly organized by MoHFW, FICCI and AIIMS, New Delhi (11th Sep. 20) Dr Suneela Garg
- **13.** "Best Practices for Management of COVID", during the virtual FICCI HEAL 2020 (1st Oct.) coordinator Dr Suneela Garg
- **14.** IMA Guidelines on Reduction of Maternal Mortality on Health care workers (3rd Oct.) --Dr Suneela Garg Attended Annual Conference of Epidemiological Association of India EFICON 2020 AIIMS Rishikesh Plenary lecture on "Gender Implication of COVID-19"- Dr Suneela Garg
- **15.** Round Table Expert Group Meeting HCFI "Time to unit to Combat vaccine hesitancy (19th Dec. 2020) -Dr Suneela Garg
- **16.** Covid-19 Lancet Commission India Task Force Meeting" (18th Jan. 2021) -Dr Suneela Garg Round Table Expert Group Meeting- Variants of COVID19 Dr Suneela Garg
- 17. India Taskforce lancet Covid-19 Commission Meeting (16th Feb. 2021) Dr. Suneela Garg
- 18. FICCI: Discussion on 2nd dose of COVID Vaccine (23rd Feb. 2021) Dr. Suneela Garg
- 19. Member Lancet Commission- Covid India Task Force -Dr. Suneela Garg
- **20.** Coordinator for conducting RT-PCR testing for COVID-19, for UG students, Interns, and PG students Dr. Bratati Banerjee, Dr. Suneela Garg, Dr. Ritu Arora
- 21. Member IPHA, IAPSM policy- Dr. Suneela Garg

Dr. M.M. Singh:

- Task Force Group member of ICMR on "Health systems preparedness for interventions for diabetes, hypertension, chronic respiratory diseases and cardiovascular disease and deaths due to non-communicable diseases among the tribal population in India" (2013 ongoing)
- 2. Project review member of ICMR on Stillbirths, fellowships,
- 3. Member, review of MRHUs, MRUs under DHR-ICMR.
- 4. Chairman, ethical committee board, Dept. of Anthropology, Delhi University
- 5. Chairman, ethical committee of New Delhi Tuberculosis Centre, New Delhi
- 6. Member, Ethical Committee, ESI, Basaidarapur, New Delhi
- 7. MBBS/MD examiner for Delhi University, CCS University, Meerut, Swami Ram Himalayan University, Dehradun., IP university, New Delhi, Manipur University, Imphal, Aligarh Muslim University, Baba Farid University, Swami VivekanadSubharti University, Meerut, JIPMER, Puducherry, MGM Medical College, Jaipur, AIIHPH, Kolkata.
- **8.** Ph.D Thesis examiner of KG Medical University, MD thesis examiner of PGIMER, Chandigarh, BHU, Varanasi
- 9. Member, sanitation committee, MAMC, New Delhi
- 10. Nodal Officer, committee for harassment of North East students, MAMC, New Delhi
- 11. Member, H1N1 death review committee, Govt. of NCT Delhi
- 12. MCI Inspector

- 13. Nodal officer, MAMC app
- 14. Incharge, telephone, MAMC
- 15. Associate editor, International Journal of Non-Communicable Diseases
- **16.** Editorial board member of (a) International Journal of Medical and Applied Research; (b) Indian Journal of Preventive Medicine; (c) Indian Journal of Communicable diseases; (d) Journal of Holistic Nursing and Midwifery.

Dr. Bratati Banerjee-

- 1. Director Coordinator, Regional STI Centre, MAMC, under National AIDS Control Organization
- 2. External expert for UPSC
- 3. External Expert for NBE
- 4. Member Secretary of Protocol Committee, MAMC
- 5. Member of Technical Advisory Group for research project by IIT
- 6. Member of Ethical Committee of NIHFW
- 7. Member of MD CBME Curriculum Committee of NIHFW
- 8. Member of MD CBME Curriculum Committee of HIMSR
- 9. Member of Ethical Committee of AMU

Dr. Rajesh Kumar-

- 1. Resource person to DNB for answer sheet evaluation
- 2. Member Graduate reception committee for MAMC Annual day
- 3. Superintendent Supplementary Theory MAM College
- 4. External expert for Supplementary MBBS exam at NDMC Hindu Rao Hospital, Delhi
- 5. Theory Question paper setting for DNB PSM
- 6. Theory Question paper setting for Teerthankar Mahaveer University, UP
- 7. DNB Thesis evaluation
- 8. DNB Practical examiner for Family Medicine at Sir Ganga Ram Hospital, Delhi.
- 9. Member of Condemnation Committee, MAMC

Dr. Pragya Sharma-

- 1. Member of State RRT
- 2. Member of State Serosurvey Committee
- 3. Member of State Media Rapid Response Team
- 4. Head- AEFI Technical Collaboration Unit
- 5. National Level Trainer for AEFI
- **6.** Official spokesperson for MAMC for covid related activities; serosurvey, vaccination
- 7. Member college purchase committee
- **8.** Member land and server committee
- 9. Link officer research cell
- 10. Resource person for NARCHI

Dr Nidhi Bhatnagar

- 1. Public health expert by Bureau of Indian Standards for standards Health Informatics
- 2. Member District RRT for COVID 19 Pandemic response
- 3. Nodal person College RRT for COVID 19

Dr. Amod L. Borle-

- **4.** As expert to review and comment on National Public health Act and Bill.
- **5.** As Public health expert by Bureau of Indian Standards for standards Health Informatics
- 6. As Public health expert by Bureau of Indian Standards for standards of Medical Equipements
- 7. As subject expert by DSHM, Delhi for interviews of the post of Epidemiologist.
- **8.** Dr.Amod L. Borle was nominated by the GNCT of Delhi (agency) as expert to committee to draft State Public health Act.
 - **8.** Any other worth mentioning information.

Dr. Suneela Garg-

Administrative

- Head of Post Graduate Diploma in Geriatric Medicine
- Chairperson MBBS Part I
- Chairperson Academic Committee
- Expert Committee member for annual day 2020
- Chairperson Curriculum Reforms, Delhi University as senior most teacher.
- Chairperson ASTRA (Adressing Smokeless Tobacco and Building Research Capacity in Asia)
- Principal Investigator and in charge- Menstrual Hygiene Project funded by Delhi health Mission
- Coordinated with Delhi University & MCI for competency-based curriculum standardization & other issues
- Coordinated with NCDC and MOHFW GOI for strengthening Epidemiology Intelligence Services in MD curriculum
- Coordinated implementation of National programmes in Rural and Urban centres under MAMC
- Facilitated implementation of Research, IEC campaigns, surveys in the deptt.,
- Conducted workshop of SEAR region at MAMC, Delhi on for Health promoting schools for ear and hearing care.
- Facilitated & organized workshops & trainings at state and institution level on issues of Public Health concern cancers, NCDs, Deafness, gender based violence, immunization
- Undertook Curriculum Reforms in Community Medicine with MCI

Dr. Amod L. Borle-

Participation and trained as Internal Assessor for NQAS

CARDIOLOGY (GIPMER)

Faculty:

S. No.	Name of Faculty	Designation
1)	Dr. Sanjay Tyagi	Director-Professor
2)	Dr. V.K. Trehan	Director-Professor
3)	Dr. Saibal Mukhopadhyay	Professor & HOD
4)	Dr. Jamal Yusuf	Professor
5)	Dr. Vimal Mehta	Professor

6)	Dr. Sumod Kurien	Professor
7)	Dr. Girish M.P.	Professor
8)	Dr. Mohit Dayal Gupta	Professor
9)	Dr. Arima Nigam	Professor
10)	Dr. Safal	Associate Professor
11)	Dr. Ankit Bansal	Associate Professor
13)	Dr. Sanjeev Kathuria	Assistant Professor
14)	Dr. Subrat Muduli	Associate Professor
15)	Dr. Vishal Batra	Associate Professor

1. Major activities and achievements: The department is the leading cardiology center in the country with highest number of interventions in the country. Numerous collaborative research projects have been carried within and with institutes of repute. The department has procured new state of art treadmill and Holter machines. Newer procedures and techniques of coronary, structural and peripheral interventions have been devised and used for giving appropriate care to the patients. The department faculty is actively involved in national bodies, opinion forums and public health initiatives.

2. Honours and distinctions:

- Dr. Sanjay Tyagi was awarded prestigious Fellowship of Royal College of Physicians (FRCP), Edinburg UK.
- Awarded Fellowship of American College of Cardiology (FACC) in 2020 Dr. Vimal Mehta.
- Dr. Mohit Gupta was awarded prestigious Fellowship of Royal College of Physicians (FECP), Edinburg UK.
- Dr. Mohit Gupta was awarded Fellowship of the International College of Angiology.
- Dr.Girish MP was awarded Fellowship of the International College of Angiology.

3. Publications:

- Mukhopadhyay S, Yusuf J et al. Effect of Successful valvuloplasty on mitral valve resistance and correlation with clinical outcome. Journal of Heart Valve disease.
- Mohit D Gupta, M P Girish, Geetika Yadav, Abhishek Shankar, Rakesh Yadav et al. Coronavirus disease 2019 and the cardiovascular system: Impacts and implications. Indian Heart J. Jan-Feb 2020; 72(1):1-6.
- Puri R, Mehta V, Iyengar SS, Narasingan SN, Duell PB, Sattur GB, Vijayaraghavan K, Mohan JC, Wangnoo. Non-HDL Cholesterol and Atherosclerotic Cardiovascular Disease. J Assoc Physicians India. 2020 Nov;68(11[Special]):54-58.
- Puri R, Mehta V, Iyengar SS, Narasingan SN, Duell PB, Sattur GB, Vijayaraghavan K, Mohan JC,

- Wangnoo SK, Dalal J, Prabhakar D, Agarwal R, Bansal M, Yusuf J, Mukhopadhyay S, Lifestyle Modification in the Prevention of Atherosclerotic Cardiovascular Disease. J Assoc Physicians India. 2020 Nov;68(11[Special]):10-20.
- Puri R, Mehta V, Iyengar SS, Narasingan SN, Duell PB, Sattur GB, Vijayaraghavan K, Mohan JC, Wangnoo SK, Dalal J, Prabhakar D, Agarwal R, Bansal M, Yusuf J, Mukhopadhyay S.Triglycerides and Atherosclerotic Cardiovascular Disease. J Assoc Physicians India. 2020 Nov;68(11[Special]):35-41.
- Mohit D. Gupta, Ankit Bansal, Prattay G. Sarkar, M.P. Girish, Manish Jha, Jamal Yusuf, Suresh Kumar et al. Design and rationale of an intelligent algorithm to detect BuRnoUt in HeaLthcare workers in COVID era using ECG and artificiaL intelligence: The BRUCEE-LI study. Indian Heart Journal Jan-Feb 2021;73(1)109-113. doi.org/10.1016/j.ihj.2020.11.145
- Bhushan Shah, Mohit D Gupta, Girish MP et al. Diagnostic, Prognostic and Therapeutic Implications of Nocturnal Non-dipper, Reverse Dipper and Extreme Dipper in Hypertension Management. Cardiology Today VOL. XXV NO. 1 JANUARY-FEBRUARY 2021 Pages 21-28
- Tyagi S, Batra V. Novel Therapeutic Approaches of Pulmonary Arterial Hypertension. Int J Angiol. 2019 Jun;28(2):112-117.
- Tyagi, S., Safal, S. & Tyagi, D. Aortitis and aortic aneurysm m systemic vasculitis. Indian J Thorne CardiovascSurg 35, 47-56(2019).
- Yusuf J, Das D, Mukhopadhyay S, Tyagi S. Correlation of QRS duration with myocardial blush grade as a marker of myocardial reperfusion in primary percutaneous coronary intervention. Indian Heart J.2018 Dec;70 Suppl 3(Suppl 3):S359-S364
- Bhatt DL, Steg PG, Mehta SR, Leiter LA, Simon T, Fox K, et al. THEMIS Steering Committee and Investigators. Collaborators: Mehta V. Ticagrelor in patients with diabetes and stable coronary artery disease with a history of previous percutaneous coronary intervention (THEMIS-PCI): a phase 3 placebocontrolled, randomised trial. Lancet. 2019 Sep 28;394(10204): 1169-80.
- Sawhney JPS, Mullasari A, Kahali D, Mehta V, Nair T, Kaul U, Hirematth MS. Short- and long-term follow-up of antithrombotic management patterns in patients hospitalized with acute coronary syndrome:
 Indian subgroup of EPICOR Asia study. Indian Heart J. 2019 Jan Feb;71(1):25-31.
- Mehra P, Mehta V, Sukhija R, Sinha AK, Gupta M, Girish MP, Aronow WS. Pulmonary hypertension in left heart disease. Arch Med Sci. 2019 Jan; 15(1):262-73.
- Gupta MD, Girish MP, Yadav R. The saturated fat Controversy: Finding calmness in chaos. Indian Heart J. 2019 May- Jun;71(3):181-3.
- Ramakrishnan S, Zachariah G, Gupta K, Shivkumar Rao J, Mohanan PP, Kothari SS, Gupta R, Bansal S, Sood S, Nath RK, Tyagi S, Trehan V, Gupta MD, Girish MP. Prevalence of hypertension among Indian adults: Results from the great India blood pressure survey. Indian Heart J. 2019 Jul Aug;71(4):309-13.
- A. Velaga, A. Bansal, M.D. Gupta, M.P. Girish, V. Batra, S. Tyagi. Susceptibility Of Ctla-4 i 1661 a/G And Ace I/D Polymorphisms Towards Severity Of Valvular Rheumatic Heart Disease. Abstracts / Indian Heart Journal 71 (2019) S30eS97.

4. Research projects

a. Ongoing project:

- Effect of aortic and renal intervention on Left ventricular function in Takayasu Arteritis.
- To study LA function with speckle tracking echocardiography in patients with isolated severe mitral stenosis.
- Biventricular function assessment before and after ASD device closure.
- Assessment of LAA contractile function in patients of severe Rheumatic Mitfal stenosis in sinus rhythm and its correlation with mitral annular systolic velocity.
- Correlation of R wave peak time and no reflow in patients undergoing primary PCI.
- To study the incidence of CIN and to evaluate relation between contrast volume and change in eGFR after coronary angiography/ intervention in CKD patients.
- To study the novel Lipid biomarkers and associated gene polymorphism in young
 patients of Acute Myocardial Infarction of North Indian Population at a tertiary care
 center.
- Matrix Metallo Proteinase (MMP-9, MMP-3 & TIMP) and their gene polymorphism in young Indian Subjects of acute myocardial infarction.
- To assess global longitudinal strain in symptomatic patients with multivessel CAD, prior to after PCI.
- To describe anatomical landmarks of the femoral artery and femoral vein in infants undergoing cardiac catheterization under fluroscopy.
- Effect of Prasugrel versus Ticagrelor on myocardial perfusion in STEMI patients undergoing primary PCI.
- BMV in low flow low gradient/ normal flow low gradient severe mitral stenosis: immediate and short-term outcomes.
- Lipid profile pattern in angiography proven CAD patients on lipid lowering therapy.

b. List of research projects completed during current year:

- Assessment of aortic stiffness in rheumatic mitral stenosis.
- To study predictors and outcomes of No-Reflow/ Slow Flow in patients undergoing primary percutaneous coronary intervention.
- Safety and efficacy of very long length Drug Eluting Stent System in patients with coronary artery disease.
- Evaluation of ventricular dysfunction in unoperated cases of Tetralogy of Fallot.
- Assessment of M30 apoptotic biomarker in patients undergoing primary percutaneous coronary intervention with or without multivessel disease.
- Comparison of Doppler echocardiographia derived pulmonary artery pressures with invasive pulmonary artery pressures in patients with severe mitral stenosis with pulmonary artery hypertension undergoing percutaneous balloon mitral valvuloplasty.
- Evaluation of systemic inflammatory markers and thrombotic markers of CV risk among young Indian oral tobaccotisers.

5. International Research Projects:

a. Principal Investigator in Project entitled "A phase III randomized, double- blind, Parallel Group, Placebo Controlled, Multicentre, Multinational study to evaluate efficacy and safety of TRC150094 as Add On to Standard of Care in Improving Cadiovascular Risk in Subject with Diabetes, Dyslipidemia and Hypertension" started in 2019.- Dr Vimal Mehta

6. Conferences organized

• 5th MAMC-MFM Update on Pregnancy with heart disease for postgraduate students and practitioners being

organized by the Department of Obstetrics and Gynecology, MAMC, New Delhi in collaboration with Dept. Of Cardiology, G.B. Pant Institute of Postgraduate Medical Education and research on the 21st December 2019 at the G. I3. Pant Auditorium, New Delhi.

- •Dr. Mohit Gupta (Secretary CSI Delhi Branch) organized 34th Annual Conference of Cardiological society of India- Delhi Branch in November 2020 and 35th Annual Conference of Cardiological Society of India-Delhi Branch in March 2021.
- Dr Safal and Dr Ankit Bansal organized the workshop on intravascular imaging & clinical correlation on 7th November 2019 under aegis of Indian Society for Atherosclerosis Research (ISAR CON 2019).

Books/ Chapters / Contributed:

1.Tyagi S, Bansal A. (2019) **Interventions in Takayasu Arteritis** (**Nonspecific Aorto-Arteritis**) in Essentials of Post Graduate Cardiology 2018 edited by Kewal C Goswami published by Evarigel · Pubhshers(rt Ind1a, Chapfer-71, page 586-597.

2. Tyagi S, Bansal A. (2019) **Diseases of Pericardium.** in API Textbook of Medicine Eleventh Edition edited by Sandhya A Karnath published by CBS Publishers and Distributors Pvt Ltd, India, Chapter 71, page 1618-1628.

8.Seminars/ Conference Presentations:

The faculty of Department of Cardiology has participated in numerous virtual webinars in different topics. The webinars were Annual conference of Cardiology by Cardiological society of India, 2020. CSICON-Delhi Branch-2020, TCT-2020, Euro PCR-2020 etc.,

Dr. Vimal Mehta presented abstract on "Correlation of IL-6 IL-10 IL-18 and TNF-αlevels with Severity of Rheumatic Mitral Stenosis and Secondary Pulmonary Hypertension" CMHC Congress at Chicago, USA in Oct 2019.

Dr. Vishal Batra presented a poster on I-Year Clinical Outcomes in Patients Implanted With Biodegradable Polymer Coated Ultrathin Strut Sirolimus-Eluting Coronary Stent System for the Treatment of Very Long (~40-mm) Lesions. **TCT 2020**

Dr Saibal Mukhopadhyay chaired session on Congenital Heart Disease. **71ST ANNUAL** CONFERENCE OF CSI, 2020, Ahemdabad

Dr Sanjay Tyagi chaired a conclave on Peripheral Vascular disease. **71ST ANNUAL** CONFERENCE OF CSI, 2020, Ahemdabad

Dr Mohit Gupta presented a talk on Refractory Angina. 71ST ANNUAL CONFERENCE OF CSI, 2020, Ahemdabad

Journey of Peripheral Vascular Disease Intervention in India and Current Status (**Dr K K Date Oration**)- Sanjay Tyagi . **71ST ANNUAL CONFERENCE OF CSI, 2020, Ahemdabad**

Dr Jamal Yusuf chaired a session on Current Topics. 71ST ANNUAL CONFERENCE OF CSI, 2020, Ahemdabad

Dr Vimal Mehta chaired a session on Basic Sciences . 71ST ANNUAL CONFERENCE OF CSI, 2020, Ahemdabad

When to take Ventricular ectopic Seriously - Dr Mohit Gupta. **71ST ANNUAL CONFERENCE OF CSI, 2020, Ahemdabad**

Susceptibility of CTLA-4 -1661A/G, ACE 1/D polymorphisms towards severity to valvular system in Rheumatic Heart Disease - Ankit Bansal. **71ST ANNUAL CONFERENCE OF CSI, 2020, Ahemdabad**

26th Annual Conference of Indian College of Cardiology, 20-22 September 2019, Kochi -Perfect POT and Perfect KISS- Dr Vijay Trehan.

34th Annual Conference of Cardiological Society of India, Delhi Branch (28th & 29th November 2020)

- 1. Choice of DAPT in Acute STEMI: Which one and How? Dr. Saibal Mukhopadhyay
- 2. Vascular Interventions: Creating a ray of hope Dr. Sanjay Tyagi
- 3. ASCVD risk reduction beyond LDL-C Dr. Vimal Mehta
- 4. Basics of IVUS: Image Interpretation, Measurement & Analysis- Dr. Vijay Trehan

35th Annual Conference of Cardiological Society of India, Delhi Branch (20th & 21st March 2021)

- o Endovascular management of Aortic Dissection- Dr. Sanjay Tyagi
- "THE HIDDEN TIGER" Defining a real definition of CHIP Patient and Use of New Modalities-Dr. Vijay Trehan
- o PCSK9 in Clinical practice in India: Practical insights- Dr. Vimal Mehta
- o Device-Based Approaches to Infarct Size Reduction- Dr.Subrat Muduli
- o Refractory Angina in 2021- Dr.Safal
- o Poly-pills in CV Health: Do we have a place in India?- Dr. Vishal Batra

Complications during bifurcation PCI- Dr Vijay Trehan and Dr Sanjeev Kathuria. **Bifurcation Club of India 4**th **Meeting, 6-7**th **July 2019, Mumbai.**

5th MAMC-MFM Update on Pregnancy with heart disease, December 2020, New Delhi

- ECG interpretation in pregnancy and abnormal cardiac rhythm: what an obstetrician should know. - Dr. Ankit Bansal
 - 2. Management of acute cardiac events in pregnancy. Dr Vishal Batra

1. Representation on expert committee/Bodies:

The faculty has been part of various national and international committees: Like CDCSO, ICMR governing bodies, councils etc.

- 2. Health Services to the Community: All the fellows and residents have given frontline services to all covid 19 patients.
- Lab Data: The department has been regularly providing all invasive and noninvasive cardiology services to the patients in COVID-19 pandemic.
- 4. New Facilities Added: New Holter and treadmill services were added.
- New Programs: Students enrolled in Non invasive fellowship program and Paediatric Cardiology Program.

DERMATOLOGY & STD (LHMC)

Major Activities and Achievements

The department started recruiting patients for the lasers acquired in the year 2019 (fractional CO2, Nd:YAG and diode). About 6-9 patients are being successfully attended to every week.

Department had conducted series of webinars on various topics during the Covid-19 pandemic.

Department had released IEC material for common dermatological conditions as eczema, vitiligo and hair loss.

Department had provided patient care for Covid-19 patients by doing duties in the covid ward, flu clinics, vaccination centres as well as control room

Postgraduate and undergraduate teaching continued on virtual platform during the pandemic.

Patient care in the specialty did not suffer even during the peak of pandemic as department had run regular teleconsultation services.

Department organized the M.D. Dermatology and D.N.B Dermatology Exam in the year 2020

Honors/Distinctions

- Dr Rashmi Sarkar was awarded Dr V N Sehgal Award for Excellence in Dermatology from IADVL 2020
- 2. Dr Rashmi Sarkar was awarded Dr K C Kandhari Memorial Award from IADVL Delhi State Branch in 2020.
- 3. Dr Suparna Das participated in poster presentation in E-Dermacon held on 6th February 2021. Topic: lichen scrofulosorum with coexisting phlyctenular conjunctivitis.
- 4. Dr Suparna Das participated in paper presentation in E-Dermacon held on 6th February 2021. Topic: cardiovascular risk markers in premature canities.

- 5. Dr Vidya Yadav participated in poster presentation in E-Dermacon held on 6th February 2021. Topic: interleukin levels and non alcoholic fatty liver disease in psoriasis.
- 6. Dr. Deepika Yadav participated in 2 poster presentations in E-Dermacon held on 6th February. Topic 1: micronutrients and quality of life in premature canities.

 Topic 2: molluscum like Langerhans cell histiocytosis with T-cell ALL.

Publications

- 1. Sanke S, Mendiratta V, Jassi R, Yadav J, Chander R. (2020). Rituximab induced reticulate pigmentation over face in pemphigus vulgaris. Dermatologic Therapy. 33(4), e13752.
- 2. Mendiratta V, Yadav A, Makhija M. (2020). Subcutaneous fat necrosis of the Newborn. Indian Dermatology Online Journal. 11(3), 471-72.
- 3. Viraraghavan VR, Sanke S, Mendiratta V et al. (2020). Restrictive Dermopathy A Rare Congenital Skin Disorder. Indian Journal of Dermatology. 65(6), 519-21.
- 4. Yadav A, Garg T, Saha B, Chander R, Nangia A. (2020). Tinea capitis masquerading discoid lupus erythematosus. International journal of trichology. 12(3), 144-5.
- 5. Garg T, Yadav A, Chander R, Aggarwal K. Genital ulcer in an adolescent girl. (2020). Indian journal of sexually transmitted diseases and AIDS. 41(2), 214-5.
- 6. Sarkar R, Bhargava S, Chander R, Rathod D, Singh AK. (2020). Webinars as a mode of e-discussion by Indian dermatologists during the COVID-19 era: A boon or a bane? Dermatologic Therapy. 33(6), e14220
 - 7. Sarkar R, Bhargava S, Kroumpouzos G. (2020). Mental distress in dermatologists during COVID-19 pandemic: Assessment and risk factors in a global, cross-sectional study. Kroumpouzos G.Dermatologic Therapy. 33(6), e14161.
 - 8. Sarkar R, Podder I, Jagadeesan S. (2020). Rosacea in skin of color: A comprehensive review Indian Journal of Dermatology Venereology Leprology. 86(6), 611-21.
 - 9. Ballani I, Sarkar R. (2020) Newer injection points for facial contouring with hyaluronic acid filler—Case Report. Journal of Cosmetic Dermatology. 20(1),67-70.
 - 10. Bhargava S, Sarkar R. (2020). Impact of COVID-19 Pandemic on Dermatology Practice in India. Indian Dermatology Online Journal. 11(5),712-9.
 - Devadasan S, Sarkar R, Barman KD, Kaushik S. (2020). Role of Serum Melatonin and Oxidative Stress in Childhood Atopic Dermatitis: A Prospective Study. Indian Dermatology Online Journal. 11(6), 925-929.
 - 12. Sarkar R, Vartak S, Acharya S, Kursam NK, Mane A, Mehta S, Charugulla SN. (2020). Comparative Study to Evaluate Tolerability of Topical 5% Minoxidil Novel Formulation and Alcohol-Based Conventional Solutions in Treatment of Androgenetic Alopecia in Indian Men: Randomized Double-Blind Study. Dermatology Therapy (Heidelb). 10(3), 469-479

- 13. Sarkar R, Devadasan S, Choubey V, Goswami B. (2020). Melatonin and oxidative stress in melasma an unexplored territory; a prospective study. International Journal of Dermatology. 59(5), 572-75.
- 14. Shishak M, Sarkar R. (2020). Dermatological therapies with relevance to COVID-19. Dermatologic Therapy. 33(6), e13813.
- 15. Swarnkar B, Rashmi Sarkar. (2020). Neonatal and infantile erythroderma revisited. Indian Journal of Paediatric Dermatology. 21(1), 15-21.
- 16. Mehta H, Soufila KT, Kumar S, Sarkar R, Kumaran MS. (2021). Use of immunosuppressants in vitiligo during COVID-19 pandemic: a quick review. Pigment International. 8(1):8.
- 17. Gupta M, Barman KD, Sarkar R. (2021). A comparative study of microneedling alone versus along with platelet-rich plasma in acne scars. Journal of Cutaneous and Aesthetic Surgery. 14(1):64.
- 18. Coondoo A, Sarkar R. (2021). The unhealthy obsession with fairness and the menace of fairness creams in India. Pigment International. 8(1):4.
- 19. Sanke S, Garg T, Manickavasagam S, Chander R. (2021). Hennekam lymphangiectasia syndrome: A rare case of primary lymphedema. Indian Journal of Dermatology, Venereology and Leprology. 87(2):240-4.

Books / Chapters contributed:

- Mendiratta V, Badamakuntla L. (2020). IADVL handbook of geriatric dermatology. New Delhi: CBS publication.
- 2. Mendiratta v. (2020). Hair disorders in elderly. IADVL handbook of geriatric dermatology.. New Delhi: CBS publication.
- **3.** Mendiratta V, Yadav A. (2020). Vitiligo and associated comorbidities. Comprehensive textbook on vitiligo. New Delhi:CRC Press.
- **4.** Garg T, Aggarwal M. (2020). Urethral discharge. Case based reviews in dermatology.. New Delhi: Jaypee Brothers Medical Publishers.
- **5.** Garg T, Sanke S.(2020). Leprosy in children. Jopling's Handbook of Leprosy. New Delhi:CBS publication.
- **6.** Sarkar R, Nair V. (2020). Cosmetic Injectibles in Practice-Dermal Fillers and Botulinum Toxin. New Delhi: Jaypee Brothers Medical Publishers.
- 7. Sarkar R, Das A, Narang I, Podder I. (2020). Case-based Reviews in Dermatology. New Delhi: Jaypee Brothers Medical Publishers.
- **8.** Sarkar R, Britto GR. (2020). Classification of Fillers. In Cosmetic Injectibles in Practice-Dermal Fillers and Botulinum Toxin. New Delhi: Jaypee Brothers Medical Publishers.
- **9.** Sharma RO, Sarkar R. (2020). Guide for Selection and Use of Fillers. Cosmetic Injectibles in Practice-Dermal Fillers and Botulinum Toxin. New Delhi: Jaypee Brothers Medical Publishers.
- **10.** Sarkar R,Nair V. (2020). Pre-requisites for Filler Treatment. Cosmetic Injectibles in Practice-Dermal Fillers and Botulinum Toxin.New Delhi: Jaypee Brothers Medical Publishers.
- **11.** Britto GR, Sarkar R. (2020). Fillers for Lower Face-Chin. Cosmetic Injectibles in Practice-Dermal Fillers and Botulinum Toxin. New Delhi: Jaypee Brothers Medical Publishers
- **12.** Vaidyanathan v,Garg S, Sarkar R. (2020). Frown Lines. Cosmetic Injectibles in Practice-Dermal Fillers and Botulinum Toxin New Delhi: Jaypee Brothers Medical Publishers.
- **13.** Sharma RO, Sarkar R. (2020). Forehead Lines. Cosmetic Injectibles in Practice-Dermal Fillers and Botulinum Toxin . New Delhi: Jaypee Brothers Medical Publishers

- **14.** Nair V, Sarkar R.(2020). Neurotoxin Resistance. Cosmetic Injectibles in Practice-Dermal Fillers and Botulinum Toxin. New Delhi: Jaypee Brothers Medical Publishers
- **15.** Agarwal K, Das A, Sarkar R. (2020). Diffuse Hyperpigmentarion. Case-based Reviews in Dermatology. New Delhi: Jaypee Brothers Medical Publishers
- **16.** Podder I, Sarkar R .(2020). Vesiculopustular and Bullous Disorders in Children. Case-based Reviews in Dermatology. New Delhi, Jaypee Brothers Medical Publishers.
- **17.** Sarkar R, Narang I, Swarnkar B. (2020). Facial Melanosis. Case-based Reviews in Dermatology New Delhi: Jaypee Brothers Medical Publishers.

Journals

Published by the Department- None

Editor/ Member of Editorial board

- 1. Dr Vibhu Mendiratta is one of member of Editorial Board in Pediatric Dermatology.
- 2. Dr Vibhu Mendiratta is reviewer of Indian Dermatology Online Journal and Indian Journal of Sexually Transmitted Disease and AIDS.
- 3. Dr Taru Garg is reviewer of Indian Journal of Dermatology, Venereology and Leprology and Indian Journal of Sexually Transmitted Disease and AIDS.

Research Projects

Non funded Project with IEC Approval Taken

Name of Investigators	Project Incharge	Title of the Project scheme
Dr. Rashmi Sarkar	Dr. Rashmi Sarkar	Knowledge, Attitude and practices regarding
Dr. Sarita Sanke		COVID-19 among patients attending the
Dr. Suvarna S		dermatology out patient department: A Cross
Dr. Vibhu Mendiratta		sectional study 2020-2021.
Dr. Ram Chander		

Patent Filed/Granted-NA

Seminars / Conferences Organized

S.No	Faculty Member	Organiser(s)	Name, Venue & Date
1.	Dr. Ram Chander	IADVL-DSB	Monthly Clinical Meet of IADVL held in LHMC
	Dr. Vibhu Mendiratta		on 19 th October 2019
	Dr. Taru Garg		
	Dr Pravesh Yadav		
	Dr Kavita Bisherwal		
	Dr. Sarita Sanke		

Seminars/ Conferences Presentations (National/International)

S. no.	Name & designation of the	Role/Topic	Organizer	Name of the
	participant			conference, venue
				& date
1.	Dr. Ram Chander	Chairperson for all	Department of	CME Webinar on
		sessions	dermatology,	"What's new in
			LHMC	vitiligo"
				25 th june 2020
	Dr. Taru Garg	Speaker: What's new		
		in pathogenesis of		
		vitiligo		
		Moderator for panel		
	Dr. Rashmi Sarkar	discussion		

	T	1	T	
	Dr. Kavita Bisherwal	Master of ceremony Speaker: physical		
	Dr. Sarita sanke	therapies & surgical management of vitiligo		
2.	Dr. Ram Chander	Chairperson for all sessions	Department of dermatology, LHMC	CME webinar on Updates in Alopecia areata 1 st Aug 2020
	Dr. Vibhu Mendiratta	Moderator for panel discussion		1 Aug 2020
	Dr. Taru Garg	Panelist: updates in alopecia areata		
	Dr.Rashmi Sarkar	Panelist		
	Dr.Kavita Bisherwal	Speaker: Updates in etiopathogenesis of alopecia areata		
	Dr. Sarita sanke	Speaker:Alopecia areata- Treatment updates		
3.	Dr. Ram Chander	Chairperson for all sessions	Department of dermatology, LHMC	CME webinaron Eczema 14th th -17 th sept 2020
	Dr. Vibhu Mendiratta	Panelist		14th th - Inauguration and distribution of
	Dr. Taru Garg	Co-chairperson Topic: Atopic eczema and hand eczema Moderator for Q&A Session Topic: hand eczema in health care personnel		patient leaflet 15th th - International CME webinar 16th th - CME webinar for health care personnel
	Dr. Rashmi Sarkar	Program co-ordinator &panellist Speaker: Etiopathogenesis		17th th - CME webinar for nurses, technicians and group D workers
	Dr. Kavita Bisherwal	&clinical features of hand dermatitis		
		Speaker: Diagnosis & management of hand dermatitis		
	Dr. Sarita sanke			
4.	All faculty members	Organizers	Department of	3 rd E-Clinical

			Dermatology L.H.M.C. in collaboration with IADVL- DSB	Meeting(LHMC) 10 TH Oct 2020
5.	Dr. Ram Chander	Examiner & Co- ordinator	Conduction of DNB	29 th Sept. 2020
	Dr. Taru Garg	Examiner	examination	
	Dr. Sarita sanke	Co-ordinator		

National and International Conferences / Symposia / Seminars / Workshops / CMEs attended by the Faculty Members.

S. No.	Name & Designation of the participant	Role/Topic	Organizer	Name of the Conference, Venue & Date
	INI	TERNATIONAL CONFER	ENCE	
1	Dr. Rashmi Sarkar(speaker)	Chemical Peels-Recent Advancess	Bangladesh Academy of Dermatologists	Webinar 3 rd October 2020
2	Dr. Rashmi Sarkar(speaker)	What's new in Melasma	Philippines Academy of Chemical and Cosmetic Dermatology Congress, Manila	Webinar 8th October 2020
	I	NATIONAL CONFERENC	CES	
1	Dr. Taru Garg (professor)	Speaker: management of paediatric psoriasis	IADVL-DSB	3 rd E-clinical meeting 22 nd August 2020
2	Dr. Taru Garg (professor)	Chairperson Topic: photosensitive genodermatoses	IADVL	E- paed dermacon 26 th july 2020
3	Dr. Taru Garg (professor)	Speaker: Recurrent vaginal discharge	IWDA	Pearls in dermatology 8 TH NOV 2020
4.	Dr. Taru Garg (professor)	Speaker Topic: common genodermatoses	RML hospital at India habitat centre	PG update 21.3.2021
4	Dr. Rashmi Sarkar	Lichen Planus Pigmentosus (moderator)	IADVL	DERMACON Pune on 1 st & 2 nd February 2020.
		Managing Academics with Administration		

		(speaker)		
5	Dr. Rashmi Sarkar	Facial Melanosis	IADVL-DSB	Cuticon 2020 15 th
		(moderator)		May 2020
6	Dr. Rashmi Sarkar	Childhood Vitiligo	IADVL	Webinar
		(speaker)		23 rd June 2020
7	Dr. Rashmi Sarkar	Mitigating burnout in residents	IADVL	e-Dermacon 2021 7 th -8 th February 2021

Faculty strength:

Faculty strength is 6. However, 3 posts are vacant.

I. Director Professor & Head : Dr. Vibhu MendirattaII. Director Professor : Dr. Taru Garg

Dr. Rashmi Sarkar

Other Significant Information

Dr. Vibhu Mendiratta took charge as Head of the department on 26th November 2020.

Dr. Ram Chander was transferred to RML Hosp. as DEAN & Director Professor & Head Deptt. DVL.

Dr Rashmi Sarkar joined the department on April 1st 2020

Dr. Kavita Bisherwal and Dr Sarita Sanke left the department on 10th February, 2021 and ^{31st} January 2021 respectively.

Teaching: Postgraduate thesis submitted to University of Delhi

S. No.	PG Student	Topic	Supervisor	Co-Supervisor(dept.)
1.	Dr. Suparna	Cardiovascular risk markers in	Dr. Ramchander	Dr. Taru Garg (DVL)
		premature canities		Dr. Ritu Singh (Biochemistry)
2.	Dr. Deepika	Micronutrients and quality of life	Dr. Ramchander	Dr. Dinesh Kataria
		in premature canities		(psychiatry)
				Dr. Ekta Debnath
				(Biochemistry)
3.	Dr. Vidya Yadav	Interleukins levels and non-	Dr. Vibhu	Dr. Ramchander (DVL)
		alcoholic fatty liver disease in	Mendiratta	Dr. Aparna Aggarwal
		psoriasis		(Medicine)
				Dr. Ritu Singh (biochemistry)
4.	Dr. Amit Kumar	Biochemical and hormonal	Dr. Vibhu	Dr. Ramchander (DVL)
	Meena	abnormalities in adult onset female	Mendiratta	Dr. Rajeev Goyal
		acne		(Biochemistry)
5.	Dr. Vivin	Assessment of inflammatory	Dr. Taru Garg	Dr. Ramchander (DVL)
		markers in active vitiligo patients		Dr. Rajeev Goyal
		before and after treatment		(Biochemistry)

DERMATOLOGY (MAMC)

1. Major activities and achievements

The department of dermatology has been continuously providing service in the **New Special Ward**, since LNJP was designated as a COVID-19 dedicated hospital in March 2020.

During the pandemic, the research and academic activities remained unhindered and were conducted successfully with all safety measures. **Annual Postgraduate (MD/Diploma) virtual examination** 2020 was conducted successfully in July. All the academic activities and lectures of the UG and PG students were continued on online platform. Dr. Bijaylaxmi Sahoo successfully conducted the **IADVL Monthly E-Clinical meeting** at MAMC, Delhi and Dr. Vineet Relhan organized **9th e-ONYCHOCON Virtual**: The National Conference of Nail Society of India. The faculties were also invited as guest speakers in various national and international conferences. The residents received several awards and accolades during this period. (GSK quiz, Mankind quiz and e-Peddermacon.) Successful training programs were conducted for Medical officers (HIV and STD), PGDGM (Geriatric Dermatology), IGNOU and for the PG students from MAIDS.

2. Honors/Distinctions

Dr.Bijaylaxmi Sahoo

- Member of the National Academy at Medical Sciences
- 2. Member of the Expert Committee- Tuberculosis

Residents

- Dr. Anuva Bansal, SR was selected as the Convenor of the IADVL-Resident Connect Committee, Delhi State Branch and also served as Editor in chief for the official newsletter of this committee in the year 2020.
- Dr. Aneet Kaur won the 2nd runner-up prize in the GSK quiz and also Qualified the zonal round in the Tyza Quiz, 2020.
- 3. Dr. Bikash Chingshubam won the 2nd runner-up prize in the GSK quiz, 2020.
- 4. Dr. Satendra Kumar-Qualified 1st round of Mankind quiz, 2020
- 5. Dr. Meghna Gupta (Ex-PG student) won the 3rd prize quiz in the e-Peddermacon, 2020.
- 6. Dr. Kumari Monalisa (Ex-PG student), SR won the 2nd prize in the poster presentation, for the Vitiligo day awareness conducted by the RCC, Delhi, 2020

3. Publications

1. Nitu, Bansal A, Sahoo B. Multicentric Reticulohistiocytosis: A Case with Minimal Cutaneous Features. Indian Dermatol Online J. 2020 Sep 19;11(5):849-851.

- 2. Hegde P, Relhan V, Sahoo B, Garg VK. A randomized, placebo and active controlled, split scalp study to evaluate the efficacy of platelet-rich plasma in patchy alopecia areata of the scalp. Dermatol Ther. 2020 Nov;33(6): e14388.
- Devadasan S, Sarkar R, Barman KD, Kaushik S. Role of Serum Melatonin and Oxidative Stress in Childhood Atopic Dermatitis: A Prospective Study. Indian Dermatol Online J. 2020; 11:925-9
- **4.** Grover C, Gupta S, Relhan V, Gupta RP. 17th National Conference of Association of Cutaneous Surgeons (I) (ACSICON 2019)- Conference report. J Cutan Aesthet Surg. 2020 Jan-Mar;13(1):46-9.
- 5. Relhan V, Sandhu J, Khurana N, Chowdhary A. Pheohyphomycosis: A curious case of cyst. Indian J Dermatol Venereol Leprol. 2020 Sep-Oct;86(5):542-5.
- **6.** Relhan V, Sandhu J, Garg VK, Khurana N. A rare vasculitis with a dramatic presentation: Acute hemorrhagic edema of infancy. Indian J Paediatr Dermatol 2020;21:215-7
- 7. Hegde P, Relhan V, Tomar R. IgG4-related disease: a rare case of isolated cutaneous involvement. Clinical and Experimental Dermatology. 2021;46(2):343–5.

4. Research Projects

On-going projects-

- i. Correlation of serum IL-6, TGF-beta and STAT3 in dermis with the extent of skin fibrosis (Modified Rodnan Skin Score) in patients of systemic sclerosis under Medical Research Unit (MRU), MAMC
- ii. Role of CBNAAT in Rapid Diagnosis of Cutaneous Tb and Rifampicin Resistance
- iii. Diagnostic utility of immunohistochemistry & direct immunofluorescence in primary cicatricial alopecia
- iv. Detection of Dermatophytes in Patients with Onychomycosis (In Collaboration with Dept. of Microbiology)
- v. Study of cutaneous manifestation in COVID -19 patients
- vi. Occupational dermatoses amongst health care workers
- vii. A study of clinico-dermoscopic pattern of dermatophytic infections in pediatric patients
- viii. Assessment of nailfold capillary changes with USB videodermatoscope in psoriasis patients and its association with metabolic syndrome
- ix. Chlamydia Trachomatis Co-Infection Among Males with Genital Ulcer Disease Attending Std Clinic
- x. To Compare Efficacy of Microneedling with 15% TCA Versus Microneedling with 25% Pyruvic Acid in Acne Scar
- xi. Role of cytology in the categorization of primary skin tumors (In Collaboration with Department of Pathology)

Thesis competed in current year:

- i. Evaluation of serum pentraxin 3 level and pentraxin 3 gene polymorphism in Lepromatous leprosy patients
- ii. Role of Platelet Rich Plasma as an Adjuvant in Treatment of Melasma
- iii. Comparison of Narrowband Ultraviolet B Alone and Narrowband Ultraviolet B in Combination with Microneedling In Patients with Stable Vitiligo

Details of thesis completed as Co-investigating department in 2020-21

- i. To compare the efficacy of intralesional bleomycin and triamcinolone in the treatment of keloids (In collaboration with department of plastic surgery)
- ii. Role of cytology in categorization of primary skin tumors (In collaboration with department of pathology)

Seminars Organized:

IADVL monthly e-clinical meeting was organized on October 25th 2020 at MAMC

Conferences Organized

Dr. Bijaylaxmi Sahoo

Conducted the IADVL Monthly E-Clinical meeting held on October 25th 2020 at MAMC, Delhi, which was attended online by students and prestigious dermatologists from Delhi and all over India.

Dr. Vineet Relhan

 Organized: 9th e-ONYCHOCON Virtual: The National Conference of Nail Society of India, held from 31st - 1st November 2020.

Seminar/Conference Presentations (National/International)

Dr. Bijaylaxmi Sahoo

- Guest Speaker at 10th E-CODFICON Annual Conference of Contact and Occupational Dermatoses Forum of India, held on 8th November 2020
- ii. Guest speaker at Annual Cuticon 2020 held on 19th and 20th December 2020.
- iii. Guest faculty. Annual Cuticon, IADVL, DSB, New Delhi. Dec. 2020
- iv. Guest faculty in Mid CUTICON, IADVL, New Delhi. May, 2020.

Dr. Vineet Relhan

i. Guest Speaker and part of the organizing committee: 9th e-ONYCHOCON Virtual: The National Conference of Nail Society of India, held from 31st - 1st November 2020.

Residents (Poster presentation, e-DERMACON. Feb, 2021)

- i. Dr. Aneet Kaur- Three siblings with familial reactive perforating collagenosis- A case report.
- ii. Dr. Rekha Yadav- Isolated vulvar Syringoma in a postmenopausal female with Estrogen receptor positivity.
- iii. Dr. Satendra Kumar- Primary cutaneous actinomycosis: a rare entity.
- iv. Dr. Bikash Chingshubam. Primary cutaneous aspergillosis in an immunocompetent patient.
- v. Dr. Bhavishya Shetty- Generalised linear porokeratosis rare variant.
- vi. Dr. Anjali Bagrodia- Giant cell elastolytic granuloma: an uncommon entity with classical histopathology.
- vii. Dr. Bhawna Solanki- Multifocal lupus vulgaris in an immunocompetent patient with histopathologic finding mimicking granulomatous mycosis fungoides.

Other Inter-Institutional Collaborations:

- Training for Doctors under the PGDHIVM Fellowship Programme, MAMC.
- Training for Doctors under the Geriatric Medicine Programme, MAMC.
- Training for PG students of MAIDS

Extension and Outreach Activities:

Various posters, pamphlets and videos for patient and community awareness regarding
psoriasis and vitiligo awareness were prepared by the residents as part of the activities of the
IADVL- Resident connect committee, Delhi State Branch, in the year 2020.

Faculty Strength (as on 31st March 2021)

1. Name of the Head of the Department: Dr. Bijaylaxmi Sahoo

S.No.	Name of the Faculty	Designation
1.	Dr.Bijaylaxmi Sahoo	Director Professor and HOD
2.	Dr. Krishna Deb Barman	Professor
3.	Dr. Vineet Relhan	Assistant Professor
4.	Dr. Garima	Assistant Professor

Other Significant Information:

 COVID care and treatment has been provided to more than 20,000 patients in Lok Nayak Hospital, during the past year and the department of Dermatologyhas worked relentlessly and continuously provided patient care in the New Special Ward, Chronic Kidney Disease Unit, ICU-2 and the COVID vaccination centre.

- Our 4 special clinics: Connective Tissue Disease Clinic, Vesicobullous Clinic, Contact Dermatitis
 clinic and Psoriasis clinic are functioning successfully, and the number of patients being catered to
 has increased to more than 80-100 per clinic.
- Furthermore, we have tried to create awareness amongst the healthcare workers regarding PPE kit
 related adverse reactions, in order to identify and provide early care to our Covid warriors duringthe
 ongoing pandemic.

DERMATOLOGY & STD (UCMS)

MAJOR ACTIVITIES AND ACHIEVEMENTS

The year 2020-2021 has been the COVID year. We all faced the most difficult time during these unprecedented Pandemic times. UCMS & GTB Hospital have been full COVID facilities looking after only the COVID patients irrespective of the specialty. There were no regular OPD and indoor services and all residents and faculty members were involved continuously, actively and effectively in COVID patient care. Department of Dermatology ran HDU throughout the year. Despite that, faculty and residents have participated in National and International scientific programs most efficiently. Two of our PG residents' thesis publications were awarded the best published articles. We hope and pray for better times ahead.

- Dr Manasa Kayarkatte MN- Best IJDVL Award Article 2020Nail dermoscopy (onychoscopy) findings in the diagnosis of primary onychomycosis: A cross-sectional study. Indian J Dermatol Venereol Leprol. 2020 Jul-Aug; 86(4):341-349.
- Dr Vandana kataria- Indulabala Devi Memorial Award for the best article on contract dermatitis/occupational dermatoses. 'A cross-sectional study to analyze the clinical subtype, contract sensitization and impact of disease severity on quality of life and cost of illness in patients of hand eczema. India J Dermatol Venereol Leprol 2020;86:663-8.

HONOURS/DISTINCTIONS

HONOURS

- 1. Dr ChanderGrover "Prof VN Sehgal Award"-2021 by the Indian Association of Dermatologists, Venereologists and Leprologists for contribution to the field of Dermatology, 6th Feb, 2021 at New Delhi
- 2. Certificate of Recognition from Govt of NCT of Delhi for commendable performance in handling COVID-19 pandemic at GTB hospital, Dilshad Garden, Delhi-110095March 2021
- 3. Dr. Deepika Pandhi -Received the Presidential appreciation award for services to IADVL at e-DERMACON 2021 at Kochi on 20th January 2018.
- 4. Dr. Deepika Pandhi -Won the Indubala Devi Memorial Award for the best article on Contact dermatitis published in IJDVL in Feb 2021 with co-authors Dr Vandana Kataria an Dr SN Bhattacharya

- 5. Dr Vishal Gaurav won the MGM Medical College Prize for award paper entitled Tinea unguium and recalcitrant tinea: an observational study to examine the role of host immunity, biofilms and drug resistance at e DERMACON 2021 in February 2021
- **6.** Dr Singal Archana-State award: 'CORONA Warrior award' for significant contribution to the control of COVID Pandemic at GTB Hospital, Dilshad Garden by Govt of NCT, Delhi.March 2021
- 7. Dr Singal Archana Best Research Paper Award in the category of 'Original article' published in IJDVL, Feb 2021
- **8.** Dr Singal Archana 'Hall of Fame Award' from 7th Annual DAAS Summit 2020, for extra-ordinary academic achievements, July 2020

DISTINCTIONS

Dr Chander Grover

- Dr Chander Grover-Co-Editor, Nail Therapies: Current Clinical Practice 2E. Baran R, Rigopoulos D, Grover C, Haneke E
- Dr Chander Grover -Editor-in-chief, Nail Society of India: Textbook of Onychology. Grover C, Relhan V, Nanda S
- 3. Dr Chander Grover -Co-Coordinator, IADVL National Vitiligo E-Symposium organized on 21st June, 2020. Planned the session on Vitiligo Surgery
- Dr Chander Grover -Coordinator, IADVL Basic PGPDT (Post-graduate Procedural Dermatology Training)
 Workshop organized on 2nd August, 2020.
- Dr Chander Grover Coordinator, IADVL Advanced PGPDT (Post-graduate Procedural Dermatology Training) Workshop organized on 6th September, 2020. Planned and coordinated the scientific program
- Dr Chander Grover-Session planner and Coordinator for "Nail surgery: a primer" during "Resimed KN Derm Session- Skill development program for Dermatology Residents", organized by IADVL, Karnataka on 3rd October, 2020 online.
- 7. Dr Chander Grover-Organizer, E-ONYCHOCON, 9th Annual Conference of Nail Society of India on 31st October-1st November, 2020 online
- 8. Dr Chander Grover-Session planner and Coordinator for "SIG Dermatosurgery session" during E-DERMACON 2021, organized by IADVL Academy in Jan-Feb, 2021 online.
- 9. Dr Chander Grover-Invited Faculty for the session "Periungual warts" during the proceedings of 5th Middle East International Dermatology and Aesthetic Medicine Conference and Exhibition 2020, 10-11th Dec, 2020 at Dubai, UAE.
- 10. Dr Chander Grover -Invited Faculty for the session "Nail Biopsy: When and How" during European Nail Society (ENS) Masterclass on "Techniques in Nail Diseases" on 10th Feb, 2021, 6-7.30 pm CEST.
- 11. Dr Chander Grover -Invited Chairperson for "What's new in pigmentary disorders" during Mid-CUTICON 2020, organized by IADVL-Delhi State Branch on 17th May, 2020 online.
- 12. Dr Chander Grover -Invited Panelist for "Clinical insights about Onychomycosis and emerging trends" live Webinar organized by IADVL Academy on 29th May, 2020 online.

- 13. Dr Chander Grover Invited Faculty for "Nail Surgery: Basics, injectables, avulsion and biopsy" for ACS(I) Nail Webinar, organized by Association of Cutaneous Surgeons (I) on 6th June, 2020 online.
- Dr Chander Grover -Invited Moderator for "Difficult cases in Vitiligo Surgery" for IADVL National E-Symposium on Vitiligo, organized by IADVL Academy on 21st June, 2020.
- 15. Dr Chander Grover -Invited Faculty for "How I manage Trachyonychia" for 7th Dermatology and Allied Sciences E-Summit, organized on 12th July, 2020 online.
- 16. Dr Chander Grover -Invited Moderator for "Basics of Dermatosurgery (Theory)" for IADVL Basic PGPDT (Post-graduate Procedural Dermatology Training) Workshop organized on 2nd August, 2020.
- 17. Dr Chander Grover-Invited Faculty for "Specialized Surgeries (Video Demo) Nail Surgery Basics and Biopsy" for IADVL Basic PGPDT (Post-graduate Procedural Dermatology Training) Workshop organized on 2nd August, 2020.
- 18. Dr Chander Grover-Invited Expert Faculty for "Nail disorders: Diagnostics" for Derma ki Paathshala, organized by IADVL-Delhi State Branch as on online interactive workshop on 6th August, 2020.
- 19. Dr Chander Grover-Invited Expert Faculty for "Nail disorders: Therapeutics" for Derma ki Paathshala, organized by IADVL-Delhi State Branch as on online interactive workshop on 13th August, 2020.
- 20. Dr Chander Grover-Invited Faculty for "Advanced Nail Surgeries (Video Demo) Nail Matrix Biopsy, Nail Tumors" for IADVL Advanced PGPDT (Post-graduate Procedural Dermatology Training) Workshop organized on 6th Sep, 2020.
- 21. Dr Chander Grover-Invited Chairperson for "Lichenoid disorders" during Mid-DERMACON 2020, organized by IADVL-Tamil Nadu, 28-30th August, 2020 online.
- 22. Dr Chander Grover-Invited Faculty for "How I diagnose and manage Nail Lichen Planus" during Mid-DERMACON 2020, organized by IADVL-Tamil Nadu, 28-30th August, 2020 online.
- 23. Dr Chander Grover-Invited Faculty for "Setting a title" during Postgraduate Protocol Writing Workshop 2020, organized by MEU UCMS, on 1-4th Sep, 2020 online.
- 24. Dr Chander Grover-Invited Panelist for "Management of onychomycosis: different patients, different approaches" during LOC for Onychomycosis, organized by Nail Society of India, on 5th Sep, 2020 online.
- 25. Dr Chander Grover-Invited Faculty for "Advanced Nail Surgery" during Advanced PGPDT Workshop 2020, organized by IADVL Academy, on 6th Sep, 2020 online.
- 26. Dr Chander Grover-Invited Faculty for "Nail Apparatus and its Disorders" during "Interactive PG Lecture series" organized by IADVL Gujarat State Branch on 10th Sep, 2020 online.
- 27. Dr Chander Grover-Invited Faculty for "Nail Biopsy" during "Pearls in Dermatosurgery" session of CDSI Annual Conference 2020, organized by Cosmetic Dermatology Society of India 19-20th Sep, 2020 online.
- 28. Dr Chander Grover-Invited Faculty for "Management of Onychomycosis" for NBE Webinar for DNB students, organized by National Board of Examinations on 24th Sep, 2020 online.
- 29. Dr Chander Grover-Invited Faculty for "Nail avulsion and biopsy techniques" during "Resimed KN Derm Session- Skill development program for Dermatology Residents", organized by IADVL, Karnataka on 3rd October, 2020 online.

- 30. Dr Chander Grover-Invited Faculty for "Injectable nail therapies" during "Workshop on Nail Surgery", during the proceedings of E-ONYCHOCON, 9th Annual Conference of Nail Society of India on 31st October, 2020 online.
- 31. Dr Chander Grover-Invited Panelist for "Management challenges in inflammatory nail dystrophies" during the proceedings of E-ONYCHOCON, 9th Annual Conference of Nail Society of India on 1st November, 2020 online.
- 32. Dr Chander Grover-Invited Chairperson for "Photo-patch testing" during E-CODFICON 2020, organized by Contact Dermatitis Forum of India on 8th November, 2020 online.
- 33. Dr Chander Grover-Invited Faculty for "Pearls in Advanced Nail Surgery" during the proceedings of e-ACSICON 2020, 18th Annual Conference of Association of Cutaneous Suregons (India) on 13th December, 2020 online.
- 34. Dr Chander Grover-Invited Panelist for "Cytokine Syndromes in Dermatology" during the proceedings of Annual CUTICON of Delhi State Branch of IADVL on 19-20th December, 2020 online.
- 35. Dr Chander Grover-Invited Chairperson for "Clinic walk-through session" during Aesthetica Asia 2021, organized on 23-24th January, 2021 online.
- 36. Dr Chander Grover-Invited Faculty for "Injectable therapies in nail disorders" during the proceedings Pre-Conference Workshop W13 on "Nail Disorders" for e-DERMACON 2021, 49th Annual Conference of IADVL, on 31st January, 2021 online.
- 37. Dr Chander Grover-Invited Chairperson for "What's new in Dermatosurgery" during the proceedings CME for e-DERMACON 2021, 49th Annual Conference of IADVL, on 5th February, 2021 online.
- 38. Dr Chander Grover-Invited Faculty for "Approach to a patient with nail disorders" during the proceedings 3rd National PG Update organized by Department of Dermatology, ABVIMS and RML Hospital on 20-21st March, 2021 at India Habitat Centre.
- 39. Dr Chander Grover-Invited Faculty for "Group Learning" and "Skill Assessment" during the proceedings Revised Basic Course Workshop organized by Medical Education Unit, UCMS on 23rd-25th March, 2021 at UCMS.
- 40. Dr. Deepika Pandhi-Scientific Chairperson for e-DERMACON 2021 from Feb 5th-7th 2021
- 41. Dr. Deepika Pandhi-Chairperson of Indian Association of Dermatologists, Venereologists and Leprologists (IADVL) Academy (2020-21)
- 42. Dr. Deepika Pandhi-Convener of the Specialist Board for Dermatology of National Board of Examinations 2020
- 43. Dr. Deepika Pandhi-Incharge of Dermatology Online teaching of National Board of Examinations 2020-2021

Dr. Singal Archana

44. Dr Singal Archana-Scientific Chairperson for 7^h DAAS SUMMIT 2020, held online on 5th and 12th July 2020 online

- 45. Organizer, E-ONYCHOCON, 9th Annual Conference of Nail Society of India on 31st Oct- 1st Nov 2020 online
- 46. Session planner and coordinator for 'SIG DERMATOSURGERY session' during E-DERMACON 2021, organized by IADVL Academy in Jan-Feb 2021 online.
- 47. Invited speaker on, 'Approach to patient with Connective Tissue diseases' during 3rd National PG Update, held on 20th & 21st march, 2021 at India Habitat Centre.
- 48. Invited "Guest Lecture" on "Nail disorders" during E-Dermapedia Pediatric Dermatology Basic, organized by IAP Delhi on Thursday 25th & Friday 26th, February 2021 on DDAP-Delhi Digital Academy of Pediatrics virtual platform.
- 49. Invited panelist on, "Common Dermatologic Issues In Woman' during Derma-Gynac Cross specialty webinar organized by the Association of Maharashtra Obs & Gynae Society, on 19th Feb 2021 online
- 50. Invited Panellist for the session, 'IJDVL: Reality & Expectations' during the proceedings of E-DERMACON 2021: 49th National Conference of IADVL, on 6th Feb 2021, online.
- 51. 'Nail Surgery workshop coordinator' during the proceedings of E- DERMACON 2021: 49th National Conference of IADVL, organized on 31st Jan 2021, online.
- 52. Delivered invited lecture on, 'Nail Biopsy Techniques' during 'Nail Surgery workshop' in E- DERMACON 2021: 49th National Conference of IADVL, organized on 31st Jan 2021 online.
- 53. Invited lecture on, 'Managing Ingrown toenail' during 18th Annual conference of the Diabetic foot society of India (ADFS) on 19th December 2020 online.
- 54. Invited lecture on "solving problems in management of Cutaneous Tuberculosis" during 41st Rajasthan CUTICON held on 19th Dec 2020 online.
- 55. DELIVERED KEYNOTE LECTURE on 'Tropical Dermatology' during 11th annual state conference CUTICON KN with the theme "Endemic, epidemic and pandemics: Dermatologist's perspective" held on 28th and 29th November 2020 online.
- 56. Invited Panellist for Panel Discussion: "Pediatric genital dermatoses case based discussion "during CUTICON UP & UK on 18th October 2020, online
- 57. Invited speaker and panellist on the Life Lessons Learnt Webinar on 'Lady Empowerment in Dermatology' on 9th Oct 2020, online.
- 58. Invited Moderator for the panel discussion on, 'Diagnostic dilemma and management challenges in mycetoma' organized by IADVL DSB under the auspices of IADVL-SIG for Neglected Tropical Diseases on 27th Sept 2020, online.
- 59. Invited moderator and speaker on 'Exploring the fascinating world of Nail' and 'Nail Examination; why and how' in the RESIDERM KN Derm session 14 (Skill development program for Dermatology Residents, organized by IADVL KN Branch on 26th Sept 2020, online.
- 60. Invited speaker on, 'Partial Nail Avulsion' during 24th Annual national conference of Cosmetic Dermatology Society India (CDSI) COSDERMINDIA 2020, 19th to 20th September 2020, online.

- 61. Invited moderator for the panel discussion on, 'Difficult to treat Lichen Planus (Cutaneous, Hair and Nail) for DermaVaarta on 12th Sept, organized by DERMACON Int Bidding Committee 2023 in association with IADVL, Gujarat Branch online.
- 62. Invited moderator for the panel discussion on, 'Difficult to treat Lichen Planus (Cutaneous, Hair and Nail) for DermaVaarta on 10th Sept, organized by DERMACON Int Bidding Committee 2023 in association with IADVL, Karnataka Branch online.
- 63. Invited speaker on Teacher's Day on 5th Sept 2020, 'Balancing family and Academia' organized by IADVL DSB online.
- 64. Invited speaker on, 'Management of Onychomycosis; different patients and different approaches' during the symposium on LOC for OM, organized under the aegis of NSI, on 5th Sept 2020, online.
- 65. Invited speaker on, 'Common Infective Dermatoses in Children' on 1st Sept 2020, during Indian Academy of Pediatrics (IAP) North Zone Pediweek 2020 'Himalaya' online.
- 66. Invited speaker on, 'Nails as a mirror of Systemic Diseases' during MID DERMACON 2020-INDIA, held in Chennai on 29 and 30th August 2020 online.
- 67. Invited moderator for the panel discussion on, 'Case discussion in leprosy' for DermaVaarta on 21st August, organized by DERMACON Int Bidding Committee 2023 in association with IADVL, North East Branch online.
- 68. Invited moderator for the panel discussion on, 'Skin Failure and Erythroderma; Case based discussion' for DermaVaarta on 19th August, organized by DERMACON Int Bidding Committee 2023 in association with IADVL, Rajasthan Branch online.
- 69. Invited moderator for the panel discussion on, 'Connective Tissue disorders; practical considerations' for DermaVaarta on 10th August, organized by DERMACON Int Bidding Committee 2023 in association with IADVL, West Bengal Branch online.
- 70. Invited moderator for the 'Basic Suturing Technique' session in PGPDT (Post Graduate Procedural Dermatology Training) Workshop on 2nd Aug organized by IADVL EC AND IADVL ACADEMY IN ASSOCIATION WITH IADVL SIG Dermatosurgery online
- 71. Invited moderator for the session on, 'Clinic mimics of Leprosy' during 7th e-DAAS Summit held on 12th July 2020 online.
- 72. Invited speaker on, 'Nail disorders in children' in a webinar organized by Indian Academy of Pediatrics (IAP) On 7th July 2020 online.
- 73. Invited speaker in PGNAR series to speak on, 'Approach to Connective Tissue Diseases' on 18th June 2020. online
- 74. Invited Panellist for the session on, 'Clinical insights about onychomycosis and emerging trends' organized by IADVL-SIG on recalcitrant Dermatophytosis, on 29th May 2020 online
- 75. Invited moderator for the Panel discussion on, 'Interesting Cases in Dermatology' during MID-CUTICON by IADVL DSB, organized on 17th May 2020
- 76. Invited Expert Panelist on 'Nail in COVID 19 and Beyond' on 10th May, 2020 organized by IADVL Yuva Cell

PUBLICATIONS

- 1. **Grover, C**. (2020). Surgical management of oral mucocele: Experience with marsupialization. *Journal of Cutaneous and Aesthetic Surgery*, 13(4), 353.
- 2. **Grover, C.**, & Jakhar, D. (2021). Hand-held dermatoscope or videodermatoscope: Which one to buy?. *Indian Journal of Dermatology, Venereology and Leprology*, 1-3.
- 3. **Grover, C.**, Singal, A., & Bhattacharya, S. N. Pterygium Complicating Nail Psoriasis and Trachyonychia: Is It Rare?. *Skin Appendage Disorders*, 7(3), 214-221.
- 4. Jakhar, D., **Grover, C**., & Kaur, I. (2021). "Gloving the dermoscope" for genital lesion dermoscopy. *Indian journal of dermatology, venereology and leprology*, 87(1), 144-145.
- 5. **Grover, C.**, Jakhar, D., & Sharma, S. (2020). The grid pattern of white superficial onychomycosis. *Indian Journal of Dermatology, Venereology, and Leprology*, 86(5), 568-568.
- Kaliyadan, F., Grover, C., Kuruvilla, J., Alkhateeb, A. A., & Feroze, K. (2020). Simple moulage for improving simulation for objective structured clinical examinations in undergraduate dermatology courses. *Indian Journal of Dermatology, Venereology, and Leprology*, 86(5), 606-606.
- 7. Kharghoria, G., **Grover, C.**, Bhattacharya, S. N., & Sharma, S. (2021). Histopathological evaluation of nail lichen planus: A cross-sectional study. *Journal of Cutaneous Pathology*, 48(1), 11-17.
- 8. Jakhar, D., **Grover, C.**, Singal, A., & Das, G. K. (2020). Nailfold capillaroscopy and retinal findings in patients with systemic sclerosis: Is there an association?. *Indian Dermatology Online Journal*, 11(3), 382. 10.4103/idoj,IDOJ_264_19
- Lahiry, A. K., Grover, C., S. M., Ashique, K. T., Madura, C., Goyal, N., Talwar, A., & Das, S. (2020).
 Dermatosurgery practice and implications of COVID-19 pandemic: Recommendations by IADVL SIG
 Dermatosurgery (IADVL Academy). Indian Dermatology Online Journal, 11(3), 333.10.4103/idoj,IDOJ_237_20
- 10. Dewan, P., Sesama, M., Gomber, S., & Grover, C. (2021). Tell-tale signs in nails of children with cancer. Journal of paediatrics and child health, 57(3), 440-442.
- 11. Bhatia, S., Chauhan, J., **Grover, C.**, & Gupta, S. (2020). Radio-frequency assisted 'onychostomy' for minimally-invasive extraction of subungual tumors. Journal of the American Academy of Dermatology.
- 12. Jakhar, D., **Grover, C.**, & Kaur, I. (2020). Polyethylene tube as an attachment to universal serial bus (USB) dermatoscope for preventing cross-infection. *Indian journal of dermatology, venereology and leprology*, 86(4), 459-460.
- Iorizzo, M., Tosti, A., Starace, M., Baran, R., Daniel III, C. R., Di Chiacchio, N., Grover, C.,& Piraccini, B. M. (2020). Isolated nail lichen planus: an expert consensus on treatment of the classical form. *Journal of the American Academy of Dermatology*, 83(6), 1717-1723.
- 14. **Grover, C.,** Gupta, S., Relhan, V., & Gupta, R. P. (2020). 17th national conference of association of cutaneous surgeons (I)(ACSICON 2019)—conference report. *Journal of Cutaneous and Aesthetic Surgery*, 13(1), 46.

- 15. Kataria, V., **Grover**, C.,& Pandhi, D. (2020). Palmo-plantar keratoderma with debilitating pruritus. *Indian Journal of Paediatric Dermatology*, 21(3), 187.
- 16. Jindal, R., & Pandhi, D. (2021). Addition of a sixth step in hand hygiene protocol: Moisturization. *Journal of the American Academy of Dermatology*, 84(3), e171-e172.
- 17. Rai, G., Das, S., Ansari, M. A., Singh, P. K., **Pandhi, D.**, Tigga, R. A., ... & Dar, S. A. (2020). The interplay among Th17 and T regulatory cells in the immune dysregulation of chronic dermatophytic infection. *Microbial pathogenesis*, *139*, 103921.
- 18. Kumar, P., **Pandhi, D.,** Bhattacharya, S. N., & Das, S. (2020). Trichoscopy as a diagnostic tool for tinea capitis: A prospective, observational study. *International Journal of Trichology*, *12*(2), 68.
- Kataria, V., Pandhi, D., Bhattacharya, S. N. (2020). A cross-sectional study to analyze the clinical subtype, contact sensitization and impact of disease severity on quality of life and cost of illness in patients of hand eczema. *Indian Journal of Dermatology, Venereology and Leprology*, 86(6), 664.
- 20. Jindal, R., & Pandhi, D. (2020). Hand hygiene practices and risk and prevention of hand eczema during the COVID-19 pandemic. *Indian Dermatology Online Journal*, 11(4), 540.10.4103/idoj,IDOJ_448_20
- De, D., & Pandhi, D. (2020). Use of immunosuppressants/immunomodulators in autoimmune/inflammatory dermatologic diseases during COVID-19 pandemic—General recommendation based on available evidence. *Indian Dermatology Online Journal*, 11(4), 526.10.4103/idoj,IDOJ_414_20
- Khurana, A., & Pandhi, D. (2020). IADVL position statement and recommendations on post lockdown dermatology practice amidst the Covid-19 pandemic (IADVL Academy and IADVL Executive Committee). Indian Dermatology Online Journal, 11(4), 520.10.4103/idoj.IDOJ_334_20
- 23. Das, S., Datt, S., Dar, S., Bhattacharya, S., Pandhi, D., Gupta, C., & Akhter, N. (2020). Assessment of in vitro antifungal susceptibility pattern of dermatophytes isolated from patients with onychomycosis attending a tertiary care hospital of East Delhi. *Indian journal of dermatology, venereology and leprology*, 86(3), 301-304.
- Rengasamy, M., Shenoy, M. M., Dogra, S., Asokan, N., Khurana, A., Poojary, S., Pandhi, D., & Kaushal, V. (2020). Indian association of dermatologists, venereologists and leprologists (IADVL) task force against recalcitrant tinea (ITART) consensus on the management of glabrous tinea (INTACT). Indian Dermatology Online Journal, 11(4), 502.10.4103/idoj.IDOJ_233_20
- **25.** Thakran, P., Agrawal, S., **Singal, A.**, Verma, S., & Madhu, S. V. (2021). Iatrogenic cushing's syndrome in patients with superficial dermatophytosis. *Indian Dermatology Online Journal*, *12*(2), 237.10.4103/idoj.IDOJ_432_20.
- 26. Dewan, P., & Singal, A. (2021). Childhood Rashes: A Pediatrician's Dilemma. *Indian pediatrics*, 58(1), 99.
- 27. Kayarkatte, M. N., **Singal, A.**, Pandhi, D., Das, S., & Sharma, S. (2020). Nail dermoscopy (onychoscopy) findings in the diagnosis of primary onychomycosis: A cross-sectional study. *Indian Journal of Dermatology, Venereology & Leprology*, 86(4).
- 28. Agarwal S, Singal A.(2020) Grave's Disease; Classical triad and response to treatment. Indian J Med Res.
- 29. Gaurav, V., & Singal, A. (2020). AIDS-related disseminated Kaposi's sarcoma. *Indian Journal of Medical Research*, 152(7), 114-114.

- 30. Kaur, I., Jakhar, D., **Singal, A.,**& Grover, C. (2020). Nail care for healthcare workers during COVID-19 pandemic. *Indian Dermatology Online Journal*, *11*(3), 449.10.4103/idoj.IDOJ_232_20.
- 31. **Singal, A.** (2020). Current concepts and challenges in the management of erythema nodosum leprosum. *Indian Dermatology Online Journal*, 11(4), 479.
- 32. Kaur, I., **Singal, A.**, Jakhar, D., & Pandhi, D. (2020). Fabry's disease manifesting as familial angiokeratoma corporis diffusum in an indian family—A rare occurrence!. *Indian Journal of Paediatric Dermatology*, 21(4), 319.
- 33. **Singal, A.,**& Grover, C. (2020). Efficacy and Safety of Intralesional Bleomycin in the Management of Ungual Warts. *Skin Appendage Disorders*, 6(6), 346-350.
- 34. Burmester, A., Hipler, U. C., Uhrlaß, S., Nenoff, P., **Singal, A.,** Verma, S. B., ... & Wiegand, C. (2020). Indian Trichophyton mentagrophytes squalene epoxidase erg1 double mutants show high proportion of combined fluconazole and terbinafine resistance. *Mycoses*, 63(11), 1175-1180.
- 35. **Singal, A.**, Kaur, I., & Jakhar, D. (2020). Fox-Fordyce disease: dermoscopic perspective. *Skin Appendage Disorders*, 6(4), 247-249.
- 36. Chauhan, A., **Singal, A.**, Grover, C., & Sharma, S. (2020). Dermoscopic Features of Nail Psoriasis: An Observational, Analytical Study. *Skin Appendage Disorders*, 6(4), 207-215.
- 37. Ebert, A., Monod, M., Salamin, K., Burmester, A., Uhrlaß, S., Wiegand, C., **Singal, A.,**& Nenoff, P. (2020). Alarming India-wide phenomenon of antifungal resistance in dermatophytes: A multicentre study. *Mycoses*, 63(7), 717-728.
- 38. Kayarkatte, M. N., **Singal, A.,** Pandhi, D., & Das, S. (2020). Clinico-mycological study of onychomycosis in a tertiary care hospital—A cross-sectional study. *Mycoses*, 63(1), 113-118.
- 39. Singal A. Editorial. Onychoscope Vol 12, Issue 6, July 2020
- 40. Singal A. Editorial. Newsletter of IADVL SIG on Neglected Tropical Diseases, Nov 2020

4. JOURNALS

- a) Published by the department NIL
- b) Number of department teacher severing as editor(s) members(s) of editorial board 2
- 1. Dr Singal Archana Associate Editor, J Cut & Aesthetic Surgery (JCAS) 2018 till date
- 2. Dr Grover Chander- Section Editor, Indian Journal of Dermatology, Venereology and Leprology,2012 till date RESEARCH PROJECT
 - Funding Agency, Year /period, Title, amount sanctioned

Principal Investigator	Title of the Project	Years	Funded by	Grant Rs.
Dr.Anil Kumar Bhoi	Evaluation of serum levels of	2019-2021	Intramural	25,000/-
PG student	inflammatory cytovines in		Research	
(Batch 2019-2022)	Nail psoriasis – A cross		Grant of UCMS	
	sectional study			
Dr.Anil Kumar Bhoi	Evaluation of serum levels of	2019-2021	Nail Society of	30,000/-

PG student	inflammatory cytovines in		India	
(Batch 2019-2022)	Nail psoriasis – A cross			
	sectional study			
Dr Kriti	Nail changes in patients	2020-2023	Nail Society of	30,000/-
PG student	receiving cancer		India	
(Batch 2020-2023)	chemotherapy: a cross-			
	sectional study			
DrBharti Aggarwal	A comparative study to	2020-2023	Nail Society of	30,000/-
	evaluate nail changes in		India	
PG student	leprosy and diabetic			
(Batch 2020-2023)	neuropathyby onychoscopy			
	and nail fold capillaroscopy.			

5. SEMINARS ORGANIZED

- Total number
- Details of maximum 10

6. CONFERENCE ORGANIZED

• Conference title, dates, funding agency support

7. SEMINARS/CONFERENCE PRESENTATIONS (NATIONAL / INTERNATIONAL)

NAME(In alphabetical order	Seminars/Conference presentation			
of last name)	(national / International)			
Dr Chander Grover	Co-Coordinator, IADVL National Vitiligo E-Symposium organized on 21st June,			
	2020. Planned the session on Vitiligo Surgery			
Dr Chander Grover	Coordinator, IADVL Basic PGPDT (Post-graduate Procedural Dermatology			
	Training) Workshop organized on 2 nd August, 2020.			
Dr Chander Grover	Coordinator, IADVL Advanced PGPDT (Post-graduate Procedural Dermatology			
	Training) Workshop organized on 6 th September, 2020. Planned and coordinated			
	scientific program			
Dr Chander Grover	Session planner and Coordinator for "Nail surgery: a primer" during "Resimed			
	KN Derm Session- Skill development program for Dermatology Residents",			
	organized by IADVL, Karnataka on 3 rd October, 2020 online.			
Dr Chander Grover	Organizer, E-ONYCHOCON, 9th Annual Conference of Nail Society of India on			
	31 st October-1 st November, 2020 online			
Dr Chander Grover	Session planner and Coordinator for "SIG Dermatosurgery session" during E-			

	DERMACON 2021, organized by IADVL Academy in Jan-Feb, 2021 online.
Dr Chander Grover	Invited Faculty for the session "Periungual warts" during the proceedings of 5 th
	Middle East International Dermatology and Aesthetic Medicine Conference and
	Exhibition 2020, 10-11 th Dec, 2020 at Dubai, UAE.
Dr Chander Grover	Invited Faculty for the session "Nail Biopsy: When and How" during European Nail
	Society (ENS) Masterclass on "Techniques in Nail Diseases" on 10 th Feb, 2021, 6-
	7.30 pm CEST.
Dr Chander Grover	Invited Chairperson for "What's new in pigmentary disorders" during Mid-
	CUTICON 2020, organized by IADVL-Delhi State Branch on 17 th May, 2020
	online.
Dr Chander Grover	Invited Panelist for "Clinical insights about Onychomycosis and emerging trends"
	live Webinar organized by IADVL Academy on 29 th May, 2020 online.
Dr Chander Grover	Invited Faculty for "Nail Surgery: Basics, injectables, avulsion and biopsy" for
	ACS(I) Nail Webinar, organized by Association of Cutaneous Surgeons (I) on 6 th
	June, 2020 online.
Dr Chander Grover	Invited Moderator for "Difficult cases in Vitiligo Surgery" for IADVL National E-
	Symposium on Vitiligo, organized by IADVL Academy on 21st June, 2020.
Dr Chander Grover	Invited Faculty for "How I manage Trachyonychia" for 7th Dermatology and
	Allied Sciences E-Summit, organized on 12 th July, 2020 online.
Dr Chander Grover	Invited Moderator for "Basics of Dermatosurgery (Theory)" for IADVL Basic
	PGPDT (Post-graduate Procedural Dermatology Training) Workshop organized on
	2 nd August, 2020.
Dr Chander Grover	Invited Faculty for "Specialized Surgeries (Video Demo) Nail Surgery Basics
	and Biopsy" for IADVL Basic PGPDT (Post-graduate Procedural Dermatology
	Training) Workshop organized on 2 nd August, 2020.
Dr Chander Grover	Invited Expert Faculty for "Nail disorders: Diagnostics" for Derma ki
	Paathshala, organized by IADVL-Delhi State Branch as on online interactive
	workshop on 6 th August, 2020.
Dr Chander Grover	Invited Expert Faculty for "Nail disorders: Therapeutics" for Derma ki
	Paathshala, organized by IADVL-Delhi State Branch as on online interactive
	workshop on 13 th August, 2020.
Dr Chander Grover	Invited Faculty for "Advanced Nail Surgeries (Video Demo) Nail Matrix Biopsy,
	Nail Tumors" for IADVL Advanced PGPDT (Post-graduate Procedural
	Dermatology Training) Workshop organized on 6 th Sep, 2020.
Dr Chander Grover	Invited Chairperson for "Lichenoid disorders" during Mid-DERMACON 2020,
	organized by IADVL-Tamil Nadu, 28-30 th August, 2020 online.
Dr Chander Grover	Invited Faculty for "How I diagnose and manage Nail Lichen Planus" during
	1

	Mid-DERMACON 2020, organized by IADVL-Tamil Nadu, 28-30 th August, 2020			
	online.			
Dr Chander Grover	Invited Faculty for "Setting a title" during Postgraduate Protocol Writing			
	Workshop 2020, organized by MEU UCMS, on 1-4 th Sep, 2020 online.			
Dr Chander Grover	Invited Panelist for "Management of onychomycosis: different patients, different			
	approaches" during LOC for Onychomycosis, organized by Nail Society of India,			
	on 5 th Sep, 2020 online.			
Dr Chander Grover	Invited Faculty for "Advanced Nail Surgery" during Advanced PGPDT Workshop			
	2020, organized by IADVL Academy, on 6 th Sep, 2020 online.			
Dr Chander Grover	Invited Faculty for "Nail Apparatus and its Disorders" during "Interactive PG			
	Lecture series" organized by IADVL Gujarat State Branch on 10 th Sep, 2020 online.			
Dr Chander Grover	Invited Faculty for "Nail Biopsy" during "Pearls in Dermatosurgery" session of			
	CDSI Annual Conference 2020, organized by Cosmetic Dermatology Society of			
	India 19-20 th Sep, 2020 online.			
Dr Chander Grover	Invited Faculty for "Management of Onychomycosis" for NBE Webinar for DNB			
	students, organized by National Board of Examinations on 24th Sep, 2020 online.			
Dr Chander Grover	Invited Faculty for "Nail avulsion and biopsy techniques" during "Resimed KN			
	Derm Session- Skill development program for Dermatology Residents", organized			
	by IADVL, Karnataka on 3 rd October, 2020 online.			
Dr Chander Grover	Invited Faculty for "Injectable nail therapies" during "Workshop on Nail			
Surgery", during the proceedings of E-ONYCHOCON, 9th Annua				
	Nail Society of India on 31 st October, 2020 online.			
Dr Chander Grover	Invited Panelist for "Management challenges in inflammatory nail dystrophies"			
	during the proceedings of E-ONYCHOCON, 9th Annual Conference of Nail Society			
	of India on 1 st November, 2020 online.			
Dr Chander Grover	Invited Chairperson for "Photo-patch testing" during E-CODFICON 2020,			
	organized by Contact Dermatitis Forum of India on 8 th November, 2020 online.			
Dr Chander Grover	Invited Faculty for "Pearls in Advanced Nail Surgery" during the proceedings of			
	e-ACSICON 2020, 18 th Annual Conference of Association of Cutaneous Suregons			
	(India) on 13 th December, 2020 online.			
Dr Chander Grover	Invited Panelist for "Cytokine Syndromes in Dermatology" during the			
	proceedings of Annual CUTICON of Delhi State Branch of IADVL on 19-20 December, 2020 online.			
Dr Chander Grover	Invited Chairperson for "Clinic walk-through session" during Aesthetica Asia			
	2021, organized on 23-24 th January, 2021 online.			
Dr Chander Grover	Invited Faculty for "Injectable therapies in nail disorders" during the proceedings			

	Pre-Conference Workshop W13 on "Nail Disorders" for e-DERMACON 2021, 49 th Annual Conference of IADVL, on 31 st January, 2021 online.		
Dr Chander Grover	Invited Chairperson for "What's new in Dermatosurgery" during the proceedings		
	CME for e-DERMACON 2021, 49th Annual Conference of IADVL, on 5th		
	February, 2021 online.		
Dr Chander Grover	Invited Faculty for "Approach to a patient with nail disorders" during the		
	proceedings 3 rd National PG Update organized by Department of Dermatology,		
	ABVIMS and RML Hospital on 20-21 st March, 2021 at India Habitat Centre.		
Dr Chander Grover	Invited Faculty for "Group Learning" and "Skill Assessment" during the		
	proceedings Revised Basic Course Workshop organized by Medical Education		
	Unit, UCMS on 23 rd -25 th March, 2021 at UCMS.		
Dr. Deepika Pandhi	Scientific Chairperson for e-DERMACON 2021 from Feb 5th-7th 2021		
Dr. Deepika Pandhi	Chairperson of Indian Association of Dermatologists, Venereologists and		
	Leprologists (IADVL) Academy (2020-21)		
Dr. Deepika Pandhi	1. Convener of the Specialist Board for Dermatology of National Board of		
•	Examinations 2020		
Dr. Deepika Pandhi	2. Incharge of Dermatology Online teaching of National Board of Examinations		
1	2020-2021		
Dr Singal Archana	1. Scientific Chairperson for 7 ^h DAAS SUMMIT 2020, held online on 5 th and 12 th		
	July 2020 online		
	2. Organizer, E-ONYCHOCON, 9 th Annual Conference of Nail Society of India		
	on 31 st Oct- 1 st Nov 2020 online		
	3. Session planner and coordinator for 'SIG DERMATOSURGERY session'		
	during E-DERMACON 2021, organized by IADVL Academy in Jan-Feb 2021		
	online.		
	4. Invited speaker on, 'Approach to patient with Connective Tissue diseases'		
	during 3 rd National PG Update, held on 20th & 21 st march, 2021 at India Habitat		
	Centre.		
	5. Invited "Guest Lecture" on "Nail disorders" during E-Dermapedia Pediatric		
	Dermatology Basic, organized by IAP Delhi on Thursday 25th & Friday 26th,		
	February 2021 on DDAP-Delhi Digital Academy of Pediatrics virtual platform.		
	6. Invited panelist on, "Common Dermatologic Issues In Woman' during Derma-		
	Gynac Cross specialty webinar organized by the Association of Maharashtra		
	Obs & Gynae Society, on 19 th Feb 2021 online		
	7. Invited Panellist for the session, 'IJDVL: Reality & Expectations' during the		
	proceedings of E- DERMACON 2021: 49 th National Conference of IADVL, on		
	proceedings of D. Deltain Corr. 2021. 17 Transmit Conference of Italy Vil, off		

- 6th Feb 2021, online.
- 'Nail Surgery workshop coordinator' during the proceedings of E-DERMACON 2021: 49th National Conference of IADVL, organized on 31st Jan 2021, online.
- Delivered invited lecture on, 'Nail Biopsy Techniques' during 'Nail Surgery workshop' in E- DERMACON 2021: 49th National Conference of IADVL, organized on 31st Jan 2021 online.
- Invited lecture on, 'Managing Ingrown toenail' during 18th Annual conference of the Diabetic foot society of India (ADFS) on 19th December 2020 online.
- 11. Invited lecture on "solving problems in management of Cutaneous Tuberculosis" during 41st Rajasthan CUTICON held on 19th Dec 2020 online.
- 12. DELIVERED KEY NOTE LECTURE on 'Tropical Dermatology' during 11th annual state conference CUTICON KN with the theme "Endemic, epidemic and pandemics: Dermatologist's perspective" held on 28th and 29th November 2020 online.
- Invited Panellist for Panel Discussion: "Pediatric genital dermatoses case based discussion "during CUTICON UP & UK on 18th October 2020, online
- Invited speaker and panellist on the Life Lessons Learnt Webinar on 'Lady Empowerment in Dermatology' on 9th Oct 2020, online.
- 15. Invited Moderator for the panel discussion on, 'Diagnostic dilemma and management challenges in mycetoma' organized by IADVL DSB under the auspices of IADVL-SIG for Neglected Tropical Diseases on 27th Sept 2020, online.
- 16. Invited moderator and speaker on 'Exploring the fascinating world of Nail' and 'Nail Examination; why and how' in the RESIDERM KN Derm session 14 (Skill development program for Dermatology Residents, organized by IADVL KN Branch on 26th Sept 2020, online.
- Invited speaker on, 'Partial Nail Avulsion' during 24th Annual national conference of Cosmetic Dermatology Society India (CDSI) COSDERMINDIA 2020, 19th to 20th September 2020, online.
- 18. Invited moderator for the panel discussion on, 'Difficult to treat Lichen Planus (Cutaneous, Hair and Nail) for DermaVaarta on 12th Sept, organized by DERMACON Int Bidding Committee 2023 in association with IADVL, Gujarat Branch online.
- 19. Invited moderator for the panel discussion on, 'Difficult to treat Lichen Planus (Cutaneous, Hair and Nail) for DermaVaarta on 10th Sept, organized by DERMACON Int Bidding Committee 2023 in association with IADVL,

- Karnataka Branch online.
- Invited speaker on Teacher's Day on 5th Sept 2020, 'Balancing family and Academia' organized by IADVL DSB online.
- 21. Invited speaker on, 'Management of Onychomycosis; different patients and different approaches' during the symposium on LOC for OM, organized under the aegis of NSI, on 5th Sept 2020, online.
- 22. Invited speaker on, 'Common Infective Dermatoses in Children' on 1st Sept 2020, during Indian Academy of Pediatrics (IAP) North Zone Pediweek 2020 'Himalaya' online.
- 23. Invited speaker on, 'Nails as a mirror of Systemic Diseases' during MID DERMACON 2020-INDIA, held in Chennai on 29 and 30thAugust 2020 online.
- 24. Invited moderator for the panel discussion on, 'Case discussion in leprosy' for DermaVaarta on 21st August, organized by DERMACON Int Bidding Committee 2023 in association with IADVL, North East Branch online.
- 25. Invited moderator for the panel discussion on, 'Skin Failure and Erythroderma; Case based discussion' for DermaVaarta on 19th August, organized by DERMACON Int Bidding Committee 2023 in association with IADVL, Rajasthan Branch online.
- 26. Invited moderator for the panel discussion on, 'Connective Tissue disorders; practical considerations' for DermaVaarta on 10th August, organized by DERMACON Int Bidding Committee 2023 in association with IADVL, West Bengal Branch online.
- 27. Invited moderator for the 'Basic Suturing Technique' session in PGPDT (Post Graduate Procedural Dermatology Training) Workshop on 2nd Aug organized by IADVL EC AND IADVL ACADEMY IN ASSOCIATION WITH IADVL SIG Dermatosurgery online
- 28. Invited moderator for the session on, 'Clinic mimics of Leprosy' during 7th e-DAAS Summit held on 12th July 2020 online.
- Invited speaker on, 'Nail disorders in children' in a webinar organized by Indian Academy of Pediatrics (IAP) On 7th July 2020 online.
- 30. Invited speaker in PGNAR series to speak on, 'Approach to Connective Tissue Diseases' on 18th June 2020. online
- Invited Panellist for the session on, 'Clinical insights about onychomycosis and emerging trends' organized by IADVL-SIG on recalcitrant Dermatophytosis, on 29th May 2020 online
- 32. Invited moderator for the Panel discussion on, 'Interesting Cases in Dermatology' during MID-CUTICON by IADVL DSB, organized on 17th May 2020

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33.	Invited Expert Panelist on 'Nail in COVID 19 and Beyond' on 10 th May, 2020
	organized by IADVL Yuva Cell

8. **FACULTY STRENGTH** - 6 nos.

NAME	DESIGNATION
Dr. Bhattacharya SN	Director Professor
Dr. Bisherwal Kavita	Assistant Professor
Dr. Gandhi V	Director Professor
Dr. Grover C	Professor
Dr. Pandhi D	Director Professor
Dr. Singal A	Director Professor

ENT (LHMC)

1. Major Activities and Achievements (Maximum 150 words)

- Department of ENT and Head-Neck Surgery of LHMC is running Cochlear Implant Programme under ADIP Scheme of Govt. of India where children with profound hearing loss below 5 years of age belonging to low socio-economic group are getting benefit of Cochlear implant free of cost.
- All major ENT Head-Neck surgeries including Head-Neck oncosurgeries are done in the department
- Department of ENT is equipped with state of the art operating microscope, CO2 Laser, microdebrider, coblator, sialoendoscope, harmonic scalpel, facial nerve monitor, skeeter micro drill system.

2. Publications

- ❖ Singh GB, Malhotra S, Yadav S, Kaur R, Kwatra D, Kumar S. Role of biofilms in Chronic otitis mediaactive squamosal disease: an evaluative study. OtolNeurotol. 2021. In Press. #
- Singh GB, Rana N, Tomar S, Kwatra D, Kumar S. Radiological evaluation of lacrimal apparatus injury in functional endoscopic sinus surgery. J Laryngol Otol.2021 Mar;135(3):229-233. doi: 10.1017/S0022215121000384. Epub 2021 Mar 1.
- Singh GB, War GY, Shukla S, Kaur R, Malhotra S, Kumar S. The role of Helicobacter pylori and laryngopharyngeal reflux in recurrent tonsillitis. Int J Paed Otolaryngol. 2020 Nov;138:110376. doi: 10.1016/j.ijporl.2020.110376. Epub 2020 Sep 9.
- Bettadahalli V, Singh GB, Kumar S, Mirdha BR. A Rare Case of Tracheostomal Myiasis in a Child.Ear Nose Throat J. 2020 Sep 14:145561320958977. doi: 10.1177/0145561320958977. Online ahead of print.PMID: 32921187

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- Singh GB, Arora N, Tomar S, Kwatra D, Kumar S. The role of sinus CT in surgical treatment decisions for chronic rhinosinusitis. Am J Otolaryngol. 2020 Sep 12;41(6):102729. doi: 10.1016/j.amjoto.2020.102729. Online ahead of print.PMID: 32950832
- Singh GB. <u>Letter to Editor: Author's response whether is circumferential subannular technique necessary in endoscopic tympanoplasty?</u>
 - Am J Otolaryngol. 2020 Nov 26:102837. doi10.1016/j.amjoto.2020.102837. Online ahead of print.PMID: 33261890
- Singh GB, Kwatra D, Malhotra S, Kumar S. Circumferential Subannular Tympanoplasty: Panacea for revision tympanoplasty. Am J Otolaryngol. 2020 Sep 16;41(6):102728. doi: 10.1016/j.amjoto.2020.102728. Online ahead of print.PMID: 32979669
- Singh GB, Solo M, Kaur R. A Rare Case of Candida Mastoiditis in an Immunocompetent Patient With Cholesteatoma Ear Disease. Ear Nose Throat J. 2020 Sep 14:145561320957757. doi: 10.1177/0145561320957757. Online ahead of print. PMID: 32921188
- Kumar P, Singh GB, Kwatra D, Rai A. An Uncommon Foreign Body in an Infant. Ear Nose Throat J. 2020 Jul 15:145561320942090. doi: 10.1177/0145561320942090. Online ahead of print.PMID: 32667220
- Singh GB, Kumar P, Krishna ARA. A Paradigm Shift in the Management of Post Traumatic Complete Facial Nerve Palsy.Indian J Otolaryngol Head Neck Surg. 2020 Dec;72(4):532-534. doi: 10.1007/s12070-020-01894-x. Epub 2020 Jun 10.PMID: 33088787
- ❖ Singh GB, Shukla I, Aggarwal K, Malhotra S. A rare case of solitary plexiform neurofibromatosis of the lip. *J OralMaxfacial Surg Med Path* 2020;32;164-66.
- Singh GB, Kwatra D. A Rare Case of Crouzon Syndrome with Choanal Atresia. Clin Surg. 2020; 5: 2985.
- Singh GB, Malhotra S, Agarwal S, Garg S. Palatal Mucormycosis in an Immunocompetent Infant. World J Surg Surgical Res. 2020; 3: 1230.
- ❖ Singh GB, Shukla I, Aggarwal K, Malhotra S. A rare case of solitary plexiform neurofibromatosis of the lip. *J OralMaxfacial Surg Med Path* 2020;32;164-66.
- Chakravarti A, Upadhyay P, Bijarniya R, Shukla I. Extended high frequency hearing sensitivity in normal contralateral ears exposed to mastoid drill noise in patients undergoing mastoid surgery. Int J Otorhinolaryngol Head Neck Surgery. 2020 Dec. 2249-2252. 10.18203/issn.2454-5929.ijohns20205068.
- ❖ Chakravarti A, Mojahid M, Nair R R. Conservative management of arteriovenous malformation of pinna
 − A case report. Int J Sci Research: 2020 July; Vol 9 Issue 7
- ❖ Chakravarti A, Sharma D, Mojahid M, Agarwal K. (2020). Primary Intestinal-type Adenocarcinoma of the Tongue: A Rare Clinical Entity. J of Case Reports. 234-236. 10.17659/01.2020.0062.
- Chakravarti A, Mojahid M, Nair R R, Agarwal S. Plasmablastic lymphoma of nose and paranasal sinuses in an immuncompetent patient. Int J Otorhinolaryngol Head Neck Surgery. 2021 May. 888-891. 10.18203/issn.2454-5929.ijohns20211589.
- Chakravarti A, Chandrasekhar S. Management of benign paediaric thyroid nodules: experience from paediatric ENT services of a tertiary care hospital. Int J Otorhinolaryngol Head Neck Surgery. 2021 Apr. 672-675. 10.18203/issn.2454-5929.ijohns20211192
- Chakravarti A, Mojahid M, Nair R R, Mandal P, Chandra J, Nangia A. Pharyngo-laryngeal histoplasmosis in an immunocompromised child - A case report. Egyptian J Otolaryngol (in press)

- Kwatra D, Sagar P, Shukla S. Rhabdomyosarcoma: Nose Presenting As Second Primary with Carcinoma Tongue. Iran J Otorhinolaryngol. 2020 Mar;32(109):121-125. doi: 10.22038/ijorl.2019.41435.2351. PMID: 32219079; PMCID: PMC7085931.
- 4. Seminar/Conference Presentations (National / International)
 - **❖** Dr GB Singh was faculty at
- Invited Talk
 - o Antibiotic resistance and importance of high dose of amoxycillin and Clavulanic acid therapy.
 - Webinar. Mar 2021.
- Invited Talk & Moderator.
 - o Role of Sinus CT in Surgical treatment of chronic rhinosinusitis.
 - Webinar: Advances in FESS. Jan 2021.
- Invited talk.
 - o ENT manifestations in Paediatric HIV/AIDS patients.
 - ENT Update Webinar. MAMC. Dec 2020.
- Invited Talk.
 - Bronchoesophagology: Tips & Pearls.
 - o Webinar, Nov 2020
- Invited talk & Moderator.
 - O Circumferential Subannular tympanoplasty: Panacea for revision tympanoplasty. Webinar: Intricacies of ear surgery. October 2020
- Invited talk.
 - o Management of discharging ear in Children.
 - Webinar. September 2020.
- Invited talk.
 - o New facets to cholesteatoma ear disease in 21st century.
 - Webinar. August 2020.
- Faculty
 - o 8th SGRH FESS and Skull Base Surgical Workshop
 - o Sir gangaram Hospital, New Delhi. [Feb 2020]
- 5. Placement Details (Number and percentage of students placed)
 - Two of the senior residents have got job offer from NHS,UK
- 6. Faculty Strength
 - 5

ENT (UCMS)

1. Major Activities and Achievements

The department tirelessly aided in management of COVID patients and rendered ENT services during the pandemic year. We continued medical education and academic activities through online modes. Department also organized series of international webinars in head and neck oncology. Currently the department is managing mucormycosis cases and have operated over 90 cases.

2. Honours/Distinctions

Dr Sarthak Sachdeva; PG III; First Prize at Torrent Young Scholar Award

3. Publications

1. Kapoor D, Mona H & Gupta N(2020). Novel Use of Platelet Rich Fibrin Membrane in Transcanal Myringoplasty: A Prospective Study—Letter to Editor. Indian J Otolaryngol Head Neck Surg ;355-362

- 2. Oleszkiewicz A, Alizadeh R, Altundag A, Chen B, Corrai A, Fanari R, Farhadi M, Gupta N, Habel R, Hudson R, Hughes JL, Joshi A, Kamrava SK, Luckett C, Mahmut MK, Masala C, Mori E, Pellegrino R, Piras R, Resler K, Rivas-Castro A, Saluja S, Sharma S, Shimmura H, Soler GM, Stefańczyk MM, Sun Z, Thaploo D, Wei Y, Yan X, Hummel T(2020). Global study of variability in olfactory sensitivity. Behav Neurosci.;134(5):394-406. doi: 10.1037/bne0000378. PMID: 33001681.
- 3. Palanisamy K , Vaid, L, Gupta N , Saha R & Singh U (2020). Clinical and histopathological impact of biofilm in chronic rhinosinusitis with nasal polyps. International Journal of Otorhinolaryngology and Head and Neck Surgery. 7. 73. 10.18203/issn.2454-5929.ijohns(2020)5623.

4. Seminars Organized:4

Webinar Series in Head & Neck Oncosurgery: Sessions I-IV: Oral Cancer, Larynx, Salivary Gland, Thyroid. Dr Vipin Arora, ,Affiliation- University of Chicago .Title or Talk-Webinar Series in Head & Neck Oncosurgery. Date: 6/10/2020, 6/11/2020, 4/12/2020, 8/02/2021

5. Seminar (Conference Presentations (National/International)

 $1. International - \ We binar \ Series \ in \ Head \ \& \ Neck \ Oncosurgery: \ Sessions \ I-IV: \ Oral \ Cancer, \ Larynx, \ Salivary \ Gland, \ Thyroid$

6. Faculty Strength- 4

FORENSIC MEDICINE (UCMS)

1. Major Activities and Achievements

The department conducted satisfactorily about 1433medicolegal autopsy during the year 2020 and also provides expert opinion and court evidence in large number of cases. During the same period various faculty members acted as expert on various selection committees, delivered guest lectures, and appointed members of the editorial boards. Faculty members of the department worked in the capacity of chairman/members in large number of review/ postmortem boards constituted by different government agencies like Delhi government, CBI,etc. Consistently the department is working for the enhancement of knowledge to serve the society in a more efficient way. During the COVID-19 pandemic, the department conducted online teaching for Undergraduates and also conducted autopsies on COVID-19 positive cases.

4. Honours/Distinctions

Aggarwal N K

- 1. Member of adverse event following immunization of IDHS(Integrated District Health Society Shadhara)
- 2. Awarded fellowship of Indian Academy of Forensic Medicine
- 3. Honour and felicitated by National medicos organisation on the occasion of group of Guru purub
- 4. Certificate of Excellence as "Corona Warrior" present by DMA (IMAEDB) and Chaupal
- 5. DMA Excellence award presented 106th foundation day celebration

- 6. Appreciation award as "Corona Warrior" for outstanding services, commitment and dedication to fight COVID-19 by Delhi Medical Forum.
- 7. Member of the committee constituted by Vice Chancellor, PGIMS Rohtak to give expert advice on the Plan submitted for construction of NIMS state of the art modern mortuary complex at PGIMS, Rohtak.
- 8. Nominated as an expert member, Post Graduate Board of Studies in Forensic Medicine, at PGIMS, Rohtak.
- 9. Nominated as member ethical committee GTBH Delhi.
- 10. Nominated as an expert member DSCI institutional ethics committee member, Delhi.
- 11. Member of the editorial Committee, Delhi Psychiatry Journal, Published by Delhi Psychiatric Society.
- 12. Expert Member of the Delhi Medical Council.
- 13. Ethical committee member at Rajiv Gandhi Super Specialty Hospital, Delhi Kumar A
- 14. Member of State Adverse effect following immunization Committee, DFW, Govt. of NCT of Delhi
- 15. PIO. UCMS
- 16. Resident Tutor Boys Hostel, UCMS
- 17. Member of physical stock verification committee, UCMS
- 18. Associate cultural advisor, UCMS
- 19. Member of Alumni-Nominee, IQAC, UCMS

5. Publications

- 1. Sonwani N, Ateriya N, Kumar A, Kohli A. (2021). Two deaths due to explosion of cylinders of liquid petroleum gas. Egypt J Forensic Sci. 11:6
- 2. Sonwani N, Ateriya N, Kumar A, Kohli A, Banerjee K K.(2020). Sudden death due to ruptured oesophageal varices autopsy-based case report. Medico-Legal Journal. 88. 002581722092692. 10.1177/0025817220926929
- 3. Sonwani N, Ateriya N, Kumar A, Setia P, Kohli A. (2020). Cadaver dogs: The nose knows something. J Indian Acad Forensic Med,; 32(4): 311-2.
- 4. Singh KP, Verma A, Verma SK, Aggarwal NK. (2020). Rapid Cadiotroponin-T Assay in Pericardial Fluid for Post- mortem Diagnosis of Sudden Myocardial Injury: A Case Control Study. JFMT; 37: 1-8.

6. Journals

Number of Department teachers serving as Editor(s)/Member(s) of Editorial Board-3

7. Seminar/Conference Presentations (National/International)

1. Dr N K Aggarwal: Delivered a talk on the topic of forensic autopsy in custodial deaths at 18th annual conference of Punjab academy of forensic medicine and toxicology

8. Faculty Strength:6

FORENSIC MEDICINE (MAMC)

1. Major Activities and Achievements (*Maximum 150 words*)

The Department conducted 205 postmortem examinations and 45 MLCs. despite the. The faculty members are involved in academics and are appointed as examiners in prestigious institutes around the country. The faculty members are nominated by the Govt, CBI as chairman/board members in sensitive cases and are included as part of policy making boards by the government.

The Departmental mortuary had to swiftly turn into a COVID facility as the associated Lok Nayak Hospital was designated as an exclusive COVID Centre and for management of the dead bodies during the pandemic, the arrangements had to be made to accommodate the increased number of dead bodies, especially during both the first and second waves when they were plenty. This required up-gradation of existing facilities, collaboration with the hospital staff, burial and cremation grounds. SOPs were formulated by the HOD along with faculty. The ambulance services and staff were increased to handle the crisis. Regular training of staff was conducted regarding following sanitization and their own safety protocol and sensitization towards the relatives of the deceased. Round the clock mortuary services was offered to the public. Their grievances were heard and addressed appropriately. Postmortem examination

on MLC deaths of suspected and COVID positive dead bodies were routinely conducted using all safety and precautionary measures.

2. Publications:

- Blue Death: A Case Report Rohit Bharti, Raj Kumar, Dhiraj Buchade, Upender Kishore, Journal of Forensic Medicine Science and Law 29 (1) (2020) 68-72.
- Atypical Gunshot Wounds: A Series of Cases 292-295 Dhiraj D Buchade, Arun Kumar Siddamsetty, Raj Kumar, Kishore Singh Thakur, Sreenivas Myst, J Indian Acad Forensic Med. 2020 Oct-Dec; 42(4): 292-295.
- 'Analysis of firearm deaths from Central Delhi region A 6 Year Retrospective study" Accepted for publication in J Indian Acad Forensic Med Journal. Dr. Dhiraj D Buchade.

3. Journals:

• Dr. Anil Aggrawal is Editor in Chief of the journal "Anil Aggrawal's Internet Journal of Forensic Medicine and Toxicology".

4. Research Projects:

- Immunohistochemistry and Histopathological Study of Wound Vitality in Ligature Neck Compression.Dr. Rupesh Chandra. Supervisor: Dr. Upender Kishore Co-supervisor: Dr. Monisha Pradhan, Dr. Shramana Mandal.
- Estimation of Age in the Living by Using Kvaal's Dental Method-A radiological Study. Dr. Sarita Sharma. Supervisor: Dr. Anil Aggrawal, Co-Supervisor: Dr. Sigrid I. Kvaal, Dr. Dhiraj D Buchade.
- Estimation of Stature from Anthropometric Measurements of Hand and Foot in young adults. Dr Tayyaba Tanvir. Supervisor: Dr Anil Kumar Mittal; Co-Supervisor: Dr Amandeep Kaur.
- Morphometry of Hyoid bone for Sex Determination at Autopsy. Dr Vaisakh S. Supervisor: Dr Sreenivas M. Co-Supervisor: Dr Monisha Pradhan
- Fingerprints Patterns, Types and Distribution in Young Adults. Dr Chander Prakash Meena, Supervisor: Dr Upender Kishore; Co-Supervisor: Dr Dhiraj D. Buchade.
- Radiological Study of Appearance and Fusion of Ossification centers around the Elbow and Wrist joint in the Age Group of 11 to 19 years. Dr. Sunita Das. Supervisor: Dr. Anil Kumar Mittal, Co supervisor: Dr Gaurav Pradhan and Dr Dhiraj Buchade. It was completed and submitted in August 2020.
- Age Related Changes in the Medial End of Clavicle Using Multidetector CT Scan with 3 D Reconstruction. Dr. Akash Chaudadhary. Supervisor. Dr Anil Aggrawal, Co Supervisor: Dr. Satbir Singh and Dr. Monisha Pradhan. It was completed and submitted in August 2020.
- Histopathoplogical Changes of Shock in Various Organs at Autopsy. Dr. Alok Kumar Maurya.
 Supervisor: Dr. S. K Khanna. Co Supervisor: Dr. Nita Khurana and Dr Amandeep Kaur. It was completed and submitted in August 2020.
- Radiographic Evaluation of Development of 2nd and 3rd Molar teeth Using Demirjian Staging for Age Estimation. Dtr Vikas Arora. Supervisor: Dr. Sreenivas M. Co-Supervisor: Dr. Mahesh Verma and Dr. Amandeep Kaur. It was completed and submitted in August 2020.
- 5. Seminars Organized: Regular Seminars for Postgraduate students conducted throughout the year
- 6. Seminars/Conference Presentation (National/International): National:

- Dr.Anil Kumar Mittal attended webinar on "Forensic Practice during COVID -19 Pandemic (DELHI)" organized by Department of Forensic Medicine, V.M.M.C & Safdarjung Hospital, New Delhi on 31st July 2021.
- Dr.Anil Kumar Mittal attended and delivered a Guest lecture on the topic "Assault on Doctors" in the 18th Annual Conference of Punjab Academy of Forensic Medicine and Toxicology, PAFMATCON -2020 (virtual) organized by Department of Forensic Medicine & Toxicology, Govt Medical College, Amritsar on 10 Oct 2020
- Dr. Monisha Pradhan attended The 42nd Annual Virtual AOGD Conference, pre-conference workshop held on 28th October 2020.
- Dr.Anil Kumar Mittal attended webinar "Annual Snake Bite Conference 2020" organized by Department of Emergency Medicine & Public Health, Amrita Institute of Medical Sciences, Kochi on 21, 24 and 26 of November 2020.
- Dr.Anil Kumar Mittal attended webinar "TOXOCON 14" of The Indian Society of Toxicology organized by Department of Emergency Medicine & Public Health, Amrita Institute of Medical Sciences, Kochi on 21, 22 and 23 of December, 2020.
- Dr.Amandeep Kaur attended online Faculty Development Programme On "Multidimensionality in Forensic Science Education" Conducted By Amity University, Haryana From 26th To 30th December 2020.
 - 7. Faculty Strength:8

MEDICINE (LHMC)

1. MAJOR ACTIVITIES AND ACHIEVEMENTS

A. COVID 19

Under the able Leadership of Director LHMC and HOD, Medicine, the department of medicine has been fighting the COVID pandemic in the vanguard. various COVID services were set up over a short period of time.

- 1. Department of medicine was instrumented in setting up of Covid care centre at YMCA and provided round the clock clinical care services to the YMCA Covid care centre.
- 2. A 24 bedded COVID care centre- was set up at the new oncology block. It included a Six bedded ICU facility created anew with the help of a temporary manifold.
- 3. Faculty from department of medicine LHMC were part of various Central teams sent to states and bordersto assist in training of HCW and setting up Covid facilities all over India . Faculty of medicine also headed the international evacuation team sent to japan.
- 4. Faculty and residents of medicine manned the ITBP centre for passengers evacuated from various countries.
- 5. COVID Orientation programmes were conducted for all heath care providers of LHMC by the department to combat the pandemic.
- 6. The adult thalassemia day care centre services remained uninterrupted despite the crisis.
- 7. Department of medicine is successfully running a post COVID clinic.

B. HDU

A six bedded step down unit (HDU) has been started by department of medicine to augment the critical care services.

2. HONOURS / DISTINCTIONS

1. Dr. Anil Gurtoo

- A. Part of Student Leadership Mission Law and Ethics
- B. Member sub committee for revision of essential LHMC drug list for different levels of health facilities.
- C. Gave mountaineering & high altitude medicine training to special advanced mountaineering course of army; NIMAS.

2. Dr. S K Jain

A. Member of Expert Committee of UP Public Service Commission.

3. Dr Aparna Agarwal

- Member UG Board of Studies AIIMS, Bhubaneshwar
- Co-chairperson, Multidisciplinary Research Unit, MAMC, New Delhi
- Inspector, Medical Council of India, and

National Board of Examinations

- Reviewer International Journal of Advanced Medical & Health Research
- Expert selection of
 - PGIMER, Rohtak. Professor and Asstt Professor Medicine
 - AIIMS, Nagpur. Professor and Asstt. Professor Medicine
 - ESI, Specialist grade II General medicine
- Expert National Board of Examinations
- Member core group- Medical Education Unit
- Member core curriculum committee
- Member Institutional Ethics Committee.

4. Dr. Madhur Yadav

- A. Member of Expert Committee of J&K PSC Jammu & Kashmir.
- B. Member of Expert Committee of UP Public Service Commission.
- C. Executive Member: Lipid Association of India.
- D. Member of Recruitment Committee for faculty at PGI Rohtak.
- E. Member of medical board at LHMC New Delhi.
- F. Chairperson of special medical board constituted for various administrative purpose

5. Dr Debashish Choudhary

A. Posted in COVID-19 Quarantine center, Chawala camp, New Delhi for medical care of International travellers in the month of March 2020.

6. Dr. Anupam Prakash served as an Expert in the following capacities-

- A. Associate Editor of API Textbook of Medicine 11th edition, 2020 published by API.
- B. Editorial Board member for the book- Interesting cases in Hypertension: Useful lessons on management. Wander GS, et al (Editor). JaypeeBrothers Medical Publishers (P) Ltd., Delhi 2020. ISBN 978-93-89587-59-3
- C. Served in various professional organisations in following capacities-
 - 1. President, Indian Society for Atherosclerosis Research 2019-2021
 - 2. President, Delhi Diabetic Forum 2016-2021
 - 3. Member, Governing Body of Association of Physicians of India, 2018-2021
 - 4. Treasurer, API-Delhi State Chapter 2019-2021
 - 5. Editor-in-Chief, Indian Journal of Medical Specialities
 - 6. Editorial Board Member of JAPI
- D. Evaluated Thesis for Era University, Lucknow; NIMS, Hyderabad and DNB.
- E. Examiner for
 - a. Appraisal for DNB Medicine, GRIPMER/SGRH, Delhi on January 27, 2020
 - b. MBBS for CSJM University, Kanpur Feb 2020 (Paper-setter)
 - c. MD (Medicine) for NEIGRIHMS, Shillong (June 25-26, 2020)
 - d. MD (Geriatric Medicine) for AIIMS, Delhi (Dec. 22, 2020)

7. Dr. Ghan Shyam Pangtey

- **a.** Associate Editor of API Textbook of Medicine 11th edition, 2020 published by API. Joint Secretary: Physicians Research Foundation.
- b. Completed and passed the 13th EULAR (European Alliance of Associations for Rheumatology Online Course on Rheumatic Diseases (2 years structured course) on 10.10.2020.Treasurer, Indian Society for Atherosclerosis Research 2019-2021
- C. Joint Secretary, API-Delhi State Chapter 2019-2021

- d. Executive Member, Delhi Rheumatology Association.
- e. Assistant Editor, JAPI.

8. Dr. Ramesh Aggarwal

- A. CPIO for Department of Medicine
- B. Executive Member, Indian Society for Atherosclerosis Research (ISAR)
- C. Executive Member, Delhi Diabetic Forum (DDF)
- D. Serve the first batch of quarantined people from Wuhan at ITBP camp, Chhawala, Delhi.
- E. Certificate of appreciation from the Director, Lady Hardinge Medical Collegefor my contribution towards COVID-19 duty.
- F. Awarded with "Certificate of Excellence in Reviewing 2020" from Journal of Scientific Research and Reports in recognition of the outstanding contribution to the quality of the journal.

9. Dr.Ritika Sud

- A. Part of Student Leadership Mission Law and Ethics
- B. Coordinator in chief at Thalassemia transition care clinic, LHMC New Delhi.
- C. Member of disability board of thalassemia patients at LHMC New Delhi.
- D. Member of medical board at LHMC New Delhi

10. Dr. Vivek Suman

- A. Joint Secretary, Uttar Pradesh Diabetes Association- GautamBudh Nagar Chapter
- B. Executive Member, Indian Society for Atherosclerosis Research (ISAR)
- C. Expert Member- First Expert Group Meeting On Development of Patient Safety Implementation Framework for India. Who and Ministry of Health and Family Welfare.
- D. Editor-Journal of Atherosclerosis and Metabolic Research
- E. Reviewer- Journal of Clinical & Diagnostic Research.
- F. Reviewer-International Journal of Diabetes in Developing Countries.
- G. Participated at the Health Camp for Members of Parliament and their families, held at Parliament House in December 2020. Honored with an appreciation letter by the Union Health Minister Dr. Harshvardhan.

11. Dr Shubha Laxmi Margekar

a. Coordinator in chief at Thalassemia transition care clinic, LHMC New Delhi.

b. Member of disability board of thalassemia patients at LHMC New Delhi

12. Dr. Amit Kumar Sharma

- A. Executive Member- Uttar Pradesh Diabetes Association Gautam Budh Nagar Chapter.
- B. Participated at the Health Camp for Members of Parliament and their families, held at Parliament House in December 2020. Honored with an appreciation letter by the Union Health Minister Dr. Harshvardhan.
- C. Received FICP (Fellow of Indian College of Physician)
- D. Received FIACM (Fellow of Indian Academy of Clinical Medicine)
- E. Received FIMSA (Fellow of International Medical Sciences Academy)
- F. Received Fellowship of Diabetes India

13. Dr Priya Bansal

- A. Elected to the Membership of the Royal Colleges of Physicians of the United Kingdom (MRCP-UK) on 17 November 2019. This was following a three-part examination (including practical and viva voce) held over 5 years.
- B. Participated at the Health Camp for Members of Parliament and their families, held at Parliament House in December 2020. Honored with an appreciation letter by the Union Health Minister Dr. Harshvardhan.
- C. Invited by UPSC as expert for setting up question papers for medical examinations.

14. Dr. Sheikh Yasir Islam

A. Participated at the Health Camp for Members of Parliament and their families, held at Parliament House in December 2020. Honored with an appreciation letter by the Union Health Minister Dr. Harshvardhan.

15. Dr Shivraj Meena

- a. Participated at the Health Camp for Members of Parliament and their families, held at Parliament House in December 2020. Honored with an appreciation letter by the Union Health Minister Dr. Harshvardhan.
- Opportunity to serve the Second batch of quarantined people from Wuhan at ITBP camp, Chhawala, Delhi.

3. PUBLICATIONS

A. In Journals:

- Agarwal A, Mukherjee A, Kumar G, Chatterjee P, Bhatnagar T, Malhotra P and PLACID Trial Investigators. Convalescent plasma in the management of moderate COVID-19 in adults in India: open label phase II multicentre randomised controlled trial (PLACID Trial). BMJ 2020;371:m3939. Published on Oct 22, 2020
- 2. Agarwal N, Pangtey GS, Singh R, Sharma SK. Low Vitamin D Levels in Rheumatoid Arthritis Patient is Associated with Poor Disability Index and Increased Patient Global Disease Assessment Score. J Assoc Physicians India. 2020 Feb;68(2):18-22. PMID: 32009356.
- 3. Bansal P, Margekar SL, Suman V, Sud R, Meena S, Sharma AK, Islam SY, Gurtoo A, Agrawal A, Pangtey GS, Prakash A.Pancreatic injury in COVID-19 patients. JAPI 2020;68(12):58-60.
- 4. Bhatia S, Pareek KK, Kumar A, Upadhyay R, Tiwaskar M, Jain A, Gupta P, Nadkar MY, Prakash A, et al. API-ISG Consensus Guidelines for management of gastro-oesophageal reflux disease. JAPI 2020;68(10):69-80.
- Ceftriaxone-induced hemolytic anemia: A rare case report. Kumar S, Bansal R, Priya Bansal, Dhamija RK. Perm J 2020; 24:19.088.
- 6. Gupta U, Prakash A, Sachdeva S, Pangtey GS, Khosla A, Aggarwal R, Sud R, Margekar SL. COVID-19 and Tuberculosis: a meeting of two pandemics! JAPI 2020;68(12):69-72.
- 7. Gurtoo A, Agrawal A, Prakash A, LHMC Medicine COVID-19 Investigator Group (Sud R, Margekar SL, Aggarwal R, Pangtey GS, Suman V, Sharma AK, Aggarwal N, Srivastava A, Gupta A, Islam SY, Meena S, Bansal P, Goel A, Ghotekar LH, Yadav M, Bhardwaj N, Chaudhury D, Jain SK), Kaur R, Jais M, Anand R, Sharma S, Shukla S, Singh R.The syndromic spectrum of COVID-19 and correlates of admission parameters with severity-outcome gradients: a retrospective study. JAPI 2020;68(12):43-48.
- 8. Kashyap B, Goyal N, Prakash A. COVID diagnostics: Do we have sufficient armamentarium for the present and the unforeseen? Indian J Med Spec 2020;11:117-123.
- 9. Kher M, Beri S, Rehan HS, Prakash A, Gupta LK. Effect of metformin and insulin combination on monocyte chemoattractant protein-1 and cathepsin-D in type 2 diabetes mellitus. Diabetes & Metabolic Syndrome: Clinical Research & Reviews 2020;14:1703-1710.
- Nehal Aggarwal, Ankit Gupta, LH Ghotekar, Shubhalaxmi Margekar, Ramesh Aggarwal, Priya Bansal.
 Common Variable Immune Deficiency. Journal of Case Reports 2020;10(4):220-222
- 11. Prakash A, Malik R. Prevention of cardiovascular disease in diabetes mellitus. Cardiology Today 2020;24:68-73.
- 12. Prakash A.COVID-19 an acute infective illness with long-term consequences! JAPI 2020;68(9):11-12.
- 13. Priya bansal. Covid -19 Pandemic Internal Medicine's Days of Glory! J Assoc Physicians India. 2020 Oct;68(10):82.
- 14. Priya Bansal. Covid-19 The infodemic. J Family Med Prim Care 2020;9:5388.

- 15. Sachdeva S, Desai R, Gupta U, Prakash A, Jain A, Aggarwal A. SN Compr Clin Med 2020. Admission Hyperglycemia in Non-diabetics Predicts Mortality and Disease Severity in COVID-19: A Pooled Analysis and Meta-Summary of Literature. Published online Oct 12, 2020.
- 16. Sachdeva S, Gupta U, Prakash A, Margekar SL, Sud R.The race to find COVID-19 vaccine: so near yet so far! Indian J Med Spec 2020;11:175-179.
- 17. Srivastava A, Avva S, PRIYA BANSAL, Aggarwal R, Margekar S, Dhamija RK. Diffuse alveolar hemorrhage due to *Plasmodium vivax* malaria. Lung India. 2020 Jul-Aug;37(4):342-344. doi: 10.4103/lungindia.lungindia_389_19.
- 18. Sud R, Verma J, Goswami S, Aggarwal N,Gurtoo A. Post COVID 19 Guillain Barre syndrome: Adistinct neurological entity. Indian J Med Spec 2020;injms142_20.
- 19. Sunil Kapoor, Priya Bansal. Pancreatogenic Diabetes. Journal of DDF. 2020. 29(1)15-18.

B. Books/Monographs published-

- 1. Ashok kumar, Urvashi Khan, Purnima margekar, shubha laxmi margekar.SGLT 2 inhibitors where do they stands today.journal of DDF;vol 29;oct-dec,2020.
- 2. Ashok kumar, Urvashi Khan,shubha laxmi margekar, s siva Prakash.heart failure In diabetes.journal of ddf;vol;29; jan-sept,2020.
- 3. Priyanka singh, Shivraj meena. Diabetes a Tsunami; how to control ?journal of DDF;vol 29;jan-sept, 2020.
- 4. Rohit bansal, priya bansal.diabetic enteropathy; journal of DDF;vol 29;oct-dec 2020.
- 5. Sunil kumar ,priya bansal.pancreatogenic diabetes. journal of ddf; vol;29; jan-sept,2020.

C. Chapters in books-

- 1. Gaurav Seth, Ghan Shyam Pangtey. Adult Onset Still's Disease. In: Arulrhaj S (ed.). Medicine Update 2020, Association of Physicians of India, Jaypee Brothers Medical Publishers (P) Ltd. New Delhi, India 2020, pp 246.
- Ghan Shyam Pangtey. Fever in Intensive Care Unit. In: Manish Soneja Puneet Khanna (ed.) Infectious
 Diseases in the Intensive Care Unit, Springer Nature Singapore Pte Ltd. Springer. Singapore 2020..1-13
 ISBN 978-981-15-4038-7.
- Ghan Shyam Pangtey. Nonsteroidal Anti-inflammatory Drug Use During Pregnancy and Lactation: Effects on Mother and Child. In: Shefali K Sharma (ed.) Women's Health in Autoimmune Diseases, Springer Nature Singapore Pte Ltd. Springer. Singapore 2020. Pp.215-219. ISBN 978-981-15-0113-5 (print)_978-981-15-0114-2 (online)
- 4. Malik R, Prakash A, Nigam A. Managing Hypertension in pregnancy. Medicine Update. 2020, API Bihar chapter, pp.10-14.

- Munjal YP, Prakash A. Euthanasia in critical care- Current perspective in India. In: Nadagouda VG (ed).
 Emergencies in Medicine. 2020. Indian College of Physicians, Academic wing of Association of Physicians of India, 1st edn, pp. 496-500.
- 6. Munjal YP, Rajput R, Arora A, Prakash A. Diabetes and Heart Failure. In: Arulrhaj S (ed.). Medicine Update 2020, Association of Physicians of India, Jaypee Brothers Medical Publishers (P) Ltd. New Delhi, India 2020, pp. 424-427.
- Prakash A. Secondary hypertension cases. In: Interesting cases in hypertension: useful lessons in management. Wander GS (ed). Jaypee Brothers Medical Publishers (P) Ltd. New Delhi, India 2020, pp. 138-151.
- Prakash A. WHO Emphasis on Emerging and Re-emerging Infectious Diseases. In: Arulrhaj S (ed.).
 Medicine Update 2020, Association of Physicians of India, Jaypee Brothers Medical Publishers (P) Ltd.
 New Delhi, India 2020, pp. 841-843.

3. JOURNALS

- 1. Dr Anupam Prakash, editor in chief of Indian journal of medical specialities.
- 2. Dr. Ghan Shyam Pangtey is Member of Editorial Board of Journal of Association of Physicians of India.
- 3. Dr Vivek Suman -Editor of Journal of Atherosclerosis and Metabolic Research
- 4. Dr Shivraj meena -Member of editorial board of Journal of Medical Science and clinical Research.

5. RESEARCH PROJECTS

Following Multi centric International Clinical Trials were conducted with LHMC as one of the centres-

Name of investigators	Title of the Project scheme	Name of the funding agency	Budget in Rs.
Anil Gurtoo Aparna Agrawal	PLACID- ICMR convalescent plasma multicentric study for COVID-19 treatment; 2020	ICMR	
Ritika Sud			
Anupam Prakash			
Sangeeta Pahuja			
Anil Gurtoo Aparna Agrawal and	OPEN-SKIES 2020- Israel- DRDO study on COVID-19 diagnostics	DRDO	

Department of Medicine			
Ghan Shyam Pangtey Anupam Prakash Manoj jais (Microbiology) Sanjib Gogoi (Microbiology)	Validation of Dry Swab RNA extraction free method of diagnostic test compared with the standard RT-PCR method for SARS-Co-V2 : A Multicentric study	ICMR	1 Lakh
Anil Gurtoo Anupam Prakash Shubha Laxmi Margekar Sunita Mondal	Effect of Yoga in treatment of moderate COVID-19	Morarji Desai Institute of Yoga	
Anil Gurtoo Ritika Sud Anupam Prakash	WHO assessment of difficulties in people living with disabilities- adult thalassemia patients	WHO	
Anupam Prakash	USVCAPS	USV	4 lakhs
Sachin K Jain Ghan Shyam Pangtey Shubha Laxmi Margekar			
Anupam Prakash	SUSTAIN11	Novo Nordisk	85 lakhs
Sachin K Jain Ghan Shyam Pangtey Shubha Laxmi Margekar			
Anupam Prakash	SOUL	Novo Nordisk	20 lakhs

Sachin K Jain Ghan Shyam Pangtey Shubha Laxmi Margekar			
Non-funded projects			
Department of Medicine Anil Gurtoo Aparna Agarwal	Clinical profile of COVID- 19		
Anupam Prakash	EONIC		
Ghan Shyam Pangtey	ICMR dry swab		
Anil Gurtoo Shubha Laxmi Margekar	NCDC		

List of Postgraduate thesis& research

S.No	Name of Post Graduate Student	Thesis Topic	Supervisor
1.	Archana kumari	Cardiovascular profile in treatment naive and antiretroviral therapy exposed patients with HIV	Dr.Anil gurtoo
2	Nitesh pandey	Spectrum of nonalcoholic fatty liver disease in adult type 2 diabetes mellitus patients	Dr.Aparna aggarwal
3	Pooja	Detection of undiagnosed thyroid disease in patients 50 years and above	Dr.Atul goel
4	Sweety	A study of modified wells score for pulmonary embolism and age-adjusted d-dimer values in	Dr.Atul goel

		inpatients 'at risk for dvt' in a non-ICU setting of a tertiary care hospital in India	
5	Rajni	Correlation of nutrional status with the severity of idiopathic parkinson's disease	Dr.L.H.Gothekar
6	Shubham	Clinical profile of patients presenting with atrial fibrillation to a tertiary care north indian hospital	Dr.Anurag rohatgi
7	Priya baluni	Triglyceride rich lipoprotein cholesterol in patients with acute coronary syndrome	Dr.Madhur yadav
8	Nitesh bassi	Magnitude of malnutrition and its association with clinical outcome among hospitalised medical patients	Dr.Neeta bhardwaj
9	Amit kumar meena	Association of waist to height ratio with insulin resistance and adipokine profiles in type 2 diabetes mellitus	Dr.Debashish chaudhury
10	Swati	Short term effect of oral antihyperglycemic drugs on glycaemia in type 2 diabetes mellitus patients using flash glucose monitoring system	Dr. Anupam prakash
11	Chinmay murthy	Clinical profile and ultrasound assessment for residual inflammation in rheumatoid arthritis patients who achieved remission/low disease activity	Dr.Ghanshyam pangtey
12	Sahithi Avva	Uric acid levels and musculoskeletal symptoms in transfusion dependent adult thalassemia subjects	Dr.Ramesh aggarwal
13	Hamsa k M	NT PROBNP as a marker of incipient heart failure in transfusion dependent thalassemic patients	Dr.Ritika sud
14	Sunil kapoor	Assessment of cardiovascular autonomic dysfunction in idiopathic parkinson's disease	Dr.Shubha laxmi margekar

STS Projects:

5151	S1S Projects:				
S.No	UG Student	Торіс	Supervisor		
1. Devanshi gupta Analysis of non- adherence to repatients with hypertension		Analysis of non- adherence to medication in patients with hypertension	Dr Aparna Agrawal		
2.	2. Kritika handoo Association of conicity index with cardiometabolic risks in diabetes mellitus 2 in north indian population.		Dr Debasish chaudhury		
3	Majida Muzzafar "Association of abdominal volume index with HbA1c and 'spot' urine albumin excretion in subjects having type 2 diabetes mellitus"		DR. PRIYA BANSAL		
4	Aparna pandey Association of a body shape index and body roundness index with urine albumin excretion diabetes mellitus type II patients- a hospital based study		Dr Amit Kumar sharma		
5.	Maheen Erum	Association of a body shape index (ABSI) with cardiovascular risk profiles in subjects with type II Diabetes mellitus	Dr Sheikh Yasir Islam		

7 & 8. SEMINAR & CONFERENCES ORGANIZED

S.No.	Faculty Member	Organiser(s)	Name, Venue & Date eDIABCON 2020 on Dec. 12-13, 2020	
1	Dr. Anupam Prakash, (Organising Chairperson)	DDF		
2	Dr. Anupam Prakash, (Convenor of CME and Chairperson of session)	API-DSC	Mid-term CME on March 1, 2020 at IHC, Delhi	
3	Dr. Anupam Prakash, (Organising Chairperson) Dr. Anil Gurtoo, (Scientific Co-Chairperson)	DRA	DRA Annual Update 2020 on Feb. 15-16, 2020 at SJ Auditorium, LHMC and Hotel Lalit, New Delhi.	

	Dr. Ghan Shyam Pangtey, (Organising Secretary)		
4	Dr. Anupam Prakash, (Convenor) Dr. Shubha Laxmi Margekar, (Co-Convenor)	DDF	CME on Diabetes at Hotel Royal Plaza, New Delhi on Feb. 1, 2020
5	Dr Ghanshyam Pangtey, (Convener)	DRA	DRA Monthly Meeting: Vascultis in Young and very young. 23 Dec 2020
6	Dr Vivek Suman, Organiziing chairman	UPDA	Dialogues in Diabetes 2020, 12 July 2020. Web CME

9. SEMINAR/CONFERENCES PRESENTATIONS

S.No.	Name	Role/Topic	Organizer	Name of the Conference, Venue & Date
1.	Dr. S K Jain	Faculty	Association of Physicians of India	APICON 2020 at KNCC, Agra, Jan 5-8, 2020
	Dr Aparna Agrawal		Thysicians of mora	71gra, 3an 3 0, 2020
	Dr Madhur Yadav			
	Dr Debasish Chaudhury			
	Dr. Anupam Prakash, Speaker and Chairperson			
	Dr. Ghan Shyam Pangtey, Speaker and Chairperson			
	Dr Ramesh Aggarwal, Speaker			
	Dr Ritika Sud			
	Dr. Shubha Laxmi Margekar, Speaker			
	Dr Priya Bansal			
	Dr Amit Kumar Sharma			
	Dr. Sheikh Yasir Islam			

	Dr Shivraj Meena			
	Dr Niharika Aggarwal			
	Dr Aanchal Arora			
2.	Dr. S K Jain	Faculty	DIABCON	eDIABCON 2020 on Dec. 12-13, 2020
	Dr Aparna Agrawal			12-13, 2020
	Dr Madhur Yadav			
	Dr Debasish Chaudhury			
	Dr. Anupam Prakash			
	Dr. Ghan Shyam Pangtey			
	Dr Ramesh Aggarwal			
	Dr Ritika Sud			
	Dr. Vivek Suman			
	Dr. Shubha Laxmi Margekar, Speaker			
	Dr Priya Bansal			
	Dr Amit Kumar Sharma			
	Dr. Sheikh Yasir Islam			
	Dr Shivraj Meena			
	Dr.Niharika Aggarwal			
	Dr Aanchal Arora			
3	Dr Anupam Prakash	Speaker 'Managing Hypothyroidism in pregnancy'	Department of Medicine, LHMC	Hotel Metropolitan Nikko, Delhi on Jan. 24, 2020
4.	Dr Anupam Prakash	Speaker 'Dealing with revisions and rejections'	JCOT and Indian Journal of Orthopaedics	Scientific Writing Course 2020 at IHC, Delhi on February 16, 2020.
5.	Dr Anupam Prakash	Speaker 'Diabetes'	CNE Programme	LHNC at CME Room, Nurses Hostel, LHMC on February 19, 2020
6.	Dr Anupam Prakash	Speaker 'Reversal of Diabetes mellitus'	Department of Medicine, MAMC, New Delhi	Medicine Update, MAMC on February 29, 2020

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7.	Dr Anupam Prakash	Speaker 'Managing Fever in Adults	Fever Foundation	Fever Web CME on April 12, 2020
8.	Dr Anupam Prakash	Speaker 'Management of COVID-19'	LHMC	Training programme of HCWs at SJ Auditorium, LHMC in May 2020.
9.	Dr Anupam Prakash	Speaker 'Emerging therapeutic options for COVID-19'	API-Bihar & Jharkhand chapters	WebCME held on August 16, 2020
10.	Dr Anupam Prakash	Speaker 'Immunity and COVID-19'	API-DIAS	API-DIAS Programme on 12 th September 2020
11.	Dr Anupam Prakash	Speaker 'COVID- 19 challenges'	Govt. of West Bengal	WB Kolkata WebCME on COVID-19 invite on 13 th September 2020
12.	Dr Anupam Prakash	Speaker 'Managing COVID-19'	ISAR-UP Chapter	UP COVID-19 webinar on 20 th Sept 2020
13.	Dr Anupam Prakash	Speaker 'Nutrition and COVID-19'	Integra Lifesciences	COVID WebCME on 10 th Oct. 2020
14.	Dr Anupam Prakash Dr. Ghan Shyam Pangtey	Workshop on 'Research Methodology'	SGT University	SGT University, 14 th Oct, 2020
	Dr. Ramesh Aggarwal	Resource Persons & Speaker		
15.	Dr Anupam Prakash Dr. Ghan Shyam Pangtey	Speaker 'Managing Fever in Adults'	Fever Foundation	Fever WebCME, Delhi on 17 th Oct 2020
	Dr. Ramesh Aggarwal			
	Dr. Shubha Laxmi Margekar			
16.	Dr Anupam Prakash	Speaker 'COVID- 19: the roadmap ahead	API- Rajasthan Chapter	RAJ APICON 2020 on 23 rd October 2020
17.	Dr Anupam Prakash	Speaker 'Early diagnosis and management of	API- Tamil Nadu Chapter	TAPICON 2020 on 7 th Nov. 2020

		Tuberculosis in special situations		
18.	Dr Anupam Prakash	Speaker 'Tale of a vaccine, to combat COVID- 19'	API- West Bengal Chapter	West Bengal APICON on 7 th Nov. 2020
19.	Dr Anupam Prakash	Speaker 'Should broad spectrum antibiotics be started on Day 1 of ICU admission?	Fever Foundation	3 rd FeFCON 2020 on 22 nd Nov. 2020.
20.	Dr Anupam Prakash	Judge for Paper presentation	HIMSR, Delhi	Pharmacology Conference on Nov. 24, 2020
21.	Dr Anupam Prakash	Speaker 'Devices in Management of Diabetes	DDF and Dept of Medicine, Santosh Medical College, Ghaziabad	Santosh Medical College, on 27 th Nov. 2020
22.	Dr Anupam Prakash	Speaker 'Managing Medical Complications in GDM'	Dept of Obs. & Gynae. LHMC	Swarna Jayanti Auditorium, LHMC, New Delhi on November 28, 2020
23.	Dr Anupam Prakash	Speaker 'Secondary Hypertension'	Indo-Global Cardio Diabetes Academy	GCDC 2020 on December 19, 2020
24.	Dr Anupam Prakash	Speaker 'Dengue Revisited'	API Rajasthan Chapter	eRAJAPICON on December 26, 2020
24.	Dr Ghan Shyam Pangtey	Oral Paper Judge	SPEED Society	3rd SPEEDCON 2020, Leela Ambience, Gurugram, Dellhi/NCR, February 1-2, 2020
25.	Dr Ghan Shyam Pangtey	Speaker and panellist	API-DAIS and ISCCM	Corona Virus: A Practical Update: Prepare, manage 7 Prevent,17 April 2020
26.	Dr Ghan Shyam Pangtey	Speaker 'Antiphopholipid syndrome'	API Rajasthan Chapter	eRAJAPICON on December 26, 2020
27.	Dr GhanShyam Pangtey	Speaker & panellist "TofacitinibUse as Monotherapy	DRA & Pfizer	Update on Tofacitinib: Tofacon 2020

28	Dr Ghan Shyam Pangtey	Speaker "Antibiotic Stewardship in MICU"	LHMC	Antimicrobial Resistance and Antimicrobial stewardship in COVID-19 Times, December 5, 2020
29	Dr Ghan Shyam Pangtey	Chairperson	AIIMS, New Delhi	AIIMS PULMOCRIT 2020, 7-8 March 2020
30	Dr Ghan Shyam Pangtey	Panellist "Right treatment choice for ACS"	API-DSC	Webinaar
31	Dr Vivek Suman- Organiziing chairman Dr Priya Bansal Dr Amit Kumar Sharma	Moderator	UPDA	Dialogues in Diabetes 2020, 12 July 2020. Web CME

16. FACULTY STRENGTH

Director Professor and Head

Dr. Anil Gurtoo

Director-Professor

- 1. Dr. S K Jain
- 2. Dr. Aparna Agrawal
- 3. Dr. Atul Goel
- 4. Dr. L H Ghotekar
- 5. Dr. Anurag Rohatgi
- 6. Dr. Madhur Yadav
- 7. Dr. Neeta Bhardwaj

Professor

- 1. Dr. Debasish Chaudhary
- 2. Dr. Anupam Prakash
- 3. Dr. Ghan Shyam Pangtey
- 4. Dr. Moti Lal Negi
- 5. Dr. Ramesh Aggarwal

- 6. Dr. Ritika Sud
- 7. Dr. Sanjay Singh
- 8. Dr. Vivek Suman
- 9. Dr. Shubha Laxmi Margekar

Associate Professor

- 1. Dr. Priya Bansal
- 2. Dr. Amit Kumar Sharma
- 3. Dr. Sheikh Yasir Islam
- 4. Dr Shivraj Meena

Assistant Professor

- 1. Dr Mansi Bajaj Mallik (Contractual)
- 2. Dr Niharika Agarwal (Contractual)
- 3. Dr Anshuman shrivastava (Contractual)
- 4. Dr Aachal Arora (Contractual)
- 5. Dr Ankit Gupta (Contractual)
- 6. Dr Parul Kodan (Contractual)

MEDICINE (UCMS)

1. Major Activities and Achievements

The Department of Medicine at UCMS-GTBH has been providing patient care services to vast number of inpatients as well as outpatients through its general and special OPDs along with dedicated wards, coronary care and dialysis units and round the clock emergency services. Both undergraduates and postgraduates continue to perform very well for MD and DM examinations in major institutes including AIIMS, PGI, KGMU, GB Pant Hospital and SGPGIMS to name a few. The faculty has been contributing in various academic and administrative and research platforms in addition to teaching and patient care. The antiretroviral treatment center and specialized care for elderly is also running under the aegis of the Department of Medicine. The ART clinic is extending care and support to a large number of patients suffering from HIV. A lot of effort is invested in doing quality MD thesis work and residents are also marking their presence felt in national conferences. Faculty is also involved in core curriculum committees and medical education unit. The department has been in the forefront of the fight against corona infection in this COVID dedicated hospital since March 2020 when it was declared a pandemic. Despite constraints and logistics, the department endeavors to provide opportunity for professional growth to both residents and faculty by facilitating teaching and training.

2. **Honours/Distinctions**

Amitesh Aggarwal-Awarded Fellowship of Research Society for Study of Diabetes in India in (2020)

3. Publications

- 1. Agarwal V, Gupta L, Davalbhakta S, Misra D, Agarwal V, Goel A.(2020) Prevalent fears and inadequate understanding of COVID-19 among medical undergraduates in India: results from a web based study. J Royal College Physicians Edinburgh,; 50: 343-50
- 2. Agarwal V, Sharma S, Gupta L, Misra D, Agarwal V, Goel A, Aggarwal S.(2020) COVID-19 and a psychological disaster preparedness an unmet need. Disaster Med and Public Health Preparedness, (Accepted)
- 3. Aggarwal A, Goel A, Mulimani RB, Sharma R, Gupta AK.(2020) Apparent Treatment-Resistant Hypertension and Medication Adherence: A prospective observational study. International Journal of Current Medical and Applied sciences; 27(1), 07-14.
- 4. Aggarwal A, Pruthi S.(2020) Medical errors: Overdose of Phenytoin causing Cerebellar Ataxia. J Internal Medicine India; 14: 70-71.
- 5. Bansal K, Goel A, Agarwal A(2020). Performance of older persons on individual items of Mini Mental Status Examination. J Ind Acad Ger; 16: 17-21
- 6. Devalbhakta SA, Sharma S, Gupta S, Agarwal V, Pandey G, Misra DP, Naik BN, Goel A, Gupta L, Agarwal V.(2020) Private health sector in India ready and willing, yet underutilized in the COVID-19 pandemic: a cross-sectional study. Frontiers in Public Health; 8
- 7. Elhence A, Aggarwal A, Goel A, Aggarwal M.(2020) Granulomatous tubercular hepatitis presenting as secondary hemophagocytic lymphohistiocytosis (HLH): a case report and systematic review of literature. J Clin Exp Hepat, (doi https://doi.org/10.1016/j.jceh.(2020).05.007)
- 8. Garg D, Das S, Radhika AG, Raizada A, Gaurav V, Saha R, Sonthalia S, Tigga RA(2020) October. Aetiological Pattern of Vulvovaginal Infections in Asymptomatic and Symptomatic HIV Seropositive Women on Antiretroviral Therapy[Internet]. ;14(10):DC11-DC16.Available http://www.jcdr.net//back_issues.asp?issn=0973-709
- 9. Garg P, Rai S, Bhatt S, LathaT, Verma AK, et al.(2020) The diagnostic role of microRNA 21 in patients with nonsmall cell lung cancer: An exploratory study. Lung India; 37(6):501
- 10. Goel A, Bansal K. (2020)Situation Analysis report of training and education in South East Asian countries in Gerontology and Geriatric Medicine. J Ind AcadGer,; 16: 22-26
- 11. Goel A, Gupta L. (2020)Social Media in the times of COVID-19. J Clin Rheumat,; 26 (6): 220-3
- 12. Goel A, Raizada A, Bansal K, Gaur N, Abraham J, Yadav A.(2020). Profile of patients suspected to be COVID-19: A retrospective analysis of early pandemic data. Cureus.; 12(8): e10125
- 13. Goel A, Raizada A., Agrawal, A., Bansal, K., Uniyal, S., Prasad, P et al. (2021) Correlates of inhospital COVID-19 deaths: A competing risks survival time analysis of retrospective mortality data. Disaster Medicine and Public Health Preparedness .1-27. doi:10.1017/dmp.2021.85
- 14. Gothwal C, Kalra OP, Agarwal S, Raizada A.(2020). Organochlorine pesticides: The culprit behind chronic kidney disease of unknown origin. Journal of Environmental Chemistry and Ecotoxicology, 12(2):80-86
- 15. Gupta A, Maheshwari A, Verma NS, Jagdeesha A, Dariya SS, Sharma A, Saxena D, Srivastava A, Patni B, Das D, Kaur A, Aggarwal A, Gulati P, Srivastava S. 2021 Impact of covid 19 pandemic on blood pressure of healthcare professionals during lockdown an Indian study. J Hypertension 2021; 39:p e203.
- 16. Samira Davalbhakta, Shailesh Advani, Shobhit Kumar, Vishwesh Agarwal, Samruddhi Bhoyar, Elizabeth Fedirko, Durga Prasanna Misra, Ashish Goel, Latika Gupta, Vikas Agarwal (2020) A systematic review of the smartphone applications available for coronavirus disease 2019 (COVID19) and their assessment using the mobile app rating scale (MARS). J Med Systems; 44: 164.
- 17. Gupta L, Goel A. (2020). COVID-19 at the intersections of science, morality and practice reflections of the physician's soul. J Royal Coll Physicians Edinburgh, (2020); 50: 274-6
- 18. Gupta L, Sharma S, Goel A. Prescription practices experiences and perspectives on the usage of hydroxychloroquine among rheumatologists and other specialists. Indian J Rheumatol, 2021 (Accepted Jan 19, 2021)
- 19. Inamdar S, Goel A. (2021)New age technology in promoting healthy aging. J Ind AcadGeriatr, 2021 (Accepted January 9, 2021)
- 20. Jain N, Raizada N, Aggarwal A. (2020) Epidemiology and Link between diabetes and cardiovascular disease. Cardiology Today .24: 47-50.
- 21. Jhamb R, Kumar R, Gogoi P, Ranga GS, Kashyap B.(2020)Reference Values of Neutrophil Lymphocyte ratio and Platlet Lymphocyte Ratio in healthy adults in a tertiary care center in North India. Bionature .40: 44-52.

- 22. Jhamb R, Parasher A, Baweja A. (2020) Acute pancreatitis complicated by encephalopathy. International Journal of Research in Medical Sciences (2020);8(6):2319-2322.
- 23. Juneja A, Jhamb R. (2020) Cerebral vasculopathy in progressive systemic sclerosis: A rare presentation. Indian Journal of Medical Specialities.11: 56-57.
- 24. Kaur I, Gandhi V, Raizada A, Bhattacharya SN, Tripathi AK, Jakhar D. (2020) Psoriatic nephropathy and its correlation with hs-CRP: A case control study. Indian Dermatol Online J (2020); 11:29-34.
- 25. Koolwal A, Swadia A, Goel A. (2020) Cognitive impairment and frailty. J Ind Acad Ger, (2020); 16: 27-31
- 26. Kumar, K., Inamdar, S., Avasthi, R., Amir Maroof, K., Rathi, V. and Sharma, B., (2020). Prevalence of Extrapulmonary Tuberculosis in Newly Registered HIV Patients. Journal of Advanced Research in Medicine, 07(04), pp.7-10.
- 27. Kumar K, Kumari P, Avasthi R, Ahmed RS, Jaid M, Kumar R. (2020). Glycaemic Variation in Patients of Acute Coronary Syndrome with Hyperglycaemia and its Relationship with Oxidative Stress: A Pilot Study. J Adv Res Med .7(3): 1-4.
- 28. Muraleedharan M, Ramavat AS, Bakshi J, Mohindra S, Nayak G, Goel A. (2021) Duration of stenting with Montgomery T-Tubes in severe laryngotracheal stenosis. J LaryngolOtol, (Accepted March 21, 2021)
- 29. Parasher A, Jhamb R. (2020) Posterior reversible encephalopathy syndrome (PRES): presentation, diagnosis and Treatment. Postgraduate Medical Journal 96:623-628.47.
- 30. Praveen M, Jain N, Raizada N, Sharma S, Narang S, Madhu SV. (2020) Anaemia in patients with type 2 diabetes mellitus without nephropathy is related to iron deficiency. Diabetes & Metabolic Syndrome: Clinical Research & Reviews 14: 1837e1840
- 31. Roy PG, Kumar K, Sinh NP, Ranga GS, Giri S (2021). Microbiological Profile and Antibiotic Sensitivity Pattern of Bacteria in Diabetic Foot Ulcers in a Tertiary Care Hospital, Journal Of Advanced Research in Medicine 2021; 8(1):1-8
- 32. Sharma A, Bansal A. (2021). A curious case of idiopathic cytopenia of undetermined significance (ICUS). Journal of case reports.; 11:53-55
- 33. Shekhar H, Sharma N, Singh S, Garg P, Bhatt S, Saha R, Verma AK.(2021). Clinico-radiological profile of the patients with empyema thoracis: A prospective analytical study. Indian Journal of Tuberculosis .doi: 10.1016/j.ijtb.
- 34. Verma AK, Alam N, Narang S, Maroof KA. (2020) Lung function and health status in patient of chronic obstructive pulmonary disease on treatment with Tiotropium. Int J Sci Stud (2020):8(1):1-7
- 35. Vidushi A, Swadia A, Pruthi S, Goel A. (2020) Prevalence and identification of elder abuse in India: current scenario and way forward. J Ind Acad Ger, (2020); 16: 32-37
- 36. Yadav PD, Ella R, Kumar S, Patil D, Mohandas S, Shete A, Mohan K, Bhati G, Sapkal G, Kaushal H, Patil S, Jain R, Deshpande GR, Gupta N, Agarwal K, et al.(2021) Immunogenicity and protective efficacy of inactivated SARS-CoV-2 vaccine candidates, BBV152 in rhesus macaques. Nature Communications; 12(1), 1386. doi:10.2038/s41467-021-21639-w.
- 37. Yadav S, Goel A. 2021 Abbreviated healthcare services for older pesons during COVID-19 pandemic a wake-up call for a longer-term plan. Indian J Rheuatol(Accepted January 7, 2021) Chapters
- 38. Aggarwal A, Chikara A. Rapidly progressive coronary artery disease in young Indians. In: Arulrhaj S Ed. Medicine Update (2020). Delhi, India: Association of Physicians of India, 68-71.
- 39. Raizada A, Goel A. Anemia in Elderly. In: Tewary K Ed. Medicine Update 2021. Delhi, India: Association of Physicians of India, 1406-11.
- 40. Narang S, Shukla M. Hematological aspects of pregnancy. (2020).In: Common Medical disorders in Pregnancy. Agra Obstetric and Gynecological society and Dept of Obstetrics and Gynecology SN Medical College Agra. Yadav P, Pengoria MA. 30-48
- 41. Narang S, Diliprao LT, Gupta G.(2020). Malaria in Pregnancy. In: Common Medical disorders in Pregnancy. Agra Obstetric and Gynecological society and Dept of Obstetrics and Gynecology SN Medical College Agra. Yadav P, Pengoria MA. 157-162
- 42. Narang S, Inamdar SS. (2020). Typhoid in Pregnancy. In: Common Medical disorders in Pregnancy. Agra Obstetric and Gynecological society and Dept of Obstetrics and Gynecology SN Medical College Agra. Yadav P, Pengoria MA. 163-166

4. Journals

Number of department teachers serving as Editors/Members of Editorial Board: 2

5. Research Projects

Funding	Principal Investigator	Year/Period	Title	Amount sanctioned
Agency				
ICMR	Dr Pragya	2021 (6	Evaluation of	Not
	Yadav	months)	the protective	budgeted
			efficacy of	
			ZyCoV-D	
			DNA vaccine	
			against SARS-	
			COV 2	
			challenge in	
			Rhesus	
			monkey	

6. Conferences Organized

Ashish Goel

- 1. International symposium on COVID-Impressions (COVIMPRESSIONS) Impressions on COVID: Local Action, Global Impact27.05.20
 - 2. Biostatical analysis, 27.01.21-10.21, JHU

7. Seminar/Conference Presentations

Dr Ashish Goel

- 1. Digital inclusiveness of elderly. Sri Lanka Association of Geriatric Medicine Conference. Colombo, Sri Lanka (Online). March 20, 2021
- 2. The growing field of Medical gerontology: Indian, Regional and Global context. In Aging issues: Indian, Regional and Global context, organized by International Institute on Ageing, United Nations, Malta. January 16, 2021
- 3. Age Friendly University Student initiatives. An international Webinar series by University Respati Indonesia (URINDO) and Student Chapter of the Indian Academy of Geriatrics. September 7, (2020)
- 4. Active Ageing in the time of COVID-19. International Webinar by Active Ageing Consortium Asia-Pacific. Hawaii, USA. July 26, (2020)
- 5. The Experience of Gerontology and Geriatrics program to promote Age Friendly University. International Webinar on Age-friendly University Challenges and Opportunity. URINDO, Indonesia. July 2, (2020).
- 6. Competing risks framework. Second workshop on Biomedical Statistics for medical college faculty. Indian Academy of Geriatrics. Jan 27 to Mar 10, 2021
- 7. Open datasets. In Social Media in Medicine a course for students, organized by Sanjay Gandhi Postgraduate Institute of Medical Education and Research. January 21, 2021
- 8. Use of YouTube in academia. In Social Media in Medicine a course for students, organized by Sanjay Gandhi Postgraduate Institute of Medical Education and Research. January 19, 2021
- 9. An introduction to Social Media Platforms. In Social Media in Medicine a course for students, organized by Sanjay Gandhi Postgraduate Institute of Medical Education and Research. January 18, 2021
- 10. Scientific publication Academic Misconduct. Workshop on Scientific Writing and Publication Workshop by Indian Journal of Rheumatology and Pediatric Rheumatology Society of India. July 21, (2020)
- 11. Scientific publication Citation Metrics. Workshop on Scientific Writing and Publication by Indian Journal of Rheumatology and Pediatric Rheumatology Society of India. July 6, (2020)
- 12. Scientific publication Writing the results section of a paper. Workshop on Scientific Writing and Publication Workshop by Indian Journal of Rheumatology and Pediatric Rheumatology Society of India. June 30, (2020)
- 13. DrAlpanaRaizada delivered a talk on "Anemia in Elderly" at eAPICON held at Mumbai 4th-7th March 2021

Dr Shiva Narang

- 14. 27th Annual conference of Indian Association of Clinical medicine, 15-17 November 2019 at GBU center Greater Noida UP(as faculty)
- 15. 17th annual conference of Uttar Pradesh Diabetes Association, 29-30 September 2019 at Noida Uttar Pradesh (as faculty)

Dr Amitesh Aggarwal

- 16. Invited Faculty in eAPICON, Virtual Annual Conference of Association of Physician of India, India, 4-7th Mar 2021.
- 17. Invited Faculty in 'Certificate course in Geriatric medicine & Gerontology', Geriatric Society of India, New Delhi, 1 Oct (2020) 31 Dec (2020).
- 18. Invited Faculty in 28th Annual Conference on Diabetes (DIABCON (2020)), New Delhi, 12-13 Dec (2020).
- 19. Invited Faculty in 20th Annual Conference of Uttar Pradesh Diabetes Association, Lucknow, UP, 19-20 Dec (2020).
- 20. Invited Faculty in 4th Edition of Dialogues in Diabetes, New Delhi, 21 July (2020).
- 8. Faculty Strength: 14

MICROBIOLOGY (LHMC)

1. Major Activities and Achievements

The Virology diagnostic and research facility (VRDL) was established in collaboration with DHR/ICMR for expanding the identification and diagnosis of viral diseases at serological and molecular level and diagnosing suspected outbreaks like COVID-19 and H1N1. More than 70,000 samples were processed for diagnosis of COVID -19 by RT-PCR, CBNAAT and TRUNAT.

The Advanced mycology diagnostic and research facility (MRDL) was set up in Department in collaboration with ICMR. This aims at providing routine and advanced diagnosis and develop surveillance protocol for fungal infections, , to improve hospital infection control , organize trainings/ CMEs to create awareness among doctors and sensitize them about the importance of mycology and promote research in field of fungal diseases

Various automated systems like VIDAS for rapid reporting of HEV,HAV,Serum Procalcitonin and **MIGIT & Gene-Expert** for rapid culture and Susceptibility testing of Mycobacterium tuberculosis and Detection of Rifampicin Resistance were standardized. **Molecular lab services** initiated for rapid identification of pathogens which are difficult to grow/unable to grow at an early stage.

Infection control and BMW trainings strengthened and made available to all sections of healthcare workers. **Centre for HIV testing (CHT)**, department of Microbiology, LHMC accredited by NABL for diagnosis of HIV

2. **Honours /Distinctions:**

- Dr Garima Gautam received the Shanta Kamta and Nalin Bhargavas Award Medal for the best post graduate in Microbiology at the LHMC Alumni Association annual function.
- Dr Srestha Mitra won the MAMC Best Oral Award at the 12th Annual Conference of IAMM, Delhi chapter held on 28th to 30 th January 2021

3. Publications

- 1. Chitkara, S. Kaur,R. Rai, Y. Dhaka, G. (2020). Comparative Evaluation of GeneXpert MTB/RIF Assay and Microscopy for Rapid Diagnosis of Tuberculous Meningitis in Children Int. J. Curr. Microbiol. App. Sci.9 (3), 25-31.
- 2. Gurtoo, A. Agrawal, A. Prakash, A. Kaur, R. Jais, M. Anand, R. Sharma, S. Shukla, S. Singh, R. (2020). The Syndromic Spectrum of COVID-19 and Correlates of Admission Parameters with Severity-outcome Gradients: A Retrospective Study. Journal of The Association of Physicians of India. 68 (12), 43-48.

- 3. Dhakad, MS. Kaur, R. Goyal, R. Bhalla, P. Dewan, R. (2020). Epidemiological profile of candidiasis in HIV/AIDS patients in a tertiary care hospital. 7(12), 4858-4864 DOI: 10.18203/2394-6040.ijcmph20205153. ISBN: 2394-6032
- 4. Randhawa, VS. Kaur, R. and Singh M. Molecular typing of S. enterica Typhi isolates from South India. (2020). BMC Infect Dis. 20(1), 324
- 5. Samanta, A. Chandra, J. Kaur, R. Anand, R. Shukla, S. Mandal, P. (2020). Clinical Profile and Microbiologic Spectrum of Febrile Neutropenic Episodes in Children With Severe Aplastic Anemia. Journal of pediatric hematology/oncology.42 (3), 193-194
- Singh, GB Solo, M. Kaur, R. (2020). A Rare case of Candida Mastoiditis in an Immunocompetent Patient with cholesteatoma ear disease, Ear, Nose & Throat Journal. 1–3 DOI 10.1177/0145561320957757
- 7. Singh, GB. Kaur, R. War, GY. Shukla, S. Malhotra, S. Kumar, S. (2020). The role of Helicobacter Pylori and laryngopharyngeal reflux in recurrent tonsillitis. International Journal of Pediatric Otorhinolaryngology. 138DOI: 10.1016/j.ijporl.2020.110376
- 8. Saxena, S. Kaur, R. Randhawa, VS. (2021). Changing pattern of resistance in Typhoid fever in an era of antimicrobial resistance: Is it time to revisit Treatment strategies? Journal of Microbiology and Infectious diseases. 11(1),1-7.
- Saxena, S. Kumar, S. Kumar, Virender. Kaur, R. (2020). Risk Factors Associated with Colonization of Intestine by Carbapenem Resistant Enterobacteriaceae in a Pediatric ICU, Journal of Microbiology and Infectious Diseases. 10 (2):75-81 doi: 10.5799/jmid.748690
- Thass, N. Kumar, M. Kaur, R. (2020). Phenotypic Methods to detect Virulence factors of Uropathogenic E. coli isolates and their Antimicrobial Susceptibility pattern accepted for publication in International Journal of Current Advanced Research. 9(5), 22345-22348 DOI: http://dx.doi.org/10.24327/ijcar.2020. 22348.4403
- 11. Thass, N. Saxena, S. Kaur, R. Nangia, S. (2020). Microbiological Profile of Donor Human Milk Pre and Post pasteurization. Indian Journal of Applied Research. 10 (8): 17-19.DOI: 10.36106/ijar
- 12. William, A. Satija, S. Kaur, R. (2020). Bacterial Etiology of Diarrhoea in a tertiary care Hospital Int. J.Rec .Sci.Res.; 11(6): 39022-39024: http://dx.doi.org/10.24327/ijrsr.2020.1106
- 13. William, A. Satija, S. Kaur, R. (2020). Burden of Intestinal Parasitic Infection in a Tertiary Care Hospital . Int. J. Curr. Microbiol. App. Sci.. 9(7), 2542-2547.

4. Journals

- Number of department teachers serving as Editor (s) / member (s) of Editorial Board: 2

5. Research Projects

Name of the Investigator(s)	Year/ Period	Title of the Project	Name of the funding agency	Budget in Rs.
Dr Ravinder Kaur Director Professor & Head	November 2020 onwards	Establishment of Advanced mycology Diagnostic and	ICMR	1,96,67,920/-
Dr Deepti Rawat Associate professor		Research Center		
Dr Ravinder Kaur Director Professor & Head	2018-2020	Characterization and Antifungal resistance profile of Candidiasis	ICMR	Rs 2831605/-

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Dr Ravinder Kaur	2020 onwards	Capacity Building and	CDC	
Director Professor		Strengthening of		
& Head		Hospital Infection		
		Control to detect and		
		prevent antimicrobial		
		resistance in India	7.03.00	
Dr Ravinder Kaur	2019 onwards	Congenital Rubella	ICMR	Multicentric
Director Professor		syndrome surveillance		
& Head		in India- A		
Co PI		multicentric study		
Dr Ravinder Kaur		National program for		Rs 8,40,000/-
Director Professor	2015 onwards	containment of	Delhi	
& Head		antimicrobial		
		resistance		
Dr Sonal Saxena				
Director Professor				
Dr. Manoj B. Jais,	2019 onwards	Establishment of	DHR-ICMR	1,82,90,000/-
Director & Professor,		Medical College Viral		
Department of Microbiology		Research and		
		Diagnostic Laboratory		
Dr Ravinder Kaur		(VRDL) under the		
Director Professor		approved scheme of		
& Head		the Department of		
		Health Research,		
		Ministry of Health &		
Dr. Sanjib Gogoi,		Family Welfare,		
Associate Professor,		Government of India		
Department of Microbiology		on Network of		
		Laboratories for		
		managing Epidemics		
		and Natural		
		Calamities.		
Dr Ravinder Kaur	2020 onwards	Phase III Multicentric	ICMR	=
Director Professor		double blind		
& Head		randomized trial to		
		assess the efficacy of		
		Probiotics in the		
		treatment of Neonatal		
		sepsis in 0-2 months		
		low birth weight		
		neonates in India		
Dr Ravinder Kaur	2019 onwards	NeoAMR Global	GARDP and	-
Director Professor & Head(Co-		Neonatal Sepsis	DNDi.	
PI)		Observational Study		
ĺ		(NeoOBS): A		
Dr SushmaNangia Director		prospective cohort		
Professor & HOD Dept of		study of sepsis in		
Nenatology		hospitalised neonates		
Dr Sonal Saxena, Director				
Professor (Co-PI)				
Dr Ravinder Kaur	2012 onwards	NABL accredited SRL	NACO/DSA	Funded by
Director Professor	2012 011 11100	for HIV and EQAS	CS	DSACS
& Head		Programme	Ongoing	directly.
			since 2000	

Dr. V.S. Randhawa Director Professor				
Dr. V.S. Randhawa Director Professor Co-PI	2019 onwards	Comparison of the efficacy of a 7day versus 14day course of intravenous antibiotics in the treatment of uncomplicated bacterial sepsis`:a randomized controlled non-inferiority trial		ICMR
Dr Sushma Nangia Director Professor & HOD Dept of Nenatology (PI) Dr Ravinder Kaur Director Professor & Head (CO-PI)	2020 onwards	Indo Norway project entitled "Born in the twilight of antibiotics: Implications of antibiotic use to the preterm infant respiratory microbiome and resistance development"	ICMR & research Council of Norway	-

6. Patents Filed/ Granted: Nil

Number and title of national patents: Number and title of international patents: Number and title of collaborative patents- industry:

7. Seminars Organized: 2

Sl. No	Faculty member	Organizer	Name, venue & date
1.	Dr Ravinder Kaur, Director Professor & Head Dr VS Randhawa, Director Professor Dr Manoj Jais, Director Professor Dr Yogita Rai, Associate Professor Dr Shweta Satija, Associate Professor Dr Sanjib Gogoi, Associate Professor	Department of Microbiology, LHMC	Programme for World Antibiotic Awareness in the on 23rd and 24th November 2020.
2.	Dr Ravinder Kaur, Director Professor & Head Dr VS Randhawa, Director Professor Dr Manoj Jais, Director Professor Dr Deepti Rawat, Associate Professor Dr Yogita Rai, Associate Professor Dr Shweta Satija, Associate Professor Dr Sanjib Gogoi, Associate Professor	Department of Microbiology, LHMC, WHO, CDC,NCDC	Programme on Antimicrobial Resistance and Antimicrobial Stewardship in Covid 19 Era on 5 th December 2020 as a part of AMR awareness week. (Online)

3.	Dr Ravinder Kaur, Director Professor & Head Dr VS Randhawa, Director Professor	HIV laboratory ,LHMC	Online workshop on HIV EQAS for ICTC/PPTCT laboratory technicians on 9.2.21 Theme: Implementation of QMS in ICTC
4.	Dr Ravinder Kaur, Director Professor & Head Dr VS Randhawa, Director Professor	HIV laboratory ,LHMC	Online workshop on HIV EQAS for ICTC/PPTCT laboratory technicians on 26.3.21 Theme: Implementation of QMS in ICTC

8. Seminar/ Conference presentations (National/ International)

S.	Name &	Role/Topic	Organizer	Name of conference, venue
no.	Designation of	•		& date
	participant			
1.	Dr Ravinder Kaur	Paper presentation	IAMM-Delhi Chapter	2nd Chapter Virtual Meet of
	Director Professor	"Infective Profile Of		Indian Association of
	and Head	Prolonged Diarrhoea In		Medical Microbiologists,
		Immunocompromised		Delhi Chapter on 11-12
	Dr VS Randhawa	Children In A Tertiary		September2020
	Director Professor	Care Hospital"		
2.	Dr Ravinder Kaur	Paper presentation	IAMM-Delhi Chapter	2nd Chapter Virtual Meet of
	Director Professor	"Susceptibility profile of		Indian Association of
	and Head	Candida spp. isolated from		Medical Microbiologists,
		HCA-CAUTI cases"		Delhi Chapter on 11-12
	Dr VS Randhawa			September2020
	Director			
3.	Dr Ravinder Kaur	Paper presentation	IAMM-Delhi Chapter	2nd Chapter Virtual Meet of
	Director Professor	"Prevalence of Rifampicin		Indian Association of
	and Head	Resistant Pediatric		Medical Microbiologists,
		Tuberculosis in a Tertiary		Delhi Chapter on 11-12
	Dr Yogita Rai	Care Hospital in North		September2020
	Professor	India".		
4.	Dr Ravinder Kaur	Paper presentation	IAMM-Delhi Chapter	2nd Chapter Virtual Meet of
	Director Professor	"Comparison between		Indian Association of
	and Head	Rapid NP and Vitek 2 for		Medical Microbiologists,
		detection of colistin		Delhi Chapter on 11-12
		resistance among GN		September2020
		isolates".		
5.	Dr Ravinder Kaur	Paper presententation	European Society For	_
	Director Professor	"STUDY OF INVASIVE	Paediatric Infectious	European Society For

	and Head	FUNGAL DISEASE IN	Disease (ESPID)	Paediatric Infectious Disease
		CHILDREN WITH FEBRILE NEUTROPENIA"		(ESPID) (26th-29 oct 2020)
6.	Dr Ravinder Kaur Director Professor and Head	Paper presentation "Etiological Diagnosis of Childhood Pneumonia – A comparative evaluation of diagnostic methods"	European Society For Paediatric Infectious Disease (ESPID)	38th Annual meeting of European Society For Paediatric Infectious Disease (ESPID) (26th-29 oct 2020)
7.	Dr Ravinder Kaur Director Professor and Head Dr VS Randhawa Director Professor	Paper presentation "Antigen Profile Of Infective Diarrhoea In Immunocompromised Children In A Tertiary Care Paediatric Hospital"	IAMM	E-MICROCON 2020 (8 - 11 December 2020)
8.	Dr Ravinder Kaur Director Professor and Head Dr VS Randhawa Director Professor	Paper presentation "Susceptibility profile of bacteria isolated from cases having health care acquired catheter-associated urinary tract infection"	IAMM	E-MICROCON 2020 (8 - 11 December 2020)
9.	Dr Ravinder Kaur Director Professor and Head	Paper presentation "CLINICO- HEMATOLOGICAL PROFILE OF CHILDREN WITH FEBRILE NEUTROPENIA"	IAMM	E-MICROCON 2020 (8 - 11 December 2020)
10.	Dr Ravinder Kaur Director Professor and Head	Paper presentation "Clinico-etiological Diagnosis of Community acquired pneumonia in children"	IAMM	E-MICROCON 2020 (8 - 11 December 2020)
11.	Dr Ravinder Kaur Director Professor and Head	Paper presentation "Comparison between Agar Dilution and BMD for detection of colistin resistance among GN isolates"	IAMM	E-MICROCON 2020 (8 - 11 December 2020)
12.	Dr Ravinder Kaur Director Professor and Head Dr Manoj Jais Director Professor	Paper presentation "Diagnosis of Mycoplasma pneumoniae and Chlamydophila pneumoniae in pediatric cases of acute respiratory infections using IgM ELISA and Real time multiplex PCR."	IAMM	E-MICROCON 2020 (8 - 11 December 2020)
13.	Dr Ravinder Kaur Director Professor and Head Dr VS Randhawa Director Professor	Paper presentation "Direct versus conventional antimicrobial susceptibility testing: An important antimicrobial stewardship tool in ICU Care."	IAMM	E-MICROCON 2020 (8 - 11 December 2020)

9. National/International MoU signed

- With Indian/ Foreign Universities: 3
 - National program for containment of antimicrobial resistance with NCDC & MoHFW
 - Advanced mycology Diagnostic and Research Center with ICMR
 - Viral Research and Diagnostic Laboratory with ICMR

10. Extension and outreach activities:

- Samples for culture and Antifungal sensitivity testing of dermatophytes received and processes from RML hospital
- Strains for Identification and Antifungal sensitivity testing of candida received and processes from Superspeciality pediatric hospital and postgraduate teaching institute, Noida

11. Faculty Strength: 8 faculty members

Director Professor & Head: Dr Ravinder Kaur

Director Professors

- 1. Dr V.S. Randhawa
- 2. Dr Manoj B. Jais

Professor

1. Dr Yogita Rai

Associate Professors

- 2. Dr DeeptiRawat
- 3. Dr Manoj Kumar (on study leave with effect from 26.6.2020 to 25.6.22)
- 4. Dr Shweta Satija
- 5. Dr Sanjib Gogoi

12. Other significant information:

1. Dr Ravinder Kaur

- Principal investigator in two & Co-PI in three ICMR research projects
- Focal person for AMR programme of NCDC & Min of H&FW
- Member Subcommittee on Minimum standards of Medical Diagnostic laboratory in Min of H&FW
- Invited expert at MoHFW for collaboration studies in the field of microbiology to supplement scientific expertise at NTTLs
- Invited Faculty in NPTEL Medical education programme under HRD ministry
- Expert "Reviewing & formulation of the technical specifications for equipment to be procured under IDSP" at National Centre for Disease Control
- External examiner for MD exams at B J Medical College, Ahmedabad & Sharda University & B J Medical college, Pune
- Internal Examiner for MBBS Delhi University.
- Member Infection prevention committee at LHMC
- Member Patient safety committee at LHMC
- Member BMWM Committee at LHMC
- Member RPC LHMC
- Member: Tender &Purchase Committee
- Member recruitment committee for lab technicians
- Expert reviewer in J of Chemotherapy, IJMR
- Expert in National Board Examinations
- Faculty for workshop on MCQs Review and Validation.

- Setting/ Moderation of Question Paper.
- Examiner for DNB.
- Revision of Curriculum guidelines for DNB Microbiology

2. Dr V S Randhawa:

- Member of high level multidisciplinary Central team to Pune, to assist State health in in microplan and and check hospital preparedness from 24th April to 7th May, 2020
- Technical expert to NACO, AIIMS New Delhi, AIIMS Patna, AIIMS Jodhpur, Pt B.D. Sharma University of Health Sciences, RUHS Jaipur, H.P. University, Panjab university, I.P. University, NMC New Delhi, ILBS New Delhi.
- Approved UG/PG assessor for NMC

3. Dr Manoj B Jais:

- Member Secretary of infection prevention committee
- Member Secretary of patient safety committee
- Nodal officer and member secretary of BMWM Committee
- *Member Technical group* for formulation of State Action Plan for Control of Antimicrobial Resistance Delhi (SAPCARD).
- Focal Point & Coordinator, WHO IAMM Network for Surveillance of Antimicrobial Resistance-Delhi (WINSAR-D)

4. Dr Deepti Rawat

- Member of the undergraduate election committee, LHMC
- Member of the condemnation committee

5. Dr Yogita Rai:

• Nodal Officer, CBNAAT/TRUENAT COVID 19 Testing,LHMC

6. Dr Shweta Satija

 Committee for scrutinizing the applications received for filling up the technical posts in LHMC

7. Dr Sanjib Gogoi

• Member of Kaya Kalp committee, LHMC

MICROBIOLOGY (MAMC)

1. Major Activities and achievements

The Department of Microbiology at Maulana Azad Medical College is at the forefront of teaching the principles of Microbiology to Undergraduate (MBBS, BDS, B.Sc. Nursing), and Postgraduate (MD). MBBS students get adequate exposure through lectures, practical demonstrations, micro-teaching sessions, hands-on practical sessions, as per the guidelines issued by DU and MCI.

During their 3-year stay in the department, the Post graduate students are intimately involved in diagnostic Clinical Microbiology work, interpretation and correlation of laboratory results with clinical findings. They are also encouraged to conduct research work.

The Department of Microbiology has been testing for SARS CoV-2. In 2020-21, the department tested more than 65,000 samples for COVID-19 by RT-PCR. An advanced BSL-2 level Laboratory was set up along with

establishment of Molecular laboratory with all the facilities for performance of RT-PCR tests. The department was also the co-ordinator for Second, Third and Fourth rounds of COVID-19 sero- surveillance in Delhi.

2. Honors/ Distinctions

Dr. Sonal Saxena

- 1. Dr R A Bhujwala Award for outstanding work in Diagnostic Microbiology for 2020 by IAMM Delhi Chapter.
- 2. Best poster in covid category in e microcon as co-author.
- 3. Mentor for Online Course 1: COVID-19: Diagnostics and Testing and Course 2: Laboratory Training for COVID-19 Molecular Testing, developed by FIND along with London School of Hygiene & Tropical Medicine (LSHTM) and African Society of Laboratory Medicine (ASLM)

Dr. Vikas Manchanda

- 1. Best Paper Award under "Best COVID work" category during national conference of Medical Microbiologists as co author.
- 2. Best Presentation award in "COVID -19 category" at National Conference, IAMM, Emicrocon 2020. Yadav A, Manchanda V, Tuteja S, Puri D, Saxena S. Invention is the need of the hour: A unique Data Accumulation and Analysis Platform for COVID reporting. Dec 2020, MICROCON 2020.

Dr. Rohit Chawla

- 1. Received Certification in Infection Prevention and Control, by the Certification Board of Infection Control and Epidemiology, Inc. (CBIC®), USA.
- 2. Completed the course on COVID-19: Diagnostics and Testing conducted by Foundation for Innovative New Diagnostics, African Society for Laboratory Medicine and London School of Hygiene & Tropical Medicine.

3. Publications (in alphabetical order of 1st author)

- 1. Abhishek KS, Kumar N, Chakravarti A, **Baveja CP**. (2020) Circulating Dengue serotypes in Central Delhi during 2015 outbreak. *Journal of Advanced Research in Medicine*, 7:1-4.
- 2. Agarwal R, Singh M, Chawla R, Kumar GD, Mishra A, Jain S. (2020). Localized cutaneous infection caused by Scedosporium apiospermum: Report of a case diagnosed on cytology. *Diagnostic Cytopathology*, 1–3. https://doi.org/10.1002/dc.24643
- 3. Arora R, Goel R, **Saxena S, Manchanda V**, Ahmad M, Gupta G, Chhabra M, Kumar S, Nguyen TMN, Payden, Pumma P, Saxena K. (2021). Comparative Evaluation of Tears and Nasopharyngeal Swab for SARS-CoV-2 in COVID-19 Dedicated Intensive Care Unit Patients. *Ocular Immunology and Inflammation*, doi: 10.1080/09273948.2021.1903938. Epub ahead of print. PMID: 33974481.
- 4. Arora R, Goel R, Kumar S, Chhabra M, **Saxena S, Manchanda V**, Pumma P. (2020) Evaluation of SARS-CoV-2 in Tears of Patients with Moderate to Severe COVID-19. *Ophthalmology*, 31:S0161-6420(20)30847-2. doi: 10.1016/j.ophtha.2020.08.029. Epub ahead of print. PMID: 32882309; PMCID: PMC7458068.
- 5. Arora R, Sharda S, Sahu J, **Manchanda V**, Jain P, Gupta I, Gotmare N, Bharti N. (2021) Role of Reverse Transcriptase Polymerase Chain Reaction in Cornea Donors During the COVID-19 Pandemic. *Cornea*, Apr 21. doi: 10.1097/ICO.0000000000002742. Epub ahead of print. PMID: 33935238.
- 6. Chaudhry R, Khullar S, Arif N, **Sagar T**, Meena D, Chowdhury UK. (2021) Clostridioides difficile from intracardiac vegetation. *Anaerobe*, Feb 18;69:102350. doi: 10.1016/j.anaerobe.2021.102350.
- Chaudhuri S, Thiruvengadam R, Chattopadhyay S, Mehdi F, Kshetrapal P, Shrivastava T, Desiraju BK, Batra G, Kang G, Bhatnagar S, DBT India Consortium for COVID-19 Research *(Sonal Saxena). (2020). Comparative evaluation of SARS-CoV-2 IgG assays in India. *Journal of Clinical Virology*, 131:104609. doi: 10.1016/j.jcv.2020.104609. Epub 2020 Aug 24. PMID: 32866811; PMCID: PMC7444492.

- 8. Dubey A, Bansal A, Sonkar SC, Goswami B, Makwane N, **Manchanda V**, Koner BC. (2020) In-house assembled protective devices in laboratory safety against SARS-nCoV-2 in clinical biochemistry laboratory of a COVID dedicated hospital. *medRxiv*, doi: https://doi.org/10.1101/2020.08.24.20155713.
- Dubey A, Kotnala G, Mandal TK, Sonkar SC, Singh VK, Guru SA, Bansal A, Irungbam M, Husain F, Goswami B, Kotnala RK, Saxena S, Sharma SK, Saxena KN, Sharma C, Kumar S, Aswal DK, Manchanda V, Koner BC. (2021) Evidence of the presence of SARS-CoV-2 virus in atmospheric air and surfaces of a dedicated COVID hospital. *Journal of Medical Virology*, doi: 10.1002/jmv.27029. Epub ahead of print. PMID: 33913527.
- 10. Goel R, Arora R, Khanam S, **Saxena S, Manchanda V**, Pumma P. (2020) Is it essential to perform COVID-19 testing prior to ophthalmic procedures? *Indian Journal of Ophthalmology*, 68:2335-2337, doi: 10.4103/ijo.IJO_3020_20. PMID: 33120609; PMCID: PMC7774133
- 11. Gupta A, Sural S, Gupta A, Rousa S, Koner BC, Bhalotra A, **Chawla R.** (2020) Positive QuantiFERON test and the severity of COVID-19 disease: A prospective study. *Indian Journal of Tuberculosis*. Accepted for publication.
- 12. Gupta S, **Manchanda V**, Sachdev P, Saini RK, Joy M. (2020). Study of incidence and risk factors of surgical site infections in lower segment caesarean section cases of tertiary care hospital of north India. *Indian Journal of Medical Microbiology*, doi.10.1016/j.ijmmb.2020.11.005.
- 13. ICMR COVID Study Group (In alphabetical order: Abraham P, Aggarwal N, Giridhara R, BaraniS, Bhargava B, Bhatnagar T, Dhama AS, Gangakhedkar RR, Giri S, Gupta N, Kurup KK, Manickam P, Murhekar M, Potdar V, Praharaj I, Rade K, Reddy DCS, Saravanakumar V, Shah N, Singh H, Vivian JW, Thangaraj, Yadav N, COVID Epidemiology & Data Management Team, COVID Laboratory Team* (Sonal Saxena), VRDLN Team. (2020). Laboratory surveillance for SARS-CoV-2 in India: Performance of testing & descriptive epidemiology of detected COVID-19 January 22 April 30, 2020. Indian Journal of Medical Research, 151(5):424-437. doi: 10.4103/ijmr.IJMR_1896_20. PMID: 32611914; PMCID: PMC7530445.
- 14. Jayaraman Y, Balaji V, Girish Kumar C.P., et al. (2021). Hospital-based sentinel surveillance for bacterial meningitis in under- five children prior to the introduction of the PCV13 in India. *Vaccine*. https://doi.org/10.1016/j.vaccine.2021.05.041
- 15. Konar D, Perween N, Kumar S, **Aggarwal P**, Uppal B. (2020) Molecular Characterization of New Delhi Metallo-β-Lactamases-Producing Bacteria in the Gastrointestinal Tract of Intensive Care Unit Patients. *Cureus*, 12(12): e12257. doi:10.7759/cureus.12257 PMCID: PMC7834560.
- 16. Maitra A, Raghav S, Dalal A, Ali F, Paynter VM, Paul D, Biswas NK, Ghosh A, Jani K, Chinnaswamy S, Pati S, Sahu A, Mitra D, Bhat MK, Mayor S, Sarin A, The PAN-INDIA 1000 SARS-CoV-2 RNA Genome Sequencing Consortium (Saxena S), Sauche YS, Seshasayee ASN, Palakodeti D, Bashyam MD, Parida A, Das S. (2020) PAN-INDIA 1000 SARS-CoV-2 RNA Genome Sequencing Reveals Important Insights into the Outbreak. *BioRxiv*, doi: https://doi.org/10.1101/2020.08.03.233718 Retrieved from journal URL https://www.biorxiv.org/content/10.1101/2020.08.03.233718v1.
- 17. Nirmal K, **Manchanda V**, **Aggarwal P.** (2021). Trend of Antimicrobial Susceptibility Profile of Vibrio cholerae Strains Isolated in Indian Children's during 2008-2016. *Journal of Communicable Diseases*, 53(1):67-71.
- 18. **Saxena S**, Kaur R, Randhawa VS. Changing Pattern of Resistance in Typhoid Fever in An Era of Antimicrobial Resistance: Is It Time to Revisit Treatment Strategies? (2021) *Journal of Microbiology and Infectious Diseases*, 11 (1):1-7. doi: 10.5799/jmid.897134
- 19. **Saxena S**, Kumar S, Kumar V, Kaur R. (2020). Prospective evaluation of risk factors associated with colonization of intestine with carbapenem resistance Enterobacteriacae in non-outbreak situation in Pediatrics ICU at a tertiary care hospital. *Journal of Microbiology and Infectious Diseases*, 10 (2):75-81. doi: 10.5799/jmid.748690
- 20. **Saxena S, Manchanda V, Sagar T**, Nagi N, **Siddiqui O**, Yadav A, Arora N, Hasan F, Meena K, Bharti P, Rana N, Hayat S, Tuteja S, Yadav A, Puri D, Pumma P, Khyati , Arora A, Jainandra, Shreya S , Kumar S, Sharma N. (2021). Clinical characteristic and epidemiological features of SARS CoV -2 disease patients from a COVID 19 designated Hospital in New Delhi, *Journal of Medical Virology*, doi: 10.1002/jmv.26777
- 21. Sharma P, **Chawla R**, Bakshi R , **Saxena S** , Basu S , Bharti PK , Dhuria M , Singh SK, Lal P. (2021). Seroprevalence of antibodies to SARS-CoV-2 and predictors of seropositivity among employees of a

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- teaching hospital in New Delhi, India. *Osong Public Health Res Perspect*. 12(2):88-95. https://doi.org/10.24171/j.phrp.2021.12.2.06.
- 22. **Siddiqui O, Manchanda V,** Yadav A, **Sagar T**, Tuteja S, Nagi N, **Saxena S.** (2020). Comparison of two real-time polymerase chain reaction assays for the detection of severe acute respiratory syndrome-CoV-2 from combined nasopharyngeal-throat swabs. *Indian Journal of Medical Microbiology*, 38(3 & 4):385-389. doi: 10.4103/ijmm.IJMM 20 279. PMID: 33154251; PMCID: PMC7709598.
- 23. Singhal S, Hasan N, Nirmal K, **Chawla R,** Chawla S, Kalra BS, Dhal A. (2021) Bioavailable turmeric extract for knee osteoarthritis: a randomized, non-inferiority trial versus paracetamol. *Trials*, 22,105, https://doi.org/10.1186/s13063-021-05053-7
- 24. Sinha P, Singh M, Sagar T, Jain S, Bains L. (2021) Cytological clues to Alternaria alternata. *Diagnostic Cytopathology*, doi: 10.1002/dc.24702
- 25. Sud A, Chaudhry M, **Baveja CP**, Pandey PN. (2020) Rare case of meningitis due to an emerging pathogen "Chrysobacterium indologenes" *SAGE Open Medical Case Reports*, 8:1-4.
- 26. **Thakur P, Saxena S, Manchanda V**, Rana N, Goel R, Arora R. (2021). Utility of Antigen-Based Rapid Diagnostic Test for Detection of SARS-CoV-2 Virus in Routine Hospital Settings. *Lab Med*, doi: 10.1093/labmed/lmab033. Epub ahead of print. PMID: 33928384.
- 27. Thiruvengadam R, Chattopadhyay S, Mehdi F, Desiraju BK, Chaudhuri S, Singh S, Bhartia V, Kshetrapal P, Mouli Natchu UC, Wadhwa N, Sopory S, Wahi M, Pandey AK, Taneja J, Anand N, Sharma N, Sharma P, **Saxena S**, Sindhu D, Sindhu B, Sharma D, Shrivastava T, Dang A, Batra G, Kang G, Bhatnagar S; DBT India Consortium for COVID 19 Research. (2021) Longitudinal Serology of SARS-CoV-2-Infected Individuals in India: A Prospective Cohort Study. *American Journal of Tropical Medicine and Hygiene*, doi: 10.4269/ajtmh.21-0164. Epub ahead of print. PMID: 34003792.

Books Published:

Dr. C.P. Baveja

Complete Microbiology for MBBS was published in March 2021 by Dr. CP Baveja.

4. Journals

• Published by the Department:

Nil

• Number of Department teachers serving as Editors/members of Editorial Board:

Dr. Vikas Manchanda:

Member of Editorial Board of following journals:

- a. Indian Journal of Medical Microbiologists (IAMM)
- b. Journal of Patient Safety and Infection Control Journal of Hospital infection Society of India (HISI)

Web Editor - IAMM Delhi Chapter

Web Editor - Hospital Infection Society, India

5. Research Projects

Ongoing Funded projects:

- 1. Interlaboratory Comparison and Quality Center for COVID-19. (ICMR-DHR) (Approx Funding: Rs 10 lakhs) (PI: Dr Sonal Saxena)
- 2. State Level Viral Disease Research Laboratory (ICMR-DHR) (Approx Funding: Rs 198 lakhs) (PI: Dr Sonal Saxena)
- 3. Antigen Test Kit Validation Center (ICMR-DHR) (Approx Funding: Rs 198 lakhs) (PI: Dr Sonal Saxena)
- 4. Integrated Counseling and Testing Centre for HIV under NACO & DSACS (PI: Dr C P Baveja)

- 5. State Reference Laboratory for HIV under NACO & DSACS (PI: Dr C P Baveja)
- 6. Laboratory for enumeration CD4 T-lymhocyte by flowcytometry under NACO & DSACS (PI: Dr C P Baveia)
- 7. Regional STI Reference, Research and Training Center Laboratory under NACO & DSACS (PI: Dr C P Baveja)
- 8. Antimicrobial resistance (AMR) trends and serotype characterization of Streptococcus pneumoniae causing Pneumonia and Invasive Pneumococcal Disease (IPD) in Indian children. Funded by ICMR. (Rs 150 Lakh). (Multi-site project with Project coordinator Dr. Vikas Manchanda)
- 9. Evaluating Pneumococcal Conjugate Vaccine (PCV) Impact on Pneumonia and Pneumococcal carriage Outcomes in India in Children 1-35 Months in India Pneumonia REsearch and VAccine Impact League (PREVAIL) Project. In collaboration of IVAC, JHU, USA funded by Pfizer. (Multi-site project with Project coordinator Dr. Vikas Manchanda
- 10. Development of "MAMC COVID INFORMATION PORTAL" to enhance Decision Making at different levels using an Artificial Intelligence (AI) based information dissemination system (Initiated June 2020). (Multi-site project with Project coordinator Dr. Vikas Manchanda)
- 11. Point-of-Care (POC) devices for bedside diagnosis of bacteremia and neonatal sepsis (Initiated Dec 2018) funded by DST, IMPRINT-2 funds (Approx Budget 29.57 Lakhs) (PI: Dr. Vikas Manchanda)
- 12. Development of a point-of-care (POC) diagnostic panel for rapid detection and stratification of bacterial septicaemia in critically-ill patients. (Initiated Dec 2018) funded by DST under nanomission grant (Approx Budget 31.26 Lakhs) (PI: Dr. Vikas Manchanda)
- 13. SARS-CoV-2 sero-surveillance in healthcare workers of MAMC complex, funded by the National Centre for Disease Control, Dte. GHS, MoH&FW, GoI
- 14. Community-based sero-surveillance of SARS-CoV-2 in Delhi (Round 1.0), funded by National Centre for Disease Control, Dte. GHS, MoH&FW, GoI.
- 15. Community-based sero-surveillance of SARS-CoV-2 in Delhi (Rounds 2.0, 3.0 and 4.0), funded by Dte. GHS, Department of Health & Family Welfare, Government of National Capital Territory of Delhi.
- 16. A Prospective study on the transmission dynamics of coronavirus disease 2019 (COVID-19) among household contacts in Delhi, India, funded by the World Health Organization. (With Dept of Community Medicine)
- 17. The prevalence and risk factors among Health Care Workers for the SARS-CoV-2 infection at a tertiary care COVID-19 hospital in Delhi, India: A cohort study, funded by the World Health Organization. (With Dept of Commuity Medicine)
- 18. Utility of Fecal Biomarkers in Acute Infectious Diarrhea in children. Intra-mural Project Funded by Maulana Azad Medical College (Budget: Rs. 2,99,000). (PI: Dr. Prabhav Aggarwal)
- 19. Detection of Dermatophytes in patients with Onychomycosis. Intra-mural Project Funded by Maulana Azad Medical College (Budget: Rs. 2,58,000) (PI: Dr Tanu Sagar)
- 20. To Determine the spectrum of anaerobic bacteria in clinical specimens and the utility of real-time PCR for the diagnosis of anaerobic infections. Intra-mural Project Funded by Maulana Azad Medical College (PI: Dr Oves Siddiqui).

Non-funded Projects

- 1. Scenario-based training of postgraduates on hand hygiene and appropriate use on personal protective equipment (PPE) {PI: Dr Preeti Thakur)
- 2. Evaluation of the optimal pool size for the diagnosis for SARS-CoV-2.{PI: Dr Vikas Manchanda}
- 3. Environmental contamination of SARS-CoV-2 in COVID-19 designated hospital. {PI: Dr Tanu Sagar}
- 4. Role of currency notes in the transmission of SARS-CoV-2 infection. {PI: Dr Oves Siddiqui}
- 5. Understanding genomic imprint: Whole genome sequence analysis of SARS-CoV-2.{PI: Dr Sonal Saxena}
- 6. Evaluation of rapid antigen test (lateral flow assay) for detection of SARS-CoV-2 antigen in clinical specimens- by COVID-19 rapid antigen test validating laboratory. {PI: Dr Preeti Thakur}
- 7. Association of Anti-SARS CoV-2 antibodies in serum with viral shedding in respiratory and stool specimens.{PI: Dr Prabhav Aggarwal}
- 8. A randomized control study to evaluate the therapeutic effects of lithium ion COVID-19 patients. (With Dept of Orthopedics)
- 9. Study of Pregnant Women with COVID-19 infection during Pregnancy; A Retrospective and Prospective Observation Study (With Dept of Obstetrics and Gynaecology)

- 10. A cross-sectional study to assess transmission of Severe Acute Respiratory Syndrome Corona Virus (SARS-CoV-2) in tears of moderate to severe COVID-19 patient (With Dept of Ophthalmology)
- 11. SARS-CoV-2 immunoglobulin time kinetics in COVID-19 patients admitted in a tertiary care hospital of New Delhi, India.
- 12. Hydroxychloroquine Prophylaxis for COVID-19 Infection Among Healthcare Workers: A Proof-of-Concept, Observational Study. (With Dept of Community Medicine)
- 13. Hydroxychloroquine in the prophylaxis symptomatic SARS-CoV-2 infection in healthcare workers taking care of patients with COVID-19 (With Dept of Medicine)
- 14. A prospective study on the transmission dynamics of coronavirus disease 2019 (COVID-19) among household contacts in Delhi, India. (With Dept of Community Medicine)
- 15. Assessment of response of infection on virological clearance in COVID-19: Single Center, Open labeled, randomized controlled trial. (With Dept of Pediatrics)
- 16. In house assembled protective device in laboratory safety against SARS-CoV-2 in clinical biochemistry laboratory of a COVID dedicated hospital (With Dept of Biochemistry)
- 17. Association of Anti-SARS-CoV-2 antibodies in serum with shedding in respiratory and stool specimens.
- 18. Evaluation of the currently used antigen-based RDT for the detection of SARS-CoV-2 respiratory specimens from suspected COVID-19 cases.
- 19. Correlation of community exposure of tuberculosis and typhoid to severity of disease in COVID-19 patients of Delhi.

6. Patents filed/ granted

Nil

7. Seminars organized

- Biomedical Waste Management training and hands-on WPBA session on Standard Precautions and PPE usage during PG Orientation Program for the 1st Year Postgraduates on 11th September, 2020.
- 2. Training programs on Biomedical Waste Management for Senior Residents, Junior Residents and Technical staff of Maulana Azad Medical College by Dr Sonal Saxena & Dr Rohit Chawla.
- 3. Preconference online CME/workshop on WHONET was held on 8th December 2020 with Dr Sonal Saxena as convener.
- 4. Preconference online CME Workshop on "Fundamentals of RTPCR" (IAMM E-Microcon 2020)" was held on 8th Dec 2020 with Dr Vikas Manchanda as Convener.
- 5. WHO IAMM network for surveillance of Antimicrobial resistance review meeting 27th October 2020 with Dr Sonal Saxena as convener.
- 6. Training on Rapid antigen testing for medical officers from various districts organized on 19th June 2020 under aegis of Directorate General of Health Services, GNCT of Delhi with Dr Sonal Saxena as convener.
- 7. Hospital infection training to over 2000 healthcare workers for prevention and containment of COVID in multiple sessions
- 8. Training on Rapid Antibody Testing for COVID-19 for Laboratory Medicine Professionals of various government hospitals of Delhi on 19th April 2020, under aegis of Directorate General of Health Services, GNCT of Delhi by Dr Rohit Chawla with Dr Sonal Saxena as convener.
- 9. Dr. Rohit Chawla conducted virtual training on "NACO PRAYOGSHALA: Online Data Management Tool" for linked ICTCs and PPTCTs on 16th July, 2020, under the aegis of DSACS and NACO.

8. Conferences organized

1. 1st Virtual National Conference of IAMM was held from 8th-11th December 2020 with Dr. Sonal Saxena as Organizing Secretary and Dr. Vikas Manchanda as Treasurer.

9. Seminar/ Conferences presentations

Dr. C.P. Baveja

- 1. Invited as guest speaker by Global Genesis School Noida and delivered a lecture online on the topic "Journey of Indian Vaccines for Covid-19" on 26.02.2021
- 2. Invited as guest speaker for Webinar on "New Era in Teaching of Microbiology" on 13.03.2021.

Dr. Sonal Saxena

- 1. Faculty at MCI Revised Basic Course workshop at MAMC, 10-12th Feb 2021.
- 2. Delivered talk on "Covid-19 Vaccines" For Jamia Millia Islamia University on 3rd February 2021.

- 3. Delivered talk on "Covid-19 Vaccine: Where are we today?" For APICON NOIDA chapter on 5th January 2021.
- 4. Delivered talk on "RTPCR testing: Practical aspects" in Online National Conference Diagnostic Week 2020, from September 21st 27th, 2020.
- 5. Delivered talk on "Antibody Science in COVID-19: Common FAQs" on December 23rd 2020 in live webinar.
- 6. Delivered talk on "WHONET: Lab Configuration" in online CME/Workshop on WHONET as part of e-microcon 2020.
- 7. Delivered talk on "WINSAR-D Network" as part of e-microcon 2020 on 10th December 2020.
- 8. Panelist on "CLSI 2020: What to expect in 2021!" as part of e-microcon 2020 on 11th November 2021.
- 9. Panelist on Online discussionon "Act on AMR" organzed by CSE ion occasion of World Antibiotic Awareness week on 18th November 2020.
- 10. Delivered talk on "Covid-19: Relevance of serology" in in live webinar on 26th August 2020.
- 11. Panelist in AIIMS-ASM 2020 Webinar "Antibiotic Resistance: Renewed Fight" on 7-8th October 2020
- 12. Delivered talk on "Decoding Covid-19 testing modalities" in webinar on COVID-19: Diagnostic and clinical aspects and moving towards the new normal" on May 22nd 2020.
- 13. Panelist on webinar "Adopting Emerging evidences in COVID-19 management" on 15th May 2020.
- 14. Panelist on Quarterly IAMM Delhi Chapter webinar "Coffee with COVID-19 experts-FAQs on COVID" on 22nd May 2020.

Dr. Vikas Manchanda

- 1. Diagnostic Stewardship in Post COVID era. eMicroCon 2020, Dec 2020.
- 2. AI in Microbiology: MAMC Experience, eMicroCon 2020, Dec 2020.
- 3. Basics in Real Time PCR. eMicroCon 2020, Dec 2020.
- 4. Analysis and troubleshooting in Real Time PCR. eMicroCon 2020, Dec 2020.
- 5. Molecular Diagnosis of Infectious Diseases, PCNI, IAP, Nov 2020

Dr. Rohit Chawla

- qPCR in Microbial detection & quantification: from basics to beyond during virtual National Laboratory Conclave: focused on molecular testing laboratories, jointly organized by National Accreditation Board for Testing and Calibration Laboratories (NABL) and Confederation of Indian Industry (CII) on 9th October, 2020.
- 2. Online session on "HIV: Virology & Pathogenesis" for students pursuing Postgraduate Diploma in HIV Medicine (PGDHIVM) Programme under Indira Gandhi National Open University (IGNOU) on 20.10.2020.
- 3. Online session on "Laboratory diagnosis of HIV infection and Post Exposure Prophylaxis" for students pursuing Postgraduate Diploma in HIV Medicine (PGDHIVM) Programme under Indira Gandhi National Open University (IGNOU), on 27.10.2020.
- **4.** Online sessions on "Hand hygiene", "Personal Protective Equipment", "Post-exposure Prophylaxis", "Sharps Handling and Mitigation" and "Pretreatment and treatment of waste water" for students pursuing Certificate course in Healthcare Waste Management (CHCWM) Programme under Indira Gandhi National Open University (IGNOU), on 07.12.2020.

Dr. Prabhav Aggarwal

- 1. Online moderator for Preconference workshop on WHONET on 8th December 2020.
- 2. Online moderator for session (Panel Discussion: CLSI 2020: What can we expect in 2021) in 1st Virtual National Conference of IAMM from 8th-11th December 2020.

Dr. Oves Siddiqui

- 1. An online CME Workshop on "Fundamentals of RTPCR, (IAMM E-Microcon 2020)" was held on 8th Dec 2020 with Dr. Oves Siddiqui as Moderator and one of the speakers.
- 2. An online Student symposium on Molecular diagnostics: Practical aspects (IAMM E-Microcon 2020)" was held on 11th Dec 2020 with Dr. Oves Siddiqui as online Moderator

10. National/International MoUs signed

1. Evaluating Pneumococcal Conjugate Vaccine (PCV) Impact on Pneumonia and Pneumococcal carriage Outcomes in India in Children 1-35 Months in India - Pneumonia REsearch and VAccine Impact League

- (PREVAIL) Project. In collaboration of IVAC, JHU, USA funded by Pfizer. (Multi-site project with Project coordinator Dr. Vikas Manchanda
- 2. Development of "MAMC COVID INFORMATION PORTAL" to enhance Decision Making at different levels using an Artificial Intelligence (AI) based information dissemination system (Initiated June 2020). (Multi-site project with Project coordinator Dr. Vikas Manchanda)

11. Other Inter-institutional collaborations

Nil

12. Students under exchange program

Nil. No trainees were accepted due to shut down due to covid19.

13. Placement details

N.A.

14. Extension and outreach activities

- The Department of Microbiology has led the fight against covid-19 from the front. The covid19 RTPCR laboratory was established in record time of 5 days and testing started on 29th March. 65,803 samples had been processed from 1st April 2020 to 31st March 2021 by RT-PCR for Covid-19. In addition to hospitals located in MAMC campus, the RTPCR diagnostic services were provided to district surveillance centers, CNBC, Rajiv Gandhi Super Speciality, Aruna Asaf Ali Hospital and IHBAS. The laboratory also received samples from South West, North East, South and Central districts collection centers.
- The antigen kit validation center at MAMC has validated two kits for covid 19.
- The inter lab quality center for covid 19 RTPCR has more than 60 centers attached and has validated more than 1000 samples.
- The department was designated as the nodal center for coordinating the state-wide community serosurvey for COVID-19 under the aegis of the Department of Health and Family Welfare, Government of NCT of Delhi. A total of three rounds of serosurvey were conducted. In addition, department also participated in COVID-19 community serosurvey coordinated by NCDC, Delhi. The data generated from the said serosurvey helped in the estimation of exposure to SARS-CoV-2 in the community.
- Faculty members were deputed as members of rapid response teams, assessors of CBNAAT and TRUNAAT testing at various centres across city.

15. Number of M.phil/ Ph.D degrees awarded:

Nil

16. Faculty strength

S.No.	Name of the Faculty	Designation
1	Dr. C.P. Baveja	Professor of Excellence
2	Dr. Sonal Saxena	Director Professor and Head
3	Dr. Vikas Manchanda	Professor
4	Dr. Rohit Chawla	Professor
5	Dr. Prabhav Aggarwal	Associate Professor
6	Dr. Tanu Sagar	Associate Professor

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7	Dr. Oves Siddiqui	Associate Professor
8	Dr. Preeti Thakur	Assistant Professor

16. Other significant information

- Facility for RT-PCR testing for SARS-CoV2 RNA was developed at the Department of Microbiology, MAMC
- 2. The facility for serological testing for COVID-19 was developed at the Virology Laboratory.
- 3. New facility- PCR for respiratory viruses (21 pathogens Influenza A virus; influenza A(H1N1) virus (swine-lineage); influenza B virus; human rhinovirus; human coronaviruses NL63, 229E, OC43 and HKU1; human parainfluenza viruses 1, 2, 3 and 4; human metapneumoviruses A/B; human bocavirus; human respiratory syncytial viruses A/B; human adenovirus; enterovirus; human parechovirus and Mycoplasma pneumoniae
- 4. New facility- PCR for viral meningitis (Herpes simplex virus 1, Herpes simplex virus 2, Mumps virus, Varicella zoster virus, Enterovirus and Parechovirus)
- 5. New facility- PCR for bacterial meningitis (S. pneumoniae, N. meningitidis, H. influenzae)
- 6. New facility- PCR for CMV, EBV, HSV 1& 2
- 7. Multiple equipment such as automated Nucleic acid Extraction systems, Real time PCR machines, Geldoc and -80 and -20 C refrigerators were added to the department.

MICROBIOLOGY (UCMS)

1. Major Activities and Achievements

Dr. N.P. Singh

Principal Investigator of Viral Research Diagnostic Laboratory (VRDL) State Level.

Established Advanced Virology Laboratory and Covid-19 Testing Centre since June, 2020.

Conducted regular training for doctors, nursing staff and technical staff with regard to basics of Covid-19 including donning, doffing of PPE, collection and transport of specimen and infection prevention control practices and safe disposal of Covid-19 Bio-medical Waste.

Regular participation in RTPCR samples for quality control and sending of specimens to National reference laboratories for further analysis.

Initiated Mucormycosis Testing Laboratory and enhanced testing support and reporting on immediate basis. Staff Students Advisor

Chairman, Equipment Maintenance Committee, UCMS

Conducted interviews for faculty selection and Ph.D thesis viva in reputed national institutes like BHU, KGMU, TMU, Govt Inst. Of Med. Sciences, Greater Noida.

Managing procurement of equipments (automated nucleic acid extractor, RTPCR machines and other Covid related equipments and consumables) on regular basis

Dr. Shukla Das

Nodal officer of RT-PCR/VRDL Lab for ICMR. The Department established the RTPCR laboratory for conducting testing for Covid 19 patients since July 2020. We were instrumental in imparting training to HCW in preparedness, PPE etiquettes, standard precautions to all staff. We were providing support in serological markers: Il 6,Ferritin, PCT

Nodal officer for Mucormycosis laboratory was established and provided service 24x7 to patients admitted to GTBH.

Nodal Officer of MRU/CRL, UCMS & GTBH.

2. Honours/Distinctions

1. Dr. N.P. Singh is awarded certificate of appreciation as Covid warrior by Delhi Legislative council

- 2. Dr. Shukla Das is awarded certificate of appreciation as Covid warrior by Delhi Legislative council
- 3. Dr. Kirti Nirmal recived 2nd Prize in poster presentation in MYCOCON 2021 conference was held virtually on 26th-28th March on topic "Performance of HiCrome Candida differential agar for identification of Candida isolated from various clinical specimens".
- 4. Dr. Charu Jain received Certificate of recognition for work as COVID 19 warrior from Delhi Vidhan Sabha

3. Publications

- 1. Singh S, Saha R, Suneja A, Das S, Singh NP. Vaginitis in women of reproductive age group: A hospital-based study from North India. East J Med Sci. (2020); 5(2):44-47.
- 2. Sharma A, Bisht D, Das S, Rai G, Dutt S, Arora VK. Molecular Detection of Aspergillus in Sputum of Patients with Lower Respiratory Tract Infections. Int J Appl Basic Med Res. (2020) Apr-Jun;10(2):86-90. doi: 10.4103/ijabmr.IJABMR_364_18. PMID: 32566523; PMCID: PMC7289198.
- 3. Sonthalia S, Aggarwal P, Das S, Sharma P, Sharma R, Singh S. Aerobic vaginitis An underdiagnosed cause of vaginal discharge Narrative review. Int J STD AIDS. (2020) Oct;31(11):1018-1027. doi: 10.1177/0956462420913435. PMID: 32842907.
- 4. Singh T, Dar SA, Singh S, Shekhar C, Wani S, Akhter N, Bashir N, Haque S, Ahmad A, Das S. (2021).Integron mediated antimicrobial resistance in diarrheagenic Escherichia coli in children: in vitro and in silico analysis. Microb Pathog. .104680. PMID: 33301859.
- 5. Snehaa K, Singh T, Dar SA, Haque S, Ramachandran VG, Saha R, Shah D, Das S. (2020) Typical and atypical enteropathogenic Escherichia coli in children with acute diarrhoea: Changing trend in East Delhi. Biomed J. Apr 21:S2319-4170(20)30043-3. doi: 10.1016/j.bj.(2020).03.011. Epub ahead of print. PMID: 32330679.
- 6. Rai G, Das S, Ansari MA, Singh PK, Dar SA, Haque S, Gupta N, Sharma S, Ramachandran VG, Sharma S, Jain C, Sharma S. (2020) .TLR-2 expression and dysregulated human Treg/Th17 phenotype in Aspergillus flavus infected patients of chronic rhinosinusitis with nasal polyposis. Microb Cell Fact. Nov 25;19(1):215. doi: 10.1186/s12934-020-01481-3. PMID: 33238997; PMCID: PMC7689976.
- 7. Chakrabarti A, Sood P, Rudramurthy SM, Chen S, Jillwin J, Iyer R, Sharma A, Harish BN, Roy I, Kindo AJ, Chhina D, Savio J, Mendiratta D, Capoor MR, Das S, Arora A, Chander J, Xess I, Boppe A, Ray U, Rao R, Eshwara VK, Joshi S, Patel A, Sardana R, Shetty A, Pamidimukkala U. (2020. SIHAM Candidemia Network. Characteristics, outcome and risk factors for mortality of paediatric patients with ICU-acquired candidemia in India: A multicentre prospective study. Mycoses.) Jul 17. doi: 10.1111/myc.13145. Epub ahead of print. PMID: 32681527.
- 8. Saini J, Bandyopadhyay B, Pandey AD, Ramachandran VG, Das S, Sood V, Banerjee A, Vrati S. (2020) Sep .High-Throughput RNA Sequencing Analysis of Plasma Samples Reveals Circulating microRNA Signatures with Biomarker Potential in Den1gue Disease Progression. mSystems. 15;5(5):e00724-20. doi: 10.128/mSystems.00724-20. PMID: 32934118; PMCID: PMC7498686.
- 9. Datt S, Das S, Ahmad Ansari M, Sharma R, Datt T, Bhattacharya SN. 2021. Gene expression profiling of protease and non-protease genes in Trichophyton mentagrophytes isolates from dermatophytosis patients by qRT-PCR analysis. Sci Rep. Jan 11;11(1):403. doi: 10.1038/s41598-020-79839-1. PMID: 33432046; PMCID: PMC7801629.
- 10. Garg D, Radhika A, Raizada A, Gaurav V, Saha R, Sonthalia S, Tigga Ra. (2020) Aetiological Pattern of Vulvovaginal Infections in Asymptomatic and Symptomatic HIV Seropositive Women on Antiretroviral Therapy. Journal of Clinical & Diagnostic Research. Oct 1;14(10).
- 11. Saxena B, Ramachandran VG, Saha R, Shah D. (2020). Determination of ELISA Reactive Mumps IgG in MMR Vaccinated & Vaccine Naïve Children: A Cross Sectional Study. Indian Peaditr, 58: 137-139.
- 12. Kapoor A, Saha R: (2020) Apr.16. Hand washing agents and surface disinfectants in times of Corona virus (COVID-19) outbreak. Indian J Community Health [Internet]. [cited(2020)Apr.20]; 32(2Special):225-27.Availablefrom:https://www.iapsmupuk.org/journal/index.php/IJCH/article/view/1440
- 13. Singh S, Saha R, Suneja A, Das S. (2020). A Hospital Based Study on the Prevalence of Trichomoniasis and Evaluation of Accuracy of its various Diagnostic Techniques. Tropical Parasitol. 10(2): 124-129.
- 14. Singh S, Saha R, Suneja A, Das S, Singh NP. (2020); .Vaginitis in women of reproductive age group: A hospital-based study from North India. East J Med Sci. 5(2):44-47.
- 15. Kashyap B, Goyal N, Prakash A. (2020); COVID diagnostics: Do we have sufficient armamentarium for the present and the unforeseen? Indian J Med Spec. 11:117-23.

- 16. Goyal N, Sharma A, Loomba P, Mishra B, Thakur A. (2020); .Evaluation of errors during different phases of COVID-19 TrueNat testing in a tertiary care hospital. Eastern J Med Sci. December 02 Epub ahead of print.
- 17. Goyal N, Kashyap B, Hyanki P, Singh NP, Khanna A. Comparative diagnostic accuracy of mean and lowest cycle threshold levels in Xpert MTB/RIF assay and molecular epidemiology of missing probes in rifampicin resistant tubercular cases from a tertiary care hospital. Perspec Med resear. 2021 [accepted]
- 18. Goyal N, Loomba P, Sharma A, Mishra B, Thakur A. Are we growing tired of being cautious in this apparently endless COVID-19 pandemic: A KAP study in HCWs of a tertiary care center to determine the answer. Indian J Health Sci Care. 2021 [accepted]

Chapters

19. Kashyap B, De A, Goyal N. "Obstetric Sepsis" chapter in book (monograph) 'Recent Advances in Obstetrics and Gynaecology' [chapter 7; page 74-83]

4. Research Projects

Dr. N.P. Singh

- 1. PI in Project Titled' Strengthening laboratory surveillance for pneumococcal meningitis in India to understand the impact of pneumococcal conjugate vaccine (PCV) rollout'
- 2. Microbiological and Clinical Profile of Neonatal Septicemia intramural newborns, at a Tertiary Care Hospital.Funding agency: Nil, Year- 2021 to 2022, Amount sanctioned: Nil, Under Ethical committee approval.
- 3. PI in Project titled, "A comparative evaluation of colistin resistance by broth microdilution & rapid polymyxin NP test and prevalence of mcr genes distribution among multidrug resistant Enterobacterale isolates from blood and lower respiratory tract specimens of ICU patients".

Dr. Kirti Nirmal

4. Funding agency: Through MRU, year- 2021 to 2022.

Title: Single Nucleotide Polymorphism in TLR1, TLR2& TLR4and its

Association with Susceptibility to Recurrent Vulvovaginal Candidiasis.

Amount sanctioned: not fixed Under Ethical committee approval

Funding agency: Nil 2. Year- 2021 to 2022

Title: Microbiological and Clinical Profile of Neonatal Septicemia intramural newborns, at a Tertiary Care Hospital.

Amount sanctioned: Nil

Under Ethical committee approval

Dr. Charu Jain

3.Co-PI in Project Titled' Strengthening laboratory surveillance for pneumococcal meningitis in India to understand the impact of pneumococcal conjugate vaccine (PCV) rollout'

Dr. Nisha Goyal

4.A comparative evaluation of colistin resistance by broth microdilution & rapid polymyxin NP test and prevalence of mcr genes distribution among multidrug resistant Enterobacterale isolates from blood and lower respiratory tract specimens of ICU patients.

5. Seminars Organized

Dr. N.P. Singh

1. conducted IAMM Workshop (Delhi Chapter) On 27.1.2021: Diagnostic algorithm for coinfection in Covid 19.

Dr. Shukla Das

- 2. Conducted hansds On workshop on RTPCR at CRL/MRU for 30 faculty members of UCMS & GTBH at CRL/MRU: 10.3.2021: Applications of RTPCR techniques in clinical Research
- 3. Conducted ICTC HIV training program for 25 Lab technicians March 2021

6. Conferences Organized

1. Diagnostic algorithm for coinfection in COVID-19" dated 28th January 2021.Funding agency support: VIRTUAL MICRO-D -CON 12th ANNUAL CONFERENCE OF IAMM DELHI CHAPTER.

- **2.** Overview of HIV- testing lab Network organized by HIV-unit, Virology Section, Department of Microbiology, University College of Medical Sciences, on.02.02.2021.
- **3.** "Surgical site infections- Basics & Case Studies" in E-Microcon 2020, First Virtual National Conference of Indian Association of Medical Microbiologists. (8th 11th December, 2020)
- **4.** "2019 Corona Virus: An update" organized by Department of Microbiology, University College of Medical Sciences, on 20.02.2020.
- **5.** Sero diagnosis of HIV infection on External Quality Assessment Scheme (EQAS) for HIV organized by HIV-unit, Virology Section, Department of Microbiology, University College of Medical Sciences, (University of Delhi), Dilshad Garden on 03.02.2020
- **6.** E-Microcon (2020), First Virtual National Conference of Indian Association of Medical Microbiologists. (8th 11th December, 2020)

7. Seminar/Conference Presentations

Dr. Kirti Nirmal

- 1. Got 2nd prize in poster presentation. MYCOCON 2021 conference was held virtually on 26th-28th March topic "Performance of HiCrome Candida differential agar for identification of Candida isolated from various clinical specimens".
- 2. Poster presentation in VIRTUAL MICRO-D -CON 12th ANNUAL CONFERENCE OF IAMM DELHI CHAPTER was held on 28th to 30th January 2021 "Comparison of eight RT-PCR kits for diagnosis of COVID-19 in a tertiary care hospital."

Dr. Charu Jain

- 3. MYCOCON 2021 held on 26 to 28 March 2021
- 4. Anaerobic forum India 2021 organised by AIIMS- ASM 2021 from 4-5 March 2021
- 5. Applications of RTPCR Technique in Clinical Research at MRU. UCMS & GTBH on 10 March 2021
- 'Coronavirus disease associated pulmonary aspergillosis' Poster presentation at MYCOCON 2021 held on 26 to 28 March 2021
- 7. Applications of RTPCR Technique in Clinical Research at MRU. UCMS & GTBH on 10 March 2021
- 8. Covid 19 molecular biology including Lab and Patient Safety organised by MELAP on 14-15 Sept (2020), 2-3 Nov (2020), 14-15 Dec (2020)
- 9. Lecture in workshop on HIV ICTC UCMS

Dr. Nisha Goyal

- 10. "Sero diagnosis of HIV infection on External Quality Assessment Scheme (EQAS) for HIV" organized by HIV-unit, Virology Section, Department of Microbiology, University College of Medical Sciences, (University of Delhi), Dilshad Garden on 03.02.(2020).
- 11. "Corona virus: Can we stop the march?" organized by Indian Association of Medical Microbiologists Delhi Chapter, MICRO-D-CON (2020) (10 Feb (2020))
- 12. "2019 Corona Virus: An update" organized by , Department of Microbiology, University College of Medical Sciences, (University of Delhi), Dilshad Garden on 20.02.(2020) (Page 8 of 12)
- 13. World Sepsis Day,(2020) Virtual meet organized by Indian Association of Medical Microbiologists Delhi Chapter, MICRO-D-CON (2020) (11th & 12th Sep, (2020))
- 14. "Healthcare Delivery in COVID times-3-how to protect oneself?" organized by , UCMS & GTB Hospital, Dilshad Garden on 25th May,(2020)
- 15. "Coffee with COVID-19 experts- FAQs on COVID" organized by Indian Association of Medical Microbiologists Delhi Chapter, MICRO-D-CON (2020) (28th to 30th May, (2020))
- 16. "Surging ahead with clinical Microbiology in current challenging Scenario" E-microcon organized by Indian Association of Medical Microbiologists from 8-11 December (2020)
- 17. "The rise of titans after COVID" organized by Indian Association of Medical Microbiologists on 22nd May 2021.
- 18. "CIDS Webinar on COVID-19" organized by Clinical Infectious Diseases Society on 22nd May 2021.
- 19. "Points to ponder- antimicrobials in Pediatric sepsis" on 19th may 2021
- 20. "Anaerobes: Microbes of Millennium" organized by anaerobic forum India 2021 AIIMS-ASM on 4-5 th March 2021
- 21. "Mutant Strains-spread, scale & virulence. How accurate is your RT-PCR test?" on 12th June 2021
- 22. "Surgical site infections- Basics & Case Studies" in E-Microcon (2020), First Virtual National Conference of Indian Association of Medical Microbiologists. (8th 11th December, (2020)).

8. Other Inter-Institutional Collaboration

$\hbox{Dr. Shukla Das-National Candidemia Network \ with \ Deptt \ Microbiology \ PGIMER \ Chandigargh: 2021-2022$

- 9. Number of M.Phil/Ph.D. Degrees Awarded- Ph.D 03
- 10. Faculty Strength: 9

11. Other significant Information:

Dr. Shukla Das

- Delivered a talk on COVIMPRESSION organized by UCMS & GTBH: role of vaccine on 27th May (2020)
- 2. Conducted online RTPCR taining workshop under "Medical Education Learning Point" Aug , Sept (2020)

Invited as speaker Fungal Identificaion in Dec (2020) under Indian association of Pathologist ,India.

MICROBIOLOGY (VPCI)

1. Major Activities and Achievements (Maximum 150 words)

Department of Microbiology at VP Chest Institute is actively involved in diagnostics, teaching and research. Several diagnostic tests pertaining to Bacteriology, Anaerobic bacteriology, Mycobacteriology, Virology & Mycology are being carried out. Higher end facilities are available for identifying the pathogens. Research in drug resistance profiling and molecular characterization and typing of bacterial pathogens including M. tuberculosis isolates, newer diagnostic techniques are actively pursued. The department is also involved in sero-surveillance of Covid 19 in the population of Delhi.

The Medical Mycology division provides diagnostic services to the Institute and other hospitals in Delhi.It is also engaged in various human pathogenic fungi such as different species of *Candida*, *Trichophyton* spp., and *Aspergullus fumigatus* etc. The Virology division is actively involved indiagnostics of respiratory viruses like (H1N1) and corona virus testing. The research includes the recombinant vaccine against influenza and dengue virus and pathogenesis of influenza and chikungunya virus.

2. Honours/Distinctions

Prof. Malini Shariff:

- i. Designated for serosurveillance of COVID
- Member of Editorial Board of The Indian Journal of Chest Diseases and Allied Sciences.
- iii. PK Pillai IAMM Delhi Chapter award for best poster, Malini Shariff, Jyoti Choudhary & Kiran Beri. Gram-negative bacterial infections in ICU patients: A two-year study12th Annual conference of IAMM Delhi Chapter,, 28th to 30th January, 2021

Prof. Mandira Varma Basil Member Ethics committee, RajanBabu Institute of Pulmonary Medicine and Tuberculosis.

Prof. Madhu Khanna: Vallabhbhai Patel Chest Institute, Delhi (Virology Unit) has been designated as center for COVID-19 testing.**Prof. Madhu Khanna** is in-charge of the facility

Prof. Anuradha Chowdhary

- Elected Fellow, Indian Academy of Sciences, Bengaluru, 2021
- Elected Fellow, International Society of Antimicrobial Agents & Chemotherapy, 2021
- World expert- Mycoses, Expertscape's PubMed-based algorithms; 2020
- Highly cited Researcher, Web of Science/Clarivate; 2020
- Editor, Journal of Fungi. "Special Issue-Candida auris v 2" 2020

Expert in International Societies

- The Clinical and Laboratory Standards Institute (CLSI) Antifungal Subcommittee, Member Expert, Jan, 2021
- Executive Council Member, Secretary, European Fungal Infection Study Group (EFISG), European Society of Clinical Microbiology & Infectious Diseases, 2020.
- European Confederation of Medical Mycology (ECMM), for development of Global Guideline for the Diagnosis and Management of Rare Mold Infections

Chair, Conference

 Session 'International Perspectives in Public Health' in the Conference on "COVID 19 and Issues of Urban Sustainability in India and Canada" organized by Centre for Canadian Studies South Campus University of Delhi Online, March 11 and 12, 2021.

Invited Speaker in International Conferences

• Delivered lecture on "Candida auris: is this emergent pathogen still a global concern", INFOCUS, 17-24th Oct, 2020 the Latin American Forum of Fungal Infections in Clinical Practice

3. Publications: Total: 23

- 1. Arendrup MC, Jørgensen KM, Hare RK, **Chowdhary A. 2020.** In vitro activity of ibrexafungerp (SCY-078) against *Candida auris* isolates as determined by EUCAST methodology and comparison with activity against *C. albicans* and *C. glabrata* and with the activities of six comparator agents. *Antimicrob Agents Chemother*. 2020; 64:e02136-19.
- 2. Arendrup MC, Jørgensen KM, Guinea J, Lagrou K, Chryssanthou E, Hayette MP, Barchiesi F, Lass-Florl C, Hamal P, Dannaoui E, **Chowdhary A**, Meletiadis J. **2020.** Multicentre validation of a EUCAST method for the antifungal susceptibility testing of microconidia-forming dermatophytes. *J Antimicrob Chemother* .2020; 75(7):1807-1819.
- 3. Arendrup MC, **Chowdhary A**, Jørgensen KM Meletiadis J. **2020.** Manogepix (APX001A) In vitro activity against *Candida auris*: Head to head comparison of EUCAST and CLSI MICs. *Antimicrob Agents Chemother*. 2020; 64:e00656-20.
- 4. Bhattacharyya K, Nemaysh V, Joon M, Pratap R, **Varma-Basil M**, Bose M, Brahmachari V.(2020) Correlation of drug resistance with single nucleotide variations through genome analysis and experimental validation in a multi-drug resistant clinical isolate of *M. tuberculosis*. BMC Microbiol. 25;20(1):223. doi: 10.1186/s12866-020-01912-6.
- Bidaud AL, Djenontin E, Botterel F, Chowdhary A, Dannaoui E. 2020. Colistin interacts synergistically with echinocandins against *Candida auris*. Int J Antimicrob Agents. 2020; 55 (3): 105901.
- 6. Bruno, M., Kersten, S., Bain, J.M. Jaeger M, Rosati D, Kruppa MD, Lowman DW, Rice PJ, Graves B, Ma Z, Jiao YN, **Chowdhary A**, Renieris G, van de Veerdonk FL, Kullberg BJ, Giamarellos-Bourboulis EJ, Hoischen A, Gow NAR. Brown AJP, Meis JF, Williams DL,

- Netea MG. **2020.** Transcriptional and functional insights into the host immune response against the emerging fungal pathogen *Candida auris*. *Nat Microbiol*2020; 5:1516–1531
- 7. Chauhan V, Shrivastava K, Anand S, Kumar C, Singh A, **Varma-Basil M**. 2020 .Draft Genome Sequence of Mycobacterium simiae, a Potential Pathogen Isolated from the Normal Human Oral Cavity. .Microbiol Resour Announc. 12;9(46):e01185-20.
- 8. **Chowdhary A₂** Tarai B, Singh A, Sharma A. Multidrug-resistant *Candida auris* infections in critically ill coronavirus disease patients, India, April–July. **2020**. *Emerg Infect Dis*. 2020; 2694–2696
- 9. **Chowdhary A,** Sharada K, Singh PK, Bhagwani DK, Kumar N, de Groot T, Meis JF. **2020.** Outbreak of *Dirkmeia churashimaensis* fungemia in a neonatal intensive care unit, India. *Emerging Infect Diseases* 2020; 26: 764-768. doi.org/10.3201/eid2604.190847
- 10. **Chowdhary A**, Stielow JB, Upadhaya G, Singh PK, Singh A, Meis JF. **2020.** *Candida blankii*: an emerging yeast in an outbreak of fungemia in neonates in Delhi, India. *Clin Microbiol Infect*. 2020; 26: 648.e5-648.e8 Jan 9. doi: 10.1016/j.cmi.2020.01.001
- 11. Dahiya B, Sharma S, Khan A, Kamra E, Mor P, Sheoran A, Sreenivas V, Varma-Basil M, Gupta KB, Gupta MC, Chaudhary D, Mehta PK. 2020. Detection of mycobacterial CFP-10 (Rv3874) protein in tuberculosis patients by gold nanoparticle-based real-time immuno-PCR. Future Microbiolay;15:601-612. doi: 10.2217/fmb-2019-0347. Epub 2020 Jun 3. PMID: 32490745.
- 12. de Groot T, Puts Y, Berrio I, **Chowdhary A**, Meis JF. **2020.** Development of *Candida auris* short tandem repeat typing and its application to a global collection of isolates. *mBio* 11:e02971-19. doi.org/10.1128/ mBio.02971-19
- 13. Gaur M, Singh A, Sharma V, Tandon G, Bothra A, Vasudeva A, Kedia S, Khanna A, Khanna V, Lohiya S, Varma-Basil M, Chaudhry A, Misra R, Singh Y.. Diagnostic performance of non-invasive, stool-based molecular assays in patients with paucibacillary tuberculosis. *Sci Rep.* 2020;10(1):7102.
- Goel N, Spalgais S, Mrigpuri P, Khanna M, Menon B and Kumar R, 2020. Characteristics of COVID-19 at a non-COVID tertiary pulmonary care centre in Delhi, India. *Monaldi Archives for Chest Disease* 2020; 90:1568
- 15. Gupta, S., **Shariff, M.**, Chaturvedi, G. *et al.* 2021.Comparative analysis of the alveolar microbiome in COPD, ECOPD, Sarcoidosis, and ILD patients to identify respiratory illnesses specific microbial signatures. *Sci Rep* **11**, 3963 . https://doi.org/10.1038/s41598-021-83524-2
- 16. Helleberg M, Jørgensen KM, Hare RK, Datcu R, **Chowdhary A**, Arendrup MC. **2020.** Rezafungin in vitro activity against contemporary clinical nordic *Candida* isolates and *Candida auris* determined by the EUCAST Reference Method. *Antimicrob Agents Chemother*. 2020; 24; 64:e02438-19.
- 17. Kamboj D, Gupta P, Mandira Varma Basil, Mohan A, Guleria R, Bhatnagar A, Mehta G, Kumar P, Saurabh A, Deepak R, Thakral D, Misra P, Tandon R, Gupta UD, Mitra DK. 2020. Improved Mycobacterium tuberculosis clearance after the restoration of IFN-γ⁺ TNF-α⁺ CD4⁺ T cells: Impact of PD-1 inhibition in active tuberculosis patients. *Eur J Immunol*. 2020;50(5):736-747. doi:10.1002/eji.201948283
- 18. Khanna M, Gautam A, Rajput R,& Sharma L.2020. Natural products as a paradigm for the treatment of Caxsackie virus induced myocarditis. *Current Topics In Medicinal Chemistry* 20(8).
- 19. Kumar C, Shrivastava K, Singh A, Sharma NK, Yadav J, **Varma-Basil M**. 2020. The MPB64 immunochromatography assay: an analysis of doubtful results. Trop Doct. 26:49475520934353. doi: 10.1177/0049475520934353.

- Kumar M, Hooda P, Khanna M, Patel U, Sehgal D, 2020. Development of BacMam Induced Hepatitis E Virus Replication Model in Hepatoma Cells Study the Polyprotein Processing. Front Microbiol. 2020; 11:1347
- Prakash A, Sundar G, Sharma B, Hagen F, Meis JF, Chowdhary A.2020. Genotypic diversity in clinical and environmental isolates of *Cryptococcus neoformans* from India using multilocus microsatellite and multilocus sequence typing *Mycoses*. 2020;63:284–293.
- 22. Shivarathri R, Jenull S, Stoiber A, Chauhan M, Mazumdar R, Singh A, Nogeira F, Kuchler K*, **Chowdhary A**, Chauhan N* **2020.** The two-component response regulator Ssk1 and the mitogen-activated protein kinase Hog1 control antifungal drug resistance and cell wall architecture of *Candida auris. mSphere*. 2020;5(5): e00973-20.
- Singh A, Sharma, B, Mahto KK, Meis JF₂ Chowdhary A. 2020. High-Frequency direct detection of triazole resistance in *Aspergillus fumigatus* from patients with chronic pulmonary fungal diseases in India *J. Fungi* 2020; 6(2), 67; doi.org/10.3390/jof6020067

4. Journals

Number of Department teachers serving as
 Editor(s)/Member(s) of Editorial Board

5. Research Projects

.**Dr. Mandira Varma Basil**, ICMR (2019-2022) "Development of a rapid phenotypic assay to differentiate between *Mycobacterium tuberculosis* and Nontuberculous Mycobacteria.52 lakhs.

Dr. Madhu Khanna, Indian Council of Medical Research (ICMR), Rs.37 Lakhs, Triple targeting engineered virus: A tool to counter influenza infection.

Dr. Anuradha Chowdhary: Science & Engineering research board (SERB), Department of Science and technology. **Title:**Genomic insights of azole and terbinafine resistance in clonal *Trichophyton mentagrophytes/interdigitalis* spp complex causing alarming difficult to treat dermatophytosis in North India" Amount Sanctioned: Rs 56,89400. **Period:** 4th Feb 2021-Feb 2024.

Dr. Anuradha Chowdhary: ICMR, **Title:** Exploration of azole resistance in Candida tropicalis: detection of ERG 11 gene mutations and azole resistant genotypes. **Period:** 27-10-2020- 26-10-2023. Amount Sanctioned: Rs 44, 69640.

6. Seminars/ Workshops Organized:

Prof. Mandira Varma Basil, Joint Organizing Secretary for Workshop-Cum-Training Programme on "Proposal Writing and Ethical Issues in Biomedical Research", Organized by Vallabhbhai Patel Chest Institute under aegis of MRU on 11th March, 2021.

Seminar/Conference Presentations (National / International)

Prof. Mandira Varma Basil

- Diagnosis of drug resistant tuberculosis: concerns in an endemic region and our experience with isoniazid monoresistance. Presented at 3rd Asian African Congress of Mycobacteriology held online 27-29 January, 2021.
- 2. Newer approaches in Tuberculosis Diagnosis. Presented no occasion of "World TB day" on 24th March 2021. Organized by Institute of Home Economics, University of Delhi.

Posters presented from the department:

Malini Shariff, Jyoti Choudhary & Kiran Beri. Gram-negative bacterial infections in ICU patients: A two-year study, 12th Annual conference of IAMM Delhi Chapter,, 28th to 30th January, 2021

National/International MoUs Signed: National With Central Research Laboratory, Kempegowda Institute of Medical Sciences(KIMS), Bangalore

Extension and Outreach Activities:

S. No.	Name and Organization	Subject/Topic Title	Faculty Member (Department)	Period
1.	Ms. Gayathri	"Phenotypic and genotypic characterization of multi-drug resistant clinical isolates of <i>Escherichia coli</i> "	Prof. Malini Shariff	16 th January 2021- 15 th May 2021
2.	Suamreiliu Kamei, Amity University, NOIDA	" Phenotypic and genotypic determination of Bedaquiline resistance in clinical isolates of <i>Mycobacterium tuberculosis</i> ."	Dr. Mandira Varma- Basil	16 th Jan 2020 to 15 th May, 2020
3.	Sushma Khaidem, Amity University, NOIDA	Phenotypic and genotypic determination of Linezolid resistance in clinical isolates of <i>Mycobacterium tuberculosis</i> .	Dr. Mandira Varma- Basil	16 th Jan 2020 to 15 th May, 2020
4.	Suraj Rawat, Graphic Era University, Dehradun	"Exploration of cell invasion genes of Mycobacterium tuberculosis"	Dr. Mandira Varma- Basil	16 th Jan 2020 to 15 th May, 2020

Number of M.Phil/Ph.D. Degrees Awarded: 0
Faculty Strength: 4

NEUROSURGERY (GIPMER and associated Maulana Azad Medical College)

1. FACULTY

Dr. Daljit Singh
 Director-Professor and Head

Dr. Arvind K Srivastava Director-Professor

• Dr. Anita Jagetia Professor

• Dr. Hukum Singh Professor

Dr Wajid Nazir Associate Professor
 Dr Ghan Shyam Das Singhal Associate Professor
 Dr Shaam Bodeliwala Associate Professor

2. MEMBERS LEFT Nil

3. ADDITION OF FACULTY

Ni

University of Delhi: Annual Report 2020-21

4. PROMOTIONS Ni

5. RESEARCH SCHEME

- i. Thesis completed:
 - 1 Factors affecting surgical outcome in trigeminal neuralgia following MVD
 - 2 Assessment of neurocognitive functions in gliomas
 - 3 Role of electrophysiological monitoring in brain tumours
 - 4 Functional and surgical outcome study in cerebral aneurysms
- 5 Factors affecting outcome in NPH treated with programmable shunt
- 6 Study of validation of ACS-NCQIP score in geriatric patients undergoing neurosurgery

On going projects:

1 Role of PDGF R-A in gliomas with Biochemistry department , MAMC Thesis projects:

- 1. ASSOCIATION OF PARASPINAL MUSCLE MORPHOLOGY TO FUNCTIONAL OUTCOME IN PATIENTS UNDERGOING SPINE SURGERY-A PROSPECTIVE OBSERVATIONAL STUDY
- 2. ASSOCIATION OF SOX 17 GENE WITH CEREBRAL ANEURYSM
- 3. ASSESSMENT OF QUALITY OF LIFE IN OPERATED PATIENTS OF CRANIOVERTEBRAL JUNCTION ANOMALY.
- 4. STUDY OF CLINICO RADIOLOGICAL FEATURES AND ITS ASSOCIATION WITH ELECTRON MICROSCOPICCHANGES IN INTERVERTEBRAL DISC
- 5. TO STUDY WHITE MATTER TRACT MORPHOLOGY AND ITS ASSOCIATION WITH CLINICAL OUTCOME FOLLOWING SURGERY
- 6. ASSESSMENT OF CORRELATION BETWEEN XRCC7 GENE POLYMORPHISM AND GLIOMA-A PROSPECTIVE OBERVATIONAL STUDY.

Other projects:

- 1 Inter-departmental meetings with various departments of Maulana Azad, GNEC, GIPMER.
- 2 Alumni Interactive educational activity
- 7. TRAINING FROM OTHER AGENCIES

Nil

7. CONFERENCE ORGANISED

Monthly DNA Conference 2020

Workshop on simulator on endovascular techniques

8) Awards

1 surgical outcome andoccipital lobe functions in occipital transtentroial approach for lesions located in pineal region in DNACON in Februray 2020- 1st rpize: Dr Abhishek

- 2 2nd prize in platform presentation to Dr Ritu Gauron Morphometric analysis of atlas and axis in CVJ anomalies in DNACON Feb. 2020
- 3 1st prize Dr Abhishek and team in quiz DNACON
- 4 2nd prize Dr ritu and team in quiz DNACON

9) Paper published / under review

- Pattern of pulmonary dysfuctions in craniovertebral junction anamoly & its persistence after rigid occipito cervical fixations. Shaam Bodeliwala, Vikas Nagar, Hukum Singh, Daljit Singh, Anita JagetiaSharad PandeyRajesh Ruttala, Pankaj Kumar. Indian Journal of Neurosurgery 2020; 9(03): 157-161
- Evaluation of Ischemia Following Clipping of Anterior Circulation Aneurysms with Respect to Temporary Clipping Using Diffusion-Weighted Magnetic Resonance Imaging: A Prospective Study. Pankaj Kumar, Shaam Bodeliwala, Rajender Aher, Anita Jagetia, Arvind Kumar Srivastava, Daljit Singh, Pragati Ganjoo. Indian Journal of Neurosurgery 2020; 9(02): 075-079
- 3 Dual microcatheter technique for coil embolisation of irregular and wide-necked intracranial aneurysms: A case series. <u>Amit Kumar Sharma</u>, <u>Anita Jagetia</u>, <u>Arvind Kumar Srivastava</u>, <u>Daljit Singh</u>, JCVS, Year: 2020 | Volume: 8 | Issue: 2 | Page: 87-90
- 4 Unusual Radiological Appearance of congenital scalp Dermoid cyst with intracranial extension (Indian journal of Neurology under review)
- 5 Dr prashank A rare Radiological Picture of multicompartmental craniopharyngioma (Egyptian Journal of Neurology, psychiatry & Neurosurgery under review)
- An Unusual Case of Primary Intracranial Germinoma with Diffuse Subarachnoid Spread Masquerading as Tuberculous Meningitis Amit Kumar Sharma, Anita Jagetia, Arvind Kumar Srivastava, Ravindra Kumar Saran Asian J Neurosurg 2020 Oct 19;15(4)
- Serum cytokines in astrocytic brain tumors: a prospective study. Tariq Ansari Gautam Dutta Arvind Kumar Srivastava Anita Jagetia Daljit Singh Hukum Singh Rohit Bharti Anand Prakash Anil Kumar Br J Neurosurg 2020 Dec 21:1-6
- 8 Long-term follow up of large and giant intracranial aneurysms managed by endovascular techniques: experience from a tertiary care neurosurgery institute in India : Gautam Dutta, Divya Mahajan, Daljit Singh, Anita Jagetia, Hukum Singh, Arvind Kumar Srivastava JCVS Year : 2020 | Volume : 8 | Issue : 1 | Page : 5-9
- 9 Kissing Aneurysms of the Internal Carotid Artery: a Case Report. :Journal of Cerebrovascular Sciences. Amit Kumar Sharma, Anita Jagetia, Arvind Kumar Srivastava, Daljit Singh Year: 2020 | Volume: 8 | Issue: 2 | Page: 134-136
- 10 Pitfalls in diagnosis: acute hypodense posterior fossa subarachnoid hemorrhage on computed tomography scan-an unusual entity: Gautam Dutta, Daljit Singh, Anita Jagetia, Arvind Kumar Srivastava Journal of Cerebrovascular Sciences. Year: 2020 | Volume: 8 | Issue: 1 | Page: 61-63

9. BOOKS CHAPTER CONTRIBUTED

Nil

10. CONFERENCE/ PAPER PRESENTED

Papers were presented by Dr D Singh, Dr A K Srivastava, Dr Anita Jagetia, Dr Hukum Singh, Dr Wajid Nazir, Dr Shamm Bodeiwala, Dr Ghanshayam Das singhal in various online conferences Various Online Webinars attended by Faculty.

11. VISITORS

1.Dr. Satya Bhusan Senapati (Neurosurgery),

- 2. Dr. Siroya Hardik Lalith, M.Ch (Neurosurgery), NIMHANS, Bengaluru
- 3. Dr. Dahaval Atabhai, M.Ch (Neurosurgery), NIMHANS, Bengaluru
- 4. Dr. Preetham S D, M.Ch (Neurosurgery), NIMHANS, Bengaluru
- 5. Dr. Kirit Arumalia, M.Ch (Neurosurgery), NIMHANS, Bengaluru
- 6. Dr. Bhushan Diwakar Thomre, M.Ch (Neurosurgery), NIMHANS, Bengaluru
- 7. Dr. Dinesh Verma, M.Ch (Neurosurgery), JIPMER, Pondicherry
- 8. Dr. Rajinder Kumar, M.Ch (Neurosurgery), JIPMER, Pondicherry
- 8. Dr. D. M. Sasank, M.Ch (Neurosurgery), Human Care Medical Charitable Trust, Delhi
- 9. Dr. Ashutosh Kumar, M.Ch (Neurosurgery) SGPGIMS, Lucknow
- 10. Dr. Ashish Sharma Rampratap, M.Ch (Neurosurgery) SGPGIMS, Lucknow
- 11. Dr. Kamlesh Vasant Rangari, M.Ch (Neurosurgery) SGPGIMS, Lucknow
- 12. Dr. Gagandeep, M.Ch (Neurosurgery) SGPGIMS, Lucknow
- 13. Dr. Dhivya Palanismy, Consultant (Neurosurgery), Apollo KH Hospital, Tamilnadu

REPRESENTATION IN EXPERT COMMITTEE

Dr D Singh, Dr A K Srivastava, Dr Anita Jagetia, Dr Hukum Singh as member in expert committee of MCI, UGC, DNB,DMC, etc

15 HEALTH SERVICES TO COMMUNITY

16 LAB DATA

OBSTETRICS & GYNAECOLOGY (UCMS)

1. Major activities and achievements

As the Covid 19 pandemic struck in March 2020 and our hospital became Covid dedicated Hospital, the doctors of the Department of Obst & Gynae provided their services 24x7 not only to run the maternity services but also catered to a huge load of non obstetric adult population. Despite this heavy clinical load the department quickly adapted to the new online technologies in teaching and learning methods and thus academic activities continued for under graduate and post graduate students throughout the pandemic. The Department has many publications in renowned journals and is actively involved in various National programmes. The department organized several CMEs and workshops during this year. Many of the doctors received Corona Warrior Appreciation Certificates for their services by State Government as well as State Associations.

2. Honours /Distinctions:

Dr Amita Suneja

- 1. Chairperson PNDT Act Advisory committee, Shahdara zone 2016-2020
- 2. Head of the office for Obs Gynae, FMS, University of Delhi 22.3.2019 till date
- 3. Chairperson Oncology Committee AOGD 2019-2021
- 4. Post graduate supervised thesis received prestigious "R D Pandit award" from FOGSI, a National Body. (2020)

Dr Bhanupriya

- 5. Appreciation award from AOGD for contribution to AOGD as chairperson oncology committee during corona time 2021
- 6. Corona Warrior Appreciation Certificate by Govt. of NCT
- 7. Certificate of appreciation for oral presentation on 'Maternal Neonatal outcomes in Covid negative and Covid probable obstetric women with Covid like Symptoms' at 42nd AOGD annual conference Oct. (2020)

 Dr Bindiya Gupta
- 8. Commonwealth Medical Fellowship in Gyn Oncology at University of Birmingham, Pan Birmingham Gyne Oncolgy Centre, UK. March-Sep. (2020)

- 9. Inducted Member Editorial Board, Best Practice & Research Clinical Obstetrics & Gynaecology-Feb. 2021
 - 10. Inducted Member Editorial Board, Journal of Paediatrics, Obstetrics & Gynaecology- Jan. 2021 **Dr. Richa Sharma**

Dr. Kiran Guleria

- 11. FOGSI Dr Rajat Ray award in Fetal Medicine (first prize- Federation of Obs& Gyn of India (FOGSI) award.-Sept. (2020)
- 12. Special appreciation award Furosemide vs. Amlodipine in Post-partum Blood Pressure Control: a double blind randomized clinical trial at 42nd Annual & 1st e-Conference of AOGD. Oct. (2020)
- 13. Inducted Member Editorial Board, Indian Obstetrics and Gynaecology (IOG) from Nov. (2020).
 - 14. 2nd Prize in Paper presentation (Faculty category) in FOGSI International Perinatology conference -Nov. (2020)
 - 15. Appreciation award by AOGD for contribution as Endoscopy committee chairperson during Covid times -Feb. 2021
 - 16. <u>Dr.Sandhya Jain</u> Royal college of Obstetrician and Gynaecologist Oxford overseas award-(2020)

3. Publications:

- 1. Agarwal, R. Jaiswal, N. Kar, R. Singh, A. Srivastava, H.(2020). Is serum fibrinogen an affirmative marker for vaginal delivery without PPH. The New Indian Journal of OBGYN, 6, 113-8
- 2. Bhaskaran, S. Guleria, K. Suneja, A. Vats, G. (2020). Post-partum Vaginal Colpocleisis: A report of two cases. JPOG ,198
- 3. Chaudhary, A. Rashmi, M. Suneja, A. (2021). Early Uterine Necrosis due to Modified B-Lynch Suture. J Obstet Gynecol India.
- 4. Dev, S. Singh, A. Banerjee, BD, Radhakrishnan, G. Agarwal, R. (2020). Assessment of maternal serum levels of vascular endothelial growth factor and placental growth factor in threatened abortion: A case control study. JCDR, 14, QC16-QC1
- 5. Goyal, P. Agarwal, R. Srivastava, H. Sikka, M. Mohta, M. (2020). Serial serum lactic acid in pregnancy-associated sepsis for maternal outcome. J Obstet Gynaecol India, 70, 342-348.
- 6. Gupta, P. Suneja, A. Agrawal, V. Pathak, AA. (2020).Conservative management of uroperitoneum after repair of bladder rupture. IJSR, 9 (7). DOI: 10.36106/IJSR
- 7. Gupta, M. Rashmi. Suneja, A. Sharma, A. (2020). High ohvira syndrome with cervical stenosis atypical presentation of a rare entity a case report, 9(11),61-62.
- 8. Gupta, P. Agarwal, R. Bhaskaran, S. et.al.(2020). Evaluation of maternal plasma platelet activating factor acetylhydrolase activity and mRNAexpression in preeclampsia: A case control stud. Journal of Obstetrics and Gynaecology.
- 9. Guleria, K. Rajaram, S. Radhika, AG. Suneja, A. (2020). COVID-19 in Obstetric Unit Challenges and Lessons Learnt in Low Resource Settings. International Journal of Science and Research (IJSR) ISSN: 2319-7064: Volume 9 Issue 6. DOI: 10.21275/SR20604223452:
- 10. Jain, S. Rajaram, S. Kalra, K. Kamboj, S. Prakash, S. (2020). Purpura Fulminans complicating puerperal sepsis: A case report. Int J GynecolObstet, 151(3), 476-478.doi:10.1002/IJGO.13342
- 11. Kamboj, S. Guleria, K. Sharma, T. Sharma, R. Bannerjee, BD. (2020). A Case Control Study of Gene Environment Interaction in Pre-Eclampsia with Special Reference to Organochlorine Pesticides. Obstetrics and Gynecology Research 3, 161-171. DOI: 10.26502/ogr039
- 12. Kumari, A. Guleria, K. Tyagi, V. Suneja, A. Banerjee, BD. (2020). Maternal blood and amnionic oxytocin receptor gene expression and serum oxytocin levels in preterm birth: a case-control study. Clinical and Experimental Obstetrics & Gynecology, 48(2), 283-291.
- 13. Mahjabin. Agarwal, R. Kar, R. Singh, A. Aggarwal, R. (2020). Evaluation of serum melatonin levels in preeclampsia a case control study. Accepted for publication in The New Indian Journal of OBGYN.
- 14. Negi D, Guleria K, Tyagi V, Dev Banerjee B, Suneja A.(2021). Evaluation of trappin-2 in cervicovaginal secretions as predictor of spontaneous preterm birth in asymptomatic high-risk women: Nested case-control study. Int J Gynecol Obstet. 2021; 00:1–6.
- 15. Rajaram, S. Verma, A. Kar, R. Arora, VK. Gupta, B. Jain, S. (2020). Liquid biopsy for diagnosing ovarian cancer- quantification of cell-free DNA and p53 mutational analysis. Int J Gynecol Can, 30, A84.

- 16. Rajaram, S. Khan, M. Gupta, B. Arora, VK. Ahmed, R. Upreti, L. (2020). Clinicopathological correlation of serum vascular endothelial growth factor and tissue carbonic anhydrase factor IX in stage IA to IIA carcinoma cervix. J Clin Oncol, 38(15 suppl)
- 17. Rashmi. Sunita, S. Suneja, A. Garg, PK. Suman, D.(2020). Successful use of myocutaneous flap in recurrent vulvar carcinoma: A case report. Indian Journal of Gynecologic Oncology, 18,114.
- 18. Rashmi. Suneja, A. Panchal, R. Faridi, MMA. Guleria, K. (2020). A randomized controlled trial to evaluate role of bed rest in prolongation of pregnancy in cases of preterm premature rupture of membranes, 7(9), 26-28.
- 19. Rathore, A. Sharma, R. Kar, R. Tandon, A. Suneja, A. Guleria, K.(2021). Role of Cervical Phosphorylated Insulin-Like Growth Factor-Binding Protein 1 (phIGFBP1) for Prediction of Successful Induction Among Primigravida with Prolonged Pregnancy. Obstet Gynaecol India, 71(1), 38-44
- 20. Singh, A. Gupta, P. Radhakrishnan, G. Singh, G. Radhika, A.G. (2020). Ruptured cerebral aneurysm in second trimester a rarely reported entity. Indian Obstetrics & Samp; Gynaecology, 10(1):32-34.
- 21. Singh, A. Priydarshini, V. Radhakrishnan, G. Wadhwa, N. (2020) A pioneer research work on study of estrogen receptor alpha and beta expression in cervical cancer and normalcervix. Indian Journal of Obstetrics and Gynaecology 35 Volume 10, No.3,
- 22. Suneja, A. Garg, A. Bhatt, S. et al. (2020). Impact of Opportunistic Salpingectomy on Ovarian Reserve and Vascularity in Patients Undergoing Hysterectomy. Indian J Gynecol Oncol, 18, 107.
- 23. Suneja, A. Faridi, F. Bhatt. Guleria, K. Mehndiratta, M. Sharma, R. (2021). Effect of Vitamin D3 supplementation on symptomatic uterine leiomyoma in women with Hypovitaminosis D. J midlife health, 12(1), 53-60.DOI:10.4103/jmh.JMH 90 19
- 24. Suneja, A. Rashmi M. Guleria, K.Vaid, NB. Varma, D. (2020). Embryonal Rhabdomyosarcoma Causing Uterine Inversion in An Adolescent: A Rare Tumor with Rare Association. Ind J Gynecol Oncol, 18:120
- 25. Sinha N, Singh A, Banerjee BD, Agarwal R, Srivastva H. (2021). Association of Low Pregnancy-associated Plasma Protein-A level in late first trimester with various pregnancy complications. Int J Sci Stud 2021;8:122-125.
- 26. Sharma, P. Rashmi. Suneja, A. (2020). A case report of pemphigoid gestationis with postpartum flare. Int J Sci Res, 9(8), 20-21.
- 27. Sharma, R. Chaudhary, N. Banerjee, B D. Bhatia, M S . Suneja, A. Guleria, K. (2020). "Association of Placental tissue Estrogen Receptor Alpha Gene Expression with Postpartum depressi on in women at risk: A pilot study. Journal of South Asian Federation of Obstetrics and Gynaecology, Volume 12 Issue 6
- 28. Singh, P. Jain, S. Rajaram, S. Rathi, V. Gupta, B. Kalra, K. (2020).Pregnancy and labor outcomes in squat versus western style sitting toilet users: a pilot study. Int J Reprod Contracept ObstetGynecol, 9, 4601-5 29. Tyagi, N. Suneja, A. Bansal, N. Guleria, K. Mehndiratta, M. Bhat, S. Mishra, K. (2021) Role of Human Epididymis Protein 4 for detection of Ovarian Carcinoma in Adnexal Masses" IJGO-D-21-00034R1 (accepted for publication May, 2021) Indian Journal of Gynecologic Oncology. Chapters
- 30. Bhaskaran, S. Sharma, A.(2021). National health mission (NHM), National digital health mission (NDHM).. AOGD Bulletin Vol 20, issue 12, $Pg\ 8$
- 31. Bhaskaran, S. Sharma, A. (2021). National programme for prevention and control of cancer, diabetes, cardiovascular diseased and stroke (NPCDCS). AOGD Bulletin Vol 20, issue 12, Pg42
- 32. Dogra, K. Radhika, AG. (2021). National Tuberculosis Elimination Programme AOGD Bulletin Volume 20, Issue 12, 31.
- 33. Gupta, B. Sharma, T. (2021). Placental Adhesive Disorders. In Obstetrics Algorithms in clinical practice. Editor Alok Sharma. Publisher Springer under publication
- 34. Suneja, A. Aggarwal, R. (2020). Post partum haemorrhage. In: Ian Donald's Practical Obstetric Problems. Ed: Renu Misra, Pub: Wolters Kluwer health (India), 8th edition, 659-682.
- 35. Singh, S. Gupta, B. (2020). Anemia in Adolescents. In FOGSI FOCUS: Adolescent intervention for future reproductive health. Eds Girish Mane. Jaypee Bothers Medical Publishers
- 36. Sharma, T. Gupta, B. (2020). Placental Adhesive Disorders. In Obstetrics Algorithms in Clinical Practice, Eds. Alok Sharma Jaypee Bothers Medical Publishers
- 37. Tyagi,N. (2021). National Thallasemia Control Programme, AOGD Bulletin Volume 20, Issue 12, 25. <u>Books</u>
- 38. Mehta, S. Gupta, B. (2020). Recent advances in endometrial cancer, Eds Springer Publications.

- 39. Rajaram,S. Gupta, B. (2020).Evidence based practice in management of Fibroids. Eds.; Evangel Publications
- 40. Singh A, Goel, N. (2021). PLACENTA: BASIC TO ACCRETA Eds; Evangel Publications

5. Research projects

Principal	Title of the Project	Year	Funding	Grant Rs.
Investigator			agency	
Amita Suneja	Capacity building through HRRCs and teaching			
	institutes to operationalize government guidelines	2018	ICMR	
	for screening of common cancers (oral, breast and	-		Rs 48 Lakhs
	cervical) - ICMR Task Force study. Three-year	2021		
	project 2018-2021.			
Bhanu	Implementation of Surgical Site Infection	2	None	Nil
priya	Prevention Bundle in Gynaecological Surgeries, A	year		
	Quality Control Initiative			

6.Conferences Organised

Webinar series as AOGD Onco committee chairperson on "updating skills in cervica	1 cancer prevention" every Sunday
along with ISCCP & FOGSI	realized prevention every sunday
14 June to 19 july 2020	
Webinar on "Fertility enhancement by endoscopy" organised by AOGD & FOGSI. 1	2.07.2020
World population day CME 17.7.2020	
Skill station training held for nurses and doctors26.07.2020	
Webinar on Public awareness of cervical cancer along with AOGD & FOGSI commit	ttees, 15.08.2020
Smart Learning PG Platform Webinar by UCMS & GTB Hospital in	
collaboration with MEC, FOGSI & AOGD.	
1. Preeclampsia-	29.8.2020
2. AUB -	12.9.2020
3. Optimising outcome in GDM -	26.9.2020
4. Pelvic organ prolapse- Basics n beyond-	21.11.20
5. Breech delivery	12.12.2020
AOGIN India webinar for paramedics3 rd and 10 th October 2020	
AOGD Pre-congress video workshop on updating surgical skills in Gynaecologic onc	cology, at UCMS & GTB Hospital,
26.10.2020	1
Workshop on endosuturing in mobile skill lab of J&J, at GTBH 14-15 Oct. 2020	
Update on contraception under Sankalp travelling workshop for FP in association	ion with FOGSI Family Welfare
Committee.	-
29-30 Nov 2020.	
CME on "Urogynaecology - Basics & Beyond" as part of UCMS Golden jubilee cele	ebration.20.03.2021
Sominar/Conference Presentations	

Seminar/Conference Presentations

Alpana Singh	Poster presentation in 42nd AOGD annual virtual conference titled as "Rare and Deceptive cause of hypertension in pregnancy: A case report".	Oct. 2020

	Paper presentation in 16 TH Annual , Virtual Fertivision, Conference, titled as "Effect of vitamin D supplementation on serum VEGF levels in vitamin D deficient polycystic ovarian syndrome patients"	Dec.2020
Amita	Invited speaker during webinar on LEEP for CIN	5 July 2020
Suneja	Invited speaker during training Treatment of cervical precancerous lesions by Excisional methods	30 July 2020.
	Expert during panel on Hepatic disorders in pregnancy organised by south Delhi Gynae forum	11 Sep. 2020
	Chairperson during pre-congress video workshop on updating surgical skills in Gynecologic oncology organised by UCMS & GTBH, Oncology committee AOGD.	26 Oct. 2020
	Guest lecture on management of CIN organised by North West Delhi Gynae forum	20 Nov. 2020
	Chairperson during webinar on Hysteroscopy organised by AOGD ENDOSCOPY committee	Dec. 2020
	Chairperson for session on Dilemmas in managing adnexal masses in adolescents during Annual event organised by West Delhi IMA	20 Dec. 2020
	Panellist for case based approach to cervical cancer- preinvasive & invasive lesions organised by AOGD, ONCOLOGY COMMITTEE AOGD	23 Jan 2021
	Chairperson during webinar on Breast cancer, organised by west Delhi IMA	3 Feb. 2021
	Expert for 23rd PG crash course. Discussion preeclampsia organised by MAMC,	14 March 2021
	Panelist during webinar on "PAP & LBC Laid bare" organised by ISCCP AND AOGD Oncology Committee	4th July 2020
	Chairperson during webinar on Fertility enhancement by endoscopy" organised by AOGD & FOGSI.	12 July 2020
	Chairperson during webinar on organised by AOGD & FOGSI committees on public awareness.	15 Aug 2020
	Expert in Public on covid 19 organised by rural health committee and west zone IMA Ghaziabad forum	19 Sep 2020
	Chaired the session on art and science off writing a manuscript the CME FOGSI-JOGINDER E-PICSEP 2020 organised by AOGD.	26 Nov 2020
	Chairperson update on contraception under Sankalp travelling workshop for FP in association with FOGSI Family Welfare Committee	29 Nov 2020
	Guest lecture on Risk Reduction in ovarian cancer", organised by Ghaziabad society	19 Dec 2020
	Chairperson on cervical cancer preinvasive lesions during Annual conference organised by GNOGS	17 Jan 2021
	Chairperson for webinar on oncology for Breast Cancer session organized by FOGS, AOGD Oncology subcommittee, ISCCP, NARCHI	25 Jan 2021
	Expert during webinar on Think Active Series on unique cases of fibroid along with Mumbai Gynecologists by Baxter	29 Jan 2021
_	Chairperson during webinar on female genital tuberculosis Infections in Obstetrics and Gynecology Organized by Maternal & Perinatal health committee of South Asian Federation of Obstetrics & Gynecology (SAFOG)	12 Feb 2021
	Speaker on HPV Vaccine during webinar on public awareness organised by Birla soft, Gaziabad,	10 March 2021
	Chaired a session on recurrent cancer cervix during CME organised by AGOI,	26 March 2021

	Chaired a session on Recent Updates on Gynecological Cancer during Yuva FOGSI Conference organised by PGI, Chandigarh	3rd April 2021
Anshuja Singla	Panelist on AUB- A Rollercoaster at midlife" organised by Association of Obstetricians & Gynaecologists of Delhi (AOGD).	6th June 2020
	Faculty for paper session in 42 nd Annual and 1st E-Conference of AOGD	24 Oct. 2020
	Lecture on Hormonal contraception ,as a part of Sankalp Travelling Workshop for FP	Jan 2021
	Moderated the session on "Mastering The Art Of Difficult Obstetric Manoeuvres", UCMS>B Hospital.	Dec 2020
Bindiya Gupta	Organised AOGIN India webinar for paramedical health care workers 3.Lecture on: Pap smear (Video presentation).	3 rd and 10 th Oct. 2020
	Faculty, 42 nd Annual conference of AOGD; Judge for free paper session	24 th Oct. 2020
	42 nd annual virtual AOGD precongress workshop:Updating Surgical Skills in Gynaecologic Oncology- A video workshop; Presented video: perfecting pelvic lymphadenectomy;	26 th Oct.2020
	National coordinator for FOGSI essay competition on cervical cancer prevention,. Cervical cancer- Call for elimination programme launch in India.	Nov. 2020
	Panelist on clinical cases in cervical cancer prevention Oncology CME organized by FOGSI Oncology committee.	12 Nov. 2020
	Lecture: HPV Vaccination:FAQ's in north west delhi gyne forum monthly CME	20 Nov.2020
	FOGSI - POGS International Virtual Conference – "JUST TUMORS" is being held from 11th to 13th December 2020. Moderated Panel discussion "Cancer cervix)	12 Dec. 2020
	Co Moderator "Case based approach to cervical Cancer, pre invasive & invasive lesion. CME on "Cervical Cancer" under the aegis of AOGD.	23 Jan. 2021
	ICOG, FOGSI, MOGS pre congress workshop by FOGSI Oncology Committee. Lecture on 'Uterus 11 Study"	5 Feb. 2021
	Presented study "AOGD clinical meeting	26 Feb. 2021
	Faculty AGOI PG CME 2021 organized by UPSCAGOI in collaboration with Chandigarh and Rajasthan chapter of AGOI,. Role- Expert- Case of cancer cervix	27 Feb 2021
	Lecture on Cervical cancer screening; Women wellness series of CSR division of Birla soft.	10 March 2021
	South zone Delhi Gynaecological Forum CME;	23 March 2021
Himsweta Srivastava	Moderator - Smart Learning PG Platform Webinar on" Optimizing Outcome in GDM" organized by Deptt. Of Obstt & Samp; Gynae , UCMS & Samp; GTBH in collaboration with FOGSI (Medical Education Committee) & Samp; AOGD	26 Sept. 2020
	Invited Speaker at Sankalp Travelling Workshop for FP-Updates in Contraception , Organized by FOGSI 2020,FWC & DCMS & CONTRACT & CON	30 Nov. 2020.
	Speaker at an e-Symposium on Management of Medical Disorders In Pregnancy – A Case Based Approach, organized by Deptt. Of Obstt. & Synae, Santosh Medical College & Hospitals, Ghaziabad	22 Oct. 2020
Kiran Guleria	Panelist – Challenges in management of pregnant women during the COVID pandemic. Webinar of Safe Motherhood Committee, AOGD & NARCHI Delhi Branch.	31 May, 2020
	Moderator – AUB: a rollercoaster at midlife. E-CME by AOGD & ICOG, SGRH, Delhi	6 June, 2020

	Co-convener & Faculty webinar – MTP sequalae and Hysteroscopy,	19 June,
	organized by UCMS & GTB hospital, Delhi, Endoscopy committee AOGD, FOGSI, ICOG	2020
	Convener and moderator- challenges of Pre-eclampsia. Smart Learning PG Platform Webinar by UCMS & GTB Hospital in collaboration with MEC, FOGSI & AOGD.	29 Aug. 2020
	Panelist – Hepatic disorders in Pregnancy: evidence-based management. In Delhi Gyne Forum CME	11 Sept. 2020
	Convener – management strategies for AUB- O & M. Smart Learning PG Platform Webinar by UCMS & GTB Hospital in collaboration with MEC, FOGSI & AOGD.	12 Sept. 2020
	Panelist- First International Public Awareness Campaign Webinar by Rural health committee AOGD &WDW Ghaziabad	19 Sept. 2020
	Panelist- vaccines in women: adolescent to menopause. DGF (central) webinar.	24 Sept. 2020.
	Convener – Optimizing outcomes in GDM. Smart Learning PG Platform Webinar by UCMS & GTB Hospital in collaboration with MEC, FOGSI & AOGD.	26 Sept. 2020
	Faculty - workshop at 42nd Annual & 1 st e- Conference of AOGD,	26 Oct, 2020.
	Faculty - presidential session at 42nd Annual & 1 st e- Conference of AOGD,	1 Nov, 2020.
	Panelist – Fetal medicine workshop by AIIMS, New Delhi, at 42nd Annual & 1 st e- Conference of AOGD,.	2 Nov. 2020
	Convener – Pelvic Organ Prolapse- Basics & beyond. Smart Learning PG Platform Webinar by UCMS & GTB Hospital in collaboration with MEC, FOGSI & AOGD.	21 Nov. 2020.
	Speaker – 'optimizing care around cesarean section in diabetic women.' At virtual CME on Diabetes in Pregnancy: providing optimum care. By quality Improvement and Safe motherhood Committee, AOGD & Delhi Diabetic Forum.	28 Nov. 2020
	Convener – Mastering the art of difficult obstetric maneuvers. Smart Learning PG Platform Webinar by UCMS & GTB Hospital in collaboration with MEC, FOGSI & AOGD.	12 Dec. 2020
	Speaker – 'Critical Nutrition in Pregnancy' at webinar by FOGSD in association with AOGD, NARCHI Delhi, ISCCP.	6 Jan. 2021.
	Faculty - Review & Optimize antenatal Care in India at Yuva Speaks & Leads for New India, Webinar series 3.	14 Jan, 2021.
	Faculty -Live webinar on Recent Updates in Obs& Gynae: Optimizing Women's Health, 1st Annual E-conference, Greater Noida Obstetrics & Gynaecology Society,	17 Jan. 2021
	Expert – Rare complication of Myomectomy. At "Think Active" webinar series.	29 Jan. 2021
	Faculty – "Urogynecology- basics & beyond" virtual CME under UCMS Golden Jubilee year-2021, NARCHI & SOVSI. Moderator- Intrapartum Fetal surveillance. FOGSI FORCE PG program Webinar	20 March 2021 & 22 Aug. 2020
	Speaker (FOGSI) – Effect of Air Pollution on Mothers during Pregnancy. In Doctors for clean Air Conclave by 7 National Medical Associations.	6 Sept. 2020.
	'Antenatal care during and beyond COVID -19' at ISSRF international conference 2021, , New-Delhi.	20 Feb. 2021
Rachna Agarwal	Faculty. Smart Learning PG platform: a case based interactive session. Organized by Department of Obstetrics and Gynecology, UCMS and GTB	29Aug. 2020
	hospital: Challenges of Pre- Eclampsia" held Faculty. Smart Learning PG platform: a case based interactive session. Organized by Department of Obstetrics and Gynecology, UCMS and GTB hospital: Management Approach in AUB (O& M) held on	12 Sept. 2020.

	Faculty. Smart Learning PG platform: a case based interactive session. Organized by Department of Obstetrics and Gynecology, UCMS and GTB hospital: Optimizing Outcome in GDM held	26Sept. 2020
	Judge. Free paper session. 42nd Annual Conference of AOGD,	24 Oct. 2020.
	Panelist. 'Panelist' in the Pre-conference E-Workshop: 'Medicolegal Aspects in Obstetrics & Gynaecology'. 42nd Annual Conference of AOGD,	28 Oct. 2020.
	Faculty. Smart Learning PG platform: a case based interactive session. Organized by Department of Obstetrics and Gynecology, UCMS and GTB hospital: Pelvic organ prolapse- Basics & Beyond.	21 Nov. 2020
	Faculty. Smart Learning PG platform: a case based interactive session. Organized by Department of Obstetrics and Gynecology, UCMS and GTB hospital: Mastering the art of difficult obstetric maneuvers: Breech, Dystocia & fetal extraction during cesarean delivery	12 Dec. 2020
	Moderator. virtual "Gurukul classes" under the aegis of AOGD & ISOPARB, organized by Institute of Obstetrics & Gynaecology, Sir Ganga Ram Hospital.	5 Feb. 2021
Rashmi	Moderator - Smart Learning PG Platform Webinar on" Optimizing Outcome in GDM" organized by Deptt. Of Obstt & Gynae, UCMS & GTBH in collaboration with FOGSI (Medical Education Committee) & AOGD	26 Sept. 2020.
	Invited Speaker at Sankalp Travelling Workshop for FP-Updates in Contraception, Organized by FOGSI 2020, FWC & UCMS & GTBH, Delhi.	30 Nov. 2020
	Panelist for panel on Drugs and their safety profile for common ailments in pregnancy in webinar organized by South Delhi Gynae Forum	15 Jan 2021.
	Panelist for webinar on Recurrent pregnancy loss organized by Delhi Gyecologists forum	17 July 2020.
	Moderator: Panel on Intrapartum fetal Surveillance organized by FOGSI Force – PG Academic Program	22 Aug 2020.
	Judge for free papers (oral) at 42nd Annual AOGD Conference, Delhi	Oct. 2020.
Richa Aggarwal	Moderator- Smart Learning PG platform: a case based interactive session. Organized by Department of Obstetrics and Gynecology, UCMS and GTB hospital: Pelvic organ prolapse- Basics & Beyond.	21 Nov 2020
	Invited Speaker at Sankalp Travelling Workshop for FP-Updates in Contraception, Organized by FOGSI 2020, FWC & UCMS & GTBH, Delhi.	30 Nov 2020
	Panelist safe and legal abortion in clinical practices organized by FOGSI MTP Committee 2020	20 June 2020
	Presented A wriggly problem of cervix a case report at AOGD monthly meet at GTBH.	28 Feb 2021
Richa Sharma	Panel Moderator – Fertility enhancing Endoscopy, webinar Endoscopy summit	25 Sept 2020
	Panelist – case scenerios in our OPD, webinar Endoscopic E summit	28 Sept 2020
	Panelist– Prevention & Management of SSI in webinar on Medical disorders in Pregnancy by Erode ObGy society	4 Oct. 2020 5 Oct. 2020
	Panel Moderator: webinar on Intrauterine adhesions diagnostic and therapeutic challenges- experiences & evidences	
	Speaker, operative hysteroscopy – hysteroscopicadhesiolysisCME webinar by AWS Chapter, CMC Ludhiana, Speaker, hysteroscopicadhesiolysis& ploughing techniques in International	28 Nov 2020 20 Dec
	webinar on Endoscopy updates, Speaker – hysteroscopicadhesiolysis in virtual Pride IAGE conference	2020 2020 26.12.2020
	Chairperson – surgical management of Adenomyosis, webinar on understanding & treating Adenomyosis	5 Jan. 2021
	Chairperson – long term complications of GDM, webinar on Gestational diabetes – Early intervention key to best outcome	11 Jan 2021

Speaker – approach to endometrioma, webinar Pan India Endomet	
Symposium under aegis of FOGSI Endometriosis committee & UK soci	
Chairperson - ICOG, MOGS,FOGSI Precongress workshop by FO	OGSI 5 Feb. 2021
Medical disorders in Pregnancy committee Chairperson - FOGSI ICOG National conference on Non communi	1-1- 4 E-1- 2021
Chairperson - FOGSI ICOG National conference on Non communi diseases in Obs & Gynae	cable 4 Feb. 2021
Speaker – See and treat : Endoscopic markers, SAFOG Maternal	and 12 Feb
Perinatal health committee webinar on Genital Tuberculosis	2021
Panel Moderator – complications of threatened miscarriage : case 1	
discussions, webinar by Reproductive Endocrionology Committee AOG	
Panel Moderator – Family planning, in FOGSI FORCE PG Acad	
Program	2021
Speaker – Endometriosis surgery: once in lifetime, in FOGSI & S	
International Endometriosis E- Conclave	March 2021
Panel Moderator – Management of PID challenges & practical solutions	
based active session in webinar by SAFOG Maternal and Perinatal h	
committee on PID	2021
Panelist –thyroid disorders in Pregnancy, webinar on high risk Pregnancy	cy by 17th March
ISOPARB Vidarbha chapter	2021
Panelist – acute andomen in Pregnancy, webinar by Patliputra ACS	
2021 : Annual conference of American college of surgeons India chapte	
MTP Sequelae and Hysteroscopy (Asherman's syndrome & RPOC)	19 June
Will sequetae and Hysteroscopy (Asherman's syndrome & RiOC)	2020
Masterclasses – 5 days series on Fertility Enhancing Endoscopic Surger	
Wasterclasses – 3 days series on Fertility Emilancing Endoscopic Surger	12th,18th
	July 2020
Gynae Surgical Skills Enhancement, 1st series	13th
Gynac Burgicar Britis Elmancement, 1st series	August
	2020
Gynae Surgical Skills Enhancement, 2nd series	14th
Syndo Burgieur Britis Emianoement, 2nd series	August
	2020
Gynae Surgical Skills Enhancement, 3rd series	16th
	August
	2020
Public Awareness Compaign was organized under the Aegis of AOC	
collaboration with FOGSI Public Awareness Committee, Adolescent H	
Committee, Ethics & Medico legal Committee, Family Welfare Comm	_
Food & Drugs and Medico Surgical Equipment Committee, Gyneco	
Oncology Committee, Medical disorders in Pregnancy, Medical Educ	eation
Committee, Perinatology committee	
Tutorials on Laparoscopic Cystectomy	17th
	August
	2020
Tutorials on TLH was organized	18th
	August
	2020
Panel Discussion Hysteroscopy: "Averting complications and De	ealing 19th
safely" Case based discussion	August
	2020
Endoscopy Summit	25th
	September
	2020
Endoscopic E Summit	28th
	September

	Endoscopy Fiesta	5th October 2020
	Intenational webinar on Endoscopy Updates	20 Dec 2020
	Understanding & Treating Adenomyomas, in collaboration with Multidicipilinary committee AOGD	5 Jan 2021
	Pan India Endometriosis Symposium under aegis of FOGSI Endometriosis committee & UK societies	29 Jan 2021
Sandhya Jain	Webinar on 'trouble shooting' in on volume reductive surgery by Society of vaginal surgeons Delhi under aegis of SOVSI	24 th August 2020.
	Faculty. Smart Learning PG platform: a case based interactive session. Organized by Department of Obstetrics and Gynecology, UCMS and GTB hospital: Management Approach in AUB (O& M) held	12th September 2020.
	Webinar on Scientific update on World Menopause Month by Deptt. Of Obs and Gynae, Sharda Hospital & IMS, Delhi. Panel discussion on menopausal health	27th October 2020
	42nd annual and first E- conference. Panel discussion on practical application of urodynamics in urogynecology and its impact on management. at post conference E-Workshop: Urogynaecology Workshop	6th November, 2020
	42nd annual and first E- conference. Embryological Insights into vaginal atresia. Poster presentation	25th October 2020.
	42nd annual and first E- conference. Role of 2D transperineal ultrasound in detecting occult anal sphincter injury. Free paper presentation	24th October 2020
	FOGSI Sankalp travelling fellowship for FP. Updates in Contraception: Part 1 under FOGSI 2020, FWC with Deptt. Oof Obs and Gynecology, UCMS & GTBH	29 th November 2020
	Webinar on "Post operative voiding dysfunction-Dilemmas and management" organized by SOVS-Delhi. Panelist in case based discussion on post operative voiding Problems-Prevention& Management.	9 th January 2021
	Urogynaecology Master-Class Webinar on Stress Urinary Incontinence organized by Urogynaecology Committee AOGD &FOGSI as faculty	29 th January, 2021
	Teaching Faculty in the Twenty Third Practical Course and CME at MAMC on on the topic Uterovaginal Prolapse	12 th March 2021
Sruthi	Panelist "AUB in Perimenopause", AOGD.	June 2020
Bhaskaran	Faculty- Talk on MEC: Case study in medical conditions. Sankalp FP workshop.	Nov 2020

8. **Extension and Outreach Activities:** Public lecture on breast cancer awareness under aegis of AOGD oncology committee and Bliss Foundation on 30 Oct 2019, at GTB Hospital

9. Faculty Strength: 19

10. Other Significant Information

Faculty of the Department is invited as experts in various academic bodies namely MCI, UPSC, DMC, NBE, FOGSI, AOGD, AOGIN and the Department has held the office of various associations namely AGOI, AOGIN India, NARCHI & AOGD. The faculty has been in prime positions in these associations and discharged their duties with great responsibility. The faculty is also invited nationally to deliver lecture and share their expertise in various academic conferences of repute. UCMS is the first choice of the Postgraduates during the counseling.

OBSTETRICS AND GYNAECOLOGY (MAMC)

Major activities and achievements during the period-Department of Obstetrics & Gynaecology provides tertiary care for the patients and conduct teaching, training and research programmes in Obstetrics & Gynaecology. Teaching 250 undergraduate students and 20 postgraduates per year, fellowship of National Board of 2 students each in "Reproductive medicine (3 fellows / years)" and "Maternal Fetal Medicine (2 fellows / year)". We have special clinics on Infertility and IVF, High risk pregnancy, Fetal Medicine, Gynaecologic Endocrine, and Gynaecologic Oncology.

"23rd Practical Course & CME in OBGY" was conducted by the dept. of OBGY in March 2021. In this course from all over India more than 300 postgraduate students came and the entire faculty gave lectures and case discussions. Training of trainers(TOTs) for family planning and PPIUCD done time to time in the department and 50-60 trainees were trained..

As the hospital declared as dedicated Covid hospital from April 2020. Department had conducted almost 600 deliveries of covid positive cases.

Outstanding Honors/Distinctions-

- Dr Asmita M Rathore. Is Nodal Officer-FNB Maternal Fetal Medicine run by NBE Delhi.
 - 2. Member Task Force Maternal Health-Govt of NCT, DFW Delhi
 - 3.MRCOG examiner-
- All the faculties of the department goes to other universities as undergraduate and postgraduate examiner,
 DNB examiner, UPSC adviser, MCI inspector and as expert member in various national and international committees.
- Department receives prizes for most number of sterilisations and PPIUCD insertion for Central District Delhi.

Many PGs of the department have received prizes in state and national conferences.

Publications-

S.No	Category of publication	Detail of articles
2	Original research articles in indexed	
	journals	
3	Original research articles in non-	1 : Rani R, Sharma R, Kohli C. Female sterilization failure, consequences
	indexed journals	and further contraception: a review of cases over ten years. Int J Reprod Contracept Obstet Gynecol 2020;9:4032-5.
		2.Rathore AM,Meena SB,Rani R,Goswami D,Tripathi R.A validation study of early warning system in high-risk pregnantwomen.Indian J Med Res 152,
		November 2020, pp 519-522DOI: 10.4103/ijmr.IJMR_1649_18
		3.Rani R, Bhasin H, Punia S. Van Wyk GrumbachSyndrome: A Rare Cause
		for Ovarian Cyst and Precocious Puberty in Children. Pan Asian
		J Obs Gyn 2021;4(1):36-38.

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4) Research projects-Total number-1

S.NO	Title of the Project	Principal	Funding
		investigator	agency
1	.Determinants of stillbirths among deliveries in a tertiary	Dr. M. M Gupta	ICMR
	care hospital		ongoing
2.			
	Still Birth registry		

Seminars organised—

S.	Date	Venue	Topic	Organiser	Sponsor's
No.					
1 &2	5 April &	Conference Room,	SR Orientation	Department of	
	17-08-2019	Department		OG	
3	26-10-2019	Virtual	41 st Annual Conf	Dr.AM. Rathore	Dept of OG
			AOGD Pre-Conf	Dr. NDhiman	and
			workshop	Dr. CA.Sethi	
				Dr. BSingha	
4	08-08-2020	Virtual	Contraception:	Dr. Asmita M. Rathore	NARCHI
			Making Right	Dr. Rachna Sharma	
			Choices	Dr. Sangeeta Gupta	
5	12-3-2021to	MAMC Auditorium	23rd Practical Course	Dr.AMRathore	Deptt. Of
	14-3-2021	New Delhi	&	Dr. G. Gandhi	OG
			CME	Dr. Renu Tanwar	

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7)Conferences organised- Ref table (6)

8)Seminar or conferences presentation-

Dr. Asmita M Rathore-National Conferences attended as faculty-10-15.

- Most of the faculty attended AOGD and NARCHI conference 2020 conducted at Delhi. Most of the post
 graduates presented paper in these conferences.
- PAPER PRESENTATIONS IN AOGD CONFERENCE Delhi from26th oct to30th October virtual.
- 1. PURIAN L Gandhi G,Goswami D, Agarwal KEfficacy and safety of misoprostol for termination of pregnancy upto 20 week gestation in women with previous one ceasarean section.
- 2. Choudhury N. Tempe A, Kumar D, Garg A, Endometriosis fertility index for prediction of fertility outcome in endometriosis.
- 3.Singh S,Rathore A M, Gupta M M,Arora P, Koner B P,- Role of platelet indices in thrombocytopenia in pregnancy
- 4.Mantri A,Sahu. LGupta M M Maternal and fetal outcomes in second stage ceasarean sections.
- 5.Bharatipriya, Rathore A M,Agarwal K,Bhasin S Singh P Screening for small for gestational age fetus using risk factors and symphysiofundal height.
- 6.TSERING C, Sahu. LGupta M M Maternal and fetal outcomes in nulliparous women undergoing induction of labour between 39+ to 41+ weeks of gestation
- 7..Nair K,Sahu L,Gestational age at delivery and maternal and perinatal outcomes in women with intrahepatic cholestasis of pregnancy
- 8.Sadhavi S, S Gupta, S Prasad, S KapoorSerum adiponectin levels in pregnant women with and without gestational diabetes mellitus.
- 9.Siddiqi S. F, Mala Y M,Tyagi SComparison of prophylactic Tranaexemic acid vs misoprostol for control of bleeding in cesarean section.
- 10.Suma B, TanwarR, Prasad S,- Effect of isosorbide mononitrate in women undergoing IUI- a randomized control trial.
- 11. NaikS, Tyagi S, Mala Y M, Garg ACerebrouterine ratio and cerebroplacental ratio in hypertensive disorders in pregnancy.
- 12. Kushwaha S, Goswami D, Gandhi G, S Kaushik Phenotypes and metabolic profile of women with PCOS.
- 13. Kumar D, Tempe AAssociation of uterine artery Doppler at 28 weeks or more gestation and its relation with obstetric outcome.
- 14.Lakhmi,Dr Y. M. MalaVit D deficiency in pregnancy with COVID -19 & it's correlation with clinical outcomes.
- 15. Singh S, Gupta SFeto-maternal outcome in critically ill covid obstetric patients.

2.AICC RCOG e conclave presentation

1.Bharatipriya,Rathore AM,Screening for small for gestational age fetus using risk factors and symphysiofundal height

Faculty strength-permanent teaching-15, Temporary-3. Non teaching-7

Other significant information.-Post graduate achievements in conf-

Post graduates Dr.Bharatipriya received 2nd prize in AOGD conference.

Dr Suvidya Singh received 1st prize in High risk pregnancy in AOGD conference.

Dr Lakhmi and Dr monika received certificate of appreciation in AOGD conference.

OPHTHALMOLOGY (LHMC)

1. Major Activities and Achievements

- Department of Ophthalmology has been increase of 4 Senior Resident seats.
- Glaucoma Awareness talks with distribution of information booklet on 12th March 2021.
- Eye Donation Awareness talk for MBBS Students on the occasion of Eye donation fortnight. (25th August 2020 to 8th September 2020)
- Eye donation awareness guest lecture for nursing staff of LHMC and associated Hospitals on 9th September 2020

Dr. Sarita Beri			
Membership	Member of Bureau of Indian Standards		
External	External Expert tor purchase of costly equipment and Dr. RP Centre AIIMS New Delhi		
Expert			
MCI	1) Muzzafarpur Medical college, Muzzafarpur 4/9/2020 Inspection for increase in PG		
Inspection	seats in Ophthalmology		
	 Govt. Medical College Kadapa, Andhra Pradesh (RIMS) 8/9/2020 Inspection for increase in PG seats in Ophthalmology 		
	3) MBBS inspection of Medical colleges in India (10) Online at MCI, Dwarka 15-17/9/2020		
External	GNEC, MAMC for Senior Resident Inter view		
Expert			
External	For Purchase of Equipment by Ophthalmology Department of AIIMS, Rae Barellie, by HSCC.		
Expert			
External	11 February 2021 external expert for PhD viva at Dr RP Centre AIIMS New Delhi		
Expert	Increase of four senior resident seats		
External	5 March 2021 external expert for corneal transplantation renewal license by HT 0T a at Bharti I		
Expert	Centre greater Kailash one New Delhi 20th March 21 toss mid term conference 20th 21st March Ashoka Hotel New Delhi chairperson of surgical retina session		
External Exam	ner		
16-18 /6/2020	AIIMS MD exam at Dr RPcentre		
6/8/ 2020	Oski Checking at DNBE, Dwarka		
Eye banking	Member of NOTTO team for Keratoplasy ,and Eye Banking		
08/09/2020	PhD in community Ophthalmology viva at Dr RPCentre, ASiims		
5/10/20	DNBE VALIDATION OF Question Papers for FNBE entrance Exam- Vitreo Retina		
15/12/2020	DNBE Exam External ,Medanta,Medcity		
15-18/02/2021	15th to 18 February 2021 external examiner for MBBS at Dr DY Patil medical College Pune		

Dr. Zia	ARVO Annual Meeting Programme Committee Chair for the EY section (Eye		
Chaudhuri,	Movements. Strabismus, Neuro-ophthalmology and Amblyopia) till May 2020		
Director			
Professor			
	Editor, Member of Editorial Board and Reviewers of peer reviewed PubMed		
	Indexed Journals		
	BMC Ophthalmology[Associate Editor], Publisher: Springer Nature		
	2. Strabismus [Editorial Board]; Publisher: Taylor and Francis		
	3. Ophthalmology sand Therapy [Editorial Advisory Council];		
	Publisher: Springer		
Dr Piyush Kumar	Member of Bureau of Indian Standards		
R. Ramavat,	Member of Committee for purchase of equipment in newer AIIMS		
Assistant	Member of Faculty Welfare Association, LHMC		
Professor	Member of Alignment and Integration Committee, LHMC		
	New Procedures like Selective Laser Trabeculoplasty, Keratoplasties and		
	Collagen Cross linking are started in our department this year.		

2. Honours / Distinctions Dr Sarita Bri (HOD)

 Annual DOS Conference online, 18-20th Dec 2020 Paper Presentation in session Paediatric Ophthalmology(Interesting Cases) Frosted Branch Angiitis in an infant- a rare presentation won the first prize in the session

Dr Om Prakash

Paper Pesentation in DOS 2020 International Hybrid Conference, 18th to 20th December 2020,
 Upadhyaya Abhishek, Sethi Maansi, Nangia Anita, Prakash O.: "COMPRESSIVE OPTIC NEUROPATHY DUE TO INTRACANALICULAR METASTASIS OF BREAST CANCER" in the Neuro-Ophthalmology (Free Paper)

3rd prize for oral presentation

Dr Zia Chaudhuri

 ARVO Global mentorship programme: mentor selected by ARVO from July 2020 to December 2020

3. Publications:

- Kher M,Beri S,Rehan HS,Prakash A,Gupta LK. Effect of Metformin and Insulin Combination Monocyte Chemoattractant Protein 1and cathepsin-D in Type 2 Diabetes Mellitus. Diabetes and Metabolic Syndrome: Clinical Research and Review. Journal Homepage:https://ees. Elsevier.com.https://doi.org/10.1016/j.dsx2020.08.0161871-4021/c2020
- Madan S, Beri S. Cytokine storm in paeditaric multisystem inflammatory syndrome temporally associated with COVID-19: is it amenable to convalescent plasma: CMAJ, e letters https://www.cmaj.ca/content/cytokine-storm-paediatric-multisystem-inflammatory-syndrometemporally-associated-covid-19
- Madan S, Beri S: Retinopathy of Prematurity and COVID-19: Is there a correlation? CMAJ, e letters https://www.cmaj.ca/content/re-retinopathy-prematurity-and-covid-19-there-correlation
- Madan S, Beri S, Can the ophthalmologist contribute to point of care testing in COVID-19?, CMAJ, e letters https://www.cmaj.ca/content/re-can-ophthalmologist-contribute-point-care-testing-covid-19
- Prakash O, Sethi M: Extensive palpebral molluscum contagiosum in an immunocompetent child Indian Journal of Medical Research, Year 2020, Volume 152, Issue 4 [p. 432-433]
 DOI: 10.4103/ijmr.IJMR_584_19 PMID: 33380713
- Ramavat P.R. 2021, Practical Approach in Normotensive Glaucoma. In Z. Chaudhuri, M. Vanathi (Ed). Postgraduate Ophthalmology (2ed, 1016-1028) Delhi, India: Jaypee Brothers Medical Publisher
- Ramavat P.R. Nair, A.G., Ahiwalay, C., Bacchav, A.E. et al. Effectiveness of simulation-based training for manual small incision cataract surgery among novice surgeons: a randomized controlled trial. Nature, Sci Rep 11, 10945 (2021).

BOOKS:

• **Chaudhuri Z**, Vanathi M. Postgraduate Ophthalmology, Vol 1 and 2, New Delhi Jaypee Medical Publishers Pvt Ltd, New Delhi, 2nd Edition, 2020

Chapters in book In: Postgraduate Ophthalmology, Ed 2, Vol 1. Eds: Chaudhuri Z, Vanathi M. Jaypee Brothers Medical Publishers Pvt Ltd.

- Beri S, Madan S, Kapoor M. Clinical Trials in Retinal Disorders. In: Postgraduate Ophthalmology, Ed 2, Vol 1. Eds: Chaudhuri Z, Vanathi M. Jaypee Brothers Medical Publishers Pvt Ltd 2020, New Delhi, India, Chapter 17.4
- Ramavat PKR. Normal Tension Glaucoma. In: Postgraduate Ophthalmology, Ed 2, Vol 1. Eds: Chaudhuri Z, Vanathi M. Jaypee Brothers Medical Publishers Pvt Ltd 2020, New Delhi, India, Chapter 5.5
- **Prakash O**, Sethi M. Anophthalmic Socket and Prosthetc Rehabilitation. In: Postgraduate Ophthalmology, Ed 2, Vol 1. Eds: Chaudhuri Z, Vanathi M. Jaypee Brothers Medical Publishers Pvt Ltd 2020, New Delhi, India, Chapter 9.3
- **Prakash O**, Sethi M. Lacrimal System. In: Postgraduate Ophthalmology, Ed 2, Vol 1. Eds: Chaudhuri Z, Vanathi M. Jaypee Brothers Medical Publishers Pvt Ltd 2020, New Delhi, India, Chapter 9.13

- Chaudhuri Z. Light and its properties. Chapter 1.1, p 3-11
- Chaudhuri Z. Reflection, refraction, and geometric opticsChapter 1.2. p 12-23
- Chaudhuri Z. Refraction of the eye: Principles and practice of retinoscopy. Chapter 1.3, p 24-52
- Chaudhuri Z, Ganguly S, Yadav N, Lorenz B. Genetics of ophthalmic diseases. Chapter 2.1, p 101-124
- Kohli V, Garga UC, Chaudhuri Z. Principles of Ophthalmic Radiological imaging. Chapter 2.8, p 236-248
- Gera A, Puncholothu A, Garga UC, Chaudhuri Z. Neuroimaging. Chapter 2.9, p 249-257
- Demer JL, **Chaudhuri Z**. High resolution surface coil orbital magnetic resonance imaging in strabismus. Chapter 2.11, p 265-268
- Jain D, Chaudhuri Z. Principles of ocular motility. Chapter 11.2, p 1794-1801
- Chaudhuri Z. Pupil. Chapter 11.3, p 1802-1814
- Chowdhury D, Chaudhuri Z. Cranial nerve evaluation. Chapter 11.4, p 1815-1824
- Sankaran P, Satyanarayana P, Chaudhuri Z. Headache. Chapter 11.6, p 1837-1842
- Chaudhuri Z, Satyanarayana P. Visual Hallucinations. Chapter 11.7, p 1843-1848
- Chaudhuri Z. Psychosomatic disorders. Chapter 11.8, p 1849-1853
- Gupta S, Sachdeva V, Chaudhuri Z. Optic Atrophy. Chapter 11.9, p 1854-1866
- Chaudhuri Z, Mehta S. Ophthalmoplegia. Chapter 11.16, p 1954-1959
- Chaudhuri Z. Disorders of the supranuclear and infranuclear pathways. Chapter 11.17, p 1960-1980
- Chaudhuri Z, Yadav R, Mandal A. Orbital syndromes: Manifestations of intracranial pathology. Chapter 11.18, p 1981-1983
- Chaudhuri Z. Nystagmus and other abnormal ocular oscillations. Chapter 11.19, p 1984-2014
- Monga S, Chaudhuri Z. Pediatric refraction. Chapter 12.4, p 2057-2062
- Karthikeyan AS, Chaudhuri Z. Ocular embryology: overview and basis for some congenital ocular disorders. Chapter 12.17, p 2205-2222
- Rana G, Jain R, Dhamija RK, Aneja S, Chaudhuri Z.Cortical visual impairment. Chapter 12.19, p 2230-2240
- Chaudhuri Z, Jain D. Functional anatomy and physiology of extraocular muscles. Chapter 13.1, p 2241-2248
- Chaudhuri Z, Jain D. Physiological basis of ocular misalignment. Chapter 13.2, p 2249-2255
- Shankar V, Chaudhuri Z. Classification of strabismus. Chapter 13.3, p 2256-2261
- Chaudhuri Z. Primary concomitant strabismus. Chapter 13.6, p 2297-2216
- Chaudhuri Z. Paralytic strabismus. Chapter 13.8, p 2321-2344
- Chaudhuri Z, Demer JL. Neuroanatomical strabismus and pulleopathies. Chapter 13.10, p 2350-2359
- Agarkar S, Chandrasekaran A, Madan S, **Chaudhuri Z**. Congenital cranial dysinnervation syndrome. Chapter 13.12, p 2365-2374
- Agarkar S, Chandrasekaran A, Chaudhuri Z. Duane retraction syndrome. Chapter 13.13, p 2375-2387
- Jain D, Chaudhuri Z. Postsurgical strabismus. Chapter 13.17, p 2402-2405
- Chaudhuri Z, Shankar V. Management of strabismus. Chapter 13.18, p 2406-2440
- Chaudhuri Z, Karthikeyan AS. The eye in metabolic and systemic disorders. Chapter 14.1, p 2441-2465
- Karthikeyan AS, Chaudhuri Z. Ophthalmic manifestations of leukemia. Chapter 14.3, p 2474-2480
- Chaudhuri Z, Khan S, Debnath PR. The eye and carotid artery disease. Chapter 14.4, p 2481-2487
- Chaudhuri Z. Ocular myopathy. Chapter 14.5, p 2488-2502
- Chaudhuri Z, Karthikeyan AS. The eye in phakomatosis. Chapter 14.6, p 2503-2515
- Chaudhuri Z. The eye in demyelinating disease. Chapter 14.7, p 2516-2524
- Garg S, Jain R, Aneja S, **Chaudhuri Z.** Autism spectrum disorders and the eye. Chapter 14.8, p 2525-2537
- Chaudhuri Z. Traumatic strabismus. Chapter 15.10, p 2645-2650
- Chaudhuri Z. Ocular manifestations of intracranial trauma. Chapter 15.11, p 2651-2662
- Chaudhuri Z, Yadav N. Medical ethics and medicolegal aspects of ophthalmology. Chapter 18.2, p 2861-2889

- Mehta S, Chaudhuri Z. Ophthalmic emergencies. Chapter 18.6, p 2912-2929
- Mehta S, Chaudhuri Z. Differential diagnosis of ophthalmic signs and symptoms. Chapter 18.7, p 2930-2948
- Kohli V, Kataria P, Garga UC, **Chaudhuri Z.** Illustrative imaging of the normal orbit. Chapter 19.3, p 2991-3016
- Kannam M, Sachdeva V, Gera A, Garga UC, **Chaudhuri Z.** Neuroradiology in ophthalmic practice. Chapter 19.4, p 3017-3027
- Ramavat P.K. R. Practical Approach in Normotensive Glaucoma p

4. Research Projects

S.No.	PG student	Topic	Supervisor	Co-Supervisor		
Postgraduat	Postgraduate thesis to be submitted					
1.	Dr. Aditya Sharma	A study of functional and structural tests in severe glaucoma	Dr. Rajiv Garg	Dr. Sarita Beri		
2.	Dr. Nishant Yadav	Study of risk factors for progression of retinopathy of prematurity (ROP)	Dr. Sarita Beri	Dr. Rajiv Garg Dr. Sushma Nangia		
3.	Dr. Greesha Raveendran	Follow up study of the outcome of trichiatic lashes following radiofrequency ablation	Dr. Om Prakash			
4.	Dr. Vidhi Baipai	functional visual parameters in stroke patients	Dr. Zia Chaudhuri	Dr. Om Prakash Dr. Rajinder K. Dhamija Dr. Suvasini Sharma		
Postgraduat	te thesis on going			_		
1.	Dr. Anand Kumar Pathak	Study of Orbital Blood flow velocities in Retinopathy of Prematurity	Dr. Sarita Beri	Dr. Rama Anand Dr. Sushms Nangia		
2.	Dr. Archita Sharma	Comparison of central corneal thickness and intraocular pressure in premature infants with and without retinopathy of prematurity	Dr. Sarita Beri	Dr. Piyush Kumar R. Ramavat, Dr Sushma Nangia		
3.	Dr. Amita	Study of outcome of conjunctival rotational autograft fixation using autologous blood in primary pterygium	Dr. Om Prakash	-		
4.	Dr. Himanshu Prakash	Functional visual parameters in children and adolescents with residual monocular amblyopia on citicoline augmented occlusion therapy	Dr. Zia Chaudhuri	Dr. Om Prakash Dr. Suvasini Sharma		
5.	Dr. Supriya Buraniya	Wstimation of change in interaocular pressure (IOP) after selective laser trabrculoplasty in Glaucoma Patients	Dr. Piyush Kumar R. Ramavat	Dr. Sarita Beri		

5. Seminars Organized

- Glaucoma Awareness talks with distribution of information booklet on 12th March 2021.
- Eye Donation Awareness talk for MBBS Students on the occasion of Eye donation fortnight. (25th August 2020 to 8th September 2020)
- Eye donation awareness guest lecture for nursing staff of LHMC and associated Hospitals on 9th September 2020

6. Conferences Organized

S.No.	Faculty Member	Organizer(s)	Name, Venus & Date
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	1	1	
1.	 Dr Sarita Beri 	Ophthalmology Department,	National Eye Donation Fortnight
	2) Dr Piyush Kumar	Lady Hardinge Medical	Celebration 25th August to 8th September
	R. Ramavat	College and Associated	2020
	3) Dr Pranita Sahay	Hospitals, New Delhi	1) Online Eye Donation Awareness
			talk for MBBS Students
			2) Online Eye Donation Awareness
			talk by Guest Faculty from AIIMS
			for nursing staff of LHMC.
			Eye Donation Awareness Poster
			Competition for Medical students,
			Faculty, Residents and Staff of
			LHMC
			4) Eye Donation Awareness Slogan
			Competition for Medical students,
			Faculty, Residents and Staff of
			LHMC
			5) Eye donation awareness and
			pledge form distribution for
			general public
2.	FEE(Fellowship exit	Ophthalmology Department,	Held on 27 th November 2020 offline in
	Exam) of DNBE	Lady Hardinge Medical	Ophthalmoogy Department
	External Examiner and	College and Associated	
	Organiser:	Hospitals, New Delhi	
	Dr Sarita Beri		
	Assisant Organiser:		
	D Siddhartha Madan		

7. Seminar / Conference Presentations (National / International)

7. 50	Thintal / Comercine 1 resemations (National / International)	
A.	Dr. Sarita Beri, Director Professor & Head	
1.	Annual DOS Conference online, 18-20 th Dec 2020	
	Convenor :Session on RETINOPATHY OF PREMATURITY	
	Judge:Retina POSTERS1-4 gallery	
	Paper Presentation in session Paediatric Ophthalmology(Interesting Cases)	
	Frosted Branch Angiitis in an infant- a rare presentation	
	WON THE FIRST PRIZE in the session	
В.	Dr. Om Prakash,Director Professor	
	Participated as MEU faculty member to conduct curriculum	
	• Paper Pesentation in DOS 2020 International Hybrid Conference, 18th to 20th December 2020,	
	Upadhyaya Abhishek , Sethi Maansi, Nangia Anita , Prakash O.: "COMPRESSIVE OPTIC	
	NEUROPATHY DUE TO INTRACANALICULAR METASTASIS OF BREAST CANCER" in	
	the Neuro-Ophthalmology (Free Paper) 3 rd prize for oral presentation	
	• Attended "curriculum Implementattion Support Program(CISP II training for MU coordinators and	
	faculty members of college, 21th to 22nd July, 2020	
	Attended" Add on online LEGAL Literacy course" organized by LHMC MEU and delhi state	
	legal service authority, DLSA delhi from 10th Aug to 14th Sep 2020	
	Implementation Support Program(CISP II) to faculty members of LHMC, 16th	
C.	Dr. Zia Chaudhuri, Director Professor	
	(International Conferences)	
	1. Participated in the 2020 Winter ARVO Conference and Workshop at Washington DC, on	
	February 7-8, 2020 as an ARVO EY AMPC chair - Supported by ARVO	

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	(National Conferences)
	1. Chaudhuri Z, Ganguly S, Debnath P.Familial primary concomitant strabismus pedigrees in
	north India. Oral presentation by Dr Zia Chaudhuri for the 2020 ARVO Annual Meeting at
	Baltimore, Maryland, USA. Uploaded as a virtual presentation to ARVO Learn in May 2020
	2. Invited talk on "Whole exome sequencing in strabismus" in the EY genetics symposium of
	"Genetics of strabismus" at the virtual ARVO meeting (uploaded to ARVO Learn) in May 2020 (the
	physical meeting was cancelled due to the COVID-19 pandemic)
	3. Invited talk on "Discovery Genomics and Identification of Novel Genes in Strabismus" at the
	virtual 44th Meeting of the Ophthalmic Genetics Study Group on November 14, 2020.
D.	Dr. Piyush Kumar R. Ramavat, Assistant Professor
1.	Instructor : Wet Lab SICS
	Ophthalmology Department Dr. RML Hospital & PGIMR new Delhi
	Wet Lab on SICS auditorium Dr. RML Hospital & PGIMR New Delhi
2.	Multiple Online Conferences, Seminars and CME attended as a Delegate
3.	Dr Piyush Kumar R. Ramavat- Poster on Rhinocerebral-Mucormycosis mimicking as Orbital
	Cellulitis in Type I Diabetic Patient in All India Ophthalmology Conference 2020

8. National / International MoUs Signed

• MOU with national eye bank "Hospital corneal patients program" (HCRP) of the NPCB Government of India at LHMC & SSK Hospital since 1st August 2016.

9. Other Inter – Institutional Collaboration

- Dr Sarita Beri and Dr Piyush Kumar R. Ramavat have participated as a member in the meetings on Ophthalmic instruments and appliances sectional committee (Bureau of Indian Standards)
- Dr Piyush Kumar R. Ramavat has participated in meetings called by the procurement support agency (PSA) for procurement of medical equipment for various departments and services for upcoming new AIIMS, PMSSY up-gradation projects. Carried out demonstration of OCT Machines by different bidders at LHMC (02-03-2021) and in Gurugram (19-02-2021)
- 10. Extension and Outreach Activities

: Kalayan Puri Dispensary OPD Centre through PSM

Department LHMC

11. Faculty Strength

: 7

OPHTHALMOLOGY GNEC

1. Name of HOD

Dr Kirti Singh, Director Professor

2. Members who left during the period

Dr P K Pandey, Director Professor, Retired Dr Usha K Raina, Director Professor, Retired

3. Additions to the faculty

Dr Neha Rathie, Assistant Professor (contractual), newly joined wef 02/06/2020 Dr Pooja Bansal, Assistant Professor (contractual), newly joined wef 08/06/2020 Dr Annu Joon, Assistant Professor (contractual), newly joined wef 13/07/2020

4. Research scheme

Following thesis and projects were undertaken-

- Evaluation of optical coherence tomography parameters following scleral buckling surgery in primary rhegmatogenous retinal detachment. Dr Alka Yadav, Dr Punita K Sodhi, Dr.Sushil Kumar
- Surgical outcomes following lateral rectus elongation, a randomised controlled trial. Dr Priya Saraf, Dr. P. K. Pandey, Dr. Kirti Singh

- Analysis of Foveal Avascular Zone using spectral domain Optical Coherence tomography
 Angiography in healthy Indian eyes. Dr. Priyadarshi Gupta, Dr. Meenakshi Thakar, Dr. Usha
 Kaul Raina.
- The role of 0.01% atropine eye drops in control of myopia progression in children. Dr Shweta Viswanath, Dr Subhash Dadeya, Dr Ritu Arora
- Comparative evaluation of unilateral two muscle versus bilateral three muscle surgery for large angle horizontal strabismus. Dr. Nagpal Vaibhav Amar, Dr. Kamlesh Anand, Dr. Anju Rastogi
- Comparative evaluation of dacryocystorhinostomy with retrograde bicanalicular intubation and conjunctivodacryocystorhinostomy in proximal canalicular blocks. Dr Priyanka Golhait, Dr Ruchi Goel, Dr Sushil Kumar
- Comparative evaluation of peribulbar steroid therapy and Intravenous pulse steroid therapy in thyroid eye disease. Dr Ayushi Agarwal, Dr Sushil Kumar, Dr Ruchi Goel
- Dr Punita Kumari Sodhi is working on project titled "Evaluation of Intraocular Pressure in subjects having Magnetic Resonance Imaging features of Raised intracranial pressure" under MAMC College Annual Budget Scheme 2018-2019
- Dr Punita Kumari Sodhi is working on project titled "Evaluation of Optical Coherence Tomography Angiography parameters of retina in SARS-COV-2 recovered subjects."
- Analysis of Foveal avascular zone using spectral domain OCTA in healthy Indian eyes. Dr Meenakshi Thakar
- Prevalence of Amblyogenic risk factors in congenital Nasolacrimal duct obstruction. Dr Meenakshi Thakar
- Prediction of mortality by sequential measurement of SNAP2, in extramural preterm neonates. Dr Meenakshi Thakar asco guide for DMNeonatology thesis.
- Comparative study of minimally invasive strabismus surgery with fornix incision strabismus surgery. Dr Akshay, Dr Subhash Dadeya
- Comparision of conventional occlusion and inverse occlusion in the treatment of amblyopia with eccentric fixation. Dr Vaishali, Dr Subhash Dadeya
- Efficacy of oral citicoline as an adjuvant therapy in the treatment of adult amblyopia.
- Dr Deepanshu, Dr Subhash Dadeya
- Role of mobile games as a form of near visual exercise in adult amblyopia. Dr Rishab, Dr Subhash Dadeya

5. Publications during the period-

Singh K, Bhattacharyya M, Goel A, Arora R, Gotmare N, Aggarwal HOrthokeratology in Moderate Myopia: A Study of Predictability and Safety. J Ophthalmic Vis Res 2020 Apr 6;15(2):210-217.

Rohit Shetty, Rushad Shroff, Aishwarya Chhabra, Ritu Arora, Vaitheeswaran Ganesan Lalgudi . Topography-based customized trans-epithelial phototherapeutic keratectomy for anterior corneal scar removal Eur J Ophthalmol, 2020 Jul 24; 1120672120945907. doi: 10.1177/1120672120945907.Online ahead of print

Goel R, Arora R, Khanam S, Saxena S, Manchanda V, Pumma P. Is it essential to perform COVID-19 testing prior to ophthalmic procedures? Indian J Ophthalmol. 2020 Nov;68(11):2335-2337. doi: 10.4103/ijo.IJO_3020_20.

Goel R, Arora R, Chhabra M, Kumar S. Viral shedding in tears of COVID-19 cases presenting as conjunctivitis. Indian J Ophthalmol. 2020 Oct;68(10):2308. doi: 10.4103/ijo.IJO_2567_20.

Arora R, Goel R, Kumar S, Chhabra M, Saxena S, Manchanda V, Pumma P. Evaluation of SARS-CoV-2 in Tears of Patients with Moderate to Severe COVID-19. Ophthalmology. 2020 Aug 31:S0161-6420(20)30847-2. doi: 10.1016/j.ophtha.2020.08.029. Online ahead of print.

Arora R, Saran R, Jha V, Gotmare ND, Jain P. Immunocytochemistry of the ocular surface after different techniques of limbal stem cell transplantation for chronic chemical burns. Br J Ophthalmol. 2020 Dec 16:bjophthalmol-2020-317051. doi: 10.1136/bjophthalmol-2020-317051. Online ahead of print.

Jain P, Arora R. Posterior lenticonus (lentiglobus) in a 13-year old child. Indian J Ophthalmol 2020

Pandey PK, Kishore D, Joon A, Saraf P. Congenital third cranial nerve palsy with prenuclear dysinnervation involving otolithic pathways: Underpinnings of a novel congenital cranial dysinnervation disorder. Indian J Ophthalmol 2020;68:1478-80.

Dhiman S, Anand K, Rastogi A, Dutta P, Jain P, Mishra M, Nagpal V.Orbital apex syndrome secondary to myocysticercosis: a rare case report. Int J Ophthalmol. 2020 Jun 18;13(6):1013-1014

Anand K, Baindur S, Dhiman S, Dutta P, Mishra M, Rastogi A, Suresh P.Surgical outcomes of plication versus resection in basic type of intermittent exotropia. Can J Ophthalmol. 2020 Aug;55(4):323-329

Sodhi PK. Seeing World From The Eyes of Low Vision Subject. Review Article. Delhi Journal of Ophthalmology. 2020;31(2):23-29

Sodhi PK, Goel P, Srivastava AK, Saran RK, Rustagi R. Impact of Magnetic Resonance imaging status of pituitary adenomas on Ophthalmic presentation. Indian Journal of Applied Research. 2020;10(11).

Rajurkar K, Thakar M, Gupta P, Rastogi A.Comparison of fundus fluorescein angiography, optical coherence tomography and optical coherence tomography angiography features of macular changes in Eales disease: a case series. J Ophthalmic Inflamm Infect. 2020 Dec 14;10(1):34

Arora R, Goel R, Malhotra V, Kumar S. <u>Redefined role of eye bank counselors during COVID-19 pandemic.</u> Indian J Ophthalmol. 2021 Feb;69(2):452-453.

Khanam S, Agarwal A, Goel R, Rathie N, Raut A, Raghav S, Kumar S, Chhabra M, Singh S, Kumar S. Clinical Presentation and Management Strategies in Intraorbital Foreign Bodies. Case Rep Ophthalmol Med. 2021 Mar 30:2021:6645952.

Gotmare ND, Jain P, Arora R & Gupta I. Consequences of Traditional Eye Medication Use in Developing Countries: A Perspective. J Clin Ophthalmol Optom Res, 2021 1(1): 1-4.

Bansal P,Dipu T, Thakar M. Combined hamartoma of the retina and retinal pigment epithelium: Multimodal imaging to the rescue. Indian J Ophthalmol 2021; 1;418-419.

6. **Books/ Chapters-** Dr Subhash Dadeya wrote a book on Basics of Strabismus.

7. Conferences attended-

Annual Conference of Delhi Ophthalmological Society 2020 International hybrid Conference- Instruction course on Microbial Keratitis and DSAEK with Phaco Live surgery by Dr Ritu Arora; attended by Dr Annu Joon as panelist and speaker; attended by Dr Punita Kumari Sodhi as invited faculty, judge, moderator and presenter; attended by Dr Subhash Dadeya as speaker, Chairman of squint international session, performed live squint surgery

Virtual conference on Endothelial Keratoplasty Learner's Group DSAEK with Phacoemulsification by Dr Ritu Arora

2nd International Conference on Medical and Health Sciences, organized through the online mode as a webinar during August 31- September 1, 2020- attended by Dr Punita Kumari Sodhi

Member of DOS Subcommittee of IT, practice Automation & Clinical Informatics Committee; Online meeting held on August 11, 2020- attended by Dr Punita Kumari Sodhi

SPOSI conference on virtual platform 13.12.2020- attended by Dr Subhash Dadeya as Chairman, Speaker and judge

SAO POSA conference on virtual platform Sept 2020- attended by Dr Subhash Dadeya as speaker.

Virtual AIOS-YOSI Forum January 2021- attended by Dr Annu Joon (as session moderator)

Mid term DOS conference, March 2021 was attended by Dr Subhash Dadeya(as Chairman and Speaker, Strabismus Session, Performed Live Squint Live Surgery), Dr Annu Joon (as speaker).

Virtual Mid term SPOSI conference March 2021 was attended by Dr Subhash Dadeya(as Chairman and Speaker)

8. **Visiting lectures**- Guest lecture taken by Dr Subhash Dadeya on Management of amblyopia- March 2021 for Bihar Ophthalmic Society.

NBE national lecture on perimetry taken by Dr Annu Joon in January 2021.

9. Significant events (honors to faculty)

Dr Subhash Dadeya took over as President DOS, was copted Member of Executive Committee of SPOSI, Secretary SAO POSA and was Invited to attend as special invitee the council meeting of IPOSC. He continues to be President DOS, Member Executive SPOSI, and Secretary SAO POSA.

Dr Subhash Dadeya is on the Editorial Board of IJPOS,DOS times and DJO, and is the Section editor of Strabismus and Paediatric Ophthalmology in Clinical and experimental vision and eye research

Dr Punita Kumari Sodhi et al received First Prize in Poster Category "Correlating contrast sensitivity with colour vision and alterations with low vision aids"

Dr Alka Yadav, Punita Kumari Sodhi, Kirti Jai Singh, Ayasha received Second prize in Free Paper Presentation Retina Session "Evaluation of anterior segment optical coherence tomography parameters following scleral buckling surgery in retinal detachment".

Dr Punita Kumari Sodhi won the Mother Teresa Foundation Award for Medical Excellence Friendship Forum

Dr Punita Kumari Sodhi is a reviewer for Journal of Cataract and refractive surgery, Journal of Current Glaucoma Practice, Indian Journal of Medical Research, Journal of Clinical Ophthalmology and Research

Dr Annu Joon is a reviewer for strabismus and glaucoma section of Delhi Journal of Ophthalmology (DJO); served as Assistant Editor of YO Times (Paediatric Issue) August 2020, 16th issue (Official publication of the Young Ophthalmologists Society of India); Executive member, Young Ophthalmologists Society of India (YOSI); Executive member and Academic In-charge, Delhi state chapter of Young Ophthalmologists Society of India (YOSI) and Chairman, the Delhi Ophthalmological Society (DOS) sub-committee for welfare of young ophthalmologist.

Dr Annu Joon was awarded section winner in <40year category in quiz conducted by OTSI (Ocular Trauma Society of India), October 2020.

10. Fellowship

11. Representation on expert committee

Dr Punita Kumari Sodhi Participated in validation of question bank at the National Board of Examinations vide their letter Reference number NBE/VALDWORKSHOP/DENT/SEP/2020/003 dated 5th September, 2020 by participating in validation workshop on 07h September, 2020 at NBE Office, Dwarka.

Dr Punita Kumari Sodhi Prepared MCQ questions for postgraduates exit examination in Vitreo-Retina Surgery vide their letter Ref. No.: SURGICAL GASTROENTEROLOGY/NBE/PGENTR(FET)/JUNE-2020/777 dated 22nd August, 2020

Dr Punita Kumari Sodhi Participated as co-chairperson in protocol presentation of College in Dermatology, Psychiatry, Radiotherapy, Repeat presentation in Forensic Medicine on December 07, 2020

Dr Punita Kumari Sodhi Functioned as an Expert in the Union Public Service Commission for selection for post of Associate Professor in Ophthalmology for Government Medical College & Hospital, Chandigarh on Oct 12, 2020

Dr Ruchi Goel was COVID nodal officer of GNEC from April 2020 to April 2021- Actively involved in conversion of GNEC to COVID hospital. She is also the nodal officer of GNEC vaccination centre from February 2021 to present.

Dr Annu Joon is the nodal officer of GNEC vaccination AEFI from February 2021 to present.

- 12. **Health services to community** The hospital was converted to Covid facility during covid19 pandemic. Government Vaccination centre was started at GNEC in February 2021.
- 13. **Lab data-** RT PCR and Rapid Antigen tests were performed regularly during Covid19 pandemic. Routine blood and ocular surface microbiological and biochemical tests being performed on daily basis.

14. New facilities added

Iridex Diode laser cyclophotocoagulation (1) Humphrey visual field analyser- Three (3) Optopol OCT machine (1)

15. Any other

ARC PG Thesis Evaluator for AIOS Conference 2021- Dr Punita Kumari Sodhi for Vitreo-retina, Dr Annu Joon for squint and glaucoma

Dr Punita Kumari Sodhi evaluated Free papers for AIOS Conference 2021 in Neuro-ophthalmology

Dr Punita Kumari Sodhi Delivered talk in DOS Monthly meet held in the Guru Nanak Eye Centre-Optical Coherence tomography changes post scleral buckling surgery

Dr Subhash Dadeya Chaired Strabismus session and delivered Talk on concepts in amblyopia in I focus teaching program Jan 2020

Dr Annu Joon took an online class on Perimetry A-Z for Bombay Ophthalmologist's Association- PG teaching program in October 2020.

OPHTHALMOLOGY (UCMS)

1. Major activities and Achievements

Re-started Corneal Retreaval and Transplantation facility in UCMS & GTB Hospital from March, 2021.

Re-started Retinal Surgery at UCMS & GTB Hospital after a gap of 3 years.

Postgraduates received many awards in paper presentations at Delhi State Conference.

The residents and faculty of Ophthalmology department received Covid Warriors Certificate and Awards for Covid-19 Pandemic by Govt. of NCT of Delhi

2. Publications

- 1. Kaur I, Singhal A, Rohatgi J (2020) .Congentival ulcer in behcets disease and response to colchicine. Indian Dermatol Online J. Nov-Dec;11 (6): 1005-6.
- 2. Beri S, Madan S, Shandil A, Virmani P, Garg R, Nangia S. Management of Retinopathy of Prematurity: Quest for the best. DJO (2020); 30:27-31
- 3. Madan S, Beri S, Chakravarti A, Jain R, Maheshwari R. Rhino-orbital mucormycosis and aspergillosis in a child with thalassemia major on deferoxamine therapy Delhi J Ophthalmol 2021;31 (3); 66-68.
- 4. Madan S, Beri S, Virmani P, Khan S. (2020); Recalcitrant bilateral shield ulcer in vernal keratoconjunctivitis. Delhi J Ophthalmol 31:62-65.
- 5. Madan S, Beri S, Virmani P, Khan S, Chakravarti A. Unusual case of bilateral orbital cellulitis in an infant Accepted for publication in National Medical Journal of India on 22nd May 2020.
- 6. Madan S, Beri S, Garg T, Sethi M. Lichen scrofulosorum and phlyctenular conjunctivitis- Accepted for publication in NMJI on 4th July .2020
- 7. Madan S, Beri S, Yadav N. Spontaneous resolution of wooden foreign body granuloma of the conjunctiva in a child.- Accepted for publication in NMJI on 19th August (2020)
- 8. Madan S, Beri S. (2020); Conjunctivitis in novel coronavirus disease (COVID-19). Indian J Occup Environ Med24:129-30.23.
- 9. Kapoor M, Singh P, Nayana TK, Madan S, Beri S. (2020); Metastatic subretinal abscess in a patient with perinephric abscess. Indian J Ophthalmol 68:2580-2.
- 10. Kapoor M, Madan S, Singh P, Beri S, Nayana TK. Lens particle glaucoma as a presenting feature of Hallermann Streiff Syndrome. IJO accepted on 30th August (2020);
- 11. Sethi M, SBeri S, Madan S. Revisiting KF ring- Saudi Journal of Ophthalmology- accepted on 7th july 2020.
- 12. Madan S, Beri S. (2020), .Granular corneal dystrophy type II.Delhi Journal of Ophthalmology. vol31, no 2, Page 99-102
- 13. Madan S, et al. (2020). "Invasive Fungal Sinusitis and Optic Neuropathy". EC Ophthalmology 11.4:03-07.

3. Conferences Presentation

Dog	Sudoriferous cyst of the inner canthus of eye	Dr.Ashit Handa
DOS	2 nd prize	Dr. G.K. Das,
International		Dr. P.K. Sahu
Hybrid		
Conference	1. Tuberous Sclerosis Complex –Mysterious ocular	Dr. R. Janani
18th-20th	picture, 3 rd prize	Dr. G.K. Das,
Dec, (2020)		Dr. P.K. Sahu
	2. CHARGE syndrome with tongue tie and conchal crus-	
	an unusual presentation, 3 rd prize	
	Phaco surgery by a left handed trainee surgeon	Dr. Pratibha
		Sesama
		Dr. G.K. Das,
		Dr. P.K. Sahu,
		Dr. Nitish Kumar
		Dr. Manpreet
		Chugh

	O into the office to ODD	D. D. (11
	Quick review of random OPD cases	Dr. Pratibha sesama Dr. Dr. G.K. Das, Dr. P.K. Sahu, Dr. Ashit Handa, Dr. Akshita Aggarwal
	Cataract surgery in ocular albinism	Dr Iffat Nasir Dr. G K Das Dr PK sahu, Dr Ashit Handa
	Management of recurrent mechanical ectropion due to Hypertrophied Palpebral conjunctiva 1st prize	Dr. Akshita Aggarwal Dr. G.K. Das, Dr. P.K. Sahu
	A case of benign limbal mass masquerading as OSSN	Dr. Aarushi Saini Dr. Jolly Rohatgi Dr. Tadu Nampi Dr. Anchal Arora Dr. Isha Acharya
	Bilateral internal angular sebaceous cyst-A Diagnostic Dilemma	Dr. Anchal Arora Dr. Jolly Rohatgi Dr. Isha Acharya Dr. Aarushi Saini
	Seborrheic Keratosis Mimicking Basal Cell Carcinoma	Dr Isha Acharya Dr. Jolly Rohatgi Dr. Shachi Srivastav Dr. Aarushi Saini
	Tubercular Scleral Abscess- A case report	Dr. Isha Acharya Dr. Jolly Rohatgi
DOS Midterm Conference 20 th -21 st	Relentlessly progressive fovea threatening serpinious choroiditis treated with intravitreal methotrexate	Dr. Akshita Aggarwal Dr. G.K. Das, Dr. Ankur Singh
March, 2021	Repair of upper lid coloboma(goldenhar syndrome) 3 rd Prize	Dr. Pratibha sesama Dr. Dr. G.K. Das, Dr. P.K. Sahu, Dr. Nitish Kumar
	Macular serpiginouschoroiditis misdiagnosd as CSCR	Dr. Iffat Nasir Dr. P.K. Sahu, Dr. Siddharth Madan
	Repair of congenital lid coloboma	Dr. Tanya Bisht Dr G.K. Das Dr Nitish Kumar
	A case of anterior lens subluxation in RE with posterior subluxation in the fellow eye	Dr. Aarushi Saini Dr Jolly Rohatgi Dr. Pranita Sahay Dr. Tadu Nampi

	Case of peripheral ulcerativ keratitis with cormeal perforation secondary to phlyctenular keratoconjunctivitis	Dr. Tadu Nampi Dr Jolly Rohatgi Dr. Pranita Sahay Dr. Aarushi Saini
International	Free paper presentation	Dr. Anchal Arora
	Comparitive evaluation of subconjuctival versus under the	Dr. Jolly Rohatgi
Conference	scleral flap placement of amniotic membrane in	Dr. G.K. Das
ICO (2020)	trabeculectomy	
WOC	·	

4. Faculty strength:7

ORTHOPAEDICS (UCMS)

1. Major Activities and Achievements

The department of Orthopaedics at UCMS, continues to provide care to trauma patients, and give evidence backed treatment matching the global standards treatment to patients with Spine Ailments, Sports Injuries (Arthroscopic surgeries etc.), Paediatric problems, Malignant and Benign Bone Tumours, all under one roof. The department is working on various topics like multi drug resistant tuberculosis and role of novel agents for the same, tissue banking, complex trauma, vacuum-assisted closure(VAC); to name a few. The department runs Indian Spine Journal at present, and aims to take it to better heights. The faculty is regularly invited as examiner for undergraduate examination and post graduate examination (MS Ortho/DNB Ortho) at various centre across the country and are commonly invited as guest speaker/faculty at various conference/courses at state/national/international level.

2. **Honours/Distinctions**

Bombay Spine Society Oration – Medical Management of Spine Tuberculosis on 20.12.2020 delivered by Prof A. K. Jain

3. Publications

- 1. Jain AK, Rajasekaran S, Jaggi KR, Myneedu VP. <u>Tuberculosis of the Spine.</u>(2020). J Bone Joint Surg Am. Apr 1:102(7):617-628.
- 2. Kumar S, Dhammi IK, Jain AK, Shahi P (2020). Osteochondroma of the talus: three varying cases. BMJ Case Rep. Dec 22;13(12):e237670.
- 3. Bansal K, Shahi P, Jain AK, Dhammi IK, Kumar S.(2020) <u>Extended Curettage and Fibular Grafting in Enchondroma of the Acromion.</u>Cureus. Apr 11;12(4):e7630.
- 4. Chadha M, Jain AK.(2020) Ethical issues while reporting in scientific journals. Indian Spine J;3:1-3
- 5. Bansal K, Mishra P, Chadha M, Shahi P, Anshuman R, Aggarwal AN.(2020). Outcome of Dome Osteotomy with Plate Osteosynthesis for Genu Valgum in Late Adolescents and Young Adults. Cureus. ;12(4):e7894.
- 6. Abhimanyu S, Jain AK, Myneedu V P, Arora V K, Chadha M, Sarin R.(2021). The Role of Cartridge-Based Nucleic Acid Amplification Test (CBNAAT), Line Probe Assay (LPA), Liquid Culture, Acid-Fast Bacilli (AFB) Smear and Histopathology in the Diagnosis of Osteoarticular Tuberculosis. Indian Journal of Orthopaedics; 55 (Supplement Issue 1):157-166.
- 7. Kumar S, Saini NK, Singh D, Chadha M, Mehrotra G (2021). Computed tomographic analysis of cervical spine pedicles in the adult Indian population. SurgNeurol Int. Feb 23;12:68.
- 8. Kumar S, Zafar A, Jain AK, Aggarwal AN, Bhayana H, Dhammi IK Analysis of potential bone donors and deferrel rates for bone bank in tertiary care hospital. Ortho J MPC. 2021;21(1)22-27
- 9. Singh D, Dhammi IK, Jain AK, Shahi P, Kumar S, Bansal K.(2021) Osteosynthesis in femoral neck fracture in two patients with ipsilateral lower limb Amputation. BMJ Case Rep; 14:e239060
- 10. Kumar S, Dhammi IK, Shahi P, Zafar A.(2020). Paediatric bilateral femoral neck fracture in osteopetrosis treated conservatively. BMJ Case Rep;13:e236891

11. Dhammi IK, Kumar S.(2020). Current Concepts In Diagnosis & Management Of Osteoarticular Tuberculosis. Ortho J MPC.;26(1):3-13.

Books

12. Editor-in-Chief – Recent Advances in Orthopaedics. Evangel Publishing, New Delhi. 2021.

Chapters in book

- 13. Jain AK, Kumar S. "Diagnosis and Management of Tuberculosis of Spine" Recent Advances in Orthopaedics. Evangel Publishing, New Delhi.
- 14. Kumar S, Shah B, Saxena AK, Jain AK. "Covid 19 and Orthopaedic Surgery" Recent Advances in Orthopaedics. Evangel Publishing, New Delhi.
- 15. Aggarwal AN, Sreenivasan R. Evaluation of Locomotor System. In Gupta P editor. Clinical Methods in Paediatrics. Fourth Edition, Delhi: CBS Publishers and Distributors (P) Ltd (2020) pg. 547-565.

4. Journals

Dr A. K. Jain - Chief Editor of Indian Spine Journal

Dr Manish Chadha - Associate Editor of Indian Spine Journal

Indian Spine Journal is official journal of Association of Spine Surgeons of India (ASSI)

5. Seminar/Conference Presentations (National/International)

- 1. Key Note Address on Drug Resistant Spinal Tuberculosis organised by ASSI by Prof A. K. Jain.
- 2.Total hip replacement in TB Hip organised by Indian Society of Hip and Knee Surgeons in April, 2020 at Hyderabad by Prof A. K. Jain.
- 3. Delivered lectures on Diagnosis and Principles of Management of sensitive ad drug resistant case in Nepal on 11.10.2020 and 18.10.2020 by Prof A. K. Jain.
- 4. Delivered lecture on Spinal Tuberculosis under "One Topic, One Speaker" by Prof A. K. Jain.

6. Faculty Strength: 6

7. Other significant information

Dr A. K. Jain – Dean, Faculty of Medical Sciences.

Indian Spine Journal got indexed with 'Directory of Open Access Journals (DOAJ) and Scopus

ORTHOPAEDICS (MAMC)

1. Major Activities and Achievements (upto 150 words):

- The department of Orthopaedics, Maulana Azad Medical College has continued to maintain a high standard of medical education in the field of orthopaedics for both undergraduate and post graduate students.
- The department has continued to publish numerous articles of a high academic standard and these have been published / accepted in peer review international journals of repute and have contributed to chapters in books of repute.
- The faculty members have delivered guest lectures and presented papers in international and national
 conferences and have been invited as guest faculty and expert in various courses and forums across the
 country.
- Most of the faculty members have been invited as examiners at various universities and involved with the Medical Council of India and National Board of Examination and contributed towards medical examination.

2. Honours /Distinction

Dr.Vinod Kumar:

- 1. Dr Vinod Kumar was nominated by the Indian cartilage society as member of Executive council of Indian cartilage society for year 2019-2020
- Chaired a session on Ankle Arthritis in at Sports medicine and Shoulder arthroscopy conclave held on 1st March, 2020 at Sir Ganga Ram Hospital, New Delhi
- 3. Delivered a Guest Lecture on "BMAC: is it the magical potion we have been hoping for" at DOACON 2020 at New Delhi on 29th Nov 2020.
- 4. Delivered a Guest Lecture on Ankle Arthrodesis: open vs arthroscopic at Sports medicine and Shoulder arthroscopy conclave held on 1st March, 2020 at Sir Ganga Ram Hospital, New Delhi
- 5. Chaired as an expert panelist on Osteoarticluar infections webinar held on 5th May 2020 for postgraduates by Delhi Orthopaedic Association.
- 6. Chaired as an expert panelist on Cartilage masterclass held on 8th may 2020 at webinar held by Indian Arthroscopic Association
- 7. Chaired as Expert Panelist on Ankle session at 16th Sports medicine and Shoulder arthroscopy conclave held on 1st March, 2020 at Sir Ganga Ram Hospital, New Delhi
- 8. Chaired as Expert Panelist on session for la Prada Technique for repair radial tear of meniscus in Master case series Season 1: knee held on 1-2nd feb. 2020,at Hotel Pride plaza, New Delhi.
- 9. Chaired as Expert Panelist on Osteotomy around knee for patellar instability in Master case series Season 1: knee held on 1-2nd feb. 2020,at Hotel Pride plaza, New Delhi.

Dr.Sumit Sural:

- 1. Member, Institutional Ethical Committee, MAMC
- 2. Expert member Executive committee and Disciplinary Committee of Delhi Medical Council.
- 3. Nominated by National Board of Medical Examination for various exam related activities of DNB Orthopaedics.
- 4. Member curriculum design committee Indira Gandhi National Open University for the course Post Graduate diploma in Geriatric Medicine.
- 5. Member, Delhi State Operation Research Committee, National TB Eradication program.
- 6. Member Core Committee, MAMC, National TB Eradication program.
- 7. Member of Orthopaedic Instruments, Implants and Accessories Sectional Committee, Medical Equipment and Hospital Planning Department, Bureau of Indian Standards.
- 8. Medico-legal cases of Lok Nayak Hospital, attended the courts for MACT cases.
- 9. Member Board Assessment of Disability for Driving License.
- 10. Member Board, LNH, for Examination of Court cases / Medico legal & Jail cases.
- 11. Invited faculty for guest lecture at Delhi Orthopaedic Association Webinars
- 12. Lecture on Gait in hip pathologies DOA PG training course, 15th April, 2020.
- 13. Lecture on Examination of spine at DOA PG teaching course on 22nd April 2020.
- 14. Lecture on non union fracture neck femur, DOA PG teaching webinar, 26th July 2020.
- 15. Expert panelist discussion on spine examination, DOA Webinar 27th June 2020.
- 16. Invited faculty at West Bengal Orthopaedic Association
- 17. Lecture on Gait in PG Crash course WBOA on 26th April 2020
- 18. Invited as expert panelist for case discussion SSKM Hospital, Kolkata, April 2020.

Dr.Lalit Maini:

- 1. Editor Indian Journal of Orthopaedics, the official publication of Indian Orthopaedic association
- 2. President Delhi Orthopaedic Association
- 3. Member Innovations committee Indian Orthopaedic Association
- 4. Executive Editor Journal of Clinical Orthopaedics and Trauma, the official Publication of Delhi Orthopaedic Association
- 5. Chairman International Society for Knowledge for Surgeons on Arthroscopy & Arthoplasty (ISKSAA)

6. Executive Editor- Journal of Arthroscopy & Joint surgery

Dr.Sumit Arora:

- 1. Nominated by National Board of Medical Examination for various exam related activities of DNB Orthopaedics.
- 2. Member of Orthopaedic Instruments, Implants and Accessories Sectional Committee, Medical Equipment and Hospital Planning Department, Bureau of Indian Standards.
- 3. Member Board, LNH, for Examination of Court cases / Medico legal.
- 4. Invited faculty for guest lecture at Delhi Orthopaedic Association Webinars
- 5. Expert member in the committee for enquiry of medical negligence
- 6. Purchase officer for department of Orthopaedics
- 7. Member of disability board
- 8. Delivered online talk entitled "periarticular knee injuries" in DOA Advance Trauma Symposium on 7th June 2020
- 9. Delivered online lecture entitled "osteosarcopenia" in the webinar organized by Students' Chapter of Indian Academy of Geriatrics on 20th October 2020

Dr. Dhananjaya Sabat:

- 1. Dry Arthroscopy PCL Reconstruction in Acute MLKI DOA Arthroscopy course webinar 10.10.2020.
- 2. Pattern recognition and approach to cuff tear Rotator cuff repair; webinar with Stryker 27.9.2020.
- 3. Morphology and management principles of full thickness cuff tear Rotator cuff tear treatment options; webinar with Biotek 15.08.2020
- 4. PCL avulsion arthroscopic fixation, webinar with Orthoconnect 20.06.2020
- 5. Complications in ACL reconstruction; webinar with Arthroscopy study group India 16.06.2020.
- 6. Radiology of Knee, webinar DOA PG Teaching Programme 29.04.2020.
- 7. Invited faculty to Master case Series Knee 06-07.02.2020, presented technique for minimally invasive technique of button reposition in ACL reconstruction when flipped in the soft tissue.
- 8. Invited faculty to Sports Medicine & Arthroscopy Workshop 01.03.2020; taken talk on Arthroscopic treatment of Haglund Disease; faculty for meniscus repair workshop
- 9. Invited faculty in Nagpur Arthroscopy meet 25-26.01.2020; demonstrated ACL reconstruction with flexible reamers, taken talk on Digital planning for Laterjet Procedure, panelist for panel discussions

Dr Tarun Suri:

- 1. Elected as AO Spine India Council Delegate for the second term (2021-2023) in the elections held in December 2020.
- 2. Co-opted member of Research Committee in Association of Spine Surgeons of India (ASSI).
- 3. Nominated by National Board of Medical Examination for various exam related activities of DNB Orthopaedics.
- 4. Medico-legal cases of Lok Nayak Hospital, attended the courts for MACT cases
- 5. Delivered guest lecture on 'Approach to Thoracolumbar Spinal Injuries" under Ortho Excellence Series on OrthoTV platform, on 13.10.2020.
- 6. Delivered presentation on AO Spine Surgical Video Discussion Advanced Webinar Oblique Lateral Interbody Fusion and Anterior Open-Transthoracic, on 25.10.2020

9. Publications

1. Kashyap A, Singh K, Arora S, Anuradha S. Compressive myelopathy in Dengue infection A report of 2 cases and literature review. J Bone Joint Surg Case Connector. 2021;11(2):e20.00772.

- 2. Kashyap A, Khan Y, Arora S, Gupta V. Supracondylar wedge-less 'V' shaped osteotomy for the correction of genu valgum. Med K Babylon. 2021;18(2):149.
- 3. Arora S, Kumar M, Khan Y, Bansal N, Gupta S, Talwar J, Kumar V, Maini L. Spontaneous subcapital femoral neck fracture complicating osteonecrosis of femoral head. Acta Orthop Belg. 2021;87:25-34.
- 4. Arora S, Krishna A. A new clinical sign for posterior extrusion of talus. Indian J Med Res. 2021;152(7):65.
- 5. Dhal A, Khan Y, Arora S. Epineurotomy for leprous, high ulnar neuropathy: defining a safe corridor based on the epineural vascular anatomy. International Orthop. 2021; http://dx.doi.org/10.1007/s00264-021-05084-4
- 6. Kumar M, Kumar A, Goyal L, Arora S, Gautam VK. An innovative fixation technique for pediatric biepicondylar avulsion fracture of humerus. MAMC J Med Sci. 2021;7(1):90-94.
- 7. Kashyap A, Arora S, Khan Y, Kumar S, Chopra RK.Traumatic posterior fracture-dislocation of the fifth lumbar vertebra: report of two cases with review of literature. Spinal Cord Cases Ser. 2021.7(1):30.
- 8. Arora S, Kashyap A, Maini L. Surgical and Radiologic Anatomy Relationship of triceps aponeurosis with radial nerve in anterior compartment of the arm. Surg Radiol Anat. 2021;43(2):3.
- 9. Indsurg Collaborative Group. Effects of the COVID-19 pandemic on delivery of emergency surgical care in India. Br J Surg. 2021;108(4):doi:10.1093/bjs/znab004. Dr Sumit Arora was credited as co-author, being a part of this group.
- Bagwe S, Singh S, Kashyap A, Arora S, Maini L.Evolution of Augmented reality applications in Orthopaedics: A Systematic Review. J Arthroscopy Joint Surg. 2021;8(1):http://dx.doi.org/10.1016/j.jajs.2021.02.006
- 11. Krishna A, Kumar M, Yadav R, Mehta R, Arora S. Rectus Femoris-based Muscle Pedicle Bone Graft for Osteonecrosis of Femoral Head: A New Surgical Technique. Tech Orthop. 2021; http://dx.doi.org/10.1097/BTO.00000000000000521
- 12. Khan Y, Kadur S, Arora S, Dhal A. Fibular regenerate for revision bone grafting procedure. National J Clin Orthop. 2021;5(2):1-3.
- 13. Kumar M, Arora S. Common peroneal nerve: The 'Chhui-Mui' nerve. Turk J Phys Med Rahabil. 2020;66(1):96.
- 14. Thora A, Arora S, Dabas V, Khan Y, Sankaran A, Dhal A. Functional evaluation of early tendon transfer for thumb opposition in median nerve palsy. J Clin Orthop Trauma. 2020;11(4):650-6.
- 15. Arora S, Thora A, Sural S, Dhal A. The application of henna (Lawsoniainermis) in orthopaedics. Tech Orthop. 2020;35(4):242-6.
- 16. Khan Y, Arora S, Gupta S, Sural S, Dhal A. Electrocuted hip: late consequences of electrical shock injuries of orthopaedic relevance: a case report and review of literature. JBJS Case Connect. 2020;10(3):e19.00632.
- 17. Arora S, Talwar J, Singh V, Gupta V. Tuberculous osteomyelitis of tibial diaphysis following saphenous vein graft harvest for coronary artery bypass: a case report. 2020 {doi.org/10.1007/s12055-020-01009-9}
- 18. Jain S, Arora S, Gupta S, Sharma S, Bansal N, Ranjan S. Assessment of bone quality using radiogrammetric parameters of proximal humerus in India: defining the osteoporotic fracture risk limit value and its reliability. Indian J Orthop. 2020;54:307-315.
- 19. Krishna A, Kumar M, Singh P, Gupta V, Arora S. Shortening dome osteotomy for correction of complex multiplanar elbow deformities: a new surgical technique. Tech Hand Upper Extremity Surg. 2020 doi: 10.1097/BTH.0000000000000314 {published ahead of print}
- 20. Kataria A, Bhatnagar N, Lingaiah P, Bhatia N, Arora S. Spectrum of tendon injuries caused by kite string (manjha) during a kite flying season. J Hand Microsurg. 2020 {DOI: 10.1055/s-0040-1718970}
- 21. Arora S, Khan Y, Suri T, Gupta S. Electric shock-induced vertebral fracture: a case-report and literature review with special emphasis of fracture morphology. JBJS Case Connect. 2020;10(4):e20.00143.
- 22. Khan Y, Prakash S, Kalra P, Arora S, Dhal A. Functional outcome of early, selective surgical nerve decompression in leprous neuropathy. J Hand Surg Asian Pac. 2020;25(4):407-16.

- 23. Arora S. Kashyap A. Localization of radial nerve at the spiral groove. J OrthopTranslat. 2020;27:8.
- 24. Canseco, J.A., Schroeder, G.D., Patel, P.D. et al. Regional and experiential differences in surgeon preference for the treatment of cervical facet injuries: a case study survey with the AO Spine Cervical Classification Validation Group. Eur Spine J 30, 517–523 (2021). Dr Tarun Suri was credited as coauthor, being a part of the AO Spine Cervical Classification Validation Group.
- 25. Suri T, Basu S, Shetty TA, Jhala A, Nene A, Aggarwal N, Jakkepally S, Gajjar S, Shah MS. The spine clinics: Adolescent idiopathic scoliosis. Indian Spine J 2020;3:216-30.
- 26. Basu S, Suri T. Shoulder balance in adolescent idiopathic scoliosis: Current concepts and technical challenges. Indian Spine J 2020;3:173-84
- 27. Sabat D, Sehrawat R, Harna B. Proximal Tibiofibular Joint: A Forgotten Entity in Multi-Ligament Injuries of the Knee. Indian Journal of Orthopaedics 2020, 1-8. https://doi.org/10.1007/s43465-020-00296-z
- 28. Harna B, Dutt DD, Sabat D. A Novel Technique for Fixation of Non-union Unicondylar Hoffa's Fracture: A Case Report. Malaysian Orthopaedic Journal 2020, 14 (3), 174.
- 29. Tank S, Dutt S, Sehrawat R, Sabat D, Kumar V. A CT based evaluation of femoral and tibial tunnel widening after double bundle ACL reconstruction. Journal of Arthroscopy and Joint Surgery 2020, 7 (4), 206-210.
- 30. Sehrawat R, Dutt S, Sabat D, Kumar V. Role of proximal tibio-fibular joint stability in anterior cruciate ligament reconstruction-A case report and review of literature. Journal of Arthroscopy and Joint Surgery 2020 7 (4), 230-234.
- 31. Kashyap A, Singh K, Sabat D, Maini L. Fast and economic cardboard cutout use to increase compliance of face mask wear during COVID-19 pandemic. Journal of Clinical Orthopaedics & Trauma 2020 july. DOI: https://doi.org/10.1016/j.jcot.2020.04.032
- 32. Iyengar KP, Jain VK, Vaish A, Vaishya R, Maini L, Lal H. Post COVID-19: Planning strategies to resume orthopaedic surgery -challenges and considerations. J Clin Orthop Trauma. 2020 May;11(Suppl 3):S291-S295. doi: 10.1016/j.jcot.2020.04.028. Epub 2020 May 4. PMID: 32367999
- 33. Lal H, Sharma DK, Patralekh MK, Jain VK, Maini L. Out Patient Department practices in orthopaedics amidst COVID-19: The evolving model. J Clin Orthop Trauma. 2020 Jul-Aug;11(4):700-712. doi: 10.1016/j.jcot.2020.05.009. Epub 2020 May 18. PMID: 32425430
- 34. Agarwal G, Kumar R, Dhanjani B, Maini L. Osteosarcoma patella can be managed well without extensor mechanism reconstruction. Journal of Orthopaedic Case Reports 2020 May-June;10(3): 67-70.
- 35. Harna B, maini L. Unusual aetiology of foot pain in the elderly: A case report & review of literature. Journal of Clinical Orthopaedics and Trauma 11(Suppl 5) July 2020 DOI:10.1016/j.jcot.2020.07.029
- 36. Goyal T, harna H, Taneja A, Maini L. Arthroscopy and COVID-19: Impact of the pandemic on our surgical practices. Journal of Arthroscopy and Joint Surgery 7(2) DOI: 10.1016/j.jajs.2020.06.008
- 37. Vaishya R, Vaish A, Maini L. 3D Printing Aided Elbow Deformity Correction. <u>American Journal of Case</u> Reports May 2020. DOI:10.31487/j.AJSCR.2020.02.05
- 38. Mishra A, Verma T, Rajkumar, Agarwal G, Sharma A, Maini L. 3D Printed Patient-Specific Acetabular Jig for Cup Placement in Total Hip Arthroplasty. Indian Journal of Orthopaedics (2020) 54:174–180. https://doi.org/10.1007/s43465-020-00061-21
- Dutt S, Kumar V. A comparative study of anatomical single-bundle anterior cruciate ligament reconstruction using femoral offset aimer versus freehand technique for femoral tunnel preparation. European Journal of Orthopaedic Surgery & Traumatology 30(6) April 2020. DOI:10.1007/s00590-019-02595-0
- Sural S, Gupta S, Singh K. Trapezius sparing minimally aggressive surgical technique for sprengel deformity: A case report. <u>Journal of Clinical Orthopaedics and Trauma</u> 16(3). December 2020. DOI:10.1016/j.jcot.2020.12.009
- 41. Gupta A, Sural S, Gupta A, Rousa S, Koner BC, Bhalotra A, Chawla R.Exposure to Mycobacteria influences disease progression in COVID-19 patients. August 2020 DOI:<u>10.21203/rs.3.rs-56141/v1</u>

- 42. <u>Varma</u> V, Dabas V, Jena S, Sural S, Dhal A. Study of Anatomical Variations of 1,2 Intercompartmental Supraretinacular Artery-Based Vascularized Bone Graft in Cadavers. <u>Indian Journal of Orthopaedics</u> May 2020;54(5):565-569. DOI:10.1007/s43465-020-00065-y
- 43. Jajoriya LN, Sural S. Evaluation of incorporation of bone allograft at the site of implantation in various clinical conditions along with its complications.Int J Res Orth 6:4 (2020) DOI: http://dx.doi.org/10.18203/issn.2455-4510.IntJResOrthop20202681
- 44. Verma V, Kumar D, vasudeva N, Sural S. Reappraising the morphometry of subaxial vertebrae and its clinical implications: a cadaveric cross sectional study in north india. International Journal of Medical Science and Current Research (IJMSCR) March-April 2020 3: 2, 294-305
- 45. Gupta A. Is Immuno-modulation the Key to COVID-19 Pandemic? <u>Indian Journal of Orthopaedics</u> April 2020 54(3):1-4. DOI:10.1007/s43465-020-00121-7
- 46. A Gupta, A Gupta. An Immunological Algorithm to Defeat Covid-19. Int J Immunol Immunother April 2020, 7:046 DOI:10.23937/2378-3672/1410046
- 47. Dabas V, Bhatia N, Goel A, Yadav VP, Bajaj V. <u>Management of Orthopaedic Accidental Emergencies Amidst COVID-19 Pandemic: Our Experience in Preparing to Live with Corona</u>. September 2020. <u>Indian Journal of Orthopaedics</u> 54(S2):1-6DOI:10.1007/s43465-020-00252-x

10. Journals

Dr Lalit Maini

- 1. Editor In Chief, Indian Journal of Orthopaedics
- 2. Executive Editor- Journal of Arthroscopy & Joint surgery
- 3. Editor In Chief, MAMC Journal of Medical Sciences

Dr Dhananjaya Sabat:

- 1. Associate editor Journal of Arthroscopy and Joint Surgery
- 2. Associate editor Journal of Arthroscopic Surgery & Sports Medicine
- Reviewer for following Journals
 - a. Indian Journal of Orthopaedics
 - b. Journal of clinical orthopedics and trauma
 - c. JASSM Journal of Arthroscopic Surgery & Sports Medicine
 - d. JAJS Journal of Arthroscopy and Joint Surgery

Dr.Sumit Sural:

- Reviewer of following Journals :
 - i. Indian Journal of Orthopaedics
 - ii. Indian Journal of Tuberculosis
 - iii. Journal of Clinical Orthopaedics and Trauma
 - iv. MAMC Journal of Medical Sciences

Dr Tarun Suri:

- Reviewer for following journals
 - i. Indian Journal of Orthopaedics.
 - ii. Journal of Clinical Orthopaedics and Trauma.
 - iii. Indian Spine Journal.

11. Research Projects

• Dr.Manoj Kumar

- a. A comparative study on quadriceps coxae sparing and standard posterior approach to hip arthroplasty
- b. A comparative study on the effects of quadriceps muscle strengthening on the progression of disease in medial compartment osteoarthritis in knee with or without varus malalignment.
- c. A comparative study on the effects of selected yoga postures and conventional physiotherapy exercises on sagittal spino-pelvic balance in patients of non-specific chronic low back pain.

- d. comparative study on total joint analgesia following Total joint arthroplasty using combined nerve block versus periarticular infiltrative analgesia
- e. A comparative study on sagittal plane balancing of femoral stem tip in hip arthroplasty using two techniques

• Dr.Vinod Kumar

- a. Comparative evaluation of Endoscopic discectomy via interlaminar approach and Open discectomy for lumbar disc herniation.
- b. Clinico-radiological evaluation of arthroscopic all inside double bundle ACL reconstruction using trilink technique by using semitendinosus graft.
- Radiological Evaluation of Glenoid Bone Reactions following arthroscopic Bankart repair using allsoft suture anchors
- d. evaluation of bony union after corrective surgeries of long bone deformities of lower limb treated by software guided ilizarov realignment technique
- e. Comparative evaluation of anatomic single bundle vs double bundle- trilink technique of arthroscopic all-inside anterior cruciate ligament reconstruction using autologous semitendinosus graft

Sumit Sural

- a. Comparative study of outcome of hip fractures treated with and without platelet rich fibrin.
- b. Comparative assessment of different scoring systems in degenerative lumbar spinal stenosis and their correlation with radiological parameters
- c. Evaluation of Status of Prehospital Management In Spinal Injury Patients.
- d. evaluation of back pain among patients of thoracolumbar spine tuberculosis who have undergone different duration of regimen of antitubercular therapy
- e. Study of S2-alar-iliac screw parameters by virtual simulation in 3D CT reconstruction

• Dr. Lalit Maini

- a. Evaluation of Computer Aided Quadrilateral Plate Fracture Fixation for acetabular fracture using Modified Stoppa Approach.
- b. Volumetric analysis of femoral head and its correlation with clinical presentation in osteonecrosis of femoral head.
- c. accuracy of augmented reality assisted pre-operative patient specific contouring of plate for acetabular fracture fixation
- d. Evaluation of column screw placement assisted by virtual planning and guiding jig for the fixation of acetabular fractures
- e. effect of timing of surgery on quality of reduction in displaced fracture neck femur being managed by cannulated cancellous screws

• Dr. Abhishek Kashyap

- a. Evaluation of results of percutaneous endoscopic transforaminal discectomy for lumbar disc herniation
- b. Comparison of conventional imaging and 3d printed model in determining management of tibial plateau fractures
- c. Accuracy of augmented reality assisted pedicle screw placement in thoraco-lumbar vertebrae.

• Dr. Sumit Arora

- a. A comparative study on quadriceps coxae sparing posterior approach and Modified hardinge approach to cemented modular bipolar hemiarthroplasty of the hip
- b. Reliability of four computed tomography based classification systems in tibial plateau fractures

c. Comparison of Radiographs, 2D-CT, 3D-CT with fracture mapping in assessing the reliability of 2018 AO/OTA classification for intertrochanteric femoral fractures.

• Dr. Dhananjaya Sabat

- a. A comparitive study for evaluation of outcomes of anterior cruciate ligament reconstruction with and without amniotic membrane wrap
- b. Volar carpal artery based vascularised pedicled bone grafting for non-union scaphoid fracture A study in Indian population
- c. Comparative Evaluation Of Femoral Tunnel In Transportal Anatomic Acl Reconstruction Using Rigid And Flexible Reamers
- d. Evaluation of fracture stability and clinical outcome after orthogonal fixation of proximal humerus

12. Patents Filed /Granted

- 13. Seminars Organized
- 14. Conferences Organized
- 15. Seminars / Conference Presentations (National / International)

Dr Vinod Kumar:

- 1. Faculty in 9 th WESSCON and Endoscopic Spine Surgery Workshop 2020(Virtual) on 26 th and 27 th Dec 2020.
- 2. Faculty and presented a talk on BMAC: is it the magical potion we have been hoping for? In DOACON 2020 held at New Delhi on 29 th November 2020.
- 3. Panelist on Osteoarticluar infections webinar held on 5 th May 2020 for postgraduates by Delhi Orthopaedic Association.
- 4. Faculty and presented a talk on Endoscopic discectomy on 13 th May 2020 at Spine Endoscopy masterclass webinar held by Indian Arthroscopic Association.
- 5. Faculty and panelist on Cartilage masterclass held on 8 th may 2020 at webinar held by Indian Arthroscopic Association.
- 6. 16th Sports medicine and Shoulder arthroscopy conclave held on 1 st March, 2020 at Sir Ganga Ram Hospital, New Delhi
- 7. Master case series Season 1: knee held on 1-2nd feb. 2020, at Hotel Pride plaza, New Delhi.

Dr Dhananjaya Sabat:

- 1. Faculty to Nagpur Arthroscopy Meet 2020
- 2. 16th Sports medicine and Shoulder arthroscopy conclave held on 1 st March, 2020 at Sir Ganga Ram Hospital, New Delhi
- 3. Master case series Season 1: knee held on 1-2nd feb. 2020, at Hotel Pride plaza, New Delhi.

Dr Tarun Suri :

1. Faculty to ASSICON 2020, held virtually on Sept 18-20, 2020.

16. MOU

17. Inter-institutional collaboration

Dr Vinod Kumar

• As an organizer to conduct the DNB Orthopaedics examination held at Maulana Azad Medical College, New Delhi on 18th august 2020.

Dr Sumit Sural:

IGNOU, PGDGM

18. Students under exchange program

Asian Students Medical Association: Dr.Sumit Sural, Director ProfessorOrthopaedics conducted a
very successful first International Workshop on "Emergency Orthopaedics" for Asian Students
Medical Association for 30 foreign students along with MBBS students of MAMC at the Department
of Orthopaedics, MAMC on 7th January, 2020.

19. Faculty strength: 10+4 *

*4 assitant professor on contractual basis

20. Other Significant Information

 Orthopedic department installed Symbionix Arthromentor; a digital simulator for knee and shoulder arthroscopy training which will immensely help in skill development of PG students and senior residents.

PAEDODONTICS & PREVENTIVE DENTISTRY (UCMS)

1. Major activities and achievements

Guiding of MDS(Paedodontics & Preventive Dentistry PG)

Guiding Postgraduate student for Research

Participation in Covid-19 Care

Follow up a guidance of general paeditric Dentistry patient using telecommunication Video Consultation for Dental Problems of Covid -19 patients admitted in GTB Hospital

Participated in Covid-19 call centre setup and management

2. Publications

- 1. Sabherwal P, Kalra N, Tyagi R, Khatri A, Srivastava S. (2021) Hypnosis and progressive muscle relaxation for anxiolysis and pain control during extraction procedure in 8–12-year-old children: a randomized control trial. Eur Arch Paediatr Dent, 29,1-10
- 2. Sharma M, Khatri A, Kalra N, Tyagi R. (2021) Evaluation and comparison of strip crowns and primary anterior zirconia crowns in 3–5 years old children at one year. Pediatric Dental Journal,1-9
- 3. Sabherwal P, Kalra N, Tyagi R, Khatri A. (2021) A Conceptual review on pretreatment anxiety management in a dental setting using hypnosis and progressive muscle relaxation. Accepted with Revision status at Journal of Psychological Therapies, Regents London
- 4. Singh HV, Kalra N, Tyagi R, Khatri A. (2020) Dental age assessment of North Indian origin children using Nolla's method in mandibular second molar. Egypt J Forensic Sci 10(25), 2-7
- 5. Tyagi R, Khatri A, Kalra N, Sabherwal P. (2020) Comparative evaluation of hand K-flex files, pediatric rotary files and reciprocating files on instrumentation time, post-operative pain and child's behavior in 4-8-year-old children. Accepted Int J Clin Pediatr Dent.

3. Faculty Strength: 6

PATHOLOGY (UCMS)

1. Major Activities and Achievements

The Department of Pathology adapted to the challenges posed by the Covid-19 pandemic and continued the research and teaching activities. The major areas of research included tuberculosis, dermatological diseases, leukemia, pregnancy loss, telepathology, renal diseases, platelet disorders, thrombophilia, and immune response to fungal diseases. The postgraduate and undergraduate teaching was shifted to the online mode. In addition to these the residents were actively involved in the clinical management of covid 19 patients. The faculty gave several talks and were nominated as experts in national bodies like National Medical Commission and National Medical Library.

2. Honours/Distinctions

- Kotru M. Delhi Society of Hematology as secretary from September 2019 to September 2021.
- Sharma S. Member, Advisory Committee, National Medical Library
- Sharma S. Member, PG expert group, Medical Assessment and Rating Board, National Medical Commission

3. Publications

- 1. Chauhan, S., Diwaker, P., Singh, A., Gogoi, P., & Arora, V. K. (2020). Cytological diagnosis of juvenile xanthogranuloma: A rare histiocytic disorder. Diagnostic cytopathology, 48(1), 66–70.
- 2. Choudhary, F., Tanveer, N., Mangla, G., &Gayatree, A. (2020). Non-syndromic Sex Cord Tumor with Annular Tubules: a Rare Diagnosis. Indian journal of surgical oncology, 11(2), 313–315.
- 3. Diwan, H., Tanveer, N., & Kashyap, S. (2020). Cytological Clues to the Diagnosis of Solid Variant of Papillary Thyroid Carcinoma. Journal of cytology, 37(4), 214–215.
- 4. Dixit, S., Garg, N., Kotru, M., & Gupta, R. (2020). Plasmodium Vivax Malaria: Usual Illness with Dysregulated Immune Profile. Iranian journal of immunology: IJI, 17(3),250-254.
- 5. Dixit S, Gogoi P, Diwaker P. (2020). Clear cell variant of squamous cell carcinoma of eyelid, mimicking sebaceous carcinoma: A rare case report Journal of Microscopy and Ultrastructure. DOI: 10.4103/JMAU.JMAU 70 20 (Ahead of print)
- 6. Dixit, S., Tanveer, N., Kumar, H., & Diwan, H. (2020). Smartphone-Assisted Telecytopathology: An Intraobserver Concordance Study. Actacytologica, 64(5), 399–405.
- 7. Garg, N., Gupta, R., & Kotru, M. (2021). CD34 is not Expressed by Blasts in a Third of B-ALL Patients and its Negativity is associated with Aberrant Marker Expression: A Retrospective Analysis. Asian Pacific journal of cancer prevention: APJCP, 22(3), 919–925.
- 8. Garg, N., Jain, S., Chauhan, S., Dixit, S., & Sharma, S. (2020). Clinicopathological Spectrum of Renal Amyloidosis in Young. Saudi journal of kidney diseases and transplantation: an official publication of the Saudi Center for Organ Transplantation, Saudi Arabia, 31(5), 1085–1090.
- 9. Garg, N., More, S., Chopra, P., Gupta, R., &Kotru, M. (2021). Screening peripheral blood smear: A tale of the "TAIL". Tropical doctor, 51(2), 276–278.
- 10. Gayatree, A., Tanveer, N., Arora, V. K., & Arora, V. (2020). Are Histomorphological Features Predictive of p16 Immunopositivity Different for Oral and Oropharyngeal Squamous Cell Carcinoma?. Indian journal of surgical oncology, 11(2), 248–255.
- 11. Goswami, S., Gupta, R., & Ramji, S. (2020). Flow Cytometry: An Important Diagnostic Tool in Critically Ill Preterm Neonates with Suspected Sepsis. American journal of perinatology, 10.1055/s-0040-1718370. Advance online publication.
- 12. Goswami, S., Gupta, R., & Ramji, S. (2020). Sepsis screen: A useful parameter in early diagnosis of neonatal sepsis in preterm neonates. International journal of laboratory hematology, 42(6), e283–e286.
- 13. Jain, S., Chuhan, S., Dixit, S., Garg, N., & Sharma, S. (2021). Role of Direct Immunofluorescence Microscopy in Spectrum of Diffuse Proliferative Glomerulonephritis: a Single Centre Study. JMAU_62_20. Online ahead of print
- 14. Kumar, H., Tanveer, N., Dixit, S., Diwan, H., & Naz, F. (2020). Smartphone-assisted telegynepathology: A pilot study. The journal of obstetrics and gynaecology research, 46(9), 1879–1884.
- 15. Kumar, M., Meshram, G. G., Rastogi, T., Sharma, S., Gupta, R., Jain, S., Prasad, A., Galav, V., & Bhattacharya, S. K. (2020). Antiangiogenic activity of zinc and zinc-sorafenib combination using the chick chorioallantoic membrane assay: A descriptive study. Journal of cancer research and therapeutics, 16(Supplement), S84–S89.
- 16. Kumar, R., Deshmukh, P. S., Sharma, S., & Banerjee, B. D. (2021). Effect of mobile phone signal radiation on epigenetic modulation in the hippocampus of Wistar rat. Environmental research, 192, 110297.
- 17. Kumari, M., Saifi, A., Khan, M., Arora, V., Shamsi, Y., Halder, S., & Ahmed, R. (2020). Acute and subchronic oral toxicity studies of majunbrahmi and itrifalmuqawwidimagh (traditional unani formulations) in rats. Pharmacognosy Research, 12(2), 169.
- 18. Mangla, G., Garg, N., Bansal, D., Kotru, M., & Sikka, M. (2020). Peripheral Blood and Bone Marrow Findings in Chronic Alcoholics with Special Reference to Acquired Sideroblastic Anemia. Indian journal of hematology & blood transfusion: an official journal of Indian Society of Hematology and Blood Transfusion, 36(3), 559–564.
- 19. Ninawe, A., Guru, S.A., Yadav, P., Masroor, M., Samadhiya, A., Bhutani, N., Gupta, N., Gupta, R., & Saxena, A. (2021). miR-486 -5p: A Prognostic Biomarker for Chronic Myeloid Leukemia. ACS Omega, 6 (11), 7711-7718.

- 20. Nishtha, Kaur, N., Tanveer, N., &Naskar, S. (2021). A Diagnostic Enigma A Rare Presentation Of Juvenile Fibroadenoma In A Premenarchal Girl. Journal of pediatric and adolescent gynecology, S1083-3188(21)00017-6. Advance online publication.
- 21. Rath, A., & Gupta, R. (2020). Hyperleukocytosis (Re)Visited-Is it always Leukaemia: A Report of Two Cases and Review of Literature. Journal of Clinical and Diagnostic Research, 14(1): ED01-ED03.
- 22. Sarkar, B., Tanveer, N., & Verma, A. (2020). Spermatocytictumor in a young patient-not so rare. Clinical Cancer Investigation Journal, 9:271-2
- 23. Singh, V., Chaudhary, D., & Gupta R. (2020). Screening Beta Thalassemia Trait- Performance Evaluation of Discriminator Indices. National journal of laboratory medicine, 9(4):1-4.
- 24. Tahlan, K., M. Sikka, R. Avasthi, M. Kotru, P. Gogoi, & R. Gupta. (2020). Antiphospholipid Antibodies in Young Adults With Myocardial Infarction. Asian Journal of Cardiology Research, 3(1):35-42.
- 25. Tahlan, K., Tanveer, N., Kumar, H., & Diwan, H. (2020). A Rare Case of Nasal Glial Heterotopia in an Infant. Journal of cutaneous and aesthetic surgery, 13(3), 233–236.
- 26. VijayaDevi, S., &Gupta, R. (2020). Hungry megakaryocytes on the hunt? An unusual case of extensive megakaryocyte emperipolesis. Hematology, transfusion and cell therapy, \$2531-1379(20)31301-8. Advance online publication.
- 27. Yadav, M., Arora, V., Hussain, S., Sisodiya, S., Diwaker, P., Goyal, A., & Taneja, H.C. (2020). Evaluation of extracellular signal regulated kinase 1 expression in premalignant lesions of oral cavity. International Surgery Journal, 7(12):3965-3970.
- 28. Yadav, P., & Tanveer, N. (2020). Giant submucosal lipoma of colon causing intussusception in an adult. Clinical Cancer Investigation Journal, 9:25-6.

Books and Chapters

- 29. "Uterine Leiomyomas: Pathogenesis and Molecular Attributes" by PreetiDiwaker and Sonal Sharma in Evidence Based Practices in the Management of Uterine Fibroids published by Evangel publishing.
- 30. "Pathology of uterine leiomyoma" by Priyanka Gogoi in Evidence Based Practices in the Management of Uterine Fibroids published by Evangel publishing.

4. Research Projects

• Kotru M, Gupta R. 'BCR-ABL fusion transcript in pediatric acute lymphoblastic leukemia' in MRU as an extra –mural grant of 2.5 lac for 2 years.

5. Seminar/Conference Presentations

- 1. Arora VK. Online guest lecture: Follicular lesions of thyroid cytopathology CME (UPCYTOCON) organized by SRMSIMS, Bareilly on December 13, 2020.
- 2. Naskar S,Tanveer N,Sharma S,Kaur N. A comparison of of nuclear and cytoplasmic immuno expression of p16 in breast neoplasms.Oral Paper presentation in 6th Emirates Pathology and Digital Pathology Conference held online on February 9 ,2021.(Oral Paper 21).
- 3. Sharma S. Pap & LBC laid bare- Panel discussion. Online webinar. Indian Society of Colposcopy and Cervical Pathology. 4th July 2020.
- 4. Sharma S. Approach to diagnosis of vesiculobullous disorders. National Conference 2020 "Diagnostic Week". 21st-27th September 2020.
- 5. Sharma S. Approach to Kidney biopsy interpretation. National Conference 2020 "Diagnostic Week". 21st-27th September 2020.
- 6. Sharma S. Testicular tumors-Part I. Basic Histopathology Course with Practical and Medico-legal Safeguards. 5th October 2020.
- 7. Sharma S. Testicular tumors-Part II. Basic Histopathology Course with Practical and Medico-legal Safeguards. 9th October 2020.
- 8. Sharma S. Non-neoplastic lesions of Testes. Basic Histopathology Course with Practical and Medicolegal Safeguards. 12th October 2020.
- 9. Sharma S. Adult Renal tumors. Basic Histopathology Course with Practical and Medico-legal Safeguards. 23rd October 2020.
- 10. Sharma S. Neoplastic lesions of Urinary bladder. Basic Histopathology Course with Practical and Medico-legal Safeguards. 26th October 2020.
- 11. Sharma S. Non-Neoplastic lesions of Urinary bladder. Basic Histopathology Course with Practical and Medico-legal Safeguards. 30th October 2020.
- 12. Sharma S. Approach to renal biopsy in Nephrotic syndrome. NBE Webinar. 01.06.2021.

- 13. Kotru M. Invited speaker Panel discussion on Epithelial Mesenchymal Transition (EMT) on on 23rd august 2020 in 1st satellite discussion, FIRMST, Moscow, Russia.
- 14. Kotru M. Moderator in "Online Teaching Program for Post Graduates in Pathology". Held on 26th January 2021.
- 15. Kotru M. Invited speaker 'Qualitative defects in platelet disorders' in Rajeev Gandhi cancer institute on 26th feb2021
- 16. Kotru M. Resource faculty 'Revised Basic Course workshop in medical education technologies' held in UCMS from 23rd to 25th March
- 17. Kotru M. Invited speaker 'Pediatric Anemias' in Project ECHO, monthly online teaching prog conducted by SGPHPGTI, NOIDA on 26th march 2021.

6. Faculty Strength: 16

PATHOLOGY (MAMC)

1. Major activities and achievements

DEPARTMENT OF PATHOLOGY serves as a diagnostic laboratory along with teaching of 250 MBBS Students, BDS, BPO and MLT students.

Pathology Department faculty and residents participated in the care of the covid patients. They were posted in the Shahdara District dispensaries, covid wards of Lok Nayak Hospital and in the Covid laboratories for processing of hematology and other samples needed in the management of Covid 19 19213 samples were received in histopathology this year including frozen sections for rapid intraoperative diagnosis, Immunofluoroscence for skin lesions, processing small, medium and large surgical specimens, autopsy specimens, immunohistochemistry and special stains.

14126 samples in hematology were received in the special hematology. Complete hemogram, bone marrow aspirates and bone marrow biopsy. Varied tests are conducted in special hematology namely G6PD deficiency, osmotic fragility, HPLC, cytochemical stains and LE cell, Flow cytometry is being done for diagnosing hematolymphoid malignancies and PNH. Flow cytometry from Lymph node aspirates and extraanodal sites for diagnosing Lymphomas has been added.

10383 cytology specimens were processed this year including many FNAC, guided FNAC and in bed FNAC, fluid aspirates from ascitic fluid, peritoneal fluid, pleural fluid, BAL, sputum cytology, urine cytology and Gynae PAP smears.

All faculties take keen interest in regularly arranging seminars, Clinicopathological meets, projects, publications and thesis work besides undergraduate teaching. New facilities added for patient care services include Liquid Based Cytology(LBC), Automated coagulometer, Autostainer

2. Honours and Distinctions

- 3. Dr Nita Khurana is Member of committee For L.G. Governors rolling trophy award
- 4. Dr Nita Khurana is Member of Committee for KB Sharma Rolling Trophy.
- 5. Dr Nita Khurana is Chairperson committee for R.P. Mathur Best postgraduate pathology award
- 6. Dr Nita Khurana is Member Institutional Ethics Committee Maulana Azad Medical College
- 7. Dr Nita Khurana is Member of 'Committee of Courses and Studies' in Pathology, University of Delhi
- 8. Dr Nita Khurana is Chairperson IInd MBBS Curriculum Committee
- 9. Dr Nita Khurana is Co-Chairperson of Post Graduate Cell for approval of Thesis/Protocols of the MAMC PG students and superspeciality students of GIPMER.
- 10. Dr Nita Khurana is Treasurer of College magazine Synapse
- 11. Dr Nita Khurana is Member College curriculum committee
- 12. Dr Nita Khurana is Member Committee for drafting criteria for PhD pathology at Delhi University

- 13. Dr Nita Khurana is Executive Member , Indian Association of Pathologists & Microbiologists- Delhi Chapter
- 14. Dr Sarika Singh is the Executive member of Delhi Society Of Hematology
- 15. Dr Reena Tomar is Warden of Sanjeevani and Mother Teresa Hostel
- 16. Dr Shyama Jain was Member Expert, DMC, CSIR, AIIMS, ES, DU, IP university, ICPO (NOIDA), regularly attending all meetings.
- 17. Dr Shyama Jain is Reviewer for many International Journals and national Journals; member executive for Journal Of Cytology
- 18. Dr Nita Khurana was nominated by the Subharti Medical College, Meerut as expert/advisor to External Expert in the Board of studies for PhD research projects
- 19. Dr Nita Khurana was nominated by the Hamdard Institute of Medical Sciences and Research, Jamia Hamdard University, New Delhi as expert/advisor to External Expert in the Board of studies for MD Pathology curriculum
- 20. Dr Nita Khurana was an external expert at Jamia Hamdard University, JanakPuri Superspeciality hospital, BSA Medical College and Hospital, ESI hospital, North DMC,RML hospital New Delhi as expert/advisor to External expert in selection board for faculty positions
- 21. Dr Nita Khurana is nominated member of the tumour board, Department of Radiotherapy, LNH
- 22. Dr Nita Khurana was nominated by the as External examiner for DNB Pathology Examination at hindu Rao Hospital and R& R (Army) Hospital and Examiner for M.D. Pathology examination Of IP University, Sharda university
- 23. Dr Nita Khurana appointed for Thesis Evaluation for MD pathology thesis of Baba Faridkot University, Punjab, Pt. BD Sharma University of Health Sciences, Rohtak, Haryana., Sharda university, Noida and AIIMS, Delhi and HIMSR, New Delhi
- 24. Dr Nita Khurana is resource person in Organizing CPCs in collaboration with Department of Medicine, Department of Surgery and Department of Otorhinoloaryngology, Department of Radiotherapy
- 25. Dr Nita Khurana is National Coordinator webinar NBE for DNB Pathology
- 26. Dr Nita Khurana is a resource person in NTTC and MCI revised Basic training workshops and Curriculum Implementation Support Programme for medical teachers as a faculty member at the nodal Medical Education Department of MAMC and capsule courses for senior residents in Medical Education Department.
- 27. Dr Nita Khurana was a resource person for the institutional postgraduate orientation programme.
- 28. Dr Sraika Went as external examiner for MBBS EXAM to Dr Ram Manohar Lohia Institute of Medical Sciences Lucknow Feb 2020, for BDS examination to PGIMS Rohtak in Feb 2020
 - Department being the nodal center receives samples of Stree Shakti Programme and Cancer Control Programme from various camps held in Delhi and routinely samples from cancer diagnosis from other Delhi Government hospitals for processing and reporting
 - 2. Residents and staff members of the Department of pathology participate in the Pulse Polio Programme regularly

29. Publications

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- 1. Utility of Fine Needle Aspiration in Diagnosis of Intraoral Minor Salivary Gland Tumors. Singh M, Sagar N, Yadav S, Aggarwal R, Mandal S, Khurana N, Jain S, Meher R. J Cytol. 2020 Jan-Mar;37(1):53-57.
- 2. Histomorphological patterns of hepatoblastoma in tertiary care hospital. <u>Jcrt Dimple Chaudhary</u>¹, Latika Gupta¹, Radhika Agarwal¹, Varuna Mallya¹, Reena Tomar¹, Shramana Mandal¹, Nita Khurana¹, YK Sarin²DOI: 10.4103/jcrt.JCRT 120 19
- 3. DFSP Dermatofibrosarcoma Protuberans: clinicopathological spectrum with emphasis on lymph node metastasis and Fibrosarcomatous transformation. Dahiya S, Tomar R, Ahuja M,Mandal S, Mallya V, Khurana N,J Can Res Ther. March 2020.

- 4. "Histopathological association of Adenomyosis with various Gynaecological pathologies" Nishant Sagar, Reena Tomar, Kirti Balhara, Varuna Mallya, Shramana Mandal, Nita Khurana. Annals of Pathology and Laboratory Medicine (APALM). June 2020;
- 5. Neuroendocrine Carcinomas of the Breast: Case series with review of literature Vishal Singh, Navpreet Kaur, Shramana Mandal, Varuna Mallya, Reena Tomar, Nita Khurana, Lovenish Bains.. Indian J Pathol Microbiol. 2020 Oct-Dec;63(4):559-563.
- 6. Aggressive osteoblastoma involving the navicular bone of foot: A rare tumor in a unique location. <u>Ashutosh Rath, Shramana Mandal, Sneha Goswami, Anil Dhal</u>The Journal of Foot and Ankle Surgery. J Foot Ankle Surg. 2020 Nov-Dec;59(6):1279-1282.
- Kikuchi's disease presenting as ileo-ileal intussusception- an unusual presentation of a rare disease. Vishal Singh, Navpreet Kaur, Shramana Mandal, Nita Khurana, and Y.K. Sarin Journal of Surgical Case Reports. accepted for publication 2020
- 8. 'Primary leiomyosarcoma kidney a rare entity with diagnostic challenge. Jcrt Dimple Chaudhary¹, Ashutosh Rath¹, Shramana Mandal¹, Nita Khurana¹, PN Agarwal²10.4103/jcrt.JCRT_107_19
- 9. 8.Ebstein Barr virus in Hodgkins Disease A path less treaded .Annals of Pathology and Laboratory Medicine. Kirti Balhara, Sarika Singh, Shyam Lata Jain, MK Daga, Anubhav Vindal 2020.Vol.7; Issue 6: 310-319
- Flow cytometry in chronic myelogenous leukemia blast crisis .Iranian journal of blood and cancer Vindhyaprabha Hegde, Sarika Singh, Pallavi Sinha, Lity Dhar, Sunita Aggarwal, Dharam Pal Bhadoria, M K Daga. IJBC 2020,12 (3):80-83
- 11. Primary plasma cell leukemia: reviewed an article. Sarika Singh, Ashutosh Rath, Surekha Yadav, Sultan Qaboos University Medical Journal 9 April 2019 e 564
- 12. Congenital pulmonary airway malformation with co-existant cytomegalovirus infection in an infant: An unusual presentation. Bembem Khuraijam, Udaya, Shramana Mandal, Nita Khurana, Vivek Manchada Accepted for publication IJPM 2020
- 13. Melanoma arising in an epidermal inclusion cyst presenting as discharging sinus: A rare case report. Rabish Kumar, Nishant Sagar, Shramana Mandal, Nita Khurana, Manish Sharma Accepted for publication JJPM 2020
- 14. Incidental Isolated Renal Mucormycosis in immunocompetent patient: A rare and atypical presentation. Deepak Ghuliani, Rajshekar P., Kartik Sahni, Reena Toma<u>r</u>. International Surgery Journal, ISJ. Feb 2020
- 15. IgG4 related disease a rare case of isolated cutaneous involvement. Rehlan V, Tomar R.Clinical and Experimental Dermatology. June 2020. DOI: 10.1111/ced.14334
- 16. Cervical rhabdomyoma a rare entity: Case report with review of literature. Nishant Sagar, Shramana Mandal, Nita Khurana, Ashok Kumar Indian J Pathol Microbiol. 2020 Jul-Sep;63(3):467-469.
- 17. The expression of p16 and galectin-3 in cervical intraepithelial neoplasia (CIN) and squamous cell carcinoma (SCC) uterine cervix.Kumar R, Mandal S, Arora P, Mala YM, Khurana N.J Obstet Gynaecol. 2020 Oct 19:1-6. doi: 10.1080/01443615.2020.1803235
- 18. Leiomyosarcoma Breast with Extensive Metastasis: a Case Report.Bhuwan Kumar, Rajdeep Singh, P.N. Agarwal, Shramana Mandal May 2020 Indian Journal of SurgeryDOI: 10.1007/s12262-020-02242-7
- 19. Congenital cutaneous peripheral neuroectodermal tumour of scalp: youngest case so far. Shashank Panda, Praveen Kumar, Sarika Singh. Y K sarin JIAPS 2020.DOI:10.4103/JIAPS.
- 20. Exploring the unexpected: Circulating Micromegalaryocytes in Chronic myelogenous Leukemia Pallavi Sinha, Sarika Singh, Lity Dhar, Sunita Agarwal. Journal of clinical and diagnostic research .2020.vol14(12):xc01-xc04
- 21. Sepsis screen: A useful parameter in early diagnosis of neonatal sepsis in preterm neonates. Sneha Goswami, Richa Gupta, S Ramji Int J Lab Hematol.2020;42:e283-e286
- 22. Flow cytometry: An important diagnostic tool in critically ill preterm neonates with suspected sepsis Sneha Goswami, Richa Gupta, S Ramji.. Am J Perinatol.2020 Sep 29.doi-10.1055/s-0040-1718370

- 23. Renal Hemangioblastoma with Mixed Mullerian tumour of endometrium: A tale of two rare primary tumours..Setia A, Kumar D, Bains L, Sharma P, Tempe A, Mallya V.World J Surg Oncol. 2020 Jul 6:18(1):154
- 24. Does tumor stroma ratio of breast cancer trucut biopsy determine response to neoadjuvant therapy? Mallya V, Singh V, Kaur N, Yadav P, Mandal S, Khurana N, Lal P.Indian J Pathol Microbiol. 2020 Feb;63(Supplement):S113-S116.
- 25. Oncocytic variant of papillary renal cell carcinoma: A rare or underreported entity? Rath A, Murry WT, Mallya V, Khurana N, Jain SK.Indian J Pathol Microbiol. 2020 Apr-Jun;63(2):327-329.
- 26. Clinicopathological correlation of tumor-stroma ratio and inflammatory cell infiltrate with tumor grade and lymph node metastasis in squamous cell carcinoma of buccal mucosa and tongue in 41 cases with review of literature Rani P, Gupta AJ, Mehrol C, Singh M, Khurana N, Passey JC. J Cancer ResTher. 2020 Apr-Jun;16(3):445-451.
- 27. Utility of Fine Needle Aspiration in Diagnosis of Intraoral Minor Salivary Gland Tumors. Singh M, Sagar N, Yadav S, Aggarwal R, Mandal S, Khurana N, Jain S, Meher R J Cytol. 2020 Jan-Mar;37(1):53-57. doi: 10.4103/JOC.JOC 62 19.
- 28. Radiation-induced leiomyosarcoma of oral cavity: Two cases with a review of literature Sagar N, Singh M, Goyal N, Khurana N, Singh K, Meher R. J Cancer Res Ther. 2020 Dec;16(Supplement):S230-S232.
- 29. Expression of vascular endothelial growth factor, CD10, and factor 8 in phyllodes tumor: A 5-year study of 38 cases. Chaudhary D, Singh M, Kushwaha P, Agarwal R, Singh V, Mandal S, Khurana N,Mishra A. J Cancer Res Ther. 2020 Oct-Dec;16(6):1408-1411.
- 30. Aggressive Osteoblastoma Involving the Navicular Bone of Foot: A Rare Tumor in a Unique Location.Rath A, Mandal S, Goswami S,Khurana N, Dhal A.J Foot Ankle Surg. 2020Nov-Dec;59(6):1279-1282. 31.. Aggressive angiomyxoma of renal pelvis in a horseshoe-shaped kidney: Rare tumor at an unusual site.Sagar N, Arora P,Khurana N, Agarwal PN.Indian J Pathol Microbiol. 2020 Jul-Sep;63(3):460-462.
 - 32 <u>Pheohyphomycosis: A curious case of cyst.</u>Relhan V, Sandhu J,Khurana N, Chowdhary A.Indian J Dermatol Venereol Leprol. 2020 Sep-Oct;86(5):542-545.
 - Acinic cell carcinoma of the parotid gland with neuroendocrine differentiationRath A, Tomar R, Agarwal R, Singh M, Jain S, Khurana N, Rathore PK. . J Can Res Ther [Epub ahead of print
 - 34 Incidental Isolated Renal Mucormycosis in immunocompetent patient: A rare and atypical presentation. Deepak Ghuliani, Rajshekar P., Kartik Sahni, Reena Tomar .International Surgery Journal, ISJ. Feb 2020; DOI: http://dx.doi.org/10.18203/2349-2902.isj20201412
 - 35 Kirti Balhara, Sarika Singh, Shyam Lata Jain, M K Daga, Anubhav Vindal. Ebstein Barr virus in Hodgkins Disease A path less treaded . Annals of Pathology and Laboratory Medicine. 2020Vol.7, Issue 6, 310-319
 - 36 Shashank Panda, Praveen Kumar, Sarika Singh. Congenital cutaneous peripheralneuroectodermal tumour of scalp: youngest case so far. JIAPS 2020(ACCEPTED)
 - 37 Oncocytic variant of papillary renal cell carcinoma: A rare or underreported entity?Rath A, Murry WT, Mallya V, Khurana N, Jain SK.Indian J Pathol Microbiol. 2020 Apr-Jun;63(2):327-329.
 - 38 Renal Hemangioblastoma with Mixed Mullerian tumour of endometrium: A tale of two rare primary tumours. Setia A, Kumar D, Bains L, Sharma P, Tempe A, Mallya V. World J Surg Oncol. 2020 Jul 6;18(1):154..
 - 39 Cystic Lymphangioma of the Greater Omentum: A Case of Partial Spontaneous Regression and Review of the Literature.Maranna H, Bains L, Lal P, Bhatia R, Beg MY, Kumar P, Mallya V.Case Rep Surg. 2020 Jan 28;2020:8932017.

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- 40 Dermatofibrosarcoma Protuberans: clinicopathological spectrum with emphasis on lymph node metastasis and Fibrosarcomatous transformation. Dahiya S, Tomar R, Ahuja M,Mandal S, Mallya V, Khurana N.J Can Res Ther. March 2020. Accepted
- 41 Neuroendocrine Carcinomas of the Breast: Case series with review of literature. Vishal, Reena Tomar, Shramana Mandal,, Varuna Mallya, Nita Khurana. Indian journal of pathology and microbiology, IJPM April 2020. Accepted.

30. Research projects

1.Extramural Research funded by DST, under Science and Technology of Yoga and Meditation (SATYAM) on Psychological Problems and Burnout among Health Care Professionals in a tertiary care centre involved in COVID Care: A Randomized control Study with Response to Multi-Modal Non-Pharmacological Lifestyle Interventions (Counselling and Reflective Rajyoga Meditation(RM). Co PI Dr. Reena Tomar

2.Intramural project titled "Immunohistochemical expression of mismatch repair proteins in colorectal carcinoma "PI. Dr. Parul Tanwar Co PI- Dr Nita Khurana, Dr Anubhav Vindal, Dr Sneha Goswami.

3 MRU Project titled: Expression Of Kmt2a/Mll Gene Translocations In Pediatric Acute Lymphoblastic Leukemia By Fluorescence In Situ Hybridisation And Its Correlation With Flow Cytometry And Polymerase Chain Reaction By Dr Sarika Singh

4Intramural Project titled Study of p57 and ki-67 immunoreactivity as an ancillary technique in differentiating complete mole, partial mole and hydropic abortus.PI Dr. Reena Tomar with co PI Dr Nita Khurana, Dr Parul Tanwar, Dr Niharika and Dr Bhagyashree.

- 5 Intramural project titled as Role of Androgen Receptor in Triple negative breast cancer with dept of Radiotherapy Co Pi Dr. Reena Tomar
- 6.Morphological and Immunohistochemical Study of Human Papillomavirus-Related Carcinomas of the Sinonasal tract by PI Dr. Khuraijam Bembem. Co Pi Dr Nita Khurana
- 7 BRAF mutation profile in AUS/FLUS lesions on Thyroid FNAC with Immunohistochemical expression of VE1 on cell block preparations. Meeta Singh, Shyama Jain, Shramana Mandal, Binita Goswami, Vikas Malhotra, Anurag Mishra.
- 8. Evaluating the utility of artificial intelligence in differential diagnosis of thyroid tumors viz Non invasive follicular thyroid neoplasm with papillary like nuclear features (NIFTP), follicular variant of papillary thyroid carcinoma (FVPTC), classical papillary thyroid carcinoma (cPTC), follicular adenoma (FA) and hyperplastic/adenomatous nodules (HTN) By Dr Meeta Singh with Dr Shipra Aggarwal, AIIMS asCo PI

Ongoing Thesis

- 1. Diagnostic Utility of IHC and DIF in Primary cicatricial alopecia by Dr Yankila with Dr Nita Khurana supervisor , Dr. Bijaylaxmi Sahoo
- 2. Concomitant Expression Of Survivin, Pten And P53 In Endometrial Hyperplasia And Carcinoma: An Immunohistochemical Studydr.Garvita Singh, Dr.Nita Khurana, Dr.Asmita Rathore, Dr.Shramana Mandal 3.To Study Coagulation Profile In Low And High Risk Pregnant Women In Third Trimester Of Gestation Dr.Pooja Saini, Dr.Sarika Singh Dr.Sangeeta Gupta, Dr.Nidhi Verma
- 4.To Study The Expression Of CD30 In Diffuse Large B Cell Lymphoma By Immunohistochemistrydr.Rashmi Gautam, Dr.Sarika Singh, Dr.Sandeep Garg, Dr.Anubhav Vindal, Dr.Meeta Singh 5.Expression Of BRCA1, BRCA2 And Claudin-3 In Triple Negative Breast Carcinomas Dr.Zoya Hasan, dr.Shramana Mandal, .Dr.Nita Khurana, Dr.Sushanto Neogi
- 6. .Role Of PDL 1 In Serous Carcinoma of The Ovary And Its Association With Tumour Infiltrating Lymphocytes (Tils) By Dr.Anubhuti Chaturvedi Dr.Reena Tomar,Dr.Shramana Mandal, Dr.Deepti Goswami

- 7.` Tumour Stroma Ratio As A Predictor Of Adverse Histopathology In Radical Cystectomy Specimens. Dr.Ishu Ghiloria, Dr.Nita Khurana, Dr.Anubhav Vindal
- 8.Expression Of HBME1, Galectin 3, Ck19, Cd56 In Follicular Adenomas Dr.M. Bharanidharan, Dr.Meeta Singh.Dr.Ravi Meher, Dr.Shramana Mandal
- 9. Comparison Of Reporting Of Lymph Node Fine Needle Aspiration Cytopathology Based On The Sydney System With Conventional System Dr.Sreoshi Paul, Dr.Nidhi Verma, Dr.Sarika Singh, Dr Vikas Malhotra Professor, Dr.Meeta Singh
- 10 Occurrence of LevelI lymphnode positivity in tongue carcinoma ENT Dr. PK Rathore. Dr. Vishnu Saigal Dr. Nita Khurana
- Evaluation of serum pentraxin3 level and pentraxin 3 Gene polymorphism in lepromatous leprosy patients MD Dermatology Dr. Satendra kumar Dr. Bijaylaxmi Sahoo Dr. Nita Khurana
- Serum levels of osteopontin and Folate receptor alpha as diagnostic and prognostic biomarkers of ovarian carcinoma. Biochemistry DR. Kanti khurdi Dr. Smita Kaushik Nita Khurana
- 13.: Role of Platelets rich plasma in treatment of Alopecia patients Submitted in 2020 Aprilrashmi Sarkar Sarika Singh
- 14. Haemoglobinopathies Dr. Seema kapoor, Dr. S.Singh
- 15. Prevalence of absolute iron deficiency in children and adolescent with chronic kidney disease Dr. Swati Rani, Pediatrics, Dr. S Singh
- 16. Endoscopic myringoplasty using platelet rich fibrin versus tragal perichondrium graft in the management of small tympanic membrane perforation Ditixa Patel Otorhinolaryngology, Dr. S. Singh
- 17.To study the association of Lymphocytes, Macrophages and Dendritic cells in filtration in Endometrial Carcinoma. Dheeraj Dr. Guddanti supervisor ship of Dr Shramana Mandal
- 18. Thesis on Psychological, emotional and cognitive effect on Rajayoga meditation in young adults with internet addiction Physiolgy dept. Co Supervisor Dr. Reena Tomar
- 20. Cytological expression of hTERT, CD56, HBME-1 in thyroid neoplasm by Dr Anjali Mittal under supervisor ship of Dr Meeta singh
- 21.Fat Clearing versus manual dissection of axillary specimens of carcinoma breast By Dr Raunak Ahalawat under supervisor ship of Dr Varuna Mallya and co supervisorship of Dr Nita Khurana
- 22. . Expression of NG2 marker in Acute leukemia by flow cytometry "Supervisor: Dr Sarika Singh,Dr.Seema kapoor, Dr.Bidhan Chandra koner, Dr Shramana Mandal.
- 24. Efficacy of cytology in small round cell tumor by correlating with histopathology and immunohistochemical findings, by Deepika Rani, Dr Nidhi Verma, Dr Shyama lata jain ,Dr Y K Sarin ,Dr Vineeta Batra
- 25. Comparison of Liquid based Cytology (LBC) With Conventional PAP Smear in the detection of Cervical Intraepithelial Neoplasia and Cervical Cancer Dr Meeta Singh As Co-supervisor with Rachita Garg (Obs and Gynae)
- 26. Expression of Bcl-6 and p53 in Chronic Myeloid Leukemia By Dr.Rakesh under supervision of Dr Varuna Mallya, Dr. Prerna Arora

(b) Details of thesis completed during the current year-

- 1.Role of cytology in categorization of primary skin tumors. Dr. Shabnam Singh, Dr. Shyam Lata Jain, Dr. Nidhi verma, Dr. B. L. Saho
- 2. Assessment of Hormone Receptor Heterogeneity In carcinoma breast: An immunohistochemical study by Dr. Priyanka Yadav, Dr. Nita Khurana, Dr. A.K Rathi, Dr. Rajdeep Singh, Dr. Meeta Singh
- 3.Thesis Contrast enhanced computed tomography and CT perfusion of cervical lymphnodesin head and Neck Squamous cell cancers\Dr. Shubham Suryavanshi Dr. Jyoti Kumar Dr. Nita Khurana
- 4.Flow cytometric analysis of Cd200, CD27,CD81 and Cd56 in plasma cell disorders. Dr.Chumbeni ngullie, Dr. Sarika Singh,Dr. Prerna Arora, Dr. Sunita Aggarwal
- 5.Expression of E-cadherin, Vimentin and CD44 in malignant epithelial ovarian tumors. Neha parashar supervisor ship of Dr Shramana Mandal, Dr Renu Tanwar, Dr Meeta Singh

- 6.Expression of wt1, cyclin d1 and p53 in acute leukemia. By Priyanka B under supervisorship of Dr Prerna Arora 7..Histopathological changes occurring in various organs following different types of shock at autopsy Dr. Alok Kumar Maurya Dr. S. K. Khanna Forensic Medicine
- 8.Role of cancer stem cell marker CD44 in Triple Negative Breast cancer and its association with Histological grade and angiogenesis, by Dr Reena Tomar.
- 9. Comparative assessment of the Paris system for reporting urine cytology with the conventional system of reporting in the diagnosis of urinary bladder carcinoma, by Vindhyaprabha Dr Nidhi Verma, Dr Shyamlata Jain, Dr Sushanto Neogi
- 10. Prognostic significance of intramural and extramural lymphovascular invasion in colorectal carcinoma. Dr. Amritha.P.S, Dr. Varuna ,Dr. Nita Khurana, Dr. Pawanindra Lal

9. Seminars /Conferences presentations

Posters /oral presentations Poster presentation in Conferences

- 1. Dr Nita Khurana Chaired session on Lab Abnormalities in Covid 19 webinar by Dr. Madhu Singh, JSSH Hospital on October 13, 2020
- 2. Dr Nita Khurana Chaired session on AETCOM essence of CBME at JSSH on October 22,2020
- 3. Dr Sarika Moderated a session on live webinar on diagnosis and management of challenges in thrombosis. Sept 2020.
- 4. Dr Reena Tomar was invited as chairperson in National conference diagnostic week Pathology held in sept 2020
- 5. Dr Reena Tomar adjudged oral paper session in National conf diagnostic week Pathology in sept 2020
- 6. Dr Reena Tomar conducted online webinar on stress management and Emotional intelligence in National level Mind body Medicine conference 2020
- 7. Cytology corner- Informal cases discussion: Role of FNAC flowcytometry on diagnosis lymphomas. 10thOct 2020 by on Dr Meeta Singh on Facebook
- 1. National conference of haematology Haematocon Nov 2020, Virtual conference 38th annual national CME(online), Attended by Dr Sarika, Dr. Garima Rakheja, Dr. Pallavi
- 2. Diagnostic Week National Pathology online conf sept 2020 Attended by Dr Reena Tomar
- 3. Workshop in 'Medical Education Technologies', based on MCI Revised Basic Course Workshop pattern from 27-10-2020 to 29-10-2020. Attended by Dr Garima, Dr. BemBem,
- 7. Dr. Garima Participated in virtual Neuropathology Teaching program 2020, held on 5th December 2020, Virtual workshop on RT-PCR technique basics to Application (AIIMS, New Delhi) on 20th November, 2020 in Haematocon 2020
- 8. CISP II workshop- 9-10 July 2020 Attended by Dr Meeta
- 9. Dr. Meeta Singh attended Hope Webinars, BD LBC masterclass 2 Dec 2020, 24 Nov, 6 August 2020 IAC Jewel 50 series weblecture, DCIAC Salivary Gland Cytology. RML 4th
- 12. AIIMS online webinar attended by Dr. Reena Tomar, Dr. Meeta Singh and six residents
- **14.Extension and outreach activities** –Staff and residents of the Pathology department are involved in the Pulse Polio Programme. Department being the nodal center receives samples of Stree Shakti Programme and Cancer Control Programme from various camps held in Delhi and routinely samples from cancer diagnosis from other Delhi Government hospitals for processing and reporting

16. Faculty strength -10

Head of the Department: Dr. Nita Khurana

Sl No	Name of the Faculty	Designation
1	Dr Shyam Lata Jain	Director Professor
2	Dr. Nita Khurana	Dir. Prof & Head

3	Dr. Sarika Singh	Professor
4	Dr. Shramana Mandal	Professor
5.	Dr. Prerna Arora*	Associate Professor
6	Dr.Reena Tomar	Associate Professor
7	Dr. NidhiVerma	Associate Professor
8.	Dr. Meeta Singh	Associate Professor
9	Dr. Varuna Sipayya	Associate Professor
10	Dr Parul Tanwar	Assistant Professor
11	Dr Khuraijam Bembem	Assistant Professor

*Dr Prerna Arora is on study leave for her DM Hematopathology Dr. Shyam lata Jain superannuated in September 2020 17.Other significant information –.

PATHOLOGY (LHMC)

1. Major Activities and Achievements: Total number of laboratory investigations done by Pathology department was 292590 in this year. Deptt. of Pathology had organised a Guest lecture by Dr. Vineeta Batra ,Director Professor ,GB Pant Hospital N. Delhi,on "Interpretation of Kidney biopsy" . The faculty members from department presented talks in various national conferences and webinars. Many voluntary blood donation camps and various awareness programs were organized by Deptt. of Pathology and Blood bank. Therapeutic Plasmapheresis & Convalescent Covid plasma collection facilities were added.

Dr Sangeeta Pahuja Sindhwani, Professor is appointed as National Technical Expert for framing "guidelines for setting up blood storage centres at first referral units and National Technical Expert for finalizing the training manual for "e-Raktkosh software training and strengthening of Blood Services", under Ministry of Health and Family Welfare, Govt. of India..

- 2. **Honours and Distinctions: Dr. Sunita Sharma** (Dir Prof. & HOD), awarded Reviewer certificate of Outstanding contribution in reviewing IJPM in December 2020.
- **Dr. Sunita Sharma** and **Dr. Vandana Puri** featured in Global Journal of Medical Research for Women's outstanding contribution to Indian medical education in 2021.
- 3. Publications (Total 21): as per format

Publications: 2020-2021

- 1. Chhikara A, **Shukla S**, **Sharma S**, Chandra J. Clinical morphology & Immunophenotypic finding in Leukemia, A study from a tertiary care hospital. Iranian J. Of Ped. Hemat & Oncol 10(3): 2020; 136-143
- **2. Gaur K, Puri V, Shukla S, Sharma S**, Suman S, Singh R. Finish before the start: Analyzin gpreanalytical sample errors in a tertiary care hematology laboratory. Indian J PatholMicrobiol2020; 63:435-40.

- 3. **Garg J**, Meena R, **Shukla S**, **Sharma S**, Choudhary R. Abnormal semen parameters among males in infertile couples: a cross sectional study from a tertiary care centre. Int J ReprodContraceptObstet Gynecol. 2020;9(8):3398-3401.
- 4. **Agarwal K**, **SinghS**, Anand A. P53 and Nuclear Unrest: Biological Driver's Suggesting Poor Prognosis in Anaplastic Wilm'sTumor. Journal of PediatricNephrology 2020;8(3):1-5.
- 5. **Agarwal K**, Anand A, Suman N, Singh S .Teratoid Wilms Tumor: Case Report and Review of Literature. Journal of Pediatric Nephrology 2020;8(4):1-9.
- 6. Jaiswala N, Puri M, **Agarwal K**, **Singh S**, Yadav R, TiwaryN, TayalaP. COVID-19 as an independent risk factor for subclinical placental dysfunction. European Journal of Obstetrics & Gynecology and Reproductive Biology 2021;259:7–11.
- 7. **Singh S**, Anand A, **Agarwal K**, GovindswamyJ, MeenaS K. Plasmablastic Multiple Myeloma Masquerading Leukemia in an Immunocompetent Patient. JDiagn Case Rep. 2020; 1(2): 2-4.
- 8. **Singh S**, SrivastavS , **Agarwal K**. Neonatal Autopsies with Heart Disease: A Challenge for Pathologist. Journal of Clinical and Diagnostic Research. 2020;14(8): ED06-ED08.
- 9.**Singh S**, Chhikara A, Anand A, **Agarwal K**, Nangia S, Somnath S. PeliosisHepatis: A Rare Cause of Hepatomegaly in a Newborn. OSP J Health Car Med 2020;1(2):110.
- 10. Singh <u>B. K.</u>, Saha <u>S.</u>, Agarwal S., Malignant Brenner tumour of the ovary manifesting as distal intestinal obstruction and perforation. BMJ Case Rep.2020 Jun 11;13(6):e235394.
- 11. Sharma A, **Gaur K**, **Puri V**, **Shukla S**. Sickle cell disease presenting in the third trimester of pregnancy: Delayed detection heralding a public health problem? Indian J Public Health 2020;64:93-5. 12. Singh GB, Yvette War G, **Shukla S**, Kaur R, Malhotra S, Kumar S. The role of Helicobacter Pylori and laryngopharyngeal reflux in recurrent tonsillitis. Int J PediatrOtorhinolaryngol. 2020;138:110376. doi: 10.1016/j.ijporl.2020.110376. Epub 2020 Sep 9. PMID: 33152967.
- 13 .Kumar P, Sanke S, Chander R, **Nangia A.** Becker's Nevus co-existing with morphea: A Rare case report Skin appendage Disorders: 7(1): 1-4, October 2020.
- 14 . Aasha B, Nangia A, Sharma S, Chandra J. Flowcytometric cytokine profiling of T- Lymphocytes in Pediatric Aplastic Anaemia. Annals of Pathol and lab. Med.: Poi:10.21276/apalm.2727 April 2020.
- 15 . **Singh S**, **Gaur K** ,Puri A . Mammary Fibrocystic Change in a Pre-Pubertal child- A Case Report with a Histopathological Perspective, Fetal and Pediatr Pathol.2020;1-5
- 16 .**Singh S.**Garg J, Sharma K, <u>Agarwal K</u>. Intaabdominal solitary myofibroma in a child: A rare Case Report. Journal of clinical and diagnostic Research2021;15(1): ED01-ED03.
- 17 . **Singh S**, Sharma K, Kumar V, Yadav P. An unusual presentation of leiomyosarcoma posing a diagnostic dilemma: A case report. Journal of Clinical & Diagnostic Research, 2020;14(12):ED04-ED06 **18. Chatterjee P,** Mondal P, **Sharma S,** Chandra J, Histoplasma Capsulatum in Peripheral Blood Smear, Ann Hematol Oncol.2020;7(6): 1305
- **19. Puri V**, **Sharma G**, Chhikara A. Critical analysis of two cases of major crossmatch incompatibility in tertiary care hospital in Delhi. Asian J Transfus Sci 2020;14:192-4.
- **20. Pahuja S**, Jain S, Nain M, Goel R, Sehgal S, Jain M. Assessment of Rhesus and Kell Blood group antigens, phenotypes and their allelic frequencies in North Indian Blood Donors. Asian Journal of Transfus Sci 2020 Jul-Dec;14(2):137-141
- 21. **Sharma G, Pahuja S,** Singh D et al. Non RhD isoimmunization causing severe hemolytic disease of fetus and newborn in Rh positive pregnancies: Report of 2 cases with review of literature. Int J Contemp Pediatrics 2020;7(4)

Published Books:

Books

Book name Edition Author

Complete review of Pathology and	5th	Dr. Vandana Puri
hematology	ISBN NO 978-93-86310-41-5	
Book chapter: Fibrohistio cystic	Ist	Dr. Priti Chatterjee
tumors, in Book Fibroblastic	ISBN No: 978-6138917717	
/Myofibroblastic tumors of	(Scholars Press)	
Childhood		

4. Journals

Published by the College: NIL

Number of College teachers serving as Editors (s)/Member(s) of Editorial Board: NIL

5. Research Projects

Name of Co-	Project	Title of the Project scheme	Name of the	Budget in	Year/
investigators	Incharge		funding	Rs.	Period
			agency		
Dr. Sunita Sharma	Dr. Shailaja	RT- PCR for detection of common Fusion	Deptt. Of	Rs.30	2018-20
	Shukla	Transcripts in Childhood ALL	Health	lakhs	
			Research		
Dr. Sangeeta	DR Anil Gurtoo	Co Investigator in ICMR led Project: "A Phase II,	Non Funding	-	2020-
Pahuja Sindhwani		Open Label, Randomized Controlled Trial to			2021
		Assess the Safety and Efficacy of Convalescent			
		Plasma to Limit COVID-19 Associated			
		Complications in Moderate Disease". In 2020.			

7. Seminars Organized : Guest lecture by Dr. Vineeta Batra ,Director Professor ,GB Pant Hospital N. Delhi,onInterpretation of Kidney biopsy on 15.10.2020

9. Seminar/ Conferences Presentations (National / International)

S.No.	Name & Designation of the Participant	Role	Organiser	Name, Venue & Date
1.	Dr Sunita Sharma (Director Professor & HOD)	Speaker	Delhi society Of Haematology	Webinar Approach to eosinophilia in Nov 20.
		Speaker	DNB	Lecture on Lab. Diagnosis of Antiphospholipid antibody syndrome on 9/2/21

2.	Dr Kiran Agarwal (Director Professor)	Speaker	DNB	Web seminar
3.	Dr Sangeeta Pahuja Sindhwani	Speaker	Asian Association of Transfusion Medicine	on "Implementation of Internal QC in a TTI testing facility" CME organized on 15th February, 2020 at Gurgaon

16. Faculty Strength: 17 (including 5 on contract)

PATHOLOGY (VPCI)

1. Major activities and achievements:

The department of Pathology at V.P.Chest Institute, continued its pioneering work in molecular pathology and pathogenesis of diffuse parenchymal lung diseases and lung neoplasms. The department faculty adapted to the online teaching program and imparted lectures and participated in webinars in Virtual mode. Three extramural funded research projects on nanomedicine in lung fibrosis and lung cancer are presently ongoing. The department imparted training in molecular diagnostics to students of Amity University and collaborated with ICMR-NICPR, AIIMS, New Delhi, Jamia Milia Islamia, SGT University, DBT-TDNBC network, INMAS, DRDO in various academic and research activities.

- Dr. Ritu Kulshrestha is the Member of Scientific Advisory committee for MRHRU External Member of
 the Scientific Advisory Group for the Dept of Health Research, MOHFW, GOI established Model Rural
 Health Research Unit (MRHRU) at Khotpura, Panipat, Haryana in collaboration with the Kalpana
 Chawla Government Medical College, Karnal under mentorship of ICMR-NICPR, Noida since March
 2021
- 3. <u>Dr. Ritu Kulshrestha is the Member, Board of Studies, Dept.</u> of Paramedical sciences, Faculty of Allied Health Sciences, SGT University, Gurgaon since November 2020
- 4. <u>Dr. Ritu Kulshrestha is the Associate Member- of DBT-TDNBC-Deakin</u>-Research Network across Continents for Learning and Innovation (DTD-RNA) since November 2020
- 5. <u>Dr. Ritu Kulshrestha is the DST nominee</u> to the Facility management committee of, "Sophisticated Analytical Instrument Facility (SAIF)", New Delhi (AIIMS) from 10/8/2018 to 9/8/2021

- 6. **Dr. Ritu Kulshrestha is the Councilor Member** of the Asia-Australasian Pulmonary Pathology Society (AAPPS) since 2016
- 7. <u>Dr. Ritu Kulshrestha is the Biosafety Officer</u> on the Institutional Biosafety Committee (IBSC), Dept of Biosciences, Faculty of Natural Sciences, Jamia Milia Islamia, New Delhi since April 2019
- 8. <u>Dr. Ritu Kulshrestha gave the Invited Faculty lecture</u> on, "MDT discussion of ILD" at the ICS ILD Course 2021, e-conference organized by Indian Chest Society on 25th Feb 2021
- 9. **Dr. Ritu Kulshrestha gave the Invited Faculty lecture** on, "Pathology of ILD" at the ICS ILD Course 2021, e-conference organized by Indian Chest Society on 15th Feb 2021
- 10. <u>Dr. Ritu Kulshrestha attended the</u>Virtual Training Workshop on, "PD-L1 (SP142) in TNBC Interpretation" Organised by Roche Diagnostics India Pvt. Ltd on 26th March, 2021.
- Dr. Ritu Kulshrestha attended the Guest Lecture by Prof V.S. Chauhan, on, "Covid-19 Pandemic: VACCINE AND MUTANTS organized by Vallabhbhai Patel Chest Institute, University of Delhi on 19th March 2021
- 12. <u>Dr. Ritu Kulshrestha attended the</u> Workshop cum Training Programme on "Proposal writing and Ethical issues in Research" under aegis of Multi-disciplinary Research Unit-DHR at Paintal Memorial Golden Jubilee Auditorium, VPCI, on 11 March, 2021
- 13. <u>Dr. Ritu Kulshrestha attended the Training Course on "Pulmonary rehabilitation" under aegis of Multi-disciplinary Research Unit-DHR at Paintal Memorial Golden Jubilee Auditorium, VPCI, on 9-10 March, 2021</u>
- 14. <u>Dr. Ritu Kulshrestha attended the Webinar on "An introduction to Biobanking and Biospecimen Science, organized by Research Section, AIIMs, New Delhi on 5th March 2021</u>
- 15. <u>Dr. Ritu Kulshrestha attended the</u>-Workshop on High End Characterization of Microalgae: Overcoming the Technological Barriersorganized by The Energy and Resources Institute (TERI) on 03 04 March 2021, New Delhi
- 16. <u>Dr. Ritu Kulshrestha attended the</u> Virtual Expert meeting for review of Annual Progress report in Task Force for Nanomedicine, organized by ICMR on 2nd March 2021
- 17. <u>Dr. Ritu Kulshrestha attended the</u>Workshop on Biostatistics, Organised by V.P.Chest Institute-MRU at VPCI on 25th February 2021
- 18. <u>Dr. Ritu Kulshrestha attended the Web Seminar on, "Health Sector and Climate Change" organized by Health Energy Initiative and Climate Trends on 12th February, 2021</u>
- 19. <u>Dr. Ritu Kulshrestha attended the</u>Virtual Keystone symposia, Tumor Metabolism and the Microenvironment | EK14,Colorado, USA. January 25-29, 2021
- 20. <u>Dr. Ritu Kulshrestha received training on the</u>, "Statistical Data Analysis using SPSS", Online Training program organized by Science Tech Institute, Lucknow, January 21-27, 2021
- 21. <u>Dr. Ritu Kulshrestha attended the Web Seminar on, "Managing biomedical waste in India: covid-19 and beyond"</u>. Hosted by Centre for Science and Environment, New Delhi on January 19, 2021

- 22. <u>Dr. Ritu Kulshrestha attended the Joint Virtual Workshop on Regenerative and Nano Medicine, organised by AIIMS</u>, Delhi and Indiana University School of MedicineonDecember 10, 2020
- 23. <u>Dr. Ritu Kulshrestha attended the The Virtual Conference on Lung Cancer (Virtual-LC2020)</u>, organised by Bioevents Ltd on 24-25 September 2020.
- 24. <u>Dr. Ritu Kulshrestha attended the Webinar on ,"Response of the DBTs Autonomous institutes to Covid-19 (Part –II), organised by DBT/Wellcome Trust India Alliance on 11th September 2020</u>
- 25. <u>Dr. Ritu Kulshrestha attended the CenSE DBT Nano-biotechnology</u> Alliance Familiarization Workshop. Organised by the The Centre for Nano Science and Engineering (CeNSE), Indian Institute of Science, Bengaluru on 8-10th September 2020
- 26. <u>Dr. Ritu Kulshrestha attended the Webinar on," Covid-19: Lab parameters as early indicators and prognostic markers", organised by TRANASIA Biomedicals Ltd and Erba Mannheim on 6th May 2020</u>
- 27. <u>Dr. Ritu Kulshrestha attended the Webinar on Nanotechnology interventions in COVID-19 and future pandemics organised by TERI-Deakin nanobiotechnology centre in association with DBT and Indian Society of Nanomedicine on 1st May 2020</u>
- Dr. Ritu Kulshrestha was the External Examiner for PhD thesis of Mr. Khalid Umar Fakhri, Anticancer assessment of Rhein and phytic acid against colorectal cancer", Department of Biosciences, Faculty of Natural Science, Jamia Millia Islamia on 15th Feb 2021
- 29. Dr. Ritu Kulshrestha was the Reviewer for Scientific reports in 2021
- 30. Dr. Ritu Kulshrestha was the Reviewer for Therapeutic advances in Respiratory Diseases since 2020

Publications:

- 1. Parul Mrigpuri, Balakrishnan Menon, Sonam Spalgais, Ritu Kulshrestha, Himanshu Saini, Amitesh Gupta.Immunoglobulin G4-related disease presenting with pulmonary manifestations, lymphadenopathy, and vocal cord immobility: an unusual presentation of a rare disease. Paper accepted for publication, July 2020 in The Egyptian Journal of Chest Diseases and Tuberculosis.
- 2. Sathe PA, Vaideeswar P, Kulshrestha R. An unusual cause of respiratory distress in an infant. Indian J Pathol Microbiol(IJPM). 2020. 63 (4): 672-4
- Kulshrestha R, Dhanda H, Pandey A, Singh A, Rajkumar.(2020). Immunopathogenesis and therapeutic
 potential of macrophage influx in diffuse parenchymal lung diseases. Expert Review of Respiratory
 Medicine. 14;9:917-28 https://doi.org/10.1080/17476348.2020.1776117
- **4.** Kulshrestha R, Singh H, Pandey A, Soundarya D, Jaggi A, Ravi K. (2020). Expression of Caveolin-1 during pathogenesis during Combined Pulmonary Fibrosis and Emphysema: Effect of Phosphodiesterase-5 Inhibitor. BBA-Mol Basis Dis. 1866(8): https://doi.org/10.1016/j.bbadis.2020.165802

Journals: Dr Ritu Kulshrestha is, Editor of the VPCI Newsletter since 2012 to date

Ongoing Research Projects:

- a. ICMR- Nano Task Force Project. Proposal id No: 34/1/2019-TF/Nano/BMS w.e.f. 29/11/2019. Designing of inhalational polymeric nanoparticle drug delivery systems for the treatment of lung fibrosis. PIs-Dr Ritu Kulshrestha, Prof AK Dinda, AIIMS, Prof AK Mishra, INMAS, DRDO. Rs 10.5 lakh/annum
- b. VPCI-DHR-ICMR (MRU): December 2019.Synthesis of polymeric nanoformulations encapsulated with chemotherapeutic agents for lung cancer treatment.Principal Investigator: Dr Ritu Kulshrestha.~Rs. 2.5 lakhs/annum
- c. VPCI-DHR-ICMR (MRU): December 2019. Exploring the potential of G-Quadraplex targeting nanoparticle (GQ-NP) conjugates in lung cancer. Principal Investigator: Dr Ritu Kulshrestha ~Rs. 2.5 lakhs/annum

Seminars/ Conference Presentations (National/International)

- Kulshrestha Ritu, Mahor Pawan, Romani D, Tanveer F, Mishra AK, Dinda AK. Combination therapy of
 pirfenidone and bleomycin in lung cancer: prevents EMT of cancer cells and reduces their invasive
 potential. Paper presented at Virtual Keystone eSymposia on Tumour metabolism and microenvironment.
 January 25-28, 2021
- 2. **Kulshrestha R**, Pawan K, Rajkumar, Menon B, Goel N, Spalgias S, Mrigpuri P.. Correlation of programmed cell death receptor ligand-1 (PD-L1) expression with KRAS mutation in lung cancer patients –study from tertiary care centre in North India. ePoster paper presented at IASCLC Virtual World Conference on Lung Cancer (WCLC 2020), Singapore 28-31 January 2021.
- 3. **Kulshrestha R**, Pawan K, Nupur K, Nair D, Spalgias S, Mrigpuri P, Menon B, Rajkumar. KRAS gene mutation in bronchoscopy samples of non small cell carcinoma lung: Relation with smoking status and KRAS oncoprotein expression. ePoster paper presented at ATS 2020 Virtual International Conference, August 5-10, 2020.

Other Inter-institutional Collaboration:

- 1. **In MRU projects** Dr Ritu Kulshrestha is collaborating with All India Institute of Medical Sciences (Prof AK Dinda, Dept of Pathology) and INMAS, DRDO (Dr A.K.Mishra)in two projects.
- 2. **In ICMR Nano task force project** Dr Ritu Kulshrestha is collaborating **with**All India Institute of Medical Sciences (Prof AK Dinda, Dept of Pathology) AIIMS, and INMAS, DRDO (Prof AK Mishra, Scientist G)

Students under Collaboration Programme:

Romani Dahiya	M.Sc Biotechnology, Amity University, Noida	1/1/2021- 30/4/21
Aayushi Rottra	B.Sc Biotechnology, Amity University, Noida	1/3/21- 30/4/21
Tanvir Fatima	M.Sc Biotechnology, Amity University, Noida	1/12/20- 28/2/21
Himanshu Dhanda	M.Sc Biotechnology, Amity University, Noida	1/1/20-30/6/20

Faculty Strength: One filled out of three sanctioned posts

PEDIATRICS (UCMS)

1. Major Activities and Achievements

The Department of Pediatrics was instrumental in managing COVID-19 pandemic at GTB Hospital during 2020-21. Despite this, the Department continued to make strides in academics and research. Four PG students received 4 out of 6 Awards instituted by the Indian Academy of Pediatrics (IAP) at Pedicon 2020 for the research carried out by them. Additionally, faculty received several accolades. Dr Piyush Gupta served as President elect of IAP in 2020 and assumed charge as President, IAP, in 2021. Dr. Sunil Gomber was instrumental in starting fellowship course in Pediatric hematology-oncology at GTB Hospital wef academic session 2021.

2. Honours/Distinctions

- 1. Dr Piyush Gupta- President, Indian Academy of Pediatrics 2021
- 2. Dr Anju Aggarwal-Certificate of recognition by Government of NCT of Delhi for work in Covid Pandemic
- 3. Dr Manish Narang-President, UCMS Alumni for year 2020-21
- 4. Elected as Member Delhi Medical Council 2020
- 5. Dr. Aaradhana-Received Dr James Flett Endownent Award First Prize -2021

3. Publications

- 1. Aaradhana, Kashyap B, Singhla K, Sharma R. (2020) The usefulness of high sensitivity C-reactive rotein (hs-CRP) to differentiate between severe and non-severe dengue in children. Int J Pediatr Res. 6:072.
- 2. Bagla J, Kumari S, Gupta R, Khan I (2020). Cystatin C as a biomarker of acute kidney injury in sick neonates. Asian Journal of Pediatric Nephrology. 3(1): 10-14; DOI: 10.4103/AJPN.AJPN_29_19
- 3. Batra P, Gupta P (2020). 50 Years Ago in The Journal of Pediatrics: Convulsion Score for Neonatal Tetanus: An Obituary! J Pediatr. 221:98.
- 4. Bhasin H, Sharma S, Ramachandrannair R (2021). Can We Prevent Sudden Unexpected Death in Epilepsy (SUDEP)? The Canadian journal of neurological sciences. Le journal canadien des sciences neurologiques, 48(4):464–468. https://doi.org/10.1017/cjn.(2020).221
- 4. Bhaskar V, Batra P, Mahajan P (2021). Identifying Serious Bacterial Infections in Febrile Young Infants. Indian Pediatr. 58:15-19.
- 5. Bhat R, Batra P, Sachan R, Singh G (2020). Neonatal ventriculitis: a case series and review of literature. Trop Doct. 50: 266-70.
- 6. Bhayana S, Aggarwal A, Narang M, Sharma S, Malhotra R (2021). Comparison of leveritacetam and sodium valproate monotherapy in childhood epilepsy- An open labled randomized trial. CurrPediatr Res. 25(2): 357-361
- 7. Chaudhari I, Narang M, Kumar N, Pengoria R (2020). Management and Prevention of congenital and perinatal infections in newborn infants. In: Yadav P, Pengoria MA. Common Medical Disorders in Pregnancy. Agra Obstetric and Gynaecological Society. Agra. 167-174.
- 8. Chawla D, Gupta P (2020). 50 Years Ago in The Journal of Pediatrics: Catch-Up Growth in Low Birth Weight Infants: Boon or Bane? J Pediatr. 222:163.
- 9. Cherian T, Gupta P, Thomas K (2020). An External Evaluation on the INCLEN Research Program to Emphasize the Public Health Significance of Childhood Pneumonia in India. Indian Pediatr. S097475591600233.
- 10. Dabas A, Bharadwaj M, Shah D, Gupta P (2020). Online Survey of Vitamin D Supplementation Practices in Children and Adolescents. Indian Pediatr. 57(8):749-50.
- 11. Devamare S, Ihtisham K, Bhasin H, Bhasker V, Sharma S, Tripathi M (2020). Subacute Sclerosing Panencephalits Mimicking Anti-NMDA Receptor Encephalitis. Annals of Indian Academy of Neurology. 23(3):411–413. https://doi.org/10.4103/aian.AIAN 184 19
- 12. Dewan P, Sesama M, Gomber S, Grover C (2021). Tell-tale signs in nails of children with cancer. J Paediatr Child Health. 57(3):440-442.
- 13. Dewan P, Singal A. (2021) Childhood Rashes: A Pediatrician's Dilemma. Indian Pediatr. 58(1):99.
- 14. Dewan P, Agarwal KN (2020). Berseem (Trifolium Alexandrium) Leaves in Diet as Immuno-Nutrient; Cytokine and T-Cell Subpopulation Responses in Malnutrition. Journal of Pediatric Research(4):1046
- 15. Dhir SK, Gupta P (2020). 50 Years Ago in TheJournalofPediatrics: Neonatal Pneumopericardium When to Intervene? J Pediatr. 219:222.
- 16. Gomber S, Banerjee A, Dewan P, et al (2020). Procalcitonin Clearance, CD64, and HLA-DR as Predictors of Outcome in Febrile Neutropenic Children With Lymphoreticular Malignancies. J PediatrHematol Oncol. 42(6):e416-e422. doi:10.1097/MPH.000000000001870

- 17. Gomber S, Yadav R, Dewan P, Ramachandran VG, Puri AS (2021). Requirement of a Booster Dose of Hepatitis B Vaccine in Children With Thalassemia After 5 Years of Primary Vaccination: A Prospective Study. Indian Pediatr. 58(3):237-240.
- 18. Gupta P, Meena P, Khan AM, Malhotra RK, Singh T (2020). Effect of Faculty Training on Quality of Multiple-Choice Questions. Int J Appl Basic Med Res. 10(3):210-214.
- 19. Gupta P,Basavaraja GV, Pejaver R, Tomar D, Gandhi A, Tank J (2021). Mumbai 2021 Call for Action Addressing the Need to Incorporate 'Nurturing Care for Early Childhood Development' in Pediatric Office Practice. Indian Pediatr. 58(3):215-216. PMID: 33713053.
- 20. Gupta P (2021). Light at the End of the Tunnel. Indian Pediatr. 58(1):9-10.
- 21. Jain A, Shah D, Das S, Saha R, Gupta P (2020). Aetiology and outcome of acute diarrhoea in children with severe acute malnutrition: a comparative study. Public Health Nutr. 23(9):1563-1568.
- 22. Jain P, Dewan P, Gomber S, Kashyap B, Raizada A (2021). Three vs Four Dose Schedule of Double Strength Recombinant Hepatitis-B Vaccine in HIV-infected Children: A Randomized Controlled Trial. Indian Pediatr. 58(3):224-228.
- 23. Jaiswal P, Dewan P, Gomber S, Banerjee BD, Kotru M, Malhotra RK, Tyagi V (2020). Early lactate measurements for predicting in-hospital mortality in paediatric sepsis. J Paediatr Child Health. 56(10):1570-1576.
- 24. Kasi SG, Dhir SK, Verma S, Pemde HK, Balasubramanian S, Agarwalla S, Shah AK, Shivananda S, Marathe S, Chatarjee K, Srirampur S, Kalyani S, Parekh BJ, Basavaraja GV, Gupta P (2021); Advisory Committee on Vaccines and Immunization Practices (ACVIP), (2020)-21, Indian Academy of Pediatrics, India. Immunization During the COVID-19 Pandemic: Recommendations From Indian Academy of Pediatrics Advisory Committee on Vaccines and Immunization Practices. Indian Pediatr. 57(12):1147-1152.
- 25. Kasi SG, Shivananda S, Marathe S, Chatterjee K, Agarwalla S, Dhir SK, Verma S, Shah AK, Srirampur S, Kalyani S, Pemde HK, Balasubramanian S, Parekh BJ, Basavaraja GV, Gupta P (2021). Indian Academy of Pediatrics (IAP) Advisory Committee on Vaccines and Immunization Practices (ACVIP): Recommended Immunization Schedule ((2020)-21) and Update on Immunization for Children Aged 0 Through 18 Years. Indian Pediatr. 58(1):44-53.
- 26. Kaur K, Gupta P (2020). 50 Years Ago in The Journal of Pediatrics: Predictors of Severity of Iron Poisoning. J Pediatr. 222:145.
- 27. Khalil S. (2020) Use of Mobile Phones to Aid Learning in Medical Undergraduates. Indian Pediatr. 57(3):273.
- 28. Malla D, Rathi V, Gomber S, Upreti L (2021). Can lung ultrasound differentiate between bacterial and viral pneumonia in children? J Clin Ultrasound. 49(2):91-100.
- 29. Meena P, Saran AN, Shah D, Gupta P (2020). Compliance to Prescription of Routine Vitamin D Supplementation in Infants. Indian Pediatr. 57(11):1067-1069.
- 30. Meena P, Gupta P, Shah D (2020). Screen Time in Indian Children by 15-18 Months of Age. Indian Pediatr. 57(11):1033-1036.
- 31. Meena P, Gupta P, Trivedi M (2021). 50 Years Ago in The Journal of Pediatrics: Parasitism in Children with Malignancy. J Pediatr. 228:234.
- 32. Meena P, Gupta P (2020). 50 Years Ago in The Journal of Pediatrics: Drug Sensitivity to Salmonella typhi: Coming Full Circle. J Pediatr. 224:93.
- 33. Meena P, Gupta P (2020). 50 Years Ago in The Journal of Pediatrics: Congenital Cytomegalovirus Infection: Can It Recur in a Sibling? J Pediatr. 224:101.
- 34. Mittal HG, Gupta P (2020). 50 Years Ago in The Journal of Pediatrics: Goodbye Aminophylline-for Treatment of Asthma in Children. J Pediatr. 220:33.
- 35. Nayak L, Raut B, Kumari S, Nanda D (2021). Case 2: An Inguinoscrotal Swelling in a Neonate at Birth: It's Time to Expect the Unexpected. Neoreviews. 22(1):e55-e57. doi: 10.1542/neo.22-1-e55.
- 36. Rajial T, Batra P, Harit D, Singh NP (2020). Utility of Cerebrospinal Fluid and Serum Procalcitonin for the Diagnosis of Neonatal Meningitis. Am J Perinatol DOI: 10.1055/s-0040-1716406.
- 37. Rawlley B, Shah D, Narang M, Pandey M (2020). Long-term outcome of children with recurrent abdominal pain. Indian Pediatr. 57(5):465-466.
- 38. Sahoo B, Bhasin H, Ganjoo S, Abrol P. Ecthyma Gangrenosum in a Neonate Case Report. Indian J Paediatr Dermatol.(2020);21:313-15. 10.4103/ijpd.IJPD 132 19.
- 39. Saini S, Narang M, Srivastava S, Shah D. Behavioral Intervention in Children with Functional Abdominal Pain Disorders: A Promising Option. Turkish J Gastroenterol (In press).
- 40. Sarma MS, Gupta P (2020). 50 Years Ago in TheJournalofPediatrics: Pancreatic Function in Malnutrition: How Far Have We Come? J Pediatr. 223:135.

- 41. Sesama M, Bhaskar V, Meena M, Narang M, Aggarwal A, Kotru M (2020). Recurrent arthritis: an unusual diagnosis. Trop Doct. 50(3):248-249.
- 42. Singh A, Gupta P. (2020) 50 Years Ago in The Journal of Pediatrics: Magnesium Supplementation in Protein-Energy Malnutrition: The Current Practice. J Pediatr. (2020);225:36.
- 43. Smilie C, Gupta P (2021). 50 Years Ago in The Journal of Pediatrics: Diagnosing the Etiology of Childhood Diarrhea by Clinical Features: An Update. J Pediatr. 230:45.
- 44. Smilie C, Shah D, Batra P, Ahmed RS, Gupta P (2020). Prevalence and predictors of hypocalcaemia in severe acute malnutrition. Public Health Nutr. 23(17):3181-3186.
- 45. Snehaa K, Singh T, Dar SA, Haque S, Ramachandran VG, Saha R, Shah D, Das S (2020). Typical and atypical enteropathogenic Escherichia coli in children with acutediarrhoea: Changing trend in East Delhi. Biomed J. S2319-4170(20)30043-3.
- 46. Sondhi V, Gupta P (2021). 50 Years Ago in The Journal of Pediatrics: Herpes Simplex Encephalitis: No Longer a Brain-Teaser. J Pediatr. 228:81.
- 47. Srivastava S, Datta V, Garde R, et al. (2020). Development of a hub and spoke model for quality improvement in rural and urban healthcare settings in India: a pilot study. BMJ Open Quality 9: e000908.
- 48. Taneja R, Batra P (2021). <u>Biomarkers as point of care tests (POCT) in neonatal sepsis: A state of science review.</u> Journal of Neonatal-Perinatal Medicine, 1-8
- 49. Taneja R, Batra P, Sadiza J (2020). <u>Maternal satisfaction with services provided in the neonatal stepdown ward in a public sector hospital in North India</u>. J Clin Neonatol. 9: 132.
- 50. Trivedi M, Faridi MMA, Aggarwal A, Madhu SV, Malhotra RK (2020). Oral Vitamin D Supplementation to Mothers During Lactation-Effect of 25(OH)D Concentration on Exclusively Breastfed Infants at 6 Months of Age: A Randomized Double-Blind Placebo-Controlled Trial. Breastfeed Med. 15(4):237-245.
- 51. Uniyal A, Narang M. Dyslipidemia in Children. Indian J Med Specialities (In press).
- 52. Verma S, Aggarwal A, Faridi MMA, Rai G, Das S, Malhotra R (2020). Autoimmunity in childhood epilepsy. International Journal of Scientific Research. 9(11): 22-25

Books/Chapters

Dr Dheeraj Shah

- 53. Current Trends in Medical Education, 2021, Devendra Mishra, Dheeraj Shah CBS Publishers, New Delhi
- 54. How to Write the Thesis and Thesis Protocol, 2nd edition, 2021, Piyush Gupta, Dheeraj Shah, Jaypee
- 55. Dr. Manish Narang-Approach to Practical Pediatrics, Manish Narang, Jaypee
- 56. Dr. Dheeraj shah-How to Write the Thesis and Thesis Protocol, 2nd edition, 2021
- 57. Material and methods: how will I do it?, Piyush Gupta, Dheeraj Shah
- 58. How to Write the Thesis and Thesis Protocol, 2nd edition, 2021
 - Writing the thesis protocol, Piyush Gupta Dheeraj Shah
- 59. Converting thesis into a scientific paper, Piyush Gupta, Dheeraj Shah 60. Public Health Nutrition in Developing Countries, 2nd edition, 2021
- 61. Measuring undernutrition and overnutrition in children-Sheila C Vir-IAP Textbook of Tropical Diseases, (2020)
- 62. Soil-transmitted helminths-Raju C Shah, for Indian Academy of Pediatrics
 - Dr. Pooja Dewan
- 63. How to Write the Thesis and Thesis Protocol, 2nd edition, 2021, Writing Conclusions: Bringing Down the Curtains in Style, Piyush Gupta, Dheeraj Shah
- 64. How to Write the Thesis and Thesis Protocol, 2nd edition, 2021
- 65. Summary: The essence of thesis, Piyush Gupta, Dheeraj Shah
- 66. How to Write the Thesis and Thesis Protocol, 2nd edition, 2021
- 67. Showcasing thesis through effective PowerPoint presentation, Piyush Gupta Dheeraj Shah
- 68. IAP Textbook of Tropical Diseases, (2020), Hematological disorders in the tropics, Raju C Shah, for Indian Academy of Pediatrics
- 69. Current Trends in Medical Education, Objective Structured Clinical Examination (OSCE) Revisited-Devendra Mishra, Dheeraj Shah

Dr. Deepika Harit

- 70. Principles of Pediatric and Neonatal Emergency. 4th Edition. Tracheostomy, Piyush Gupta
- 71. Recent Advances in Orthopedics, Nutritional bone diseases in Children-AK Jain

4. Journals

Number of teachers serving as Editor(s)/Member(s) of Editorial Board:5

5. Conferences Organized

Dr Dheeraj Shah

- 1.Revised Basic Course Workshop in Medical Education Technologies organized by MEU, UCMS, Delhi,23-25 March 2021
- 2. CIAP Pedicon 2021, 57th Annual Conference of Indian Academy of Pediatrics, Mumbai,4-7 February 2021 3. Indian Academy of Pediatrics North Zone Pediweek 'Himalaya' (Virtual),30 August to 5 September (2020)

Dr. Prerna Batra

4.International Board Review Course with 4 days teaching of spectrum of Pediatrics Emergencies and Trauma topics (e-EMPART) and Point of Care Ultrasound workshop (e EPICON), Supporting agency – INDO US Emergency and Trauma Collaborative, Academic College of Emergency Experts in India,22nd November (2020), 29th November (2020), 6th December 2021 and 13th December 2021

Dr. Ravi Sachan

- 5.Neocon (2020), Annual Conference of NNF, 1-4 October (2020)
- 6. Neonatal Resuscitation Programme (NRP) at UCMS & GTB Hospital., 7th, March 2021
- 7. Advanced Neonatal Ventilation Workshop at UCMS & GTB Hospital. 21, March 2021

6. Seminar/Conference Presentations

Dr. Anju Aggarwal

- 1. Central IAP Pedicon 2021 Mumbai, 4-7th February 2021
- 2. 41st Annual Conference of Academy of Pediatrics, Uttar Pradesh (AOP UP),23rd -24th January 2021 Dr. Dheeraj Shah
- 3. Revised Basic Course Workshop in Medical Education Technologies organized by MEU, UCMS, Delhi.23-25 March 2021
- 4. Resource Material Development Workshop on Nurturing Care for Early Childhood Development (NC-ECD), New Delhi,21-23March 2021
- 5. National Consultative Meeting of Stakeholders for Early Childhood Development (NC-ECD), New Delhi,21 March 2021
- 6. Task Force Meeting for Early Childhood Development in UG/PG Curriculum, New Delhi,20 March 2021
- 7. National Board of Examinations: MCQs Item Writing Workshop, New Delhi, 10 March 2021
- 8. National Board of Examinations; OSCE Item Writing Workshop, New Delhi, 9-10 February 2021
- 9. CIAP Pedicon 2021, 57th Annual Conference of Indian Academy of Pediatrics, Mumbai, 4-7 February 2021
- 10. Pediatric Conference of North India & North India Pediatric Infectious Disease (2020) (Virtual),2-5 December (2020)
- 11. E-Pulmocon Organized by IAP North Delhi & Pediatric Respiratory Society, Delhi,18-20 September (2020)
- 12. Indian Academy of Pediatrics North Zone Pediweek 'Himalaya' (Virtual),30 August to 5 September (2020)

Dr. Pooja Dewan

- 13. Haematocon, 61st Annual Conference of the Indian Society of Haematology and Blood Transfusion, VIRTUAL platform, 20th-22nd November, (2020)
- 14. National Board of Examinations: MCQs Item Writing Workshop, New Delhi, 10 March 2021
- 15. National Board of Examinations: OSCE Item Writing Workshop, New Delhi, 9-10 February 2021
- 16. Systematic review and meta-analysis workshop conducted by Medical Education Unit, UCMS and GTB Hospital, Delhi, 9,12,16, and 19 October (2020)
- 17. Pediatric ITP in (2020): What's Old and What's New: A case-based discussion of real world scenarios organized by Jaypee Hospitals, Noida,4 October (2020)
- 18. Workshop on Good Clinical Practices and Research Ethics, Organised by IAP research in Child Health Group (Virtual),22-23 August (2020)
- 19. MO-ART Specialist Induction Course" online course organized by the National AIDS Control Organization (NACO) under the Blended Clinical Training Project (Virtual), December (2020)-January 2021
- 20. COVIMPRESSIONS: Local Action Global impact, UCMS & GTBH, Delhi,27th May (2020)

21. Healthcare delivery in COVID times -2- How to protect oneself? (Medical Specialities),21st May (2020)

Dr. Prerna Batra

- 22. Revised Basic Course Workshop' for Faculty development by MEU at UCMS and GTB Hospital,23-25 March 2021
- 23. Curriculum Implementation Support Program by MEU, at UCMS and GTB Hospital,11th to 12th September (2020)
- 24. e-EMPART and e-EPICON (2020) (International board review course),22nd November, 29th November, 6th December and 13th December (2020).
- 25. National Board of Examinations: OSCE Item Writing Workshop, New Delhi, 9-10 February 2021
- 26. Indian Academy of Pediatrics North Zone Pediweek 'Himalaya' (Virtual),30 August to 5 September (2020)
- 27. National Training of Trainers for 'Transport of Sick Kids (TASK MODULE)', 27th February 2021
- 28. 13th Pediatric Surgery Update at MAMC, New Delhi,11th -14th March 2021
- 29. Panel discussion on Household Poisonings organized by IAP Karnataka. ,25th August (2020)
- 30. Quality Improvement workshop' organized by MEU, UCMS,7th August (2020)
- 31. 'Point of Care Ultrasound' Training by WHO Collaborating Center for INDO US Emergency and Trauma Collaborative, JPN Apex Trauma Center, AIIMS, New Delhi,1st August (2020).

Dr. Aaradhana

- 32. Webinar on adverse events following immunization organized by IAP East, 24th December (2020)
- 33. District level TOT, operational guidelines of COVID-19 rollout, 28th December (2020)
- 34. Systematic review and meta-analysis workshop conducted by Medical Education Unit, UCMS and GTB Hospital, Delhi, 9,12,16, and 19 October (2020).

Dr. Sumaira Khalil

35. ECD- Resource material Development workshop,21-23 March 2021

7. Extension and Outreach Activities

Dr Anju Aggarwal

- 1. Radio Programme on intractable epilepsy
- 2. Member Multidisciplinary Board, North East Delhi

Dr. Pooja Dewan

3. Member Disability Board for Chronic Blood Disorders, GTB Hospital

Dr. Sushil Srivastava

- 4. Presently Holding Honorary Post of Secretary, Nationwide Quality of Care of Network (NQOCN) (www.nqocn.org), a voluntary technical body of experts assisting GOI MOHFW, WHO, UNICEF, & various state NHMs in implementing national Quality improvement and accreditation programs in maternal and newborn health. NQOCN has received recognition from Quality Equity & Dignity network (QED) WHO.
- 5. Facilitated in establishing a unique "Community of Practice" online platform(www.nqocncop.org) in India, during the COVID PANDEMIC period . It facilitates experience sharing, online learning platforms for doctors, academicians, nurses, paramedics, hospital managers , policy makers of not only India , but many south east Asian countries.

8. Faculty Strength: 17

9. Other Significant Information

Dr. Sunil Gomber

- 1. Scientific Advisor, Thalassemics India
- 2. Started FNB, Pediatric Hematology Oncology at GTB Hospital

Dr. Anju Aggarwal

- 3. Appointed Zonal Coordinator, 14th Post-graduate Quiz Coordinator Divisional Round Indian Academy of Pediatrics (September (2020))
- 4. Member Multidisciplinary Board of Disability Certification (North East Delhi)
- 5. Member Multidisciplinary Board of Disability Certification (IHBAS
- 6. Examinations: External examiner for DM Pediatric Neurology examination at AIIMS 8/6/(2020), New Delhi; Examiner for MBBS examination 28/8/(2020) at Santosh Medical College and Hospital, Ghaziabad;

Conducted Validation of question paper for Diplomate of National Board in Pediatrics, And contributed to question bank for NEET superspeciality and FMGE examination.

- 7. Resource Person for thesis evaluation at National Board of Examination Dwarka, New Delhi
- 8. Reviewer for journals Clinical Pediatrics, Seizures, Indian Pediatrics, Pediatrics, Indian Journal of Pediatrics, Europen Journal of Pediatric Neurology, Global child health.

Dr. Dheeraj Shah

- 9. Invited by World Health Organization as an external resource person to WHO for Guideline Development on 'Fortification of wheat flour with vitamins and minerals in public health'.
- 10. Appointed as a member of Expert Committee of Food Standards and Safety Authority of India (FSSAI)
- 11. Member of Scientific Advisory Committee of National Institute of Nutrition, Hyderabad.
- 12. Appointed coordinator for OSCE and Online/hybrid examinations for DNB Pediatrics by National Board of Examinations.
- 13. Invited by ICMR and Department of Biotechnology, Ministry of Health and Family Welfare, Government of India, to participate as an expert for reviewing various projects submitted for funding in following capacities:
- 14. Member, Task force on "Public Health including Food and Nutritional Interventions" of Department of Biotechnology, Govt. of India.
- 15. Member, Expert Group of ICMR in Division of Reproductive Biology and Maternal Health, Child Health.
- 16. Member, ICMR Scientific Advisor Group on "Systematic Reviews in National Health Priorities"
- 17. Member, ICMR Scientific Advisory Group for Advanced Research in Evidence Based Child Health
- 18. Member, ICMR Expert Group for Tribal Health

Dr Prerna Batra

19. Course Director, Academic College of Emergency Experts in India (INDO US Emergency and Trauma Collaborative)

Dr. Pooja Dewan

- 20. Member of the Ethics Committee of Rajiv Gandhi Super Specialty Hospital, Tahirpur, Delhi (wef December (2020))
- 21. Member Secretary, Institutional Ethics Committee for Human Research, University College of Medical Sciences, Delhi (September 2016-January 2021)

Dr. Deepika Harit

22. Member of the committee for Indian academy of Pediatrics guidelines for parents for Care of a Child with Diabetes Mellitus (2020)-2021.

Dr. Aaradhana

- 23. Quiz Master Zonal Round IAP Quiz (Virtual) 2021
- 24. Member district AEFI committee, Shahdara
- 25. Member district AEFI committee, Shahdara
- 26. Nodal officer immunization, GTBH, Delhi-95
- 27. Nodal officer AEFI, GTBH, Delhi-95
- 28. Conducted 1st Dry Run of Delhi in GTBH in January 2021
- 29. Operational incharge COVID vaccination at GTBH in January-February 2021
- 30. Link officer to nodal officer COVID vaccination at GTBH in January-February 2021

Dr. Vikram Bhaskar

31. Nodal Officer & Member, COVID-19 Task Force, GTB

PAEDIATRICS (LHMC)

Faculty Strength

Director Professor and Head Dr. Virendra Kumar

Director-Professor Dr. Anju Seth

Dr. Varinder Singh Dr. Harish K. Pemde Dr. Praveen Kumar Dr. Deonath Mahto

Dr. Sharmila B.M. **Professor**

> Dr. Srikanta Basu Dr. Shalu Gupta Dr. Abhijeet Saha Dr. Suvasini Sharma Dr. Soumya Tiwari Dr. Mukesh Dhankar Dr. Swati Dublish Dr. Suchitra Sehgal Dr. Kamal Kr. Singhal Dr. Viswas Chhapola Dr. Piali Mandal

Associate Professor Dr. Anu Maheshwari

Dr. Preeti Singh

Dr. Ankita Goel Sharma

Dr. Dipti Kapoor

Assistant Professor Dr. Ravitanaya Sodani

Assistant Professor Dr. Menaka Yadav (on contract)

(Pediatric Nephrology)

Consultant Dr. Ajay Kumar

Senior Medical Officer Dr. Lokesh Sharma

Dr. Nupur Parakh

Major Achievements of the Department

- 1. Recognition of MD (Pediatrics) courses (25 seats) by Medial Council of India (MCI).
- 2. Department of Pediatrics, KSCH recognized as National Centre of Excellence for Pediatric Tuberculosis.
- 3. Department of Pediatrics, KSCH recognized as WHO Centre of Excellence for Pediatric Cancer.
- 4. Participant centre of South East Asia Regional Network for Childhood Cancer of WHO.

Major Achievements of the Staff

- 1. Dr. Suvasini Sharma
 - Received the "Sheila Wallace Award" and delivered the Sheila Wallace Oration lecture at the International Child Neurology Congress 2020
- 2. Dr. Virendra Kumar
 - Technical expert for committee to develop National Policy on Rare diseases.
 - Technical expert & founder member for the development of National Guideline for Covid-19.
 - Co-Principal investigator for Healthcare Artificial Intelligence Catalyst (HAIC) pilot study by NITI Aayog (GOI) and UK-DIT.
- 3. Dr. Anju Seth

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- Chairperson of the causality sub-committee of the National AEFI Committee constituted by the MOHFW, Govt. of India, and key faculty of National AEFI Collaborating Center, LHMC, chaired a series of meetings of the causality sub-committee entrusted with performing causality of all AEFIs reported in the country. Also contributed towards several National level trainings & meetings on causality assessment of AEFIs.
- Nominated as chairperson of the special expert group formed for causality assessment of AEFIs
 reported following covid vaccination by the MOHFW. In that capacity was responsible for expansion
 of the causality subcommittee of the National AEFI Committee, training of new members of AEFI
 Committees in States as well as National level in causality assessment process and development of
 SOPs for causality assessment of AEFI cases reported after Covid vaccination
- Appointed chairperson of Guidelines Revision Committee by the Min. of Health & Family Welfare, for drafting "National AEFI Guidelines 2020"
- Nominated member of working group on development of "AEFI causality assessment E-Learning Course" by the World Health organisation
- Nominated as chairperson of Technical Resource Group on pediatric HIV infection by National AIDs Control Organisation
- Nominated Council Member representing India in Asia Pacific Pediatric Endocrine Society

4. Dr. Harish K. Pemde

- Head of WHO Collaborating Centre for Training and Research in Adolescent Health.
- Joint Secretary (Liason) Indian Academy o Pediatrics.
- General Secretary, IAP Medical Education Centre.
- Vice-President International Association of Adolescent Health.
- Member Secretary, IAP National Independent Ethics Committee

5. Dr. Praveen Kumar

• Developed counselling cards on "Essential Nutrition Practices during COVID-19 Pandemic" which was endorsed by Pediatrics and Adolescent Nutrition Society and Central Indian Academy of Pediatrics.

6. Dr. Abhijeet Saha

• Appointed as Editor in Chief of ISPN Bulletin, the official publication of Indian Society of Pediatric Nephrology.

7. Dr. Srikanta Basu

- National Chairperson of Cardiology chapter of Indian academy of Pediatrics.
- National UG IAP Quiz Coordinator of Indian Academy of Pediatrics for the 2020-21.
- Reviewer of four indexed journals of Paediatrics (2 national and two international (BMC pediatrics and BMC nutrition)

Publications

- 1. Saxena S, Kumar S, Kumar V, Kaur R. Risk factors associated with Colonization of intestine by carbepenem resistant Enterobacteriaceae in a Pediatric ICU. J Microbiol Infect Dis www.jmidonline.org Vol 10, No.2, June 2020.
- 2. <u>Baijal N, Seth A, Singh S, Sharma G, Kumar P, Chandra J</u>. HIV-free Survival at the Age of 18 Months in Children Born to Women With HIV Infection: A Retrospective Cohort Study. <u>Indian Pediatr.</u> 2020 Jan 15;57(1):34-38.
- 3. Singh P, Gandhi S, Malhotra RK, **Seth A**. <u>Impact of Using Different Growth References on Interpretation of Anthropometric Parameters of Children Aged 8-15 Years.</u> Indian Pediatr. 2020 Feb 15;57(2):124-128.
- 4. Verma D, Bachani D, Acharya AS, **Seth A**, Hemal A. Factors affecting adherence to treatment in children living with HIV. Indian J Sex Transm Dis AIDS. Jul-Dec 2020; 41(2):181-187. doi: 10.4103/ijstd.IJSTD_43_18. Epub 2020 Jul 31

- 5. Bk K, **Tiwari S**, **Chhapola V**, Debnath E, **Seth A**, Jain A. Subclinical kidney dysfunction in HIV infected children: a cross-sectional study [published online ahead of print, 2020 Aug 5]. *J Acquir Immune DeficSyndr*. 2020 Dec 1;85(4):470-474.
- 6. **Kumar P**, Daniel A, Sinha RK, **Kumar V**, **Seth A**, **Pemde H**, **Basu S**, **Chandra J**, de Wagt A. Mortality outcome of hospitalized children aged six to fifty-nine months in relation to different anthropometric indices: an observational cohort study. International Journal of Community Medicine and Public Health. Int J Community Med Public Health. 2021 Jan;8(1):372-378
- 7. Singh P, Samaddar S, Parakh N, **Chandra J**, **Seth A.** <u>Pubertal Development and its Determinants in Adolescents With Transfusion-Dependent Thalassemia.</u> Indian Pediatr. 2021 Mar 26: S097475591600303
- 8. Sahi PK, Mandal A, Persico I, **Seth A,** Crisponi L. Crisponi/Cold Induced Sweating Syndrome Type 1 With a Private Cytokine Receptor Like Factor 1 (CRLF1) Mutation in an Indian Family. Indian Pediatr. 2020 Nov 15;57(11):1075-1076. PMID: 33231180.
- 9. Sharma M, Sakhuja P, **Dublish S**, Saxena S, **Seth A.** Liver biopsy can be a tool for unravelling a rare diagnosis. J ClinPathol. 2020 Nov 10:jclinpath-2020-206993. doi: 10.1136/jclinpath-2020-206993. Epub ahead of print. PMID: 33172869
- Seth A. Challenges of Achieving an Optimum Glycemic Control in Children with Type 1 Diabetes in India. Indian J Pediatr. 2020 May 14. doi: 10.1007/s12098-020-03336-6.
- 11. **Preeti Singh**, **Seth A**. chapter 13.10: Tetany. In, Differential Diagnosis in Pediatrics. Ed. K Nedunchelian, Pramachandran, S Thangavelu, NC Gowrishankar. Jaypee brothers Medical Publishers Ltd 2020.
- 12. Nayak S, Gupta S, **Kumar P**, Jias M, **Mandal P**, **Chandra J**. A Study of Immunogenicity of Intensified Hepatitis B Vaccination in Children Being Treated for Acute Lymphoblastic Leukemia. Indian J Pediatr. 2020 Mar;87(3):217-218. doi: 10.1007/s12098-019-03147-4. Epub 2020 Jan 10. PMID: 31925714.
- 13. **Kumar P**, Meiyappan Y, Rogers E, Daniel A, Sinha R, **Basu S**, et al. Outcomes of Hospitalized Infants Aged One to Six Months in Relation to Different Anthropometric Indices An Observational Cohort Study. Indian J Pediatr. 2020 Sep;87(9):699-705. doi: 10.1007/s12098-020-03236-9. Epub 2020 Mar 27. PMID: 32221787.
- 14. Alwadhi V, Sarin E, **Kumar P**, Saboth P, Khera A, Gupta S, et al. Measuring accuracy of plethysmography based respiratory rate measurement using pulse oximeter at a tertiary hospital in India. Pneumonia (Nathan). 2020 Jun 5;12:4. doi: 10.1186/s41479-020-00067-2. PMID: 32518740; PMCID: PMC7273681.
- 15. **Aneja S, Kumar P**, Choudhary TS, Srivastava A, Chowdhury R, Taneja S, et al. Growth faltering in early infancy: highlights from a two-day scientific consultation. BMC Proc. 2020 Sep 15;14(Suppl 12):12. doi: 10.1186/s12919-020-00195-z. PMID: 32944069; PMCID: PMC7490870.
- 16. **Kumar P, Kumar V**, Deb S, Pal A, Chatterjee K, Sinha RK, et al. Integration of management of children with severe acute malnutrition in paediatric inpatient facilities in India. Field Exchange issue 63, October 2020, www.ennonline.net/fex
- 17. **Kumar P**, Mamidi RS, Arlappa N, Tiwari K, Rohatgi S, Sarika G, et al. Development and use of alternative nutrient-dense foods for management of acute malnutrition in India. Field Exchange issue 63, October 2020, www.ennonline.net/fex
- 18. **Kumar P**, Deb S, de Wagt A, Gupta P, Bhandari N, Sareen N, et al. Managing at risk mothers and infants under six months in India –no time to waste. Field Exchange issue 63, October 2020, www.ennonline.net/fex.
- 19. Sinha RK, Kiran A, Kashyap V, **Kumar P**. Performance and costing of nutrition intervention measures on admitted children in malnutrition treatment center: a case study from Jharkhand, India. Int J Community Med Public Health. 2020 Oct;7(10):4048-4055.

- 20. Yachha SK, Das MC, **Kumar P**, Sharma L, Singh SK, Sen Sarma M, et al. Development of integrated neonatal cholestasis card for early recognition and referral of neonatal cholestasis. Indian J Gastroenterol. 2020 Dec;39(6):584-590. doi: 10.1007/s12664-020-01094-z. Epub 2020 Nov 11. PMID: 33175370.
- Sinha RK, Raybardhan S, Barnwal N, Kumar P, Kumar V. Assessment of Nutritional Status of Mothers of Children Under 3 Years of Age and Its Determinants. Indian J Community Med. 2020 Oct-Dec;45(4):440-444. doi: 10.4103/ijcm.IJCM_480_19. Epub 2020 Oct 28. PMID: 33623197; PMCID: PMC7877434.
- 22. Bhatia A, **Saha A**, Deepthi B, Goyal P, Upadhyay AD, Dubey NK. Endothelial dysfunction in children with frequently relapsing and steroid-resistant nephrotic syndrome. Asian J Pediatr Nephrol. 2020; 3:4-9.
- 23. Kapoor K, **Saha A**, Dubey NK, Batra V, Upadhyay AD. Clinical and histopathological profile of adolescent onset idiopathic nephrotic syndrome in North Indian children. SJKDT. 2020; In Press.
- 24. Sinha R, Vasudevan A, Agarwal I, Sethi SK, **Saha A**, Pradhan S, *et al.* Congenital Nephrotic Syndrome in India in the Current Era: A Multicenter Case Series. Nephron. 2020;144(1):21-29.
- 25. Kaur J, Deepthi B, Dhull RS, Faruq MD, **Saha A.** Infantile nephrotic syndrome secondary to cytomegalovirus infection in a 7-month-old girl: resolution with ganciclovir. Paediatr Int Child Health. 2020 Sep 29:1-4. doi: 10.1080/20469047.2020.1823176.
- 26. Goyal S, Dhull RS, Deepthi B, **Saha A**. A case of first episode nephrotic syndrome with acute abdominal pain. Clin Exp Pediatr. 2020;63(10):411-414.
- 27. Dhull RS, Jain R, Deepthi B, CheongH, **Saha A.** VDDR type 1, case series of two siblings with a *CYP27B1* mutation with review of literature. Brazilian J Nephrol. 2020;42(4):494-97.
- 28. Chopra S,**Saha A**. Preterm Birth: A Risk-factor for chronic kidney disease? Indian Pediatr. 2020;57(5):395-96.
- 29. Farmania R, Garg D, **Sharma S**. Status Epilepticus in Neonates and Infants. Ann Indian Acad Neurol. 2020 Nov-Dec;23(6):747-754.
- 30. Garg D, **Sharma S**. Do All Children With Autoimmune Encephalitis Need Aggressive Immunotherapy?: Authors' Reply. Indian Pediatr. 2020 Nov 15;57(11):1088.
- 31. Garg D, **Sharma S**. Diverse Pathophysiology of Sudden Unexpected Death in Epilepsy in Children: Authors' Reply. Indian Pediatr. 2020 Oct 15;57(10):972-973.
- 32. Bhasin H, **Sharma S**, Ramachandrannair R. Can We Prevent Sudden Unexpected Death in Epilepsy (SUDEP)? Can J Neurol Sci. 2020 Oct 7:1-5.
- 33. **Sharma S**, Anand A, Garg D, Batra S, **Mukherjee SB**, Patra B, **Aneja S**. Use of the International League Against Epilepsy (ILAE) 1989, 2010, and 2017 Classification of Epilepsy in children in a low-resource setting: A hospital-based cross-sectional study. Epilepsia Open. 2020 Jun 21;5(3):397-405.
- 34. Garg D, Bijarnia-Mahay S, Elwadhi A, **Ray S**, Häberle J, **Sharma S**. Neurological Deterioration in Three Siblings: Exploring the Spectrum of Argininemia. Indian J Pediatr. 2020 Aug 8.
- 35. **Mukherjee SB**, Neelam, Kapoor S, **Sharma S**. Identification of Essential, Equivocal and Complex Autism by the Autism Dysmorphology Measure: An Observational Study. J Autism Dev Disord. 2020 Aug 7.
- 36. Steel D, Zech M, Zhao C, Barwick KE, Burke D, Demailly D, Kumar KR, Zorzi G, Nardocci N, Kaiyrzhanov R, Wagner M, Iuso A, Berutti R, Škorvánek M, Necpál J, Davis R, Wiethoff S, Mankad K, Sudhakar S, Ferrini A, **Sharma S**, et al. Loss-of- function variants in HOPS complex genes VPS16 and VPS41 cause early-onset dystonia associated with lysosomal abnormalities. Ann Neurol. 2020 Aug 18.
- 37. Garg D, Mohammad SS, **Sharma S**. Autoimmune Encephalitis in Children: An Update. Indian Pediatr. 2020 Jul 15;57(7):662-670. PMID: 32727942.

- 38. Devamare S, Ihtisham K, Bhasin H, Bhasker V, **Sharma S**, Tripathi M. Subacute Sclerosing Panencephalits Mimicking Anti-NMDA Receptor Encephalitis. Ann Indian Acad Neurol. 2020 May-Jun;23(3):411-413.
- 39. Karanvir, Garg D, **Sharma S**, Pandey S. Left-Hand Motor Stereotypy in Vitamin B12 Deficiency: Expanding the Spectrum of Infantile Tremor Syndrome. Ann India Acad Neurol. 2020 May-Jun;23(3):389-390.
- 40. Saini AG, **Sharma S**. Movement Disorders in Inherited Metabolic Diseases in Children. Ann Indian Acad Neurol. 2020 May-Jun;23(3):332-337.
- 41. Sondhi V, **Sharma S**. Vitamin-Responsive Movement Disorders in Children. Ann Indian Acad Neurol. 2020 May-Jun;23(3):325-331.
- 42. Kapoor D, Anand A, **Sharma S**, **Mukherjee SB**, Marini C, Mei D, Chopra SS, Chettali AM. Dravet Syndrome: A Case Series. Indian J Pediatr. 2020 Jun 26.
- 43. Choudhary A, Bijarnia-Mahay S, Garg D, Patra B, Solyom A, **Sharma S**. A Young Infant with Joint Swellings and Subcutaneous Nodules. Indian J Pediatr. 2020 Jun
- 44. Garg D, **Sharma S**. Sudden Unexpected Death in Epilepsy (SUDEP) What Pediatricians Need to Know. Indian Pediatr. 2020 Jun 12:S097475591600192. Epub ahead of print.
- 45. Kapoor D, Sidharth, **Sharma S**, Patra B, **Mukherjee SB**, **Pemde HK**. Electroclinical spectrum of childhood epilepsy secondary to neonatal hypoglycemic brain injury in a low resource setting: A 10-year experience. Seizure. 2020 May 20;79:90-94.
- 46. Tayal A, Elwadhi A, **Sharma S**, Patra B. An Unusual Presentation of Menkes Disease Masquerading as a Leukodystrophy with Macrocephaly. J Pediatr Neurosci. 2020 Jan-Mar;15(1):57-59.
- 47. Yoganathan S, **Sharma S**, Varman M, Malhotra M, Chandran M, Arunachal G, Thomas M. A Treatable Cause of Intellectual Disability and Autism in a Young Child. Indian J Pediatr. 2020 Mar 24.
- 48. Chetan C, **Sharma S**, Mathur SB, Jain P, **Aneja S**. Clinical Profile and Short-term Outcome of Pediatric Status Epilepticus at a Tertiary-care Center in Northern India. Indian Pediatr. 2020 Mar 15;57(3):213-217.
- 49. Gupta J, **Sharma S**, **Mukherjee SB**, Jain P, **Aneja S**. Neuro-Developmental and Epilepsy Outcomes of Children with West Syndrome: A Cross-Sectional Study from North India. Ann Indian Acad Neurol. 2020 Mar-Apr;23(2):177-181.
- 50. Panda I, Ahmad I, Sagar S, Zahra S, Shamim U, **Sharma S**, Faruq M. Encephalopathy due to defective mitochondrial and peroxisomal fission 2 caused by a novel MFF gene mutation in a young child. Clin Genet. 2020 Mar 17.
- 51. Borlot F, Abushama A, Morrison-Levy N, Jain P, Puthenveettil Vinayan K, Abukhalid M, Aldhalaan HM, Almuzaini HS, Gulati S, Hershkovitz T, Konanki R, Lingappa L, Luat AF, Shafi S, Tabarki B, Thomas M, Yoganathan S, Alfadhel M, Arya R, Donner EJ, Ehaideb SN, Gowda VK, Jain V, Madaan P, Myers KA, Otsubo H, Panda P, Sahu JK, Sampaio LPB, **Sharma S**, Simard-Tremblay E, Zak M, Whitney R. KCNT1-related epilepsy: An international multicenter cohort of 27 pediatric cases. Epilepsia. 2020 Apr;61(4):679-692.
- 52. Kaur P, **Sharma S**, Kadavigere R, Girisha KM, Shukla A. Novel variant p.(Ala102Thr) in SDHB causes mitochondrial complex II deficiency: Case report and review of the literature. Ann Hum Genet. 2020 Mar 2.
- 53. Sondhi V, **Sharma S.** Non-Pharmacological and Non-Surgical Treatment of Refractory Childhood Epilepsy. Indian J Pediatr. 2020 Feb 11. [Epub ahead of print]
- 54. **Maheshwari A**, Pandit K, **Kumar V**, **Mahto D**. COVID 19 and immune phenomenon in children. Indian J Med Spec 2020;11:65-9 DOI: 10.4103/INJMS.INJMS_59_20. of Refractory Childhood Epilepsy. Indian J Pediatr. 2020 Feb 11. [Epub ahead of print]

Books / Chapters contributed

Saha A. Drug for Emergent Conditions. In: Principles of Pediatric Neonatal Emergencies. 4th Edition 2020.Eds. Gupta P, Bagga A, Ramji S. Jaypee Brothers, New Delhi.

Research Projects

- 1. Dr. Praveen Kumar and Dr. Virendra Kumar as investigators in "Effectiveness of community based treatment programs to treat children aged 6-59 mo with uncomplicated SAM using alternative energy dense feeds: a multi-centric prospective longitudinal follow up study in 5 states" funded by UNICEF.
- 2. Dr. Anju Seth as Co-investigator in a multi-centric ICMR project on "Registry of people with diabetes in India with young age at onset" **funded by ICMR**.
- 3. Dr. Anju Seth as Co-principal Investigator in a multi-centric ICMR project on "Islet-antibody negative type 1 diabetes (type 1B) in north Indians: clinical implications and pathogenesis".
- 4. Dr. Abhijeet Saha as Principal Investigator in a multi-centric ICMR project on "Setting up of Registry & Targeted Exome Sequencing in Children with Renal Tubular Disorders" funded by ICMR.

Organizing Training Course/Conferences/Symposia/Seminars/Workshops/ CMEs

S.No.	Faculty Member	Organiser(s)	Name, Venue & Date
1.	Dr Jagdish Chandra	Dr Praveen Kumar	Centre of Excellence Network Meeting
	Dr. Virendra Kumar	NCoE, KSCH	for SAM Management at
	Dr Anju Seth		The Metropolitan Hotel on 17-19 th Jan 2020
	Dr Praveen Kumar		
	Dr S Basu		
2.	Abhijeet Saha	Indo US Emergency and Trauma Collaborative	EPICON April 2020.
3.	Dr Virendra Kumar Dr Praveen Kumar	Department of Pediatrics, KSCH in collaboration with District Health Society, New Delhi	Educational Programme on "Intensified Diarrhea Control Fortnight" for mothers & caregivers at CHPC, KSCH during July 2020
4.	Dr Virendra Kumar Dr Praveen Kumar	Department of Pediatics, KSCH	World Breastfeeding Week 2020 CHPC, KSCH, 1 st – 7 th Aug 2020
5.	Dr Jagdish Chandra Dr Praveen Kumar Dr Srikanta Basu Dr Preeti Singh	Dr Praveen Kumar as Organising Secretary , Pediatric & Adolescent Nutrition Society in collaboration with CIAP	Virtual CME on "National Nutrition Week 2020" on 1 st – 4 th Sept 2020
6.	Dr Virendra Kumar Dr Anju Seth Dr S. Basu	Dr Praveen Kumar NCoE, KSCH	POSHAN MAAH Celebration NRC, KSCH on 7 th Sept 2020
7.	Dr Virendra Kumar	Dr Praveen Kumar	Virual training on "Facility based Management of Severe Acute

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	Dr Praveen Kumar	NCoE, KSCH	Malnutrition in context of COVID-19" for MOs in SMTUs , MP on 28 th Sept -1 st Oct 2020
8.	Dr Anju Seth Dr Praveen Kumar	Dr Praveen Kumar NCoE, KSCH	Virtual training on "Integrated Management of Severe Acute Malnutrition" for faculty members of Pediatrics & Community Medicine, GMERS Med College, Baroda on 27 th - 30 th Oct 2020 & 25 th -28 th Nov 2020
9.	Dr Jagdish Chandra Dr Praveen Kumar Dr Srikanta Basus Dr Preeti Singh	Pediatric & Adolescent Nutrition Society in collaboration with CIAP	National Conference "PEDNUTRICON 2020" Virtual platform on 5 th Sept 2020
10.	Dr Anju Seth Dr Praveen Kumar	Dr Praveen Kumar NCoE, KSCH	Blended training on "Management of Under 6 month infants with Severe Malnutrition" at The Metropolitan Hotel on $22^{nd} - 24^{th}$ Dec 2020
11.	Dr. Varinder Singh		Several National level Training of Trainers' for Pediatric Tuberculosis from February to November 2020

New Initiatives Undertaken

- 1. PICU facilities upgraded with High frequency oscillation ventilation.
- 2. Hemodialysis services for children made functional.
- 3. Converted WHO Adolescent Job Aid into user friendly mobile App.
- 4. Developed Adolescent Parenting Guidelines in form of an App.

PHARMACOLOGY (MAMC)

Major activities and achievements during the period (upto 150 words)

The Department of Pharmacology was a pioneer in taking initiative on web based teaching and started online classes from 20th March 2020, soon after the COVID lockdown. The Department initiated, planned and organized the online teaching programme for all the Departments of the college. Dr Vandana Roy was made Officer in charge for online teaching in the college during COVID lockdown. During this period, a total of 180 hours of online classes were conducted for MBBS students, 87 hours of online classes for BDS students and 98 hours of online teaching was conducted for Postgraduates. Moreover, online assessment, viva, clinical case discussion was also undertaken using Google forms for MBBS and BDS students. To encourage student's engagement during COVID lockdown, the whole batch was divided in smaller group of students and teaching staff was engaged in online teaching and tutorials. Although the number of teachers is not sufficient for small group teaching and teacher student's ratio is large, still whatever best can be done was done.

• Honors & Distinctions:

Dr Vandana Roy was invited by Food & Agriculture Organization (FAO), United Nations to work as a consultant on a project related to use of antimicrobials in animal livestock & poultry 2020 (Was unable to do so due to situation arising from COVID 19)

Dr Vandana Roy was awarded Fellowship of International Medical Science Academy

Publications

Atal S, Jhaj R, Mathur A, Rai N, Misra S, Sadasivam B. (2021). Outpatient prescribing trends, rational use of medicine and impact of prescription audit with feedback at a tertiary care centre in India. Int J Health Plann Manage.36(3):738-753.

Bimba HV, Roy V, Batta a, Daga MK (2020). Drug utilization, rationality & cost analysis of antimicrobial medicines in a tertiary care teaching hospital of Northern India: a prospective, observational study. Indian Journal of Pharmacology,52: 179-183

Gupta, M. D., Bansal, A., Sarkar, P. G., Girish, M. P., Jha, M., Yusuf, J., Kumar, S., Kumar, S., Jain, A., Kathuria, S., Saijpaul, R., Mishra, A., Malhotra, V., Yadav, R., Ramakrishanan, S., Malhotra, R. K., Batra, V., Shetty, M. K., Sharma, N., Mukhopadhyay, S., Gupta, A. (2021). Design and rationale of an intelligent algorithm to detect BuRnoUt in HeaLthcare workers in COVID era using ECG and artificiaL intelligence: The BRUCEE-LI study. Indian heart journal, 73(1), 109–113

Jain, S., & Kumar, S. (2020). Cancer immunotherapy: dawn of the death of cancer?. International reviews of immunology, 1–18.

Kumar, M., Meshram, G. G., Rastogi, T., Sharma, S., Gupta, R., Jain, S., Prasad, A., Galav, V., & Bhattacharya, S. K. (2020). Antiangiogenic activity of zinc and zinc-sorafenib combination using the chick chorioallantoic membrane assay: A descriptive study. Journal of cancer research and therapeutics, 16(Supplement), S84–S89.

Kumar S, Tayal V, Swachia K, Roy V. (2020) Shivering due to repeat dose of Tranexamic Acid: A peculiar case series. MAMC Journal of Medical Sciences, 6:228-231.

Mishra A, Gupta P, Kalra BS, Tiwari YK (2020). Efficacy of Ashwagandha and Brahmi Extract on Alcohol Withdrawal Syndrome in Laboratory Rats. International Journal of Pharmacology; 16: 343-350.

Rana P, Roy V. (2020) Prescribing vitamin B complex: need for reassessment. Indian Journal of Medical Research (Accepted)

Roy V, Tayal V, Kansal A. (2020) Patients knowledge of prescribed medications and factors affecting it in a tertiary care, public, teaching hospital in New Delhi, India. MAMC Journal of Medical Sciences, 6:204-210.

Roy V, Singhal S, Tayal H, Dubey AP. (2021). Availability of Pediatric Formulations in Public Health Care System in India: A Case Study. Indian J Pediatr,88(3):227-234.

Roy V. AMR has to be addressed not as a microbiological problem but as a social construct. Down to Earth. November 24th 2020

Singhal S, Kalra BS. (2021). Publication ethics: Role and responsibility of authors. Indian J Gastroenterol, 40(1):65-71.

Singhal S, Hasan N, Nirmal K, Chawla R, Chawla S, Kalra BS, Dhal A (2021). Bioavailable turmeric extract for knee osteoarthritis: a randomized, non-inferiority trial versus paracetamol. Trials. ;22(1):105. doi: 10.1186/s13063-021-05053-7.

Book Chapter contributed

Bhupinder Kalra & Vandana Tayal (2020). Chapter in the textbook "Part 1 MRCOG Revision Notes and sample SBAs" edited by Neelanjana Mukhopadhaya and Jyotsana Pundir, Cambridge University Press. Edition 1. Chapter 63. Pain relief in Labour and Puerperium. p 338-340. OG Revision notes and Sample SBAs. 1st ed. Cambridge University Press. pp. 328-330

Kumar, S. (2020) Teratogenic Drugs. Chapter – 65 In: Mukhopadhaya N, Jyotsna Pundir, Mala Arora, editors. Part-1 MRCOG Revision notes and Sample SBAs. 1st ed. Cambridge University Press. pp. 347-350

Siddharth Dutta & Vandana Tayal (2020). Chapter in the textbook "Part 1 MRCOG Revision Notes and sample SBAs" edited by Neelanjana Mukhopadhaya and Jyotsana Pundir, Cambridge University Press. Edition 1. Chapter 64. Contraception and drugs used in gynaecology. p 341-346.

Sahil Kumar & Vandana Tayal (2020). Chapter in the textbook "Part 1 MRCOG Revision Notes and sample SBAs" edited by Neelanjana Mukhopadhaya and Jyotsana Pundir, Cambridge University Press. Edition 1. Chapter 65. Teratogenic drugs. p 347-349.

Dr. Vandana Roy wrote the Forward for Bertram G Katzung Basic & Clinical Pharmacology; 14th edition, Indian edition 2020

Dr Vandana Roy revised a chapter on Anti Alzheimer & Anti Parkinson medicines in National Formulary of India, Indian Pharmacopeia Commission, Ministry of Health & Family Welfare

• **Journals Published by the department** – None

A Journal is published by the college and 2 faculty are members of Editorial Board.

Number of Department teachers serving as Editor(s)/ Member(s) of Editorial board - 2

• Research projects

A) Ongoing projects

Name of research project	Investigators	Year/Period	Funding agency
A randomized controlled study to evaluate the therapeutic effects of Lithium in Covid 19 patients.	Dr Sumit Sural, Dr M.K.Daga, Dr B.C.Koner, Dr Lalit Gupta, Dr Bhupinder Singh Kalra, Dr Vikas Manchanda, Dr Harpreet Singh, Mr S.P.Sharma	2020 onwards	
Drug Utilization Pattern and Adverse Drug Reaction Monitoring of COVID 19 patients of LokNayak Hospital: An Observational Study.	Dr Bhupinder Singh, Dr Shalini Chawla, Dr Sandeep Garg, Dr Seema Kapoor, Dr Lalit Gupta, Dr Sumit Sural, Dr Shubha Singhal	2020 onwards	
Antinociceptive and antiinflammatory activities of Serratiopeptidase, Boswellia serrata and diclofenac in rats	Dr. Bhupinder Singh, Dr Vandana Roy	2017 onwards	Drugs supplied by Company
Effect of Sulforaphane in	Dr. Vandana Roy, Dr. Venu	2021 onwards	

Adenine introduced chronic renal failure in rats.	Gopala Rao Konda, Dr. Akilesh Kumar, Dr. Nita Khurana		
To evaluate ameliorative effect of thymoquinone against colistin induced renal injury	Dr. Vandana Roy, Dr. Akhilesh Mishra, Dr. Ijaz, Dr. Nita Khurana	2018 -2020 completed	Maulana azad Medical college
To study neuroprotective effect of Zingiber officinale (Ginger) in Aluminium Chloride induced Alzheimer's disease in rat model	Dr. Vandana Roy, Dr. Vandana Tayal, Dr. Akhilesh Mishra, Dr. Nita Khurana, Dr. Binita Goswami	2019 onwards	Maulana azad Medical college
To evaluate the protective effect of Azadirachta indica leaf extract on chemically induced colon cancer in rats.	Dr. Vandana Roy, Dr. Akhilesh Mishra, Dr. Nita Khurana	2020 onwards	Department of Health Research
Perception of Dental students and Teachers about online teaching during the COVID 19 pandemic"	Dr. Vandana Tayal, Dr. Vandana Roy	2020	
Perception of medical students and teachers about online teaching during the COVID 19 pandemic"	Dr. Vandana Roy, Dr. Bhupinder Kalra, Dr. Nidhi Maheshwari	2020	
Impact of Concomitant drug intake on outcomes in patients with COVID 19: Risk scoring method to predicting mortality and ICU admission in tertiarym care hospital, New Delhi	Dr. Manu Kumar, Dr. Vandana.Roy, Dr. Suresh Kumar, Dr. Bhupinder Singh, Dr. Kapil Chaudhary, Dr. Lalit Gupta, Dr. Vishrantkumar k kushal Shetty	2020 onwards	
To detect stress and Burnout in HeaLthcare workers in COVID era using ECG and artificial intelligence	Dr. Mohit Gupta, Dr. Manu Kumar, Dr. Girish, Dr.Anubha Gupta, Dr. Suresh Kumar	2020 onwards	
Impact of changes in Pharmacology curriculum on learning on educational outcomes in medical students	Dr. Vandana roy, Dr. Shalini Chawla, Dr. Razi Akhtar		

B) Ongoing Thesis

Name of research project	Investigators	Year/Period	Funding agency
Efficacy and safety of Vildagliptin and Remogliflozin as add on therapy to Metformin in patients of Type 2 Diabetes Mellitus	Dr Vikram Sharma. Supervisor: Dr Shalini Chawla, Co Supervisior: Dr Sandeep Garg, Dr Bhupinder Singh	2019-21	Drugs supplied by Company
Comparative Study of Propranolol Versus Amitriptyline at a Low Dose for Prophylaxis of Episodic Migraine	Dr Nasra Banu. Supervisor: Dr Vandana Roy, Co Supervisor: Dr Debashish Chowdhury, DrVandana Tayal	2019-2021	
Nephroprotective Effect of	Dr. Ankita Negi. Supervisor -	2020-22	Maulana

Biocurcumin (Turmeric) And PhyllanthusEmblica (Amla) in Cisplatin Induced Renal Injury in Rats.	Dr Shalini Chawla Co- Supervisor— Dr. Bhupinder Singh, Dr. Shramana Mandal, Dr. Akhilesh Mishra		Azad Medical College Drugs supplied by Company
Hepatoprotective potential of PhyllanthusNiruri and AndrographisPaniculata in Isoniazid- Rifampicin Induced Hepatotoxicity in Rats.	Dr Sanjeev Khanth. Supervisor -Dr. Bhupinder Singh. Co- Supervisor- Dr Shalini Chawla, Dr. Shramana Mandal, Dr. Akhilesh Mishra	2020-22	Maulana Azad Medical College Drugs supplied by Company
Neurobehavioral effects of exposure to Transfluthrin in laboratory animals	Dr. Jasbir Dalal. Supervisor- Dr. Vandana Roy Co-Supervisor- Dr. Vandana Tayal, Dr. B.C Koner, Dr. Akhilesh Mishra.	2020-22	Maulana Azad Medical College
Effect of Rosuvastatin on anticonvulsant activity of anti- epileptics using maximal electroshock and pentylenetetrazol induced seizures in albino mice	Dr. Akash Anand. Supervisor- Dr. Vandana Tayal Co- Supervisor-Dr. Vandana Roy, Dr. Akhilesh Mishra.	2020-22	Maulana Azad Medical College
Pharmacokinetics of first line antitubercular drugs in tuberculosis patients: A comparative study in patients with & without concomitant diabetes mellitus	Dr. Sourav Mondol Supervisor- Dr. Vandana Roy Co- Supervisor-Dr. Vandana Tayal, Dr. Sandep garg, Dr. Ashwani Khanna, Dr. T. Velapandian	2020-22	Maulana Azad Medical College

C) Details of thesis completed during current year

Name of research project	Investigators	Year
Efficacy and safety of Saroglitazar and Fenofibrate in the treatment of diabetic dyslipidemia: An open label comparative study	Dr Rahul Gehlot. Supervisior: Dr Bhupinder Singh, Co Supervisior: Dr Shalini Chawla,Dr Sandeep Garg	2018-20
Efficacy of Withania somnifera (Ashwagandha) and Bacopa monnieri (Brahmi) and association of serum Brain derived neurotrophic factors BDNF in alcohol withdrawal syndrome in rats.	Dr Ijasul Haque M. Supervisor: Dr Shalini Chawla, Co Supervisor: Dr Bhupinder Singh	2018-20

8. Conferences organized

Three workshops were in pipeline but due to COVID pandemic and lockdown, these were postponed

• Seminar/Conference Presentations:

Dr Vandana Roy invited as Special guest, in a program on Domestic Violence & its implementation, Kirori Mal College, IQAC webinar program, December 21st 2020

Dr Vandana Roy invited Chairperson, Webinar on Assessment in CBME Pharmacology. Organized by National MD Pharmacology group. September 25th 2020.

Dr Vandana Tayal invited as a guest Faculty and presented a lecture on "Hygiene during COVID- 19" for NCC Cadets at Satyawati college, Delhi University, New Delhi on observance of Handwash day on 11th Dec 2020.

• Extension and Outreach activities:

Health Services to the Community

Patient care services

Department faculty and residents were deputed at New Special Ward, Lok Nayak Hospital for management of COVID patients. A total of 196 days of COVID duty was undertaken by residents and faculty underwent duty for 182 days.

Department of Pharmacology provided maximum contribution with regard to duties in New special ward, Lok Nayak Hospital. The staff was also posted for COVID related duties for monitoring temperature of people entering the college premises, posted in the RTPCR Laboratory, Department of Microbiology (120 days), as well as posted to community health centre. Dr. Nasra Banu was posted in Primary health care (PHC) centre and has done 135 days of covid duty

Monitoring of Adverse Drug Reactions

Department of Pharmacology, MAMC is a recognized center for monitoring adverse drug reactions under the Pharmacovigilance Programme of India, Indian Pharmacopoeia Commission, Ministry of Health and Family Welfare, Government of India.

The aims of the Center are to make health care providers aware about Patient safety, Concept of pharmacovigilance, Adverse Drug Reactions (ADRs) and its reporting with the ultimate objective to promote safe use of drugs.

The Center has been training health care providers in aspects related to pharmacovigilance and patient safety. The department conducted one workshop on Pharmacovigilance for patient safety in February 2020. The centre has trained 502 health care providers which include, doctors, nurses and pharmacists. The Department also trains 300 undergraduate MBBS and BDS students in pharmacovigilance and ADR reporting every year.

The Department has reported 605 Individual case Safety Reports (ICSRs) to the National Pharmacovigilance Centre for reporting to the International Centre for Pharmacovigilance at Uppsala, through Vigibase in 2020-21. The total number of Adverse drug reactions (ADR) reported since September 2014 till March 2021 is 2516

One post graduates- Awarded MD in Pharmacology-

• Dr. Anurag Vermani

Number of permanent faculty: Six (6)

16.Any other significant information

Representation on expert committees/ bodies.

Dr. Vandana Rov

Dean, Faculty of Medical Sciences, University of Delhi Dean, Faculty of Homeopathy Medicine, University of Delhi Dean, Faculty of Ayurveda & Unani Medicine, University of Delhi

Chairperson, Board of Research Studies, Faculty of Medical Sciences, University of Delhi

Member, Academic Council, University of Delhi

Member Committee for Annual Report of University of Delhi August 2019-20

Member, Internal Quality Assurance Committee (IQAC) Committee, University College of Sciences, University of Delhi.

Member, Internal Quality Assurance Committee (IQAC) Committee, Kirori Mal College, University of Delhi. Member Screening Committee for Faculty Promotion, University College of Medical Sciences, University of Delhi

Head, Department of Pharmacology, Faculty of Medical Sciences, University of Delhi.

Chairperson Courses Committee of Studies for Pharmacology, Faculty of Medical Sciences, University of Delhi.

Chairperson Department Research Studies, Pharmacology, Faculty of Medical Sciences, University of Delhi.

Member, Guru Gobind Singh Indraprastha University, Centre Research Consultancy Committee for Centre of excellence in Pharmaceutical Sciences

Member, Core Training Panel (CTP) under Pharmacovigilance Programme of India, Indian Pharmacopoeia Commission, NCC-PVPI, Ministry of Health & Family Welfare, Govt of India

Member Signal Review Panel, Pharmacovigilance Program of India. Indian Pharmacopoiea Commission NCC-PVPI, Ministry of Health & Family Welfare, Govt of India

Resource person for training Technical Associates, for Pharmacovigilance Programme of India, Indian

Pharmacopoeia Commission, Ministry of Health & Family Welfare, Government of India. Subject Expert of New Drug Advisory Committee (NDAC) to advise Drugs Controller General (India), DCGI in

matters for review of Applications of New Drugs and Clinical Trials, Central Standards Control Organization, FDA Bhawan,New Delhi

Expert member Committee to consider objections/suggestions received in response of draft notifications No.S.O 1512 (E) dtd 18th May 2020 in respect of prohibition of 27 insecticides., Ministry of Agriculture & Farmers Welfare. Department of Agriculture Cooperation & Farmers Welfare. 2021

Member Technical Specification Committee for finalizing the specification of equipment, kits and drugs for National Viral Hepatitis Control Program, 2018-2020.

Member State Technical Advisory Committee for Immunization, Delhi State, Ministry of Health & Family Welfare, Government of NCT of Delhi.

Member State Task Force Tuberculosis, Delhi.

Member of Delhi Medical Council

Member of Executive Committee, Delhi Medical Council

Head, Central Animal House, Maulana Azad Medical college.

Coordinator for Adverse drug Monitoring Center, Maulana Azad Medical College, National Pharmacovigilance Program of India

Chairperson & Coordinator, Maulana Azad Medical College Committee for Pharmacovigilance

Chairperson & Faculty Coordinator of MAMC-SPIC MACAY committee (Society for Promotion of Indian Classical Music, Arts and Culture Amongst Youth) (2005-till date)

Chairperson and Convener, Dissection Monitoring Committee for Maulana Azad Medical College Member College Advisory Committee, advise on Academic & Administrative matters, Maulana Azad Medical College 2020

Officer Incharge for Online teaching during COVID 19, Maulana Azad Medical College 2020

Member Core Committee of Revised National Tuberculosis Control Program RNTCP, Maulana Azad Medical college.

Officer Incharge, Lecture theatres, Maulana Azad Medical college.

Medical Council of India(National Medical commission) subject expert to Revise the Minimum Standards Requirements in Pharmacology for student intake of 50/100/150/200/250 students

Reviewer for National & International Journals

Expert on Selection Boards for assistant professor, associate professor of different institutions.

Examiner, Thesis evaluator, Paper setter for University of Delhi ,other Universities, National Board of Examinations

Member of Institute Ethics Committee of various medical institutions.

Dr Shalini Chawla

Member, Institutional Ethics Committee, MAMC & Associated Hospitals.

Acting Member Secretary, Institutional Ethics Committee, MAMC & Associated Hospitals.

Member of Serious Adverse Event(SAE) Committee, MAMC & Associated Hospitals.

Subject expert of Selection Committee for the post of Professor and Associate Professor under Career

Advancement Scheme (CAS) in the Dept. of Pharmacology, Faculty of Pharmacy, Jamia Hamdard University Member of Subject Expert committee (SEC) constituted by DCGI to to advice drugs Controller General India, in matters related to approval of (a) Clinical trials (b) New drugs and (c) New medical devices.

Member of Therapeutic Use Exemption Committee (TUEC), National Anti-dope Agency, CGO Complex ,New Delhi

Internal Expert for the appointment of Senior Residents for Department of Pharmacology, on regular basis Member of Courses Committee, Department of Pharmacology, Delhi University..

Member of Pharmacovigilance Committee of Department of Pharmacology, MAMC & Associated hospitals.

Member on the Panel of National Board of Examination for correction of DNB Theory papers.

Member, Institutional Ethics Committee, Action Balaji Hospital

Member, Institutional Ethics Committee, Action Cancer Hospital

Member, Institutional Ethics Committee, Indian Fertility Society, Delhi.

Member, Institutional Ethics Committee, Max Health Care Super Specialty Hospital, Vaishali, Ghaziabad.

Expert for the Technical Committee constituted to discuss issues relating to drug substitution and make recommendations there ongoing supervision in the country by DGHS.

Expert for Adhoc Codex Intergovernmental Task Force on Antimicrobial Resistance (TFAMR) constituted by FSSAI

Member of CSIR SRF/RA/SRA Selection Committee Meeting in the area of "Medical & Pharmaceutical Sciences (MEDIC-11)", CSIR Complex, Library Avenue, Pusa, New Delhi.

Member of the Board of Studies (BOS) for Pharmacology at Hamdard Institute of Medical Sciences, (HIMSR), Jamia Hamdard, New Delhi.

Expert for confidential meeting scheduled to be held in UPSC, Ayog Sachivalaya Building, Shahjahan Road, New Delhi 110069.

Member of the Departmental Research Committee for the conduct of scientific work.

Chairperson of Departmental Committee to review the Competency Based Medical Education Curriculum being rolled out by Medical Council of India 2019.

Resource person for Delhi Subordinate Services Recruitment board(DSSSB).

Expert for the interview of faculty positions for various posts in ESICMC & Hospital, Faridabad, ABVIMS, RML Hospital.

Dr Bhupinder Singh Kalra

Member, Purchase Committee, Maulana Azad Medical College

Member, Institutional Animal Ethics Committee, Maulana Azad Medical College

Member, College Condemnation and auction committee, Maulana Azad Medical College

Member, Courses Committee of Studies, Pharmacology, Faculty of Medical Sciences, University of Delhi

Nominee for CPCSEA, Ministry of Environment and forests (Animal welfare)

Link Nominee for CPCSEA, IAEC, IGIB, Delhi

Expert for setting paper for Pt.B.D. Sharma University of Health Sciences, Rohtak

Examiner, paper setter for University of Delhi

Dr Vandana Tayal

Member Secretary of Pharmacovigilance Committee of MAMC & Associated hospitals.

Member Secretary of Pharmacovigilance Committee for training Nurses

Member Secretary, Dissection Monitoring Committee for Maulana Azad Medical College

Member, Library Committee, Maulana Azad Medical College

Member of the Departmental Research Committee for the conduct of scientific work.

Expert for setting, validation and assessment of Question bank for National Board of Examination, Dwarka, New Delhi.

Examiner, paper setter for University of Delhi

PHARMACOLGY (VPCI)

Honors/Distinction

- Dr. Anita Kotwani is Member of Technical Advisory Group and Core working Group constituted by Ministry of health & Family Welfare, GOI on AMR to oversee and coordinate policy decisions and activities relating to AMR including development and operationalizing the National Action Plan on AMR.
- 2. Dr. Anita Kotwani is Member of Advisory panel of Journal of Pharmaceutical Policy and Practice
- Anita Kotwani was invited speaker and panelist "Antimicrobial resistance governance: behaviour and blame", One Health Roadmap Series: Chatham House, London, One Health Poultry Hub, (online) March 17, 2021
- 4. Anita Kotwani was invited as panelist for webinar on launch of report on," Infectious diseases of South-East Asia Region", as one of the contributors for the report, Centre for Disease Dynamics and Economic Policy, Washington DC & New Delhi, (online) February 23, 2021
- Anita Kotwani was invited for a panelist lecture, "Pharmaceutical effluent: a critical link in the interconnected ecosystem promoting antimicrobial resistance", Challenges in Prevention of Antimicrobial Resistance, National Conference on Pharmacy Practice, SGT University, February 15, 2021, SGT University, Gurugram, Haryana, India
- Invited plenary speaker, "Responding to AMR Consequences for Human Health", Workshop on
 Developing Community-Led Solutions to Antimicrobial Resistance: Building a One Health Approach in
 Low- and Middle-Income Countries, One Health Poultry Hub and the CE4AMR, (online) January 15,
 2021.
- 7. Dr. Kavita Gulati was invited to deliver Guest lecture during 3rd World Congress on Drug Discovery and Development-2021, entitled 'Translational research to validate the efficacy of UNIM-352, a polyherbal Unani formulation for bronchial asthma and elucidate the cellular and molecular mechanisms' Bangalore, 21st February, 2021

Invited Articles for newspapers and Science magazine/blog

Anita Kotwani and Jyoti Joshi. Why we need smart regulation to contain antimicrobial resistance. Down
to Earth, November 19, 2020. Available at: https://www.downtoearth.org.in/blog/health/why-we-needsmart-regulation-to-contain-antimicrobial-resistance-74311

- Anita Kotwani. Containing AMR contribution from pharmaceutical effluent involving multistakeholders. Economic Times-Health, November 10, 2020. Available at: https://health.economictimes.indiatimes.com/news/industry/containing-amr-contribution-frompharmaceutical-effluent-involving-multi-stakeholders-dr-anita-kotwani/79139970
- Anita Kotwani. Tackle AMR crisis alongside COVID-19. Indian Express-healthcare. September 6, 2020.
 Available at: https://www.expresshealthcare.in/blogs/guest-blogs-healthcare/tackle-amr-crisis-alongside-covid-19/424549/

Publications

- Kotwani, A., Joshi, J. & Kaloni, D. Pharmaceutical effluent: a critical link in the interconnected ecosystem promoting antimicrobial resistance. *Environ Sci Pollut* Res 2021. https://doi.org/10.1007/s11356-021-14178-w https://rdcu.be/cjMgU
- 2. Dasgupta R, Tomley F, Alders R, Barbuddhe SB, **Kotwani A.** Adopting an intersectoral One Health approach in India: Time for One Health Committees. Indian J Med Res. 2021 Mar;153(3):281-286. doi: 10.4103/ijmr.IJMR_537_21. PMID: 33906990.
- 3. **Kotwani A**, Joshi J, Sharma A, Kaloni D. Knowledge and behavior of consumers towards the non-prescription purchase of antibiotics: An insight from a qualitative study from New Delhi, India. *Pharm Pract* (Granada) Jan-Mar 2021;19(1):2206. doi: 10.18549/PharmPract.2021.1.2206. Epub 2021 Mar https://pharmacypractice.org/journal/index.php/pp/article/view/2206
- 4. **Kotwani A,** Joshi J, Over-the-counter sale of antibiotics Using Net-Map to identify and segment stakeholders as the first step towards the development of smart regulation, *Indian Journal of Medical Microbiology*, https://doi.org/10.1016/j.ijmmb.2020.12.003
- 5. **Kotwani A**, Gandra S. Potential pharmacological agents for COVID-19. *Indian Journal of Public Health* 2020; 64: S112-116.
- 6. Rintoul A, Colbert A, Garner S, **Kotwani A**, Vogler S, Bouvy J, Hill A. Medicines with one seller and many buyers: strategies to increase the power of the payer. *BMJ* 2020;369: m1705
- Porter G, Joshi J, Bhullar L, Kotwani A. Using 'smart regulation' to tackle antimicrobial resistance in low-income and middle-income countries. *BMJ Global Health* 2020;5e001864, doi 10.1136/bmjgh-2019-001864

8. Gulati K, Thokchom SK, Ray A. Impact of chemical warfare agents on immune system. In: Gupta RC (ed). Handbook of Toxicology of Chemical Warfare Agents, Third Edition. San Diego: Elsevier Inc./Academic Press, 2020: 685-704. https://doi.org/10.1016/B978-0-12-819090-6.00042-8

Short term training:

- 1. Ms. Ishita Bhutani, Amity University, Noida. Integrated course of B.Tech +M. Tech in Biotechnology (Dual degree) Translational research in traditional medicine. 15th February to 31st March 2021. Supervisor Dr. K. Gulati
- 2. Ms. Himanshi Saxena . Integrated course of B.Tech +M. Tech in Biotechnology (Dual degree) Experimental studies to evaluate the effects of traditional herbal drug in ovalbumin

induced model of bronchial asthma. 15th February to 31st March 2021. Supervisor Dr.

K. Gulati

Conferences and Workshops:

Workshop cum training programme on "Proposal Writing and Ethical Issues in Biomedical Research", Organizing Secretary Prof. Kavita Gulati dated 11th Mar 2021

PHARMACOLOGY (UCMS)

1. Major Activities And Achievements

The department has introduced Computer Assisted Learning, PBL and OSPE as teaching and learning method for MBBS and MD students. The Department of Pharmacology has contributed significantly to various academic and research activities for the progress of the disciplne. The faculty and post graduate students of the department published research papers in peer reviewed national and international journals(PUBMED indexed). The teaching and non teaching staff actively performed their duties in GTB hospital and Covid lab. Faculty and post graduate students have participated in several online National and International scientific meetings/workshops. Dr Rachna Gupta, Professor and Head of the department, served as a member of expert committee for 'National Formulary of India' and As Expert Member in 'Signal Review Panel', Indian Pharmacopoeia Commission, Ministry of Health & family welfare, Government of India. She is delegated as member of Executive Committee, Delhi Pharmacological Society.

2. Publications

- 1. Labh, R., Gupta, S., & Gupta, R (2020). Advances in pharmacovigilance in India: Role of mobile application. Ind J Med Spec, 11, 124-126.
- 2. Labh R., Gupta, R.(2021). Emerging Trends in the Long-Acting Antiretroviral Therapy: Current Status and Therapeutic Challenges. Curr HIV Res, 19,4-13.
- Tafseer, S., Gupta, R., Ahmad, R., Jain, S., Bhatia, M. S., & Gupta, L. K. (2021). Bupropion monotherapy alters neurotrophic and inflammatory markers in patients of major depressive disorder. Pharm Biochem Behav, 200, 173073.
- Kumari, M., Saifi, A., Khan, M.A., Arora, V.K., Shamsi, Y., Halder, S., Ahmed, R.S. (2020). Acute and subchronic oral toxicity studies of majun brahmi and itrifalmuqawwidimagh (traditional unani formulations) in rats. Phcog Res. 12, 169-75
- Hoda, U., Jain, S., Samim, M., Jain, G. K., & Agarwal, N. B. (2021). Embelin ameliorates cognitive dysfunction and progression of kindling in pentylenetetrazol-induced kindling in mice by attenuating brain inflammation. Epilepsy& Behavior, 116, 107788.

3. Seminar/Conference Presentations

Dr Rachna Gupta

- 1. Participated as Resource person in Revised basic workshop, 23-24 March 2021 UCMS Delhi
- 2. 12th Indian Society for Rational Pharmacotherapeutics (ISRPT) Conference online Organized by Department of Pharmacology, PGIMER, Chandigarh, India-160012 on 12th-13th February, 2021
- 3. Pharmacovigilance Workshop Online organized by Dept of Clinical Pharmacology, Seth GSMC & KEMH Mumbai with PvPI-IPC on 08-01-2021
- 4. Workshop on Good Clinical Practices organized by ASMCS Firozabad & GIMS, Greater Noida, UP through webinar on 23rd October,(2020)
- 5. Workshop on "Basic Research Methodology and Thesis Writing in Physiology" online organized by the Department of Physiology, AIIMS, Jodhpur from 17th to 23rd August, (2020).
- 6. Pharmacology Webinar Series organized by Indian Pharmacological society. 5-27September (2020)
- 7. Webinar on Challenges In Diagnosis And Pharmacotherapy of COVID 19 organized by Delhi Pharmacological Society and Society For Promotion And Research Of Cardiovascular Sciences on 5th September (2020)
- 8. ISRPT Webicon (2020) on 10th October, (2020) organized by TMMC &RC, Moradabad
- 9. Webinar-series Introduction of CBME in Pharmacology Teaching and Training on 14,21, 28 Aug & 4,11,18 Sep (2020) organized by National MD Pharmacology
- 10. Regulated Bioanalysis Workshop Online organized by United States food & Drug Administration on 30 June, (2020)

Dr Seema Jain

- 11. Revised Basic Course Workshop on 23-25 March 2021 organized by Medical education unit, UCMS, Delhi
- 12. CME on "COVID-19 Pandemic updates" on 12 December (2020) organized by Department of Pharmacology, Government Medical College, Idukki
- 13. Online Workshop on Pharmacovigilance on 27 November (2020) organized by Department of Pharmacology Chettinad hospital and research institute Tamilnadu
- 14. Online Workshop on systematic review and metaanalysis on 9th,12th 16th 19th October (2020) conducted by Medical education unit, UCMS, Delhi
- 15. Online Workshop on Innovative Teaching Learning methods on 19 September (2020) organized by Department of Physiotherapy, Kasturba medical college, Manglore
- 16. Online Curriculum Implementation Sensitization Programme (CISP) workshop 11-12 September (2020) organized by Medical education unit, UCMS, Delhi
- 17. Webinar on COVID 19 organized by Indian Journal of Pharmacology (IJP) & Indian Pharmacological Society (IPS) on 22nd August, (2020)
- 18. Online Clinical trial Process for New Drugs/Vaccines" on 08th August, (2020)organized by the Department of Pharmaceutical Sciences, GJUS&T, Hisar
- 19. Online CME Pharmacologic Approaches to Treatment of COVID-19 on 25th July, (2020) at Hind Institute of Medical Sciences, Mau, Ataria, Sitapur U.P.

Dr Sumita Haldar

- 20. CISP workshop for implementation of New MCI curriculum based on CBME on 11 th and 12 Sept (2020) on online platform organised by MEU,UCMS.
- 21. Workshop on 'Systematic Reviews and metaanalysis" from 9-10-(2020) to 18-10-(2020), organised by MEU, UCMS
- 22. Workshop on "Biostatistics" organised by Indian academy of Geriatrics from 27 th Jan -10 th March 2021:online weekly.
- 23. Revised basic course workshop for Medical EducationTechnologies from 23rd-25 th March 2021 organised by MEU, UCMS and MAMC, NMC regional centre

Dr Sandhya Rani Gautam

- 24. Virtual National Conference Traditional Medicine- Challenges & Opportunities organised by AIIMS Jodhpur on 19th and 20th March 2021.
- 25. Online CME cum e- workshop Meteriovigilance: Ensuring Safety of Medical Devices organised by AIIMS Patna on 25th March 2021

Dr Proteesh Rana

26. Online CME cum e- workshop Meteriovigilance: Ensuring Safety of Medical Devices organised by AIIMS Patna on 25th March 2021

Dr Yashika Garg

27. Continuing training program at ESIC DC Rohini on human research protection and Good Clinical Practices on 25march2021

4. Faculty Strength 7

5. Other Significant Information

The department in collaboration with IPC Ghaziabad is participating in the Pharmacovigilance Programme of India. Competency-based medical education (CBME) Under Graduate curriculum is introduced for MBBS students.

PHARMACOLOGY (LHMC)

1. Major activities and achievements (Maximum 150 words):

In the period from 1stApril 2020 to 31st March 2021, the department has contributed significantly for progress of the discipline. The faculty and post graduate students of the department presented papers in national and international conferences. A total of 6research papers have been published in peer reviewed PUBMED indexed national and international journals. Dr. H.S Rehan, Director-Professor and Head of the department, served as a member of subject expert committee of CDSCO in various disciplines, dissection monitoring committee of UGC. Dr. Lalit Kumar Gupta, Director-Professor of the department, served as as a member of subject expert committee of CDSCO in various disciplines. The department in collaboration with IPC Ghaziabad is participating in the Pharmacovigilance Programme of India and Materio-vigilance Program of India and is regarded among the top five national centres in terms of adverse drug reaction monitoring.

2. Honours/ distinctions:

Dr. HS Rehan is member of national Casualty assessment committee for AEFI and Casualty assessment committee AEFI for COVID vaccines

Dr. HS Rehan and Dr. LK Gupta are members of Standing National Committee for "National List of Essential Medicines-2021".

Dr. C. Zorampari, Junior resident in the Department of Pharmacology, Lady Hardinge Medical College participated in "ISRPT-Webicon 2020 held on 10th October 2020 at TMMC & RC, Moradabad" and presented a paper titled: 'Serum Dipeptidyl peptidase-4 levels in patients of bronchial asthma' and secured first position in Paper Presentation.

In the same conference Dr. Mohit Kher, Senior resident in the Department, presented a paper titled: Effect of metformin and insulin combination on monocyte chemoattractant protein-1 and cathepsin-D in type 2 diabetes mellitus. It had secured second position.

3. Publications Total number in indexed journal: 6

Kher M, Beri S, Rehan HS, Prakash A, Gupta LK. Effect of metformin and insulin combination on monocyte chemoattractant protein-1 and cathepsin-D in type 2 diabetes mellitus. Diabetes Metab Syndr. 2020 Nov-Dec;14(6):1703-1710.

Gurha N, Rehan HS, Yadav M, Gupta LK. Association of statin induced reduction in serum coenzyme Q10 level and conduction deficits in motor and sensory nerves: An observational cross-sectional study. Clin Neurol Neurosurg. 2020 Sep;196:106046.

Maini J, Rehan HS, Yadav M, Gupta LK. Exploring the role of adipsin in statin-induced glucose intolerance: a prospective open label study. Drug Metab Pers Ther. 2020 Apr 6;35(1).

Manocha S, Suranagi UD, Sah RK, Chandane RD, Kulhare S, Goyal N, Tanwar K. Current Disposal Practices of Unused and Expired Medicines Among General Public in Delhi and National Capital Region, India. Curr Drug Saf. 2020;15(1):13-19.

Rehan HS, Banerjee I, Suranagi UD, Goyal N. Do pharmacology faculties welcome the new competency-based undergraduate curriculum? A nationwide questionnaire-based study. Natl J Physiol Pharm Pharmacol. (2020);10(6): 450-454.

Suranagi UD, Rehan HS. Remdesivir: Remedy the world is waiting for? Med J Armed Forces India. 2020 Jul;76(3):250-252.

4. Journals (Published/ Teachers as editorial board members)

5. Research projects:

A.

- i. Correlation of genetic polymorphism and altered expression of serum markers of appetite and lipid metabolism with atypical antipsychotic induced weight gain in schizophrenic patients A Prospective observational study. By Dr. Alapan Das
- ii. Serum Angiotensin converting enzyme (ACE) level in patients of Migraine and Non-Migraine Primary Headache Disorder. By Dr. Ridhi Chhabra
- iii. Vitamin D receptor polymorphism in type 2 diabetes mellitus patients. By Dr. Sammya Bhowmick

Guide and Co-guides: Dr. H.S.Rehan, Dr. Lalit Kumar Gupta

- B. Ongoing audit of prescriptions in both IPD/OPD of Lady Hardinge Medical College with appropriate interventional strategies.
- C. Patient safety interventions through Pharmacovigilance programme of India.

9. Seminar/conference presentations:

- i) Dr. H S Rehan presented the following talks/Guest Lectures:
 - Delivered a talk in the Webnar entitled "Safety of Medical Devices: A Clinical Experience" on 15th May, 2020.
 - Guest speaker (Online) in the Induction-cum-Training Program on Pharmacovigilance held at Indian Pharmacopoeia Commission, National Coordination Centre, Pharmacovigilance Program of India, Ghaziabad from 12th Jan, 2021.
 - Presented a talk entitled "Rational Pharmaco-therapeutics during the era of COVID-19" in 12th Annual ISRPT conference -2021 organised by PGIMER, Chandigarh, held online platform on 12th & 13th February 2021.

- 4. Delivered a talk entitled "Fixed Dose Combination: Merits and Demerits" in CNE organized by CNE department KSCH on 22nd February, 2021.
- Delivered a talk entitled "Good Clinical Practices" at ITS Dental College, Muradnagar, UP on 13th March 2021.
- 6. Delivered a talk entitled "Pharmacokinetics of Therapeutic Drug Monitoring:" in a Webnar organized by the Department of Biochemistry, Lady Hardinge Medical College on 19th March, 2021.
- 7. Delivered a talk entitled "Pharmacotherapy of COVID 19" in CNE organized by CNE department KSCH on 23rd March, 2021.
- ii) Dr. L. K. Gupta participated in continuing Training Program on "Human research protection and Good Clinical Practice" for Institutional Ethics Committee members being organized on 25th March 2021 at ESIC Dental College and Hospital, Sector 15, Rohini as Guest Faculty and talked on
- 1. Informed Consent Process: Record keeping and Data handling
- 2. Safety reporting in regulatory and non-regulatory trials: SAE Reporting Timelines, Casualty Assessment and Compensation
- 15. Number of PhD/M.Phil/ MD awarded: MD (Pharmacology) awarded to two students.
- 16. Number of faculty:

Professor -6; Associate Professor-3; Assistant Professor-1

12. **Any other significant information**: The department in collaboration with IPC Ghaziabad is participating in the Materiovigilance and Pharmacovigilance Programme of India and is among the top five national centres in terms of reporting and monitoring adverse drug reaction.

PHYSIOLOGY (UCMS)

1. Major Activities and Achievements

The department carries forward a rich legacy as its first departmental chair was the renowned Physiologist Padma Vibhushan Dr Autar Singh Paintal who also happened to be the first Principal of the institution. In 1976, Dr K N Sharma joined the UCMS, as Professor of Physiology. He was a great teacher and researcher, a competent administrator, had a strong work ethic and was actively involved in medical education. Soon, he became Principal of UCMS and shaped the great institute to its present glory.

The department is actively engaged in the basic and applied research in the fields of cardiovascular, respiratory, neurophysiology, clinical electrophysiology including evoked potential, yoga research, academic medicine, clinical medical ethics and health humanities. The department assists in the teaching of health professions education for MBBS, BSc Nursing, and BSc Physiotherapy, BSc Medical Technology, BSc Radiography and open classes.

2. Honours/Distinctions

- 1. Dr Neelam Vaney Appointed Dean, Faculty of Ayurvedic & Unani Medicines,
- 2. Homeopathic Sciences ,University of Delhi, Delhi
- 3. Dr Satendra Singh- Awarded by His Excellency President of India with the National Award at the 11th National Voters' Day for making the elections in India disabled-friendly-25 Jan 2021
- 4. Dr Satendra Singh Co-Chair, International Council for Disability Inclusion in Medical Education (2021-23)
- 5. Dr Satendra Singh -Bucksbaum International Scholar, Bucksbaum Institute for Clinical Excellence at University of Chicago
- Dr Satendra Singh Member, Delhi State Committee for Research on Disability (2019-2022)
- 7. Dr Satendra Singh -Executive member and life member, Academy of Health Professions Educators

- 8. Dr Satendra Singh -Honorary Lifetime Membership of Association for Transgender Health in India Member, Indian Professional Association for Transgender Health (IPATH)
- 9. Dr Satendra Singh -Member of the Standards Development Group to develop global WHO Standards for Wheelchair Service Provision
- 10. Dr Satendra Singh -Domain expert (Health) in the State Advisory board for State Commissioner (Disabilities), Govt of Delhi.

3. Publications

- 1. Dutt R, Shankar N, Srivastava S, Yadav A, Ahmed RS. (2020) Cardiac autonomic tone, plasma BDNF levels and paroxetine response in newly diagnosed patients of generalised anxiety disorder. International Journal of Psychiatry in Clinical Practice; 24(2): 135-142
- 2. Dhaliwal U, Singh S, Nagpal G, Kakkar A. (2020) Perceptions of specialist doctors of the ability of doctors with colour vision deficiency to practise their specialty safely. Indian J Med Ethics. (2020); 5(4)NS: 268-77. DOI: 10.20529/IJME..110.
- 3. Parul Horo and Farah Khaliq. (2020) Stress and coping strategies in medical fraternity during COVID 19 Pandemic. Delhi Psychiatry Journal; 23 (2): 7-13.
- 4. Owen A, Singh S, Kirschner KL. (2020) Disability activism and non-invasive prenatal testing: A response to Breimer. Indian J Med Ethics.; 5(4): 290-3.
- 5. Samiksha Goyal and Farah Khaliq. (2020) Sources and Severity of Stress in Various Domains among First Year Medical Students and its Relationship with their Academic Performance: A Cross Sectional Study. International journal of Physiology; 8 (4): 64-71.
- 6. Singh S, Meeks LM, Dhaliwal U. (2020) Forging an ethical pathway: Disability accommodation, diverse voices, and standards of care. Indian J Med Ethics; 5(4): 264-7.
- 7. Singh S, Dhaliwal U, Singh N. (2020) Developing humanistic competencies within the competency based curriculum. Indian Pediatr;57(11):1060-6
- 8. Singh S. Disability ethics in the coronavirus crisis. (2020) J Family Med Prim Care;9:2167-71
- 9. Meeks LM, Maraki I, Singh S, Curry RH. (2020) Global commitments to disability inclusion in health professions. Lancet.;395(10227):852-53.
- 10. Singh S, Cotts KG, Maroof K A, Dhaliwal U, Singh, N, & Xie T. (2020) Disability-inclusive compassionate care: Disability competencies for an Indian medical graduate. J Family Med Prim Care.;9:1719-27.
- 11. Vishakha, Gupta M, Singh S, Aggarwal A. (2020) Effect of 8 week of yoga on anthropometry parameters in type 2 diabetes mellitus: a randomized control study. International Journal of Medical and BiomedicalStudies;4(9):84-9.
- 12. Vishakha, Gupta M, Singh S, Aggarwal A. Hatha Yoga: (2020) Effect On Lung Volumes Including Diffusion Capacity In Uncomplicated Type2 Diabetes Mellitus. International Journal of Health and Clinical Research; 3(7):181-90

Chapters in Books:

- 13. Singh S. Foreword in Equal Access for Students with Disabilities: The Guide for Health Science and Professional Education (2nd Ed). In: Meeks LM, Jain NR, Laird EP (Eds). Springer Publication. (2020)
- 14. Khetarpal A & Singh S. Disabled lives in India with an undercurrent of pain. In: Padfield D, and Zakrzewska JM (Eds) 2021. Encountering Pain: hearing, seeing, speaking. London: UCL Press.(pp. 300-14)

4. Journals

Number of Department teachers serving as Editor(s)/Member(s) of Editorial board-3

5. Seminars Organized

Dr Satendra Singh

- 1. Symposium on Navigating Doctor-Patient Relationships organised with Vidhi Centre, Forum for the Medical Ethics Society and Bucksbaum Institute for Clinical Excellence, University of Chicago, 15-16 Feb (2020)
- 2. Disability-inclusive Compassionate Care workshop with Medical Education Department, KMC Manipal on 14 Jan (2020)
- 3. Shared Decision Making workshop with Medical Education Department, KMC Manipal on 13 Jan (2020)

6. Seminar/Conference Presentations

Dr Goyal, Shilpi

- Revised Basic Course Workshop in Medical Education Technologies. NMC regional center, MAMC, New Delhi, conducted by Medical Education Unit, UCMS & GTB Hospital, Delhi 23-25 March 2021
- Workshop on "Applications of RT-PCR Technique in Clinical Research" organized by Multidisciplinary Research Unit, UCMS & GTB Hospital, Delhi-10 March 2021
- Dr Gupta, Manish -Virtual biennial SAAP VII and PSI conference 2021,organised by Department of Physiology HIMSAR, Delhi24-25th March,2021.

Dr Khaliq, Farah

- Chairperson and Judge in Virtual Biannial SAAP summit and PSI conference 2021. Organized by Department of Physiology, Hamdard Institute of Medical Sciences & Research, New Delhi -23 - 25 March 2021
- 5. Judged a session in the International conference on Emerging trends in research emphasis on Basic Medical Sciences. at AVMC and Hospital, Puducherry. 23 25 March 2021
- Two weeks faculty development program on Managing Online classes and Co-creating MOOCS -20th April to 6th May (2020)
- 7. Ten hour online workshop on Systematic review and Meta analysis Conducted by Medical Education Unit, UCMS & GTB Hospital, Delhi.-October'(2020)
- 8. APPI National award function and CME 2021 at ESI Medical College and Hospital, Faridabad-26-27March'2021
- 9. Pre-Conference Medical Education Workshop organized by Department of Physiology, Hamdard Institute of Medical Sciences & Research, New Delhi-17th March, 2021
- 10. National Webinar on using SPSS to understand research and data analysis. Organized by Adity Mahavidyalaya, University of Delhi. 24th May, (2020)
- 11. Webinar on Professionalism on the frontline Ethical issues that arise during pandemics. Organized by Elsevier April, (2020)
- 12. AHPE Lecture Series on various tools for online teaching and learning methods, assessment methods, strategies & challenges in teaching in COVID Era April, (2020).
- 13. Pre-Conference Workshop on Recent advances in Physiological techniques (RAPT) organized by Department of Physiology, Hamdard Institute of Medical Sciences & Research, New Delhi. Dr Pinjar, Mohammed Jaffer
- 14. Inculcation of Research and Innovation Spirit in Postgraduate Medical Students and Faculty under the aegis of National Academy of Medical Sciences (NAMS), Organized by Center for advanced research on platelet signaling and thrombus biology (ICMR), Department of Biochemistry, Institute of Medical Sciences, Banaras Hindu University, Varanasi, UP, India.March'2021
- 15. Virtual biennial SAAP VII and PSI conference 2021,organised by Department of Physiology HIMSAR, Delhi. March'2021
- **16.** CME on "GUT Microbiome, Nutrition & its Impact on Physical and Mental Well-being"organised by Department of Physiology AIIMS, Bibinagar, Telangana, India. February'2021
- Cardiocon Ahmedabad- Cardiology Virtual Updates 2021 and has been granted 4 CME Credit Hours by Gujarat Medical Council. February'2021 <u>Dr Vaney, Neelam</u>
- 18. Two weeks faculty development program on "Managing online classes and Co-creating MOOCS', Organized by Teaching Learning Centre, Ramanujam College, University of Delhi- April 20-May 6, (2020)
- 19. Webinar Series organized by CMCL-FAIMER-April'(2020)
- 20. AHPE Lecture Series on various tools for online teaching and learning methods, assessment methods, strategies & challenges in teaching in COVID Era April'(2020)
- 21. Chairperson in Virtual Biannial SAAP summit and PSI Conference 2021. Organised by Department of Physiology, Hamdard Institute of Medical Sciences & Research, New Delhi March'2021
- 22. APPI Award function Chairperson for the Prof Baldev Singh Oration Award & Prof R C Shukla Oration Award. March'2021
- 23. Judge for R . Srinivasan Prize for best paper presented by PG student At ESI Medical College & Hospital Faridabad. March'2021 Dr. Yadav, Asha
- 24. Webinar Series organized by CMCL-FAIMER-April'(2020)
- 25. AHPE Lecture Series on various tools for online teaching and learning methods, assessment methods, strategies & challenges in teaching in COVID Era April'(2020)

- 26. Webinar on "Healthcare Delivery in COVID times 3 how to protect oneself? (Pre/Para Clinical Specialties)" organised by Department of Medicine, GTB Hospital. May'(2020)
- 27. Webinar on "COVIMPRESSIONS: Local Action Global Impact" organised by Johns Hopkins University, Bloomberg School of Public Health and University College of Medical Sciences. May'(2020)
- 28. Webinar on "COVID-19 and Health Disparities: Protecting Our Most Vulnerable Populations" organised by the Chicago Center for Diabetes Translation Research, University of Chicago. June' (2020)
- 29. Webinar on "Oxygen therapy for Covid-19 patients practical considerations" organised by Department of Anaesthesia, GTB Hospital. August'2021.
- 30. Invited speaker in an e-symposium organized by the Santosh deemed to be University and delivered lecture on "Diabetes Mellitus & Pancreas; role of insulin"
- 31. Virtual Biennial SAAP VII and PSI Pre-Conference workshop on "Recent Advances in Physiological Techniques" Organized by Hamdard Institute of Medical Sciences & Research, Jamia Hamdard, New Delhi. March' 2021
- 32. Virtual Biennial SAAP VII and PSI Conference 2021 on "Physiological Sciences for betterment of health" Organized by Hamdard Institute of Medical Sciences & Research, Jamia Hamdard, New Delhi from 24-25th March, 2021.
- Dr. Vishakha- Revised Basic Course Workshop in Medical Education Technologies. NMC regional center, MAMC, New Delhi, conducted by Medical Education Unit, UCMS & GTB Hospital, Delhi 23-25 March 2021

7. Other Inter-Institutional Collaboration

Dr Satendra Singh - Adjunct Faculty, Department of Medical Education, KMC Manipal Academy of Higher Education

Dr Neelam Vaney - Appointed as External Examiner M.B.B.S. Programme of Studies- To oversee the curriculum and conduct of I Prof., II Prof. & Final Prof. M.B.B.S. (Part I & Part II) examinations for academic year- Sir Seewosagur Ramgoolam Medical College (SSRMC), University of Mauritius, Reduit, Mauritius - 2016 Onwards

8. Extension and Outreach Activities

Dr Satendra Singh

- 1. Inaugural meeting of International Council for Disability Inclusion in Medical Education on 30 Mar 2021
- 2. Panelist for 'Bias in STEM' panel Discussion at India Science Fest, Jan 31, 2021
- 3. Guest speaker on 'Disability Competencies' at Adesh Institute of Medical Sciences & Research, Punjab on 24 Jan 2021.
- 4. Guest lecture on 'Medical Humanities' at Govt Instt of Medical Sciences, Greater NOIDA on 23 Jan 2021.
- 5. Speaker at the 8th National Bioethics Conference on Dec 19, 2020 on the topic 'Recover better: Building towards inclusive & resilient post-COVID world.'
- 6. Took a session on 'Advocacy as a humanistic competency for health professions education' at the first International Health Humanities Conference at SSIMRC, Tumkur on 10-12 Sept, 2020
- 7. Speaker at 'Impact of COVID19 on the Rights of Persons with Disabilities' consultation organised by National Human Rights Commission on Sept 1, 2020
- 8. Speaker on Legal & social issues at the certification course on Gender Friendly Healthcare Facility by Association for Transgender Health in India on 15 Aug 2020
- 9. Speaker at Erwadi Memorial Day to mark Human Rights Day for persons with mental illness hosted by the Schizophrenia Awareness Association on 6 Aug 2020

Dr Neelam Vaney

- 10. UG Ordinance for New CBME curriculum of University of Delhi
- 11. UG Ordinance for BAMS & BUMS course of University of Delhi

9. Faculty Strength: 10

PHYSIOLOGY (LHMC)

1. Major Activities and Achievements: (Maximum 150 words)

The Department conducted all academic activities of MBBS, MD, Nursing & PTT students online. Additionally, various research programs which includes recording of neurophysiological tests including P300, Nerve Conduction, Cognitive Functions, Pulmonary Function Tests and Heart Rate Variability were done in the Department. The studies involved the patients of Attention Deficit Hyperactivity Disorders (ADHD), Parkinsonism, Schizophrenia, Chronic Obstructive Pulmonary Disease (COPD), Diabetes Mellitus Type-2, Rheumatoid Arthritis, Asthma and Hypothyroidism.

Department of Physiology has successfully organized online "All India Online Physiology Festival, 7th to 10th December2020 in which Thirty-Five Teams from Medical Colleges from different parts of India have participated.

The Faculty members and Residents were posted for duties during COVID -19 Pandemic in Covid Control Room, YMCA Covid Care Centre, Covid Ward, Flu Clinic, Covid testing centre and Covid Vaccination Centre at LHMC. The Residents have done the screening work at International IGI Airport for the International Passengers. Two of technical staff from the department were posted in Microbiology Department for RTPCR lab tests.

2. Publications:

- 1. Manawat R, Shweta, Sharma VK. Association of anthropometric variables with dyslipidemia in obesity. Natl J Physiol Pharm Pharmacol 2020;10(09):716-721
- 2. Namita, Bandhu R,Gautam S, Chaudhury D, Mondal S.Assessment of cognitive function using neuropsychological test battery in mild to moderate COPD patients. IJSR 2020, 9(5):31-34.
- 3. Namita, Mondal S., Bandhu R., Mechanism of Biological Aging A Review . International Journal of Physiology 2021.9(1):23-29.
- 4. Uppal M, Gautam S, Lakra M V, Betigeri AV, Gandhi A, Mondal S.Effect of Partial Sleep Deprivation on Neurocognitive Functions in Female Nursing Students: An observational study in India. Int J Cur Res Rev 2020,12 (14): 49-55.

Abstract

- 1. Agarwal M, Sharma P. Diurnal variation in energy expenditure and fat oxidation rate after an acute bout of moderate-intensity exercise by young males. Proceedings of International e-Conference on Emerging Trends in Research Emphasis on Basic Medical Sciences; 2020 Sep 17-19; Aarupadai Veedu Medical College Puducherry; 2020. p. 167.
- 2. Lahkar A, Mondal S, Monga M, Pangtey GS. Effect of disease activity on cognition in Rheumatoid Arthritis patients. Proceedings of the 6th Annual and 1st Virtual International Conference of Basic and Applied Physiology; 2020 Oct 5-7; Sikkim Manipal Institute of Medical Sciences, Gangtok, Sikkim, India. p44-45.

4. Journals:

- Number of Departmental Teachers Serving as Editors, member of Editorial Board:
- > Reviewer "Indian Journal of Physiology & Pharmacology".
 - o Dr Sunita Mondal:
 - o Dr Rajiv Bandhu:
 - o Dr Sujata Gautam:
 - o Dr Anita Pawar:
 - Dr Madhulika Monga:
- > Dr Rajiv Bandhu: Advisory Board Member of International Journal of Physiology.
- Dr Gauray Swami: "Member of editorial board Journal of Clinical Diagnosis and Research".

5. Research Projects:

S.No.	Name of Investigators from LHMC	Project In charge	Title of the Project Scheme	Name of Funding agency	Budget in Rs.
1.	DrAnupam Prakash,	Dr. Raghavendra Rao M, Director, CCRYN	Effect of an integrated Yoga	DST	Rs.27,56,860/-
	(Medicine)		program on stress, mood states, sleep quality, symptom		
	Dr Shubha laxmi Margekar		severity, quality of life and clinical		
	(Medicine)		outcomes in Covid19 positive patients undergoing		
	Dr Anil Gurtoo, (Medicine)		conventional treatment: A Multicentric trial		
	Dr. Sunita Mondal,		Watteenare trai		
	(Physiology)				
	Dr.Sujata Gautam				
	(Physiology)				
Non Fun	ded Projects : Departme			Г	
Sr No.	Name of Investigators	Project In charge	Title of the Project Scheme	Name of Funding agency	Budget in Rs.
1.	Dr.Sunita.Mondal (Physiology) Dr. Namita (Physiology)	Dr. Madhulika Monga Professor	Electrophysiological Study of Cognitive Function in Children with Idiopathic Childhood Epilepsy.	None	NIL
	Dr Suvashini Sharma (Paediatrics)				
2.	Tanvi Jha Dr. Anita Pawar (Physiology) Dr. Rajinder K Dhamija (Neurology)	Dr. Anita Pawar	Circadian & Seasonal variation of Migraine attacks in Indian Population.	None	NIL

Sr No.	UG Student	Торіс	Supervisor	Funding Agency		
Year 2020	0					
1.	Ms Ashima	"Assessment of Cardiorespiratory Fitness, Physical Activity and, Cognitive Functions and it's Correlation with Screen Time Based Sedentary Behaviour in Young Adults".	Dr Sujata Gautam	ICMR		
Departmental Thesis Work						
Sr No.	Name of The Student	Supervisor/Co Supervisor	Topic of Thesis			
1.	Dr Rohit Saroha (3 rd Year PG student)	(Physiology) Co supervisor: Dr Madhulika	'Event related potentials in children with Attention Def and Hyperactivity Disorder.(Submitted)			
2.	Dr. Ankita Lahkar (3 rd Year PG student) Supervisor: Dr. Sunita Mond (Physiology) Co-Supervisors: Dr.Madhulika M (Physiology) Dr. Ghan Si Pangtey (Medicine) Dr. Smita Tripati		Cognitive functions and Rheumatoid Arthritis. (Submitted)	d Inflammatory	markers in patients of	
3.	Dr. Manvir Singh Mathur (3 rd Year PG student) Co-Supervisors: Dr. Rajiv Bandhu (Physiology) Co-Supervisors: Dr. Gaurav Swami (Physiology) Dr Dinesh Kataria (Psychiatry)		Evoke potential undergoing,Methylpher (Submitted)	in children nidate treatment.		
4.	Dr. Sonia Mohriwal (3 rd Year PG student)	Supervisor:	Spirometry in patients Vitamin D and inflamn (Submitted)		Asthma and levels of	

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		(Physiology) Dr Debashish Chaudhary (Medicine) Dr Ritu Singh (Biochemistry)	
5.	Dr Dinesh M (3 rd Year PG student) Deptt of Psychiatry	Co Supervisor: Dr. Sunita Mondal (Physiology)	A Cross Sectional Study on Metabolic Syndrome, Sleep Quality and Lung Function in Persons with Schizophrenia. (Submitted)
6.	Dr Sunil Kapoor (3 rd Year PG student) Deptt of Medicine.	Co Supervisor: Dr. Sunita Mondal (Physiology)	Assessment of Cardiovascular Autonomic Dysfunction in Idiopathic Parkinson's Disease. (Submitted)
7.	Dr Nasar Ajmera (2 nd Year PG student)	Supervisor: Dr. Anita Pawar (Physiology) Co-Supervisor: Dr Rajiv Bandhu (Physiology) Dr Tanmaya Talukdar (Pulmonary Medicine)	Effect of Device Type on Disease Control and Quality of Life in Bronchial Asthma Patients (Ongoing)
8.	Dr Muneeb Kosvi (2 nd Year PG student)	Supervisor: Dr Sunita Mondal (Physiology) Co Supervisor: Dr Gaurav Swami(Physiology) Dr Rajeev Goyal (Biochemistry) Dr Debasish (Medicine)	Pulmonary Functions and Inflammatory Markers in Patients of Hypothyroidism (Ongoing)
9.	Dr Divya R (1 st Year PG student)	Supervisor: Dr Rajiv Bandhu (Physiology) Co-Supervisor: Dr. Sujata Gautam (Physiology) Dr Rajinder K. Dhamija (Neurology)	P300 and Brainstem Auditory Evoked Potentials in Patients with Parkinson's Disease.
10.	Dr Vikas Singroha (1 st Year PG student)	Supervisor: Dr Madhulika Monga (Physiology) Co-Supervisor: Sunita Mondal (Physiology) Dr Dinesh Kataria (Psychiatry)	Study of Cognitive Functions in Opioid Use Disorder Patients.

11.	Dr Sabah Fatima	Co Supervisor: Dr.	Change in Polysomnographic after Laproscopic Sleeve
	(1 st Year PG	Sunita Mondal	Gastrectomy in Patients with Morbid Obesity.
	student	(Physiology)	
	(Deptt of Surgery)		

Seminar Organized:

S. No.	Faculty Member	Organiser(s)	Name, Venue and date
1.	Dr. Madhulika Monga	Member of organising team, Delhi State Legal Services Authority. SLM-Law and Ethics ,Under MEU ,LHMC.	E-Add-On-Course for Legal Awareness by Delhi State Legal Services Authority from 10.08.2020 to 14.09.2020
2.	Dr Sujata Gautam	Member of organising team, LHMC, New Delhi	Orientation Program for MBBS 2020 Batch
3.	All Faculty Members	Organizing Chairperson: Dr Mondal Organizing Secretary: Dr. Madhulika	Intra College Physiology Festival, 27 th October, 2020.
3.	Dr Sunita Mondal Dr Shweta	Member of organising team, LHMC, New Delhi	Celebration of Communal Harmony Campaign Week, under aegis of National Foundation for Communal Harmony(NFCH). from 19 th to 25 th November 2020 in LHMC,N Delhi.
5.	Dr.Mondal Dr Madhulika Dr Anita Pawar	Organizing Chairperson: Dr.Mondal Organizing Secretary: Dr. Madhulika Dr Anita Pawar	All India Online Physiology Festival, 7 th to 10 th December2020.

${\bf Seminar\ Conference\ Presentations} ({\bf National/International})$

S.No.	Name and Designation of the participant	Role/Topic	Organiser	Name of Training/workshop/conferent and Date	the ce Venue
Nation	al Conference				

1.	Dr Madhulika	Judged E- Poster Presentation	Sikkim Manipal Institute of Medical College. Gangtok ,Sikkim	Virtual International conference of Basic and applied Physiology ICONBAP at Sikkim Manipal Institute of Medical College. 6 th and 7 th October 2020.
WORK	SHOP/ TRAININ	G		
2.	Dr Madhulika	Resource Faculty	MEU, LHMC,N Delhi	CISP II Workshop conducted by MEU, LHMC on 16 th and 17 th September 2020.

Faculty Strength:

Director Professor & HOD	i. Dr. Sunita Mondal
Professor	i. Dr. Rajiv Bandhu
	ii. Dr. Sujata Gautam
	iii. Dr. Anita Pawar
	iv. Dr. Madhulika Monga
	v. Dr. Sandeep Singh Chouhan*
	vi. Dr. Gaurav Swami
	vii. Dr. NeerajVerma
	viii. Dr. Mary Vibha Lakra
	ix. Dr. T Krishna Kishore
Associate Professor	i. Dr Puneet Kumar
	ii. Dr Dharmendra Kumar Basu
	iii. Dr Shweta
	iv. Dr.Pankaj Kumar Keshri,
Members who have joined during this period	*Joined on 25 th September 2020 after posting from ABVMC &
	RML Hospital.

Other Significant Information:

- 1.Dr Sunita Mondal has done work as a Reviewer for lectures to be uploaded on DTH Swayam Prabha Ministry of Human Resource Development.
- 2. Dr Sunita Mondal was invited as Reviewer for projects under the Devision :KIRAN. Programme or Scheme : SATYAM "Special Call" .DST under Ministry of Science & Technology,Govt Of India.
- 3.Dr Sunita Mondal was Invited as paper setter, contribution of MCQ and validation by National Board of Education.
- 4. Dr Sunita Mondal worked as Peer Reviewer for Candidates for faculty Promotion for APS Scheme of NEIGRIHMS, Shillong ,Meghalaya.

5.1st prize for Post-Graduate Quiz Competition was won by Dr. Ankita Lahkar, Physiology, Post-graduate student during the 6th Annual and 1st Virtual International Conference of Basic and Applied Physiology V-ICONBAP 2020 held on 5th Oct, 2020.

6.2nd prize for poster presentation was won by Dr. Manvir Singh Mathur, Physiology post graduate student. Title:" Cognitive status in ADHD Patients: An Event Related Potential study". Autors: Mathur M, Bandhu R, Swami G, Kataria D, Mondal S. During v-ICONBAP, organized by Sikkim Manipal Institute of Medical College on 6th-7th October 2020.

7.Dr Mayank Agarwal Senior Resident have won the Best oral presentation award for topic" Diurnal variation in energy expenditure and fat oxidation rate after an acute bout of moderate-intensity exercise by young males" at BMS International e-CON 2020, 17th to 19th September 2020 at Aarupadai Veedu Medical College, Puducherry.

8.Oral Presentation by Dr Ankita Lahkar (Physiology Postgraduate student) Title: Effect of Disease Activity on Cognition in Rheumatoid Arthritis Patients. Authors: Dr. Ankita Lahkar, Dr. Sunita Mondal, Dr. Madhulika Monga, Ghan S. Pangtey . Presented in v-ICONBAP $,6^{th}$ - 7^{th} October 2020.

9.Dr Anita and Dr Shweta has Completed the E-Add on course with Delhi State Legal Services Authority 'Online Certificate Course On Medical Jurisprudence'. 10th September to 14th October 2020.

10.The Department of Physiology has organized online "All India Online Physiology Festival, 7th to 10th December2020. (Organizing Chairperson: Dr. Sunita Mondal, Organizing Secretary: Dr. Anita Pawar& Dr. Madhulika Monga) ThirtyfiveTeams from Medical Colleges from different parts of India have participated.

Judges: LHMC: Dr. Dr. Basab Gupta, Addl MS., Dr. Anil Gurtoo, VicePrincipal, Dr. Tanmaya Talukdar, HOD TB & Chest Disease.

Other Colleges: Dr. A.K. Jain NDMC & Hindu Rao Delhi, Dr. K.K. Deepak, AIIMS N. Delhi, Dr Himani Ahluwalia, VMMC New Delhi, Dr. Mona Bedi MAMC New Delhi Dr. Manju Subberwal, New Delhi.

PHYSIOLOGY (MAMC)

1. Major Activities and Achievements (Maximum 150 words)

The department of physiology is concerned with teaching, research and administrative works. Students of MBBS, BDS, BPO, MD are taught. The department co-ordinates the internship program of the institute. The faculty and residents managed the COVID patients admitted in the New Special Ward, LNH.

A faculty member is chairman of research cell of MAMC.

Another is an honorary member of the medical education unit of MAMC

2. Honours/ distinctions

Dr. Aquil Ahmad chaired a session in the online E poster session being Conducted under the virtual Biennial SAAP VII & PSI international Conference on Mar 25, 2021.

Dr. Payal Bhalla -Invited as a Session Chair at Virtual Biennial SAAP and PSI conference 2021 - Physiological sciences for betterment of Health' on 24th, 25thMarch, 2021 at HIMSR, New Delhi.

Dr. Ravi Kaushik-Faculty in OnlineCourse on Tobacco Control. School of Public Health, Post Graduate Institute of Medical Education and Research (PGIMER) Chandigarh.

3. Publications

- a. Banerjee A, Bedi M, Varshney VP. Cardiovascular reactivity to mental and physical stress in offspring of hypertensive parents. Natl J Physiol Pharm Pharmacol 2021;11(02):134-137. (Accepted in 2020)
- Jiwal S, JainP, JainAK. Behavioural and neuro-electrical correlates of cognitive performance in young mobile-gamers of endless runner and match three genres. International Journal of Adolescent Medicine and Health 2020; 20190152:1-8
- c. Mehrotra R, Kaushik N, Kaushik R. Why smokeless tobacco control needs to be strengthened? Cancer Control. 2020 Jan-Dec; 27(1):1073274820914659. (doi: 10.1177/1073274820914659. PMID: 32208972; PMCID: PMC7158252.)
- d. Yadav A, Singh PK, Yadav N, Kaushik R, Chandan K, ChanDr.a A, Singh S, Garg S, Gupta PC, Sinha DN, Mehrotra R. Smokeless tobacco control in India: policy review and lessons for high-burden countries. BMJ Global Health 2020;5:e002367. doi:10.1136/bmjgh-2020-002367
- e. Kaushik R. Latest Updates in Oncology. Eur J Clin Oncol 2020; 2(1):1
- f. Kaushik N, Kaushik R. Mental Disorders and suicides in COVID-19 era: A preventive pandemic. Hans Shodh Sudha. 2020; 1:7.

Books/Chapters/Contributed:

- a. "Practical Physiology- A student's Workbook", 1st Edition 2019, by Dr., V. P. Varshney and Dr., MonaBedi.
- b. LaPelusa A, Kaushik R. Physiology, Proteins. 2020 Dec 5. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing;. PMID: 32310450.
- c. Peeyush Jain, Preeti Jain. Reference Laboratory values In Principles of Paediatric Neonatal Emergencies. Fourth edn 2020; pp 962-970.

4. Research Projects

M.D. Thesis completed:

- a. "Thyroid status and inflammatory markers in patients of Bronchial Asthma". Supervisor- Dr.. Dayaram Haldwani; Co-Supervisor- Dr.. Aarti Sood Mahajan, Dr.. Binita Goswami, Dr.. D. P.Bhadoria.
- b. "Effect of Acute exercise on serum cortisol and cardiovascular reactivity to mental stress in offspring of hypertensives". Supervisor- Dr.. V. P. Varshney; Co-Supervisor- Dr.. Mona Bedi.
 Protocols for postgraduate students made in current year.
- a. Dr. Balram, Dr. Aarti Sood Mahajan (Supervisor), Dr. Debashish Chowdhury, Dr. Daya RamHaldwani, Dr. Binita Goswami: A study of thyroid function tests and inflammatory markers in acute ischemic stroke patients.
- b. Dr. Swati, Dr.. Preeti Jain (as Supervisor): Psychological, Emotional and Cognitive effects of Rajayoga meditation in young adults with Internet Addiction. Co-Supervisor-Dr.. Reena Tomar, Dr.. MahimaKapoor.
 Dr. Payal Bhalla Started a project on "The Knowledge and Perception of Medical Undergraduates in Delhi, India Regarding Massive Open Online Courses (MOOCs)" (Ethical clearance received)

Dr. Ravi Kaushik (as Co-investigator): ASTRA (<u>Addressing Smokeless Tobacco Use & Building Research Capacity in South Asia - Astra South Asia</u>)(ongoing)

Seminar/ Conference Presentations(National/ International)

Dr. Ravi Kaushik

- a. International COVID-19 Conference (online) by Stanford University School of Medicine on 15th May 2020 and got 2.00 AMA PRA Category 1 Credits
- b. Gave an invited lecture for National Institute of Public Cooperation and Child Development, Ministry of Women and Child Development, Government of India on March 9, 2021 on prevention and Management of Childhood Illnesses.

Other Inter-Institutional Collaboration

Dr. Bal Krishna

- a. Chairman of ethical committee of Santosh medical college Gaziabad.
- b. Member of the board of management Santosh to be University Gaziabad

Dr. Aarti Sood Mahajan

- a. Observer, MCI for HIMSR, 23-24 Sept 2020.
- b. The resource person for CISPII online workshops and webinar on 9-10 July, 16-17 July, 21-22 July, 30-31 July 2020.
- c. Attended the online webinar for resource faculty of MCI regional centre by expert group on 17-19 June 2020.

Dr.. Mona Bedi was appointed as judge in the All India Online Physiology Festival organized by the department of Physiology at LHMC, Delhi held on 7th December, 2020.

Dr. Preeti Jain.

- a. Nominated by National Board of examinations, New Delhi as subject expert in the validation of question bank workshops for conduct of various postgraduate entrance examinations including NEET,FMGE, DNB (CET.
- b. Appointed as Subject Expert for Theory paper setting of DNB (Physiology) Examination, 2020 by National Board of examinations, New Delhi.
- c. Appointed as External Examiner for Theory paper setting of 1st MBBS (Mains/Supplementary) Examination, 2020 by AIIMS, Rishikesh.
- d. Appointed as External Examiner for Question Paper setting for Physiology (MD/MS) (Batch-2018), Theory Exam, 2020 by AIIMS, Rishikesh.

Dr.. Kamal Jindal was External examiner for MBBS exam at Kalpana Chawla Govt. Medical College, Karnal from 26th Feb 2021 to 28th Feb 2021.

Dr.. Aquil Ahmad was appointed as an external examiner to conduct the Practical and Viva-voce examination of BDS Ist Prof. Batch-2019 students held in the department of Physiology, JNMC, AMU, Aligarh, UP on 24.02.2021.

Dr.. Payal bhallaInvited as an external examiner for Physiology for the Life Sciences Course (LMT) at VMMC, New Delhi, held on 20th November, 2020

Dr. Ravi Kaushik

- Participated as resource person in an Online Training on prevention and Management of Childhood Illnesses for functionaries of Anganwadi Services Scheme from 8-9 March, 2021.
- b. Around 50 participants from 12 State/ UTs of Northern India attended the training.

5. Faculty Strength

There were total of 11 faculty members during the period mentioned.

6. Other Significant Information

Department curriculum committee has conducted the sent up online theory examination through Google classroom. Practical and grand viva examination conducted online.

- Haematology and amphibian labs have been established with modern facilities and individual works stations for UG/PG students.
- ii. A new demo room and conference room with state of art audio visual facilities have been started in department of physiology.
- iii. For promotion of research and to update PG and UG training, department of physiology has established three labs.
- a. Neurophysiology Lab.
- b. Autonomic Function Lab
- c. Exercise Physiology Lab.

With establishment of these lab assessment of various advance parameters in Neuro and Cardio respiratory physiology could be done and it would promote research and amelioration of knowledge in these fields.

Dr. .V.P. Varshney

Appointed as Internal Examiner 1st year MBBS (Mains/Supplementary) Examination, 2020 by MAMC, New Delhi.

Dr.. Robinson

- a. Chairperson of departmental curriculum committee
- b. Departmental RTI nodal officer
- c. Reviewing officer for Group 'C' and 'D' staff of department
- d. Chairperson of departmental renovation recommendation committee
- e. Chairperson of departmental purchase committee
- f. Member of 1st MBBS curriculum committee
- g. Member of preclinical faculty of medical sciences University of Delhi
- h. Participated in covid duty in June 2020
- i. Helped students of socioeconomic background of MAMC
- j. Undergraduate teaching incharge of physiology department

Dr. Bal Krishna

Chairman. research cell, MAMC

c. Dr. Daya Ram Haldwani

- a. Nominated as a member of committee constituted for preparation of reservation roster for recruitment of senior resident on regular basis against the vacancies till October 2020.
- b. Chairperson Departmental screening Committee to consider MACP cases of paramedical staff of MAMC, held on 25th August 2020.
- c. Member of departmental purchase committee.
- d. Nominated as a member of medical board for age determination, Lok Nayak Hospital, NewDelhi.
- e. Participated as nodal officer on "Dengue surveillance & control measures" by Department of PSM, for session July-October 2020.
- f. Member of Departmental Screening Committee for "Group D regular employees for change of Cadre to the post of laboratory attendant and library attendant" under the chairmanship of Dr.. B.C Koner, Dir Prof & HOD.
- g. Appointed as the Nodal officer in training programfor "Covid 19 vaccination Dr.ive"

Dr. Mona Bedi

Appointed as Examiner Coordinator for DNB (Physiology) Practical Examination, held at MAMC, New Delhi, from 25-26th November 2020.

Dr. Preeti Jain

- a. Worked as Faculty-in-charge of New Special Ward, LNH during COVID-19 Pandemic.
- b. Participated as a medical health professional in National Pulse Polio Immuniztion Programme.

Dr. Kamal Jindal

- a. PG Teaching In charge and BDS Teaching In charge.
- b. Confidential officer for MBBS Annual exam 2020 Batch held at MAMC in March 2021.

Dr. Ravi Kaushik

- a) Officer incharge of Human Experimental Lab for stock purposes
- b) Member of Departmental vigilance committee, renovation committee.
- c) Assisting the OIC in Internship management for the college.
- d) Worked as Faculty-in-charge of New Special Ward, LNH during COVID-19 Pandemic

PHYSIOLOGY (VPCI)

Major activities and achievements:

- Providing Cardio-pulmonary Rehabilitation Services: Cardio-Pulmonary Rehabilitation Clinic at Vishwanathan Chest Hospital, VPCI is involved in management of chronic respiratory patients who have breathlessness on exertion and often disabled in activities of daily living (ADL) due to shortness of breath despite being on optimal pharmacological treatment. Pulmonary rehabilitation program helps in regaining the functional capacity and reduce disability in these type of patients.
 - i. Numbers of patients attended in Cardio-Pulmonary Rehabilitation Clinic:

Breathing retraining & education : 385

Completed Supervised Rehabilitation program : 42

Journals:

• Member of the Editorial board of Journal of Krishna Institute of Medical Sciences (JKIMSU), published by Krishna Institute of Medical Sciences, Maharashtra, India.

Research Projects:

Cognitive performance after short duration sub-maximal exercise in young adults(Extra- mural funded project from LSRB, DRDO. Sanctioned amount Rs. 26, 59,329/-, Three years duration; 27th June, 2018 – 26th June, 2021).

Conferences Organized:

Certificate Course on Pulmonary Rehabilitation, 8th – 9th December, 2019, Self-supported by V P
 Chest Institute.

Seminar/Conference Presentations:

- National Conferences:
 - Delivered lecture on 'Interventions to Improve Hypoxia Tolerance',in 10thNationalLeh Symposium entitled, 'Clinical and Molecular Portrayals under Hypoxia'; organized by CSIR-Institute of Genomics and Integrative Biology Mall Road, Delhi-110007 at Delhi on 15th November, 2019.
 - ii. Delivered lecture on 'Interventions to Improve Hypoxia Tolerance',in Continuing Education Programme (CEP) entitled, 'Pathophysiology of High Altitude Disease', organized by

- Defence Institute of Physiology and Allied Sciences, DRDO, Delhi-110054; at Delhi on 19th 21stNovember, 2019.
- iii. Delivered lecture on 'Lung Function and its variability in healthy and diseased states' in Continuing Medical Education program (CME) entitled, "Ayurgenomics and Integrative medicine for Wellness" organized by Centre of Excellence for applied development of Ayurveda Prakriti and Genomics, CSIR-IGIB, New Delhi-110025 at Delhi on 20th 26thNovember, 2019.

• International Conference:

- i. Delivered lecture on 'Respiratory fitness in special situations and surgery' in 11thAnnual Academic Session entitled, 'Respire-11'; organized by Sri Lanka College of Pulmonologists, Colombo, Sri Lanka at Colombo, Sri Lanka on 29th 31stOctober, 2019.
- ii. LectureTopic: 'Novel approaches for Pulmonary Rehabilitation in Chronic Lung Diseases' Sri Lanka College of Pulmonologists, Colombo, Sri Lanka; 11thAnnual Academic Session entitled, 'Respire-11'; 29th 31stOctober, 2019.
- 4. Number of faculty Permanent/temporary/Ad-hoc: One, permanent.

PSYCHIATRY (LHMC)

1. MAJOR ACTIVITIES AND ACHIEVEMENT-

- i. Department declared 100 % passing rate of MD (Psychiatry) students for the examination held in April 2020.
- ii. Opioid Treatment services have been initiated for opioid user since February 2019 and has been running successfully during pandemic and lockdown.
- iii. Msc in Counselling and Family Therapy and Postgraduate Diploma in Counselling and Family Therapy course under IGNOU has been running successfully in online and later hybrid mode during pandemic
- iv. Our faculty has provided free online counseling services to patients as part of Indian Psychiatric Society initiative. Telemedicine(psychiatry) services were initiated for the patients during the time of pandemic.
- V. Also we tried to motivate the patients to avail online consultation facilities over e-sanjeevani portal
- vi. The department has given psychological support to patients in different covid care centres in Delhi
- vii. The department had conducted annual mid term CME in November 2020 on the topic "Workplace and Gender: Mental Health Perspective".

2. HONOURS/DISTINCTIONS-

- i. Dr. Dinesh Kataria is now HOD Psychiatry under Faculty of Medical Sciences, Delhi University.
- ii. Dr. Prerna Kukretiis member of Institutional Ethical Committee, Ayurvedic and Unani Tibbia College and Hospital.
- iii. Dr. Prerna Kukreti is now Co-chairperson, Headquarter committee, Indian Psychiary Society.

3. PUBLICATIONS-

i. Kumar, P., Kukreti, P., Mathur, H., Kohat, K., & Kataria, D. (2020). Fahr's Syndrome: A Typical Entity Presenting as Psychosis. Journal of Advanced Research in Psychology & Psychotherapy (E-ISSN: 2581-5822), 3(1), 29-31.

- Ransing, R., Kukreti, P., Deshpande, S., Godake, S., Neelam, N., Raghuveer, P., ... & Padma, K. (2020). Perinatal depression–knowledge gap among service providers and service utilizers in India. Asian journal of psychiatry, 47, 101822.
- iii. Ransing, R., Deshpande, S. N., Shete, S. R., Patil, I., Kukreti, P., Raghuveer, P., ... & Bantwal, P. (2020). Assessing antenatal depression in primary care with the PHQ-2 and PHQ-9: can it be carried out by auxiliary nurse midwife (ANM)?. Asian Journal of Psychiatry, 53, 102109.
- iv. Ransing, R., Kukreti, P., Raghuveer, P., Mahadevaiah, M., Puri, M., Pemde, H., ... & Deshpande, S. N. (2021). Development of a brief psychological intervention for perinatal depression (BIND-P). Asia-Pacific Psychiatry, 13(1), e12436.
- v. Raghuveer, P., Ransing, R., Kukreti, P., Mahadevaiah, M., Elbahaey, W. A., Iyengar, S., ... & Deshpande, S. N. (2020). effectiveness of a brief Psychological intervention Delivered by Nurse for Depression in Pregnancy: Study Protocol for a Multicentric randomized Controlled Trial from india. Indian Journal of Psychological Medicine, 42(6_suppl), S23-S30.
- vi. Goel, A., Rehman, S., & Kataria, D. (2020). Deciphering the Scream of Silence: Diagnostic Dilemma of Psychosis in Deaf Mute Patients-A Case Series. Journal of Advanced Research in Psychology & Psychotherapy (E-ISSN: 2581-5822), 3(1), 24-28.
- vii. Shoib, S., Nagendrappa, S., Grigo, O., Rehman, S., & Ransing, R. (2020). Factors associated with COVID-19 outbreak-related suicides in India. Asian journal of psychiatry, 53, e102223-e102223.
- viii. Nagendrappa, S., Shoib, S., Rehman, S., Grigo, O., & Ransing, R. (2020). Recognizing the role of animal-assisted therapies in addressing mental health needs during the COVID-19 pandemic. Asian Journal of Psychiatry, 53, 102390.
- ix. Raut, N. B., Banokar, P., & Pinto, C. (2020). Analysis of Psychiatric Evaluation of Employees Referred after Unauthorized Absenteeism in a Tertiary Level Railway Hospital. Journal of Advanced Research in Psychology & Psychotherapy (E-ISSN: 2581-5822), 3(1), 1-6.
- x. Kalra D, Garg B, Vallamkonda OS.(2020) Domains of impairment in children with attention deficit hyperactivity disorder and their relationship with symptom severity. Delhi Psychiatry Journal, 23(1), 42-47
- xi. Rana S, Goel MK, Vallamkonda, O. S. R, Kataria DK.(2020) A preliminary evaluation of ME Parenting Programme. Journal of Indian Association for Child and Adolescent Mental Health, 16(2), 136-152
- xii. Kohat K, Kataria D, Rana S, Chaudhary S. (2020). A Study of Relationship of Social Functioning and Internalized Stigma with insight in Patients of Schizophrenia and Bipolar Affective Disorder. Delhi Psychiatry Journal, 23(1), 62-68.
- xiii. Swati Sharma, Shiv Prasad, Nileswar Das, Dinesh Kataria, Sajjadur Rehman (2020) Level of depression, Anxiety and self-esteem inpatients planned for bariatric surgery:Cross-sectional exploratory study. Delhi Psychiatry Journal, 22(2), 51-57
- xiv. Sharma, S., Kumar, P., Seth, S., Garg, B., Raut, N., & Kukreti, P. (2020). Psychiatric Aspects of Epilepsy. Journal of Advanced Research in Psychology & Psychotherapy (E-ISSN: 2581-5822), 3(3&4). 15-20.
- xv. Jakhar, J., Ambreen, S., & Prasad, S. (2021). Right to Life or Right to Die in Advanced Dementia: Physician-Assisted Dying. Frontiers in Psychiatry, 11, 1604.

4. JOURNALS-

i. Published by Department:

Journal of Advanced Research in Psychology & Psychotherapy (E-ISSN: 2581-5822).

ii. Department teachers serving in editorial board

- Prof. (Dr.) Dinesh Kataria: National Editorial Board Member, Journal of Advanced Research in Psychology & Psychotherapy
- Dr. Om Sai Ramesh V: Joint Editor, Journal of Advanced Research in Psychology & Psychotherapy
- Dr. Prerna Kukreti: Joint Editor, Journal of Advanced Research in Psychology & Psychotherapy

5. RESEARCH PROJECTS-

Funding Agency	Year/Period	Title	Amount Sanctioned
Indian Council for Medical Research	2018-2021	A Multi-centric Randomized Controlled Trial to Assess Effectiveness of Brief Nursing Intervention for Depression in Pregnancy	35 lakhs
SATYAM ,Department of Science and Technology	2021-2022	Effectiveness of Pregnancy: Teleyoga module on Stress, Anxiety and Depression in Pregnancy during COVID Pandemic: Multicentric Trial	2.4 lakhs
Non-funded	2020-2021	A cross sectional study to find out association of mental well-being with yoga and meditation during COVID Pandemic	NA
Non-funded	2020-2021	A multi-centric, cross-sectional study assessing generalized &COVID-19 specific anxiety in pregnant women attending antenatal clinics in India	NA
Non-funded	2020-2021	Psychosocial Impact of Covid-19 Pandemic on Health Care Workers	NA
Non-funded	2018-2020	A cross sectional study on metabolic syndrome, sleep quality and lung functions in persons with schizophrenia.	NA
Non-funded	2018-2020	A study of behavioural problems and resilience in siblings of children with attention deficit hyperactivity disorder.	
Non-funded	2018-2020	Study of sexual dysfunction in females having MA major depressive disorder.	
Non-funded	2019-2022	Study of harm avoidance and incompleteness across symptom dimensions in patients of obsessive compulsive disorder.	
Non-funded	2019-2022	A study of psychiatric morbidity and level of self-esteem in patients with morbid obesity.	NA
Non-funded	2019-2022	A study of emotional intelligence and resilience in adults with depression.	NA
Non-funded	2019-2022	A study of codependence and resilience in primary caregivers of patients with alcohol dependence syndrome.	NA
Non-funded	2019-2022	A comparative study of neurocognition among single and multiple self harm attempters in adult population.	
Non-funded	2020-2023	Perceived parental style, bullying, coping behaviour in adolescents with dissociative disorder.	
Non-funded	2020-2023	Dissociative experiences and fear of covid-19 in patients with obsessive compulsive disorder.	
Non-funded	2020-2023	Translation and validation of ultra brief peripartum mental health screening tool in hindi language for use in indian women.	NA

Non-funded	2020-2023	Iron profile in patients of bipolar disorder and major depressive disorder.	NA
Non-funded	2020-2023	Age of onset, sensation seeking, impulsivity and transition across stages in opiod use disorder.	NA
Non-funded	2020-2023	Assessment of marital satisfaction, knowledge regarding sexual practices and sexual dysfunction in adult males with alcohol use disorder.	NA
Non-funded	2020-2023	Levels of vitamin D, magnesium and calcium in depressive disorder.	NA

6. CONFERENCES ORGANISED-

Conference Title	Dates	Funding Agency
Annual Mid-Term CME of IPS-	29 th November 2020	Indian Psychiatric Society:
North Zone on		North Zone
Theme"Workplace and Gender:		
Mental Health Perspective"		

7. SEMINAR /CONFERENCE PRESENTATIONS (NATIONAL/INTERNATIONAL)

Speaker/Designation Topic		Organized by	Theme of Conference/Dates
Dr. Prerna Kukreti Associate Professor	Speaker Topic : Blues' Mental Health Awareness initiative	Mediquest LHMC	Online Mental Health Awareness initiative,Mediquest LHMC,21 July 2020
Dr. Sumit Rana Associate Professor	Speaker Topic : COVID19 related mental health issues	NATIONAL MEDICOS ORGANISATIO N, HARYANA	COVID19 related mental health issues" on 12th April' 2020
Dr. Sumit Rana Associate Professor	Speaker Topic :Making Sense of Pandemic, Violence and Child Abuse: Brain as Intermediary	Department of Psychiatric Social Work, Atal Bihari Vajpayee Institute of Medical Science and Dr. Ram Manohar Lohia Hospital, New Delhi	"Stress, Violence and Abuse: Consequences of Pandemic" on July 2nd 2020

Dr Prerna Kukreti,	speaker in workshop session	National Centre	Training program on	
Associate Professor	on 'screening for antenatal	of Excellence for	'management of under 6-months	
	and postnatal mothers for	SAM	infant with severe malnutrition',	
	psychological problems'	Management	Delhi, 24 December 2020	
		_		

EXTENSION AND OUTREACH ACTIVITIES-

- 1. The Department is involved in Community Health Service by holding OPD on every Saturday at Community Health Centre in Kalyanpuri, Delhi.
- 2. Since 2015, the Department is running an Opioid Substitution Therapy Centre in collaboration with Delhi State AIDS Control Society near Bangla Sahib Gurudwara, Connaught Place.

FACULTY STRENGTH-

• Director Professor and Head:

Dr. Dinesh Kataria

Professor :

Dr. Om Sai Ramesh V

Dr. Shiv Prasad

Associate Professor:

Dr. Sumit Rana

Dr. Prerna Kukreti

Dr. Bhavuk Garg

Specialist:

Dr. SajjadurRehman

Dr. Nitin B. Raut

PSYCHIATRY (UCMS)

1. Major Activities and achievements

First Department to begin teaching of undergraduate medical students of our college on virtual platform (Go to webinar).

Tele-counselling services for Delhi university Staff and students during the period of lockdown and is still continuing with DU Mental Health Team. This work was appreciated by Vice Chancellor, Delhi University & projected on DU twitter handle. https://twitter.com/UnivofDelhi/status/1352601179885166592?s=20 Engaged in regular counselling sessions for medical, nursing students during Covid 19 pandemic and also provided interventions throughout the pandemic including lockdown. Involved in teaching counselling skills, communication skills to the interns and undergraduate, postgraduate students. Also involved in counselling through *video* on preventing mental health problems in Health Care workers.

Involved in training medical staff, nursing staff, students, faculty, public in spreading awareness on knowledge, attitude and practices with covid appropriate behaviors during Covid 19 pandemic and in providing psychological first aid during Covid 19 pandemic.

2. Honours/ Distinctions

Shruti Srivastava received Covid warrior appreciation award given by Govt of NCT Delhi

3. Publications

- 1. Bhatia NK, Bhatia MS (2020). Atypical case of pica responded to SSRI. European Journal of Pharmaceutical and Medical Research, 7(5), 551-553.
- 2. Bhatia, M.S., Goyal, S., Singh, A., Daral, A (2020). COVID-19 Pandemic-induced panic disorder. Primary Care Companion to CNS Disorders, 22(3), 20102626. doi: 10.4088/PCC.20102626.
- 3. Bhatia, M.S., Goyal, S., Singh, A., Daral, A. (2020). Dr Bhatia and Colleagues Reply. Primary Care Companion to CNS Disorders, 22(6), 20lr02805a. doi: 10.4088/PCC.20lr02805a.
- 4. Bhatia, M.S., Srivastava, S., Moond, V. (2020). Prevalence of cognitive dysfunction, psychological morbidity and abuse in the community-based elderly population in India. General Psychiatry, 16,33(5), e100207. doi: 10.1136/gpsych-(2020)-100207. PMID: 32875272; PMCID: PMC7430319.
- 5. Dutt, R., Shankar, N., Srivastava, S., Yadav, A., Ahmed, R.S. (2020). Cardiac autonomic tone, plasma BDNF levels and paroxetine response in newly diagnosed patients of generalised anxiety disorder. International Journal of Psychiatry in Clinical Practice, 24(2), 135-142. doi: 10.1080/13651501.(2020).1723642. Epub (2020) Feb 5. PMID: 32022607.
- 6. Kalra, N., Sabherwal, P., Tyagi, R., Khatri, A., Srivastava, S. (2021). Relationship between subjective and objective measures of anticipatory anxiety prior to extraction procedures in 8- to 12-year-old children. Journal of Dental Anesthesia and Pain Medicine, 21(2), 97-00(accepted).
- 7. Kumar, P., Malhotra, S., Kaur, N., Duggal, N., Bhatia, M. S. (2020). Covid-19 Pandemic and Mental Health Issues. European Journal of Pharmaceutical and Medical Research, 7 (5), 717-722.
- 8. Sabherwal, P., Kalra, N., Tyagi, R., Khatri, A., Srivastava, S. (2021). Hypnosis and progressive muscle relaxation for anxiolysis and pain control during extraction procedure in 8–12 year old children: a randomized control trial. European Archives of Paediatric Dentistry, 29, 1-10.
- 9. Singh, A., Goyal, S., Daral, A., Bhatia, M.S. (2020). Aripiprazole induced skin eruptions. World Journal of Pharmacy and Pharmaceutical Sciences, 9(4), 1412-1415.
- 10. Srivastava, S., Singh, A., Punera, A. (2021). Manic episode misdiagnosed in a case of temporal lobe epilepsy. Primary Care Companion to CNS Disorders, 23(1). PMID: 33389844 DOI: 10.4088/PCC.20102601
- 11. Tafseer, S., Gupta, R., Ahmad, R., Jain, S., Bhatia, M.S., Gupta L.K. (2021). Bupropion monotherapy alters neurotrophic and inflammatory markers in patients of major depressive disorder. Pharmacology Biochemistry and Behavior, 200, 173073. doi: 10.1016/j.pbb.(2020).173073.
- 12. Ali, M.S., Gautam, P., Bhatia, M.S. (2020). Mental health of children during Covid Pandemic: Elucidating challenges and emphasizing role of parenting. Delhi Psychiatry Journal, 23, 441-446.
- 13. Bhatia, M.S. (2020). Maternal risk factors of postnatal depression. Journal of Postgraduate Medicine, 66(1), 7-8. doi: 10.4103/jpgm.JPGM_350_19.
- 14. Bhatia, N.K., Bhatia, N.K., Bhatia, M.S. (2020). Presentation of schizophrenia as delusional oral parasitosis. Delhi Psychiatry Journal, 23, 244-245.
- 15. Bhatia, M.S., Goyal, A. (2020). Mental well-being and COVID 19: Are we ready? (editorial). Delhi Psychiatry Journal, 23,5-6.
- 16. Bhatia, M.S., Goyal, A. (2020). Mental health of health keepers in COVID 19 Act Now!! (editorial). Delhi Psychiatry Journal, 23, 267-268.
- 17. Bhasin, S., Ishita, U., Bhatia, M.S. (2020). Examining Suicide Notes through the Psychological lens. Delhi Psychiatry Journal, 23, 473-480.
- 18. Goyal, S., Bhatia, M.S. Fluvoxamine: Its role for early treatment of COVID-19. Delhi Psychiatry Journal, 23, 471-472.
- 19. Goyal, A., Bhatia, M.S. (2020). Gender and Mental Health Combining Theory and Practice (Book Review). Delhi Psychiatry Journal, 23, 509-510.
- 20. Goyal, S., Daral, A., Singh, A., Chauhan, P., Bhatia, M.S. (2020). A crossectional study of psychiatric sequelae in riot victims in Delhi. Delhi Psychiatry Journal, 23, 152-154.
- 21. Gupta, S., Gupta, R., Bhatia, M.S. (2020). Brexanolone: A novel drug for postpartum depression. Delhi Psychiatry Journal, 23, 227-231.
- 22. Gupta, S., Gupta, R., Bhatia, M.S. (2020). Lemborexant: A novel dual orexin receptor antagonist for insomnia disorder. Delhi Psychiatry Journal, 23, 464-470.

- 23. Kaur, J., Masaun, M., Gupta, M., Bhatia, M.S. Adverse psychophysical aspects and treatment of exercise addiction disorder. Delhi Psychiatry Journal, 23, 436-440.
- 24. Kaur, N., Raj, A., Malhotra, S., Duggal, N., Bhatia, M.S. (2020). Borna disease virus (BDV): Another zoonotic disease with neuropsychiatric sequelae. Delhi Psychiatry Journal, 23,201-204.
- 25. Kaur, J., Sharma, S., Bhatia, M.S. (2020). Psychophysical approaches to physical injuries. Delhi Psychiatry Journal, 23, 205-212.
- 26. Kumar, P., Kumari, R., Malhotra, S., Kaur, N., Madan, P., Duggal, N., Bhatia, M.S. (2020). Regulating gut microbiota: A control for anxiety symptom. Delhi Psychiatry Journal, 23, 431-435.
- 27. Singh, A., Goyal, S., Daral, A., Bhatia, M.S. Lumapetrone: A newer antipsychotic. Delhi Psychiatry Journal, 23, 232-234.
- 28. Srivastava, S., Bhatia, M.S., Daral, A., Goyal, S., Singh, A., Chauhan, P. (2020). Telemedicine with relevance to psychiatry a new paradigm during Covid Pandemic. Delhi Psychiatry Journal, 23, 7-11.

Books written

- 29. Bhatia M.S. (2020). Combined Medical Services Entrance Examination. Delhi: CBS Publishers and Distributors.
- 30. Singhal, P.K., Bhatia, M.S. (2020). Problems of Behaviour in Children. Delhi: CBS Publishers and Distributors. .

Chapters Written

- 31. Bhatia M.S. (2020). Somatoform disorders. In Singh, P.K., Singh, O.P., Kumar, V. (Eds). IPS Textbook of Psychiatry for undergraduates. Delhi: Jaypee Brothers Medical Publishers.
- 32. Bhatia M.S., Goyal A. (2020). Gender Roles in Mental Health: A Stigmatized Perspective. In
- 33. Meenu Anand (Ed). Gender and Mental Health (pp 47-62). Singapore: Springer Nature Singapore Pte Ltd.
- 34. Bhatia, M.S., Gupta R. (2020). Non-epileptic seizures Psychosocial factors and patients' perspectives. In Markus Reuber, Steven Schachter and Gregg Rawlings (Eds) Non- epileptic seizures in our experience: Accounts of health care professionals (The Brainstorms Series). USA: Cambridge University Press.

4. Journals

- Published by the Department-Delhi Psychiatry Journal
- Number of Teachers serving as Editor/Member of the Editorial Board: 4

5. Seminars Organized

- Total Number: 2
- Name of speaker, Designation, Affiliation, Title of talk, Date

Shruti Srivastava Professor UCMS Knowledge, attitude and practices with covid appropriate behaviors

duringCovid 19 pandemic (Throughout year)

Shruti Srivastava Professor

M.S.Bhatia Director Professor UCMS Counselling patients /public in providing psychological first aid

during Covid 19 pandemic(Throughout year)

6. Seminars/Conferences Presentations (National/International)

Participated as an expert/delegate in various International and National webinars/seminars/online conferences conducted by

National:

Indian Psychiatric Society (IPS)

IPS (North Zone)

Indian Association for Social Psychiatry (IASP)

Indian Association of Private Psychiatry (IAPP)

Indian Association of Biological Psychiatry (IABP)

Banai (India)

Delhi Association of Private Practitioners (DAPP)

Delhi Psychiatric Society

International:

Johnson & Johnson (on role of LAIs in schizophrenia)

7. Faculty strength: 4

8. Other significant information

M.S. Bhatia and Shruti Srivastava are expert members of Telecounselling team made by Delhi University for mental health counselling of students and employees.

M.S. Bhatia and Shruti Srivastava participated in selection committees, examinations in various universities and also, acted as reviewers of various National and International Journals.

Provide disability certification in Multiple Disability Board on every Friday.

PSYCHIATRY (GIPMER)

- 1. Major activates and achievements
 - a) Clinical activates- indoor and outdoor patient care services
 - b) Emergency round the clock referral services from all the hospital allied to MAMC
 - c) Counseling of COVID patients admitted to LNJP hospital
 - d) Online counseling for psychological problems during peak of COVID-19 pandemic
 - e) PG teaching- yearly intake three

2. Publications

- a) <u>Duggal</u> S, <u>Ahuja</u> B, <u>Biswas</u> PS, <u>Hom Choudhuri</u> A. A survey of physicians' appreciation and knowledge about airways safety measures in the wake of COVID-19 pandemic. Journal of Anesthesiology Clinical Pharmacology 2020; 36(3): 350-358.
- b) <u>Hom Choudhuri</u>A, Duggal S, Ahuja B, Biswas PS. The efficacy and safety of hydroxychloroquine (HCQ) in treatment of COVID 19 a systematic review and meta analysis. Indian Journal of Medical Microbiology 2021;39(2): 159-170.
- c) Biswas PS, SenD, Homchoudhary A, Makkar D, Kapoor M, Goyal A. Association of demographic, clinical, laboratory, and radiological characteristics with outcomes of COVID-19 patients: A systematic review and Meta-analysis. Journal of Microbiology and Infectious Diseases 2020; 10(3):121-135.
- d) Biswas PS, Ram D, MUnda S. QEEG Measures in Depressed Patients with Episodic Cognitive and Psychosensory Phenomena and Its Correlation with Clinical Features of Depression. East Asian Archives of Psychiatry 2021; 31,43-48.

3. Research projects (ongoing)

- a) 'A study of psychological impact of COVID-19 infection on patients and their family members giving in-hospital care and health care workers admitted in COVID-19 ward' (in collaboration with G & O department, MAMC)
- b) A Comparative Study of Mental Health Impact of COVID-19 Pandemic on Health Care Professionals in India
- c) 'Mental health impact of COVID-19 pandemic on postnatal mothers and their infant care giving ability in first 6 weeks' (in collaboration with G & O department, MAMC)
- d) 'Comparison of convalescent plasma therapy with conventional treatment in COVID-19 infection- A meta analysis' (in collaboration with Anesthesia department, GIPMER)
- e) 'Health impact of burnout in doctors'- (in collaboration with cardiology department, GIPMER)
- f) 'The prevalence of acute complications of Covid-19 pneumonia: A systematic review and metaanalysis'
- g) 'The study of Effect of modified electro-convulsive (MECT) treatment on the clinical profile & outcome of mentally ill persons in a tertiary care general hospital psychiatry unit'
- h) 'A study of use of psychotropic in male and female psychiatric in-patients' (project by MBBS student)

None of these projects are sponsored or financially supported by any agencies.

Seminars organized
 departmental seminars for PGs

5. Faculty strength

S. No.	Name of the faculty	Designation
1	Dr P S Biswas	Professor & HOD
2	Dr Arun Lata Agarwal	Director Professor
3	Dr S Jena	Associate Professor
4	Dr Anurag Jhanjee	Associate Professor
5	Dr Aman Deep Goyal	Associate Professor
6	Dr Mahima Kapoor	Associate Professor

6. Other significant informations

Following are the final year thesis

- a) Dr. Ankesh: 'Coping strategies in alcohol dependent Patients with relapse and its relationship with number of Relapses and level of alcohol problems'
- b) Dr. Saanya: 'Neurocognitive dysfunction in Obsessive compulsive disorder and its correlation with Illness severity and burden to primary caregiver and Family'
- c) Dr. Udit: 'Psychiatric co morbidity, quality of life and stigma in patients with drug resistant epilepsy'

PHYSICAL EDUCATION (UCMS)

1. FACULTY MEMBERS CURRENTLY IN THE DEPARTMENT Dr. R. Chakravarty, Assistant Professor

4. APPOINTMENT OF FACULTY TO HIGHER POSTS / ASSIGNMENTS OUTSIDE

A. PROMOTIONS

<u>NAME</u> <u>DESIGNATION</u>

None (At Present) None

B. VISITING FACULTY ASSIGNMENTS

<u>NAME</u> <u>ASSIGNMENTDATES</u>(From-To)

(In alphabetical order of last name)

None(At Present) None None

C.ASSIGNMENTS IN ACADEMIC ASSOCIATIONS (NATIONAL AND INTERNATIONAL ONLY)

<u>NAME</u> <u>ASSIGNMENT</u> <u>DATES</u> (From-

To)

(In alphabetical order of last name)

None (At Present)None None

5. DISTINCTIONS ACHIEVED BY THE MEMBERS OF THE FACULTY EITHER

AT THE NATIONAL OR INTERNATIONAL LEVEL

A. AWARDS

<u>NAME</u> <u>AWARD</u> <u>DATE</u>

RECEIVED

None(At Present) None None

B. OTHER DISTINCTIONS

<u>NAME</u> <u>DISTINCTION</u>

None (At Present) None

6. NEW COURSES / SUBJECTS INTRODUCED DURING THE YEAR $_{\rm N.A}$

University of Delhi: Annual Report 2020-21

7. ANY NEW SIGNIFICANT FACILITY CREATED

Nil(Because of Covid -19)

8. SEMINARS AND CONFERENCES HELD IN THE DEPARTMENT OF NATIONAL / INTERNATIONAL SIGNIFICANCE

CONFERENCE/CME HELD

DATES

(FROM - TO)

None

9. SEMINARS & CONFERENCES ATTENDED BY THE FACULTY

NAME FULL NAME OF THE CONFERENCE/CME AND PLACE DATES

(FROM-TO)

Dr. R. Chakravarty Nil(Because of Covid -19)

10. BRIEF WRITEUP ON DISTINCTIONS ATTAINED IN SPORTS AND EXTRA CURRICULAR ACTIVITIES AT THE UNIVERSITY OR INTER-UNIVERSITY LEVEL BY THE STUDENTS.

 Nil(Because of Covid -19), Online Sports and Physical Education Classes were organized by the department.

11. NAME OF THE STUDENTS/RESIDENTS WHO HAVE ATTAINED DISTINCTIONS INVARIOUS UNIVERSITY EXAMINATIONS/NATIONAL OR INTERNATIONAL CONFERENCES

N.A

12. SPECIAL GRANTS/PROJECTS DURING THE YEAR

<u>Principal Investigator</u> <u>Title of the Project</u> <u>Years</u> <u>Funded</u> <u>by</u>

Grant Rs.

None

13. FUNDED PROJECTS COMPLETED DURING THE YEAR

Principal Investigator Title of the Project Funded by

Grant Rs.

None

PUBLICATIONS OF FACULTY/RESIDENTS

- 1. International Journal of Physical education and Applied Exercise Sciences, 2021
- 2. International Journal of Physical education and Applied Exercise Sciences, 2021

15. SIGNIFICANT ACHIEVEMENTS DURING THE YEAR

University College of Medical Sciences has a glorious history in sports over the past many years. Students have been participating in various sports activities throughout the year and regular matches for football, basketball, cricket, Table Tennis and many other games are being organized throughout the academic year. Students indulge in the sports activities very enthusiastically so coaching sessions were organized for volleyball,

football and basketball by coaches of national level to upgrade there playing abilities. The available infrastructure for sports in the college is of national level as the college has a 2 acre main playground with a basketball court, volleyball court, football ground, cricket ground and a gym. Further for the upliftment of the sports infrastructure in the college plans for two synthetic tennis courts and Indoor Stadium having squash and badminton facilities are under planning and is expected to be completed in the near future. Due to covid -19 no fests were held this year as well as the s[ports events.

But, students were encouraged to play among themselves maintaining due social distancing. Physical Education and sports classes were being provided to all students during the lockdown.

PHYSICAL MEDICINE AND REHABILITATION (PMR) (LHMC)

Annual report Department Physical Medicine & Rehabilitation

1. Major Activities and Achievements

Dept. of PMR got permission for conversion of Non PG JR to JR (Academics), 01 per year from Dte.GHS from the Academic year 2021-22 on the basis of letter of permission to start MD course in Physical Medicine & Rehabilitation in 2019.

2. Publications:

- Majumdar R, Jain S. (2020). Comparison of quality of life of caregivers of children without disabilities. *Journal of Clinical and Diagnostic Research*. 14(3): 01-04
- ii. Yadav S , Chand S , Majumdar R , Sud A . (2020) Effect of botulinum toxin type-A in spasticity and functional outcome of upper limbs in cerebral palsy. *Journal of Clinical Orthopaedics & Trauma*, 11(2): 208-212

3. Research Projects (Non funded)

Dr Ritu Majumdar (Co-investigator)	TelePark: Tele-Neurorehabilitation versus In-Person Rehabilitation		
Dr Sonal Chauhan (Co-investigator)	in persons with Parkinson's Disease in India: A Randomised Tria		
Dr Ritu Majumdar (Primary	Effect of COVID - 19 pandemic on sensory issues of children with		
Investigator)	Autism spectrum disorder		
Dr Shikha B. Bhardwaj (Co-			
investigator)			

4. Seminars Organized

S.No.	Seminar Organized	Organizer	Faculty Member	Date
1.	Webinar on 'Pulmonary Rehabilitation'	Department of PMR, LHMC	Dr Ritu Majumdar Dr V. K Gupta Dr Minati Acharjya Dr Sonal Chauhan Dr Shikha B. Bhardwaj Dr Ravi Kumar Preenja	20 th June 2020
2.	Webinar on 'International Day of People with Disability' with the theme 'Not All Disabilities Are Visible''. 1) Talk on 'Disability etiquette' 2) Panel discussion on the above theme along with Guest faculty from Neurology, Pediatrics & Psychiatry . Topics included: A) Autism , B) 'Intervention in Autism' C) Parkinson's disease D) 'Rehabilitation in Parkinsonism'& E) Mental Illness	Dept of PMR, LHMC & Associated Hospitals	Dr Ritu Majumdar Dr V. K Gupta Dr Minati Acharjya Dr Shikha B. Bhardwaj Dr Ravi Kumar Preenja	Jrd December 2020

5. Seminars/Conferences Presentations (National)

Faculty Member	Presentation	Organiser	Name of Conference	Venue & Date
Dr Ritu Majumdar, Prof & Head	Delivered a talk as Guest Faculty on the topic 'Stroke: Social interventions & Disability benefits'	Indian Federation of Neurorehabilitation (IFNR)	"Online Stroke Rehab Course"	23.09.2020
Dr Ritu Majumdar, Prof & Head	Delivered a talk as Guest Faculty on the topic 'Early intervention in developmental disorders'	Bihar Association of Physical Medicine & Rehabilitation and AIIMS, Patna	IAPMR Mid Term CME 2020	Online 31.10.2020 - 01.11.2020

Faculty Strength: Six (04 Teaching & 02 Non teaching)

Other Significant Information-

- For convenience of Geriatric patients & Persons with Disabilities during COVID 19 Pandemic, presentations covering different topics of rehabilitation were uploaded on Public Forum of Official Website of LHMC for home based rehabilitation.
- 2) Tele-Medicine Services: Faculty & Senior Residents of the department actively participated in Tele-medicine Services at LHMC for patients benefit in view of COVID-19 pandemic.
 - 3) Clinical psychologist from dept. of PMR was posted in COVID quarantine centre for psychological counselling & on line counselling from April 2020 onwards to support Mental Health & well being of all citizens during & after COVID 19 outbreak.

PULMONARY MEDICINE (MAMC)

1. Major Activities and Achievements:

The department of Pulmonary Medicine is a super speciality department. The department has significantly contributed for the utmost care and management of COVID-19 patients, in wards and ICU, and have been in the forefront throughout the 1st and 2nd wave of COVID-19 pandemic. The department has number of publications in renowned scientific journals. Dr. Naresh Kumar, Head of the department is editor in several journals at national level. Thefaculty members have conducted teaching and training programmes for Undergraduate students, Interns and Postgraduates students, and nursing students. Guidance was provided for thesis work of post graduate students. The department is involved in providing diagnoses and treatment of various respiratory diseases and performing procedures like arterial blood gas analysis, pulmonary function testing and bronchoscopy.

2. Publications:

- A) Daga, M.K., Kumar, L., Mawari, G., Kumar, N., Singh, S. & Mishra, T. K. (2020). Adrenomedullin and Its Possible Role in Improved Survival in Female Patients with Sepsis: A Study in the South East Asian Region. *Indian J Crit Care Med*, 24(12), 1180-1184.
- B) Daga, M.K., **Kumar**, **N**., Raghu, R.V., Mawari, G., Chand, S. & Aarthi, J. (2020). Osteoporosis in Chronic Obstructive Pulmonary Disease: More than just a Comorbidity. *J Adv Res Med*, 7(3), 7-12.
- C) Daga, M.K, Kumar, N., Singh S., Mawari, G., Mahapatra, S.J., Jha, M.K. & Hussain, M. (2020). Study of Prothrombotic Markers in COPD. *J Adv Res Med*, 7(4), 1-6.
- D) Daga, M.K., Mawari, G., Kumar, L. & Kumar, N. (2020). Adrenomedullin and Its Possible Role in Improved Survival in Female Patients with Sepsis: A Study in South East Asian Region. Am J Respir Crit Care Med 201:A1630. (Abstract)

- E) Daga, M.K., Mawari, G., Singh, S., Walad, S., Khubiyal, S., Bharali, D., Kumar, N. & Hira, H.S. (2020). Correlation of CAT, CCQ and mMRC Scores in Patients of COPD with Exacerbation and after Treatment. *Journal of Clinical and Diagnostic Research*, 14(9), OC01-OC04.
- F) Sachdeva, K., Daga, M.K., Mawari, G., Karra, V.K., **Kumar**, N. & Garg, S. (2020) Management and Therapeutic Options for COVID-19: A Review. *Journal of Clinical and Diagnostic Research*, 14(11), OE01-OE08.
- G) **Kumar**, N., Kumar, S., Vardhan, H., Lakhtakia. L., Daga, M.K. (2020). Cardiovascular Manifestations of SARS-CoV-2: A Review. *J Adv Res Med*, 2020; 7(2), 1-10.
- H) Sharma, R., Daga, M.K., Mawari, G., Karra, V.K., **Kumar, N**., Jha, M.K. & Kumar, S. (2020). Global Trends of Clinical Presentation of COVID-19. *Indian J Med Spec*, 11, 59-64.
- I) Singh, S., Daga, M.K., Mawari, G., Kumar, V., & Kumar, N. (2020). Clinical Profile of nCOVID-19 Cases in Andaman and Nicobar Islands: A Case Series. *Journal of Clinical Diagnostic and Research*, 14(8), OR01-OR04.

3. Journals:

Dr. Naresh Kumar:

- A. Managing Editor of Journal of Advanced Research in Medicine (JoARM).
- B. Member of Editorial Board in International Journal of Preventive, Curative & Community Medicine.
- C. Member of Editorial Board of MAMC Journal of Medical Sciences.
- 4. Faculty Strength -03
 - A) Dr. Naresh Kumar, Professor and Head,
 - B) Dr. Shipra Anand, Assitant Professor
 - C) Dr. Ankita Gupta, Assistant Professor

Department of Pulmonary Medicine

(Vallabhbhai Patel Chest Institute)

1. Major Activities/Achievements during the period

- 8. The Institute continued its 'education', 'research' and 'patient care' activities.
- 9. The Institute has 13 ongoing research projects by various governmental agencies, namely, AYUSH, DHR, CCRUM, DST, DIPAS, ICMR, NIF to the tune of 150.00 Crores.
- 10. Despite COVID pandemic situation, VPCI continued to function normally. Several requisite measures like proving personal protection gears to health workers and other staff, management of visitor and patient inflow, creation of screening facilities, isolation ward and isolation emergency, conducting training etc.
- 11. Started telemedicine services in September 2020.
- 12. Home-based Pulmonary Rehabilitation for post-Covid patients started in June 2021.
- 13. VPCI has also started Post-Covid Respiratory Management Centre which was inaugurated by the Hon'ble Vice Chancellor of the University.
- 14. VPCI is an ampanelled hospital under the Ayushman Bharat Pradhan Mantri Jan Arogya Yogana (PMJAY)
- 15. During 2020-21, over 8500 new patients registered at our OPD for consultation and over 17100 old patients came to OPD for follow-up. The Indoor General Ward admitted over 800 patients and the Emergency Ward admitted and provided treatment to over 4,500 patients. The RICU admitted 132 patients for intensive care.
- 16. During the period, the National Tobacco Quit Line Service (NTQLS) (toll-free no. 1800-11-2356) attended to more than 11.05 lakhs calls landed on the Interactive Voice Response (IVR) with success rate of 27%.
- 17. At the Pollen Count Station at VPCI, a total of 726 slides were mounted and analyzed during this period.

. Honours/Distinctions

- 18. Dr. Raj Kumar was Anti-Discrimination Officer of the University of Delhi extended tenure for a period of Six Months w.e.f. 11.05.2020dt. 27.08.2020.
- 19. Dr. Raj Kumar was Member, Interim Committee on Healthcare for the management of WUS Health Centers, University of Delhi, Delhi dt.09.11.2020.
- 20. Dr. Raj Kumar was Member, Academic CouncilPondicherry University, Kalapet, Puducherry dated 26.11.2020
- 21. Dr. Raj Kumar was Member, Peer review of New Delhi TB Center (NDTBC), Ministry of Health and Family Welfare (CCD Secton), Nirman Bhawan, New Delhi dt. 04.12.2020.
- 22. Dr. Raj Kumar was Member, specialists board in discipline of Medicine, National Board of Examination, MoH&FW, GoI, New Delhidt. 07.01.2021
- 23. Dr. Raj Kumar was Member, Academic Advisory Committee of Centre for Professional Development in Higer Educaton (CPDHE) (UGC-HRDC), University of Delhi, Dlehi dt. 16.02.2021

PUBLICATIONS:

- 1. Agarwal Anup, Mukherjee Aparna, Kumar Gunjan, Chatterjee Pranab, Bhatnagar Tarun, Malhotra Pankaj, Kaushik Rajnish, on behalf of the PLACID Trial Collaborators. Convalescent plasma in the management of moderate covid-19 in adults in India: open label phase II multicentre randomised controlled trial (PLACID Trial) BMJ 2020; 371 (Published 22 October 2020).
- 2. Babita, Gulati K, Menon BK, Kumar R, Ray A. A Clinical study to evaluate the effects of Yoga and Pharmacotherapy on pulmonary functions, mechanism of inflammation and quality of life in bronchial asthma patients. Clin Invest.10 (4), 106-116, 2020 ISSN2041-6792
- 3. Goel N, Goyal N, Kumar R. Clinico-radiological evaluation of post COVID-19 at a tertiary pulmonary care centre in Delhi, India. Monaldi Arch Chest Dis. 2021 Mar 8.
- 4. Goel N, Spalgais S, Mrigpuri P, Khanna M, Menon B and Kumar R, (2020). Characteristics of COVID-19 at a non-COVID tertiary pulmonary care centre in Delhi, India. Monaldi Archives for Chest Disease 2020; 90:1568
- 5. Goel, N., Goyal, N., & Kumar, R. (2021). Clinico-radiological evaluation of post COVID-19 at a tertiary pulmonary care centre in Delhi, India. Monaldi archives for chest disease = Archivio Monaldi per le malattie del torace, 10.4081/monaldi.2021.1682. Advance online publicat
- 6. Gupta A, Singla R, Caminero JA, Singla N, Mrigpuri P, Mohan A. Impact of COVID-19 on tuberculosis services in India. Int J Tuberc Lung Dis. 2020 Jun 1;24(6):637-639. doi: 10.5588/ijtld.20.0212. PMID: 32553014.
- 7. Gupta N, Ish P, Kumar R, Dev N, Yadav SR, Malhotra N, Agrawal S, Gaind R, Sachdeva H, COVID 2019 working group *Other members of the SH. Evaluation of the clinical profile, laboratory parameters and outcome of two hundred COVID-19 patients from a tertiary centre in India. Monaldi Arch Chest Dis [Internet]. 2020 Nov. 9 [cited 2021 Jul. 14];90(4).
- 8. Gupta, S., Shariff, M., Chaturvedi, G., Sharma, A., Goel, N., Yadav, M., Mortensen, M. S., Sørensen, S. J., Mukerji, M., & Chauhan, N. S. (2021). Comparative analysis of the alveolar microbiome in COPD, ECOPD, Sarcoidosis, and ILD patients to identify respiratory illnesses specific microbial signatures. Scientific reports, 11(1), 3963. https://doi.org/10.1038/s41598-021-83524-2
- 9. Kaushik Rajnish, Tanwar Laxmikant, Chaudhari Mit, Suri Amit. "Treatment of COVID-19 Pneumonia with convalescent Plasma Therapy: A Case Series". JIACM2020;21(3-4):170-74.
- 10. Kulshrestha R, Dhanda H, Pandey A, Singh A, Rajkumar. (2020). Immunopathogenesis and therapeutic potential of macrophage influx in diffuse parenchymal lung diseases. Expert Review of Respiratory Medicine. 14:9:917-28 https://doi.org/10.1080/17476348.2020.1776117
- 11. Kumar M, Gupta RK, Spalgais S, Kumar R. Sensitivity to common aeroallergens in asthma patients in Delhi-National Capital Region. Indian J Allergy Asthma Immunol 2020;34:68-7.
- 12. Kumar R, Behera D, Jindal SK, Menon BK, Goel N and Spalgais S et al. Post COVID-19 Respiratory Management: Expert Panel Report. Indian J Chest Dis Allied Sci 2020;62:179-191.
- 13. Kumar R, Mrigpuri P, Bisht I, Singh K, Kumar M and Spalgais S. Role of immunological mediators in the follow-up of asthma and allergic rhinitis patients on allergen immunotherapy. Indian J Allergy Asthma Immunol. 2020;34:87-91.
- 14. Kumar R, Mrigpuri P, Vikrant and Spalgais S. Endobronchial Ultrasound-guided Transbronchial Needle Aspiration Under Local Anesthesia: Real-time Experience Over Two Years in a Tertiary Care Hospital in North India. Indian J Chest Dis Allied Sci 2020;62:19-22.

- 15. Kumar R, Saroj SK, Kumar M. Tobacco Quitline toll-free number on tobacco packets in India: An analysis on outcome. Monaldi Arch Chest Dis. 2021 May 4;91(2).
- 16. Kumar R, Spalgais S, and Ranga V. Hypersensitivity pneumonitis: clinical, radiological and pathological profile of 103 patients from North India. Monaldi Arch Chest Dis 2020;90:491-500.
- 17. Kumar R, Yadav SR, Kumar A, Ish P, Gupta N, Chakrabarti S. The "masks for the ventilator" in the COVID-19 era. Adv Respir Med. 2020;88(6):630-632. doi: 10.5603/ARM.a2020.0124. PMID: 33393660.
- 18. Mavi AK, Spalgais S, Singh K, Kumar U, Kumar R. Expression profile of MUC1 protein in Pigeon allergens positive asthmatic. Immunobiology. 2021 May;226(3):152086.
- 19. Mrgipuri P, Sonal S, Spalgais S, Goel N, Menon BK and Kumar R. Uncontrolled diabetes mellitus: A risk factor for post COVID fibrosis Monaldi Arch Chest Dis 2021;91:1607.
- 20. Parul Mrigpuri, Balakrishnan Menon, Sonam Spalgais, Ritu Kulshrestha, Himanshu Saini, Amitesh Gupta.Immunoglobulin G4-related disease presenting with pulmonary manifestations, lymphadenopathy, and vocal cord immobility: an unusual presentation of a rare disease. Paper accepted for publication, July 2020 in The Egyptian Journal of Chest Diseases and Tuberculosis.
- Porter G, Joshi J, Bhullar L, Kotwani A. Using 'smart regulation' to tackle antimicrobial resistance in low-income and middle-income countries. BMJ Global Health 2020;5e001864, doi 10.1136/bmjgh-2019-001864
- 22. Raj Kumar, Asperdillus skin hypersensitivity in patitents of COPD. Respire, 2020,9,1-3.
- 23. Raj Kumar, Parul Mrigpuri, Vikrant, Sonam Spalgais. Endobronchial Ultrasound-guided Transbronchial Needle Aspiration under Local Anesthesia: Real-time Experience over Two Years in a Tertiary Care Hospital in North India. Indian J Chest Dis Allied Sci 2020;62:19-22.
- 24. Raj Kumar. Smoking Cessation. Clinical Psychology and Mental Health Care, 2021;1(2).

Journals

1. Published by the College: Indian Journal of Chest Diseases and Allied Sciences (IJCDAS)

Number of College teachers serving as Editor(s)/Member(s)/ of Editorial Board
 Number of College teachers serving as 2. Dr. Malini Sheriff, Member 2. Dr. Balakrishnan Menon, Member 4. Dr. Anuradha Chowdhary, Member

In addition to the Journal, the Institute publishes VPCI News Letter whose Editor is Kulshresha.

Dr.Ritu

Research Projects

- 1.MoHFW. 2015-2022. National Tobacco Quit Line Services (NTQLS). INR846.86 Lakhs
- 2. Multidisciplinary Research Unit (MRU). DHR, MoHFW. 2014-2022. INR409.78 Lakhs
- 3. AYUSH. 2018-2022. A clinical study to evaluate the effects of yogic intervention on Pulmonary functions, inflammatory markers, oxidative stress and health status in patients of chronic obstructive pulmonary disease (COPD).INR 25.84 lakhs

Seminars Organised

- 1. VPCI launched Institute Mobile App on 01.10.2020.
- 2. Vigilance Awareness Week with the theme "Vigilant India, Prosperous India" was observed by VPCI from 27.10.2020 to 02.11.2020.
- 3. VPCI organized a one-day Workshop on Biostatistics on 25.02.2021.
- 4. VPCI Organized a Training Course on Pulmonary Rehabilitation from 09.03.2021 to 10.03.2021.
- 5. VPCI organized a Workshop cum Training Programme on "Proposal Writing and Ethical Issues in Biomedical Research" on 11-03-2021.
- 6. VPCI organized a Guest Lecture by Prof. V.S. Chauhan, Chairman, GB on "COVID 19 Pandemic: Vaccines and Mutants" on 18.03.2021.
- 7. VPCI Post Covid Respiratory Management Center was inaugurated by Prof. P C Joshi, Honorable Vice Chancellor, University of Delhi on 24.05.2021.
- 8. The 7th International Yoga Day was celebrated by VPCI in collaboration with the Morarji Desai National Institute of Yoga, in Virtual mode on 21.06.2021.

Seminar/Conference Presentations

- Dr. Nitin Goel was Faculty in workshop on "Allergy and Immunotherapy" in the 22nd Joint National Conference of National College of Chest Physicians (India) and Indian Chest Society, NAPCON-2020 (virtual) from 27-31 January 2021.
- Dr. Nitin Goel delivered Oral paper presentation for the NAPCON 2020 AWARD SESSION on YOUNG CONSULTANTS BEST PAPER titled "Clinico-radiological characteristics of post-COVID-19 at a tertiary pulmonary care centre" at 22nd Joint National Conference of National College of Chest Physicians (India) and Indian Chest Society, NAPCON-2020 (virtual) from 27-31 January 2021.
- Dr. Parul Mrigpuri delivered Faculty lecture on "Vaping and second hand effects" in Symposium on Vaping: A New Smoking Wave NAPCON 2020 on 27th to 31st January 2021
- Dr. Parul Mrigpuri delivered Faculty lecture on "Antimicrobial properties of Apismellifera"s Bee Venom" in the Session on Practice changing research in Respiratory Infections NAPCON 2020 on 27th to 31st January 2021
- Dr. Parul Mrigpuri was one of the Faculty member for the Lecture cum demonstration (1) Skin Prick Test (SPT): Practical Demonstration (Virtual)
 (2) Case Discussion: Clinical Interpretation of Diagnostic Tests and Starting of Immunotherapy NAPCON 2020 on 27th to 31st January 2021
- Dr, Raj Kumar was Workshop Director, 'Allergy and Immunotheapy'on 27th Jan, 2021 during Virtual 22nd Joint National Conference of the Indian Chest Society (ICS) and National College of Chest Physicians (NCCP)" Virtual NAPCON 2020 organised Vertual at delhi from 27 31 Januar, 2021.
- Dr, Raj Kumar delivered Guest Lecture, on Introduction and Briefing about Allergy workshop on 27th Jan, 2021 during Virtual 22nd Joint National Conference of the Indian Chest Society (ICS) and National College of Chest Physicians (NCCP) Virtual NAPCON 2020 organised Vertual at delhi from 27 31 Januar, 2021.

- Dr, Raj Kumar delivered Guest Lecture, on Patient Selection for Allergen Immunotherapy'on 27th Jan, 2021 during Virtual 22nd Joint National Conference of the Indian Chest Society (ICS) and National College of Chest Physicians (NCCP)" Virtual NAPCON – 2020 organised Vertual at delhi from 27 - 31 Januar, 2021.
- Dr, Raj Kumar delivered Guest Lecture, on Patient Selection for Allergen Immunotherapy on 27th Jan, 2021 during Virtual 22nd Joint National Conference of the Indian Chest Society (ICS) and National College of Chest Physicians (NCCP) Virtual NAPCON – 2020 organised Vertual at delhi from 27 - 31 Januar, 2021.
- Dr, Raj Kumar delivered ICS Dr. C. V. Ramakrishnan Oration Lecture, on Air Pollution and Lung Health'on 28th Jan, 2021 during Virtual 22nd Joint National Conference of the Indian Chest Society (ICS) and National College of Chest Physicians (NCCP) Virtual NAPCON-2020 at delhi from 27 - 31 Januar, 2021.
- Dr, Raj Kumar delivered Guest Lecture, on 'Food Allergy' in the Symposium on Respiratory Allergy on 30th Jan, 2021 during Virtual 22nd Joint National Conference of the Indian Chest Society (ICS) and National College of Chest Physicians (NCCP)" Virtual NAPCON – 2020 organised Vertual at delhi from 27 - 31 Jan, 2021.
- Dr, Raj Kumar was Chairman, Technical Session III on Public Health in India in association with School
 of Public Health, Institute of Eminence, DU organised by Centre for Canadian Studies, University of
 Delhi in association with Dept. of Finance and Business Economics, DU from 11-12 March, 2021.
- Dr. Sonam Spalgais delivered Faculty lecture on "Primary Clofazimine and Bedaquiline Resistance among Isolates from patients with Multidrug-Resistant Tuberculosis." in session of Practice-changing Research in TB at NAPCON 2020 held on 27th to 31st January 2021
- Dr. Sonam Spalgais was one of the Faculty member for the Lecture cum demonstration (1) Skin Prick Test (SPT): Practical Demonstration (Virtual) (2) Case Discussion: Clinical Interpretation of Diagnostic Tests and Starting of Immunotherapy NAPCON 2020 held on 27th to 31st January 2021
- Dr. Sonam Spalgais delivered Faculty lecture on "Pulmonary function test in covid Era" at NATCON 2020 held on 19th to 20th December 2020
- Dr. Sonam Spalgais organized a Training Course on Pulmonary Rehabilitation Training course on Pulmonary Rehabilitation, VPCI, 9th -10th March 2021

RADIO-DIAGNOSIS (UCMS)

1. Major Activities and Achievements

Besides MBBS teaching the Department of Radio-diagnosis is running an undergraduate course B.Sc. (Medical Technology) Radiography, two major postgraduate courses, MD Radio-diagnosis and M.Sc. (Medical Imaging Technology) Radiography. The department boasts of excellent placement of its B.Sc. and M.Sc. (MIT) Radiography students, with many students placed in reputed organizations like Indian Railways, JIPMER Pondicherry, AIIMS New Delhi, DSSSB Delhi and PGI Chandigarh. All our post graduate students are well placed across the country both in government and private sector and many are working overseas. The faculty is involved in continuous research, has undertaken funded projects; has numerous publications and is also active in various conferences / CMEs.

University of Delhi: Annual Report 2020-21

The department has a 64 slice Multidetector CT scanner, fluoroscopy, multiple digital radiography and high end ultrasound/Doppler machines. It provides round the clock services and has been providing uninterrupted imaging services during the COVID Pandemic.

There was an addition of 03 static digital radiography systems, one digital portable X ray machine and a high end ultrasound machine in the department in the year 2020-21, and 07 new radiographers were appointed.

2. Honors/Distinctions

- 1. Certificate of appreciation awarded to Dr. Shuchi Bhatt on INTERNATIONAL WOMEN'S DAY (2020) Organized by IRIA, Delhi IRIA house, New Delhi.
- 2. Certificate for appreciation of "Corona warriors" awarded to Dr. Shuchi Bhatt on 22 March, 2021 at Delhi Vidhan Sabha, New Delhi
- 3. Appointed as co-opted executive member of IRIA, Delhi branch for the year 2021
- 4. Doctors excellence award given to Dr. Gopesh Mehrotra by Delhi Medical Association, Delhi

Dr. Arunima Aggarwal

- 5. Certificate of appreciation for outstanding performance in the 11th Radiology Resident's Hot seat Review course 2021
- 6. Certificate of distinction for third prixe in overall performance in the 11th Radiology Resident's Hot seat Review course 2021.

Dr. Shrea Gulati

- 7. Hot seat review course 2021
- 8. Certificate of distinction for performance in spotters in 11th Radiology Residents Hot Seat Review Course 2021.

Dr. Saloni Dagar.

- 9. Certificate of appreciation for outstanding performance in the 11th Radiology Resident's Hot Seat Review course 2021.
- 10. Academic Excellence Award for outstanding scholastic performance in the PG Mock Examination of Webinar (2020) series organized by IRIA Kochi & KREST Kochi.

3. Publications

- 1. Singh P, Jain S, Rajaram S, Rathi V, Gupta B, Kalra K. (2020), Pregnancy and labor outcomes in squat versus western style sitting toilet users: a pilot study. International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 9(11); 4601-4605
- 2. Malla D, Rathi V, Gomber S, Upreti L. (2020) Can lung ultrasound differentiate between bacterial and viral pneumonia in children J Clin Ultrasound; 49(1), 91–100.
- 3. Yadav V, Rathi V. (2021) <u>B</u>ronchial carcinoid with bronchocele masquerading as Scimitar syndrome on chest radiograph. Radiology Case Reports; 16:710-713.
- 4. Gulalti S, Rathi V, Jain S, Bhatt S. (2021) Incidentalomas of the Female genital tract on 64 slice MDCT: Aclinico-radiological pictorial review. Abdominal Radiology DOI: 10.1007/s00261-021-03086-9 Corpus ID: 233355959
- 5. Dagar S, Rathi V. (2021) Incidental floating aortic thrombus in severe pulmonary COVID-19 infection.ClinicalImage.Indian J Med Res. June. DOI:10.4103/ijmr.IJMR_4590_20.
- 6. Yadav V, Bhatt S, Athaullah, Dangwal S. (2021) Rare occurrence of dural arteriovenous fistula in a child: Multi-modality imaging and literature review. Radiology Case Reports, 16(4), 879-883.
- 7. Agarwal A, Tandon A. Bhatt S, Agarwal A, Dagar S, Bansal H. (2021) COVID19 pneumonia with cavitation and cystic lung changes: MDCT spectrum of a gamut of etiologies A pictorial review. BJR Open, 3: 20210007.
- 8. Shekhar H,Sharma N, Singh SK, PKGarg, Bhatt S, Saha R, Verma AK. (2021). Clinico-radiological profile of the patients with empyema thoracis: A prospective analytical study. Indian Journal of Tuberculosis. (Online 11 March). https://doi.org/10.1016/j.ijtb.2021.03.007
- 9. Bhatt S, Bansal H, Nayak S, Dangwal S. (2021) High presacral collection approached through the perineal route: A novel computed tomography-guided technique. South African Journal of Radiology. 25(1), a2014.
- 10. Gulati S, Rathi V, Jain S, Bhatt S. (April 2021). Incidentalomas of the Female genital tract on 64 slice MDCT: A clinico-radiological pictorial review. Abdom Radiol Doi.org/10.1007/s00261-021-03086-9
- 11. Rai S, Garg P K, Bhatt S, Latha T K, Verma A K, Banerjee B D, Singh M P.(2020) The diagnostic role of micro RNA 21 in patients with non-small cell lung cancer: an exploratory study". Lung India, 37(1), 501-505.

- 12. Swaroop S, Bhatt S, Rawal R, Tandon A, Dangwal S. (2020). Tuberculosis a great masquerader; Unveiling rare sites of Musculoskeletal involvement through imaging- A Case series. South African Journal of Radiology, 24(1), a1919.
- 13. Tandon A, Khullar T, Maheshwari S, Bhatt S, Narang S. (2020) "High Resolution Ultrasound in Sub-clinical Diabetic Neuropathy: A Potential Screening Tool". Ultrasound. Sage journals, 1-12.
- 14. Suneja A, Garg A, Bhatt S, Guleria K, Sv M, Sharma R.(2020). Impact of Opportunistic Salpingectomy on Ovarian Reserve and Vascularity in Patients undergoing Hysterectomy". Indian Journal of Gynecologic Oncology, 18(4), 107.
- 16. Sabharwal T, Tandon A, Bhatt S, Gupta K. Voluminous Abdomino-pelvic Cystic Mass in an Adolescent Girl: Rare Presentation of Imperforate Hymen. J Clin Cases Rep 4(S8),4-6,ISSN, 2582-0435
- 17. Bhatt S, Banerjee A, Tandon A, Dangwal S, Gupta A. (2020). Kaleidoscopic View Of Male Urethral Pathologies On 64 Slice Multi-detector CT Urethrography- A Novel Technique. Journal: South African Journal of Radiology. S Afr J Rad., 24(1), a1964.
- 18. Chawla S, Bhatt S, Tandon A, Meena G, Dangwal S. (2020). Bilateral Hutch diverticula in an elderly male: Revelation of an unknown past. S Afr J Rad,24(1),a1963.
- 19. Tandon A, Khullar T, Maheshwari S, Bhatt S, Narang S. (2020). "High Resolution Ultrasound in Subclinical Diabetic Neuropathy: A Potential Screening Tool". Ultrasound. 0(0) 1-12.
- 17. Sabharwal T, Tandon A, Bhatt S, and Gupta K. (2020). Voluminous Abdomino-pelvic Cystic Mass in an Adolescent Girl: Rare Presentation of Imperforate Hymen. Journal of Clinical Cases and Reports 4(58) ISSN: 2582-0435.
- 18. Yadav A, Tandon A. (2021). The influence of volumetric tumor doubling time on survival of patients with intracranial tumors. International journal of scientific research. Volume 10(4) ,39-43.
- 19. Srivastava A., Kaushik C, Sandhu I S, Srivastava A K (2020). Estimates of patient doses and kermaarea product monitoring in digital radiography, Radiation Protection Dosimetry;190(1);pp. 1–9.

4. Research Project

Dr. Anupama Tandon

- (1) Research fellowship on project title "To study the DNA damage and repair mechanism in the patients undergoing multidetector computed tomography (MDCT)" Granted in 2019 for 03 years tenure, Grant of Rupees 16 Lac 50 thousand approx.
- (2) ICMR support for MD thesis "Role of low dose CT perfusion imaging in evaluation of breast cancer using 64 slice MDCT: a pilot study: Grant of Rs.50,000/-. Granted in 2020

5. Seminars / Conference - Presentations

Dr. Anupama Tandon

- 1. ICR-IRIA IREP Oct- NOV 2020- Delivered talk on "Imaging approach to bone tumors" virtual meeting.
- 2. Faculty at MSK & Genitourinary Imaging Film Reading session on 20th February 2021 of IRIA Delhi. (Virtual meet).

Dr. Shuchi Bhatt

- 3. Panelist for film reading session for Postgraduate Radio-diagnosis students organized by IRIA Delhi Chapter on 6th Feb.2021 online platform.
- 4. Invited faculty for talk on "Imaging in Thromboembolism" in Delhi Imaging Update 2021 organized by IRIA Delhi Chapter on 17th April, 2021 on line Platform.
- 6. **Faculty Strength-**Professor- 04 (UCMS 03 & CHS 01)
 Non-Teaching 03

RADIODIAGNOSIS (LHMC)

1. Major Activities and Acievements:

The department conducts clinical as well as research work, under the guidance of our expert and experienced senior faculty. The students are exposed to a wide diversity of cases, providing good learning opportunities. This year was marked by the COVID 19 pandemic. Right from the outset, the department was involved in the management of patients suspected or diagnosed to have COVID 19. A new portable Digital Radiography machine (Wipro GE BRIVO X R115 100 mA) was installed for dedicated use in the COVID ward, and our radiographers were on duty 24 hours to perform bedside X rays for patients. Ultrasounds were performed for COVID suspected / positive cases in a separate room in the Radiology department, and CT scans for such cases were done on appointment basis taking all due precautions to avoid exposure to other patients or staff. Our residents and staff were trained in donning and doffing procedures for correct use of Personal protective equipment (PPE), and routine disinfection and sanitization of the department was ensured on a daily basis. Teaching activities for UG and PG students were carried out online on the Microsoft Teams platform, in the interest of safety. In addition to departmental work, residents and faculty were also posted by rotation in the COVID wards, YMCA COVID care centre, COVID Control Room and Flu clinics.

2. Honours/ Distinctions:

			Prize	Event
1.	Dr. Chetna Mishra (PG student)	Left pulmonary artery sling associated with	First prize	SCII-CON 2020
	Dr. Rama Anand	bridging bronchus: evaluation with	under case	
	Dr. Nishat Amina	computed tomography	report	
			category	

• Dr. Rama Anand:

Reviewer

Reviewer for Indian Journal of Radiology and Imaging (IJRI) British Journal of Radiology, Paediatric Pulmonology, Sudanese Jour of Paediatrics and JCDR.

Examiner

Appointed as External Examiner for conduct of final examination in the subject of Fellowship in Pediatric Radiology in June 2020 and December 2020.

Appointed as External Examiner for conduct of final examination in MD Radiodiagnosis at VMMC, GGSIP university in July 2020

Appointed as External Examiner for conduct of final examination in MD Radiodiagnosis at LHMC in July 2020 Appointed as External Examiner for setting of theory paper for Annual MD Radiodiagnosis exam in March 2021 Was appointed as External expert for appointment of Senior Resident at MAMC in Dec 2020

Others

Was appointed as Sub-Specialty Head for Women Imaging by Indian college of Radiology

Dr. RS Solanki:

Examiner

Was appointed as internal examiner for MD Radiodiagnosis exam held at LHMC, April 2020.

• Dr. Pooja Abbey:

Reviewer

Reviewer for Indian Journal of Radiology and Imaging (IJRI).

Examiner

Was appointed external examiner for MD Radio-Diagnosis Examination (Online) at AIIMS, New Delhi in June 2020.

Others

Was appointed a member of the 'Case of the month' committee of the Society of Chest Imaging and Interventions (SCII).

• Dr. Shaili Tomer:

Examiner

Was appointed internal examiner for DMRD exam held at MAMC, April 2020

• Dr. Bhawna Satija:

Reviewer

Reviewer for Journal of Clinical Imaging Science (JCIS)

Dr. Vikas Chaudhary:

Examiner

Was appointed external examiner for MD Radio-Diagnosis Examination (Online) at AMU, in June 2020.

Reviewer

Reviewer for La Radiologia Medica (LRM), World Journal of Gastroenterology (WJG), Academic radiology and Journal of Clinical Imaging Science (JCIS)

3. Publications:

1.Dhawan P, Kanojia R.K., Chandra J, Kumar A, **Anand R**, and Gupta S: Wrist Joint Skeletal Changes in Children with Transfusion-Dependent Thalassemia J Pediatr Orthop Volume40, Number 6,' July2020

2.Goel I, **Anand R**, Choudhury SR and Agarwal S. Evolving concepts in ultrasonography of pediatric intussusceptions: unequivocal differentiation of ileocolic, obstructive and transient small-bowel intussusceptions. Ultrasound in Med. & Biol., Vol. 46, No. 3, pp. 589_597, 2020

- 3.Gurtoo A, Agrawal A, Prakash A Kaur R, Jais M, **Anand R**, Sharma S, Shukla S Singh R. The Syndromic Spectrum of COVID-19 and Correlates of Admission Parameters with Severity-outcome Gradients: A Retrospective Study. JAPI vol. 68 P 43-48, Dec2020
- 4.Mittal A, Anand R, Gauba R, Choudhury SR, Abbey P. A step-by-step sonographic approach to vascular anomalies in the pediatric population: A pictorial essay. Indian J Radiol Imaging 2021.
- 5.Singh GB, Arora N, **Tomer S**, Kwatra D, Kumar S. The role of sinus CT in surgical treatment decisions for chronic rhinosinusitis. Am J Otolaryngol. 2020 Nov-Dec;41(6)
- 6.Agrawal, S., Aggarwal, K., Chaudhary, V., **Satija, B.**, Rajagopalan, I., & Sethi, A. Ischemic uterine necrosis following Hayman suture for postpartum hemorrhage. International Journal of Gynecology & Obstetrics, 2020

7. Malakar, S., Anand, R., **Satija, B**. *et al.* Imaging in Uncommon Pelvic Complications of Pregnancy: A Pictorial Essay. *J Obstet Gynecol India* (2021)

Conferences Organized-

S. No.	Faculty Member	Organizer(s)	Name, Venue & Date
1.	Dr. Rama Anand	Indian Radiological and Imaging Association (IRIA) in collaboration with Indian College of Radiology and Imaging (ICRI)	e-Symposium on "Women's Imaging", online, Nov 2020

9. Seminar/Conference Presentations

S. No.	Name & Designation of the Participant	Role/Topic	Organizer	Name of the Conference, Venue & Date
		National Conference	s	
1.	Dr. Rama Anand	Faculty – Conducted a pre-conference quiz Moderated poster presentation by PG students	Society of Chest Imaging and Interventions	SCII-CON 2020, Virtual, 12 September 2020

	Dr. Pooja Abbey	Faculty- Conducted a pre-conference quiz		
		Moderated poster presentation by PG students		
	Dr. Nishat Amina			
2.	Dr. Rama Anand	Faculty- Quiz on spotters Moderated poster presentation by PG students	Indian Radiological Imaging Association (IRIA) and Indian College of Radiology and Imaging (ICRI)	IRIA Resident Education Program (IREP), online, 31st October 2020
		Moderated poster presentation by PG students		
		Faculty- Took a Lecture on 'Flank mass in a child- Imaging approach' Moderated poster presentation by PG students		
	Dr. RS Solanki			

	Dr. Pooja Abbey			
3.	Dr. Rama Anand	Faculty –lecture on Current societal guidelines for radiation exposure in pregnancy.	Society for Emergency Radiology	7 th Annual conference of the Society for Emergency Radiology, online, Nov 2020
4.	Dr. Rama Anand	Faculty-lecture on Imaging in Gynaecological Emergencies in Nov 2020.	Indian Radiological and Imaging Association (IRIA) in collaboration with Indian College of Radiology and Imaging (ICRI)	e-Symposium on "Women's Imaging", Nov 2020
5.	Dr. Rama Anand	Delegate Delegate	AIIMS-MAMC-PGI	4 th AIIMS-MAMC-PGI Imaging Course Series, 7 th course on Paediatric Imaging, Online, 31 st October, 2020.
	Dr. Pooja Abbey	Delegate		
	Dr. Nishat Amina			
6.	Dr. Rama Anand Dr. Pooja Abbey	Delegate Delegate Delegate	Indian Society of Paediatric Radiology	ISPR 2020- XVIII annual national conference of Indian Society of Paediatric Radiology, online, 11 th
	Dr. Pooja Aooey Dr. Nishat Amina	Delegate		October 2020.

7.	Dr. Shaili Tomer	Delegate	Indian Radiological and Imaging Association, Mumbai Chapter	19 th MRI Teaching Course, online Held On 9,15,16 August 2020
8.	Dr. Nishat Amina	Delegate	Delhi State Chapter of IRIA	Recent Advances in Imaging, online webinar, 12 th August 2020
9.	Dr Pooja Abbey	Faculty	Delhi IRIA	Film Reading Session, 30JN 2021, Online
		INTERNATIONAL CONFE	RENCES	
1.	Dr Rama Anand	Delegate	Society of Paediatric Radiology (SPR)	Neonatal Imaging Course of Society of Paediatric Radiology (SPR) (Online) January 27 - 29, 2021

	ORAL/POSTER PRESENTATIONS by Residents and Faculty				
	Mode	Title	Event		
Dr Rama Anand	Poster	HEAD BUMPS: What could be inside?	RSNA Nov29-Dec5, 2020		
Dr. Patil Anand Dr. Pooja Abbey Dr R.S. Solanki	Poster	Abnormal GB morphology. The most accurate USG finding in biliary atresia.	IREP online		
Dr Chetna Mishra	Poster	Spectrum of imaging findings in children referred for	IREP online		

Dr. Rama Anand Dr. Pooja Abbey		Computed tomography evaluation of chest infections	
Dr Chetna Mishra Dr. Nishat Amina Dr Rama Anand	Poster	Left pulmonary artery sling associated with bridging bronchus: evaluation with computed tomography	SCIICON ONLINE 26-27 SEP

Faculty strength: 08

Director Professor Dr. Rama Anand MD (Head of Department till 19.11.2020)

Director Professor Dr. Rajpal MD

Director Professor and Head Dr. RS Solanki MD

Professor Dr. Pooja Abbey MD

Professor Dr. Shaili Tomer MD

Associate Professor Dr. Bhawna Satija MD

Associate Professor Dr. Vikas Chaudhary MD

Associate Professor Dr. Nishat Amina MD

RADIODIAGNOSIS (MAMC)

I.Major Activities and Achievements:

The hospitalwas converted to covid only hospital from 23-3-2020 to04-01-2021 and the department of Radiodiagnosis besides providing diagnostic radiology services has also been involved in providing clinical care to admitted patients through its residents. For their efforts, the residents have been felicitated by the Dean and MD LNH. Several faculty members have also been felicitated by Delhi government and college. The department also acquired 5 new portable xray machines and 1 new portable USG unit to cater to covid 19 patients.

II. Honours/Distinctions:

Awards

- –Dr Anju Garg was awarded Appreciation certificate as Corona Warrior by the Delhi Medical Association
- 2. Dr Anjali Prakash was awarded the Academic Excellence award by Delhi state chapter of IRIA
- 3. Dr Anjali Prakash was appreciation certificate as Corona Warrior by the Delhi Medical Association
- Dr Anjali Prakash was awarded President appreciation Award 2020 presented on 30th January 2021 by Indian radiological and Imaging Association.
- 5. Dr Sapna Singh was awarded the Academic Excellence award by Delhi state chapter of IRIA in March 2021

III. Publications:

There have been 25 publications from the department in various International/ National/ State journals during this period.

Publications during the period:

- 1 Harish S C ,Rashmi Dixit, Sapna Singh, Sandeep Garg(2020). Sonoelastographic evaluation of Achilles tendon in patients with type 2 DM: Ultrasound in medicine and biology 46(11).
- 2 Harish S C, Rashmi Dixit, Ayush Aggrawal, Anju Garg(2020). Meandering pulmonary vein: case report: Journal of case reports in Radiology 14(3)
- 3 GuptaV, Singh R, Agarwal PN, Mishra A, Prakash A, Chand C. Randomised control clinical trial of sclerotheraphy alone versus sclerotherapy plus sclerotherapy junction ligation in great saphenous vein(2020). Indian Journal Of Surgery..https://doi.org/10.1007/s12262-020-02599-9
- 4 Pathak S, Garg A, Kumar J(2020). Encephalocraniocutaneous lipomatosis: A rare congenital neurocutaneous syndrome. *Radiol Case Rep*;15(5):576-579.
- Gautam R, Kumar J, Pradhan G, Passey J, Meher R, Mehndiratta A(2020). High-resolution computed tomography evaluation of congenital aural atresia how useful is this? The Journal of Laryngology & Otology;134(7):610-
 - 6 Vanagundi R, Kumar J, Manchanda A, Mohanty S, Meher R(2020). Diffusion-weighted magnetic resonance imaging in the characterization of odontogenic cysts and tumors. Oral Surg Oral Med Oral Pathol Oral Radiol;130(4):447-454.
 - Bhagat AC, Kumar J, Garg A, Prakash A, Meher R, Arya S(2020). Imaging in congenital inner ear malformations-An algorithmic approach. Indian J Radiol Imaging. 30(2):139-148.

- 8 Seth N, Kumar J, Garg A, Singh I, Meher R(2020). Computed tomographic analysis of the prevalence of International Frontal Sinus Anatomy Classification cells and their association with frontal sinusitis. The Journal of Laryngology & Otology. 134(10): 887-894.
- 9 Batra R, Gupta S, Prakash A, Upreti L, Singh S(2020) Cystic Gastrointestinal Tumors: An Unusual Imaging Appearance A Case Series. MAMC Journal of Medical Sciences,6(2), 128-134.
- 10 Mittal S, Singh S, Batra R. Imaging Appearances of Pediatric Hepatic Masses (2020)— A Review. MAMC Journal of Medical Sciences, 6(3), 176-185.
 - 11 Swarup S, Gupta S, Singh S, Prakash A, Mehndiratta A, Garg A (2020) Phakomatoses: A pictorial review. *Indian J Radiol Imaging*. 30(2):195-205. doi:10.4103/ijri.IJRI_497_19
 - 12 Khan Y, Arora S, Gupta S, Mahajan N, Sural S, Dhal A(2020) Electrocuted Hip: Late Consequences of Electrical Shock Injuries of Orthopaedic Relevance: A Case Report and Review of Literature. *JBJS Case Connect.* 10(3):e1900632. doi: 10.2106/JBJS.CC.19.00632. PMID: 32910607.
 - 13 Arora S, Khan, Y, Suri T, Gupta S(2020) Electric Shock-Induced Vertebral Fracture, *JBJS Case Connector*-Volume 10 Issue 4 p e20.00143. doi: 10.2106/JBJS.CC.20.00143
 - 14 Jain S, Arora S, Gupta S et al(2020)Assessment of Bone Quality Using Radiogrammetric Parameters of Proximal Humerus in India: Defining the Osteoporotic Fracture Risk Limit Value and its Reliability. JOIO 54, 307–315.
 - 15 Sehgal A, Manchanda A, Kumar J, Garg A(2020) 'A rare case of Unicentric Castleman's disease of the orbit'. Eurorad. 10.35100/eurorad/case.16935
 - 16 Rao A, Manchanda A, Garg A, Jain LS(2020) 'Ultrasound based thyroid reporting and data system(ACR-TIRADS)in risk stratification of malignancy in thyroid nodules'. International Journal of Research and review. 7(2):6-14.
 - 17 Mastebhakti B, Garg S, Gupta N, Singh S, Aggarwal S, Singh R(2020) Epicardial Adipose Tissue Thickness as a Reliable Marker of Increased Cardiovascular Risk in Patients With Type 2 Diabetes Mellitus. Journal of Endocrinology and Metabolism.10(6):173-81.
 - 18 Udupi VR, Neogi S, Garg A(2020) Comparison of the role of Ultrasound guided transhepatic aspiration of gallbladder versus conservative management of acute calculus cholecystitis. International Surgery JournalVol7 issue 1: 189-193.

- 19 Kumar C, Sarin YK, Sinha SK, Garg A(2020) Randomised clinical trial of surgery versus conservative management of ureteropelvoic junction obstruction with grade 3-4 hydronephrosis in infants: A preliminary report. J Clin Nephrol Res, 7(1)1094
- 20 Satyam, Swarup M S, Garg A(2020) Ectopic uterine scar pregnancy: A case report. Ultrasound DOI:

S.NO.	NAMEOF THE	TITLE	NAMEOF	NAMEOF C0-
	STUDENT		SUPERVISIOR	SUPERVISIORS

10.1177/1742271X20933918 journals.sagepub.com/home/ult

- 21 Gulati M, Suman A, Satyam, Garg A.Jul (2020) Torsion of Wandering Spleen and its adherence to the right ovary An unusual cause of recurrent pain abdomen. Radiology Case 14(7):10-18 :: DOI: 10.3941/jrcr.v14i7.3752
- 22 Aspiration of gallbladder versus conservative management of acute calculus cholecystitis (2020) International Surgery JournalVol7 issue 1: 189-193.
- 23 Kumar C, Sarin YK, Sinha SK, Garg A(2020) Randomised clinical trial of surgery versus conservative management of ureteropelvoic junction obstruction with grade 3-4 hydronephrosis in infants: A preliminary report. J Clin Nephrol Res7(1):1094
- 24 Satyam, Swarup M S, Garg A(2020) Ectopic uterine scar pregnancy: A case report. Ultrasound 2DOI: 10.1177/1742271X20933918 journals.sagepub.com/home/ult
- 25 Gulati M, Suman A, Satyam, Garg A. Torsion of Wandering Spleen and its adherence to the right ovary An unusual cause of recurrent pain abdomen. Radiology Case(2020); 14(7):10-18 :: DOI: 10.3941/jrcr.v14i7.3752

IV: Journals:

Dr Jyoti Kumar

Editorial member of World Journal of Radiology and case reports in Pediatrics.

V. Research Projects:

There are 38 theses/ ongoing projects of the first and second year post graduate residents of the department for the year 2020-21. Twenty theses for the 3^{rd} year residents were submitted to the Delhi University on 31/07/20.

On-going projects:

(I)Thesis to be submitted in 2021:18

1.	Dr Abhishek	Ultrasound and	Dr.Alpana	Dr. Nita Khurana
	Gupta	multidetector computed	Manchanda	Dr.Sapna Singh
		tomography in the		Dr.Rajdeep Singh
		evaluation of primary		
		retroperitoneal masses.		
2.	Dr Aishwarya S.	Evaluation of cervical	Dr. Anju Garg	Dr. Gauri Gandhi
	Durgad	and vaginal lesions by		Dr.Alpana Manchanda
		gel sonovaginography		
3.	Dr Amit Kumar	Diagnostic accuracy of	Dr.Jyoti Kumar	Dr. Anjali Prakash
		HRCT compared to		Dr. J C Passey
		surgery in patients with		Dr. Ravi Meher
		squamosal type chronic		
		otitis media		
4.	Dr Anjuman	Role of magnetic	Dr. Rashmi Dixit	Dr. Anju Garg
	Agrahari	resonance enterography		Dr.Sanjeev Sachdeva
		and diffusion weighted		Dr.Sapna Singh
		imaging in the evaluation		
		of inflammatory bowel		
		disease		
5.	Dr Anubhav	Imaging evaluation of	Dr. Anjali Prakash	Dr.Sapna Singh
	Kumar Singh	non traumatic painful hip		Dr.Lalit Maini
		joint on 3 tesla magnetic		Dr. Swati Gupta
		resonance imaging		
6.	Dr Anupran	Computed tomography	Dr.Sapna Singh	Dr.Jyoti Kumar
	Ghosh	virtual laryngoscopy in		Dr. Vikas Malhotra
		the evaluation of		Dr. Shramana
		laryngeal and		Mandal
		hypopharyngeal cancers		
7.	Dr Krishna	Computed tomographic	Dr. Rashmi Dixit	Dr. Anjali Prakash
	Kumar	evaluation of neck		Dr. Monica Juneja
	Chaudhary	masses in pediatric		Dr.Vikas Malhotra
		population		
8.	Dr Mohini	Role of multiparametric	Dr.Jyoti Kumar	Dr. Anju Garg
	Kushwaha	magnetic resonance		Dr. Ishwar Singh
		imaging in the evaluation		Dr. Nita Khurana
		of salivary gland tumors		

9.	Dr Priyanka	Role of 3 tesla magnetic	Dr.Sapna Singh	Dr. Rashmi Dixit
	Kanwat	resonance imaging in the		Dr. Anjali Prakash
		evaluation of non-		Dr.Sumit Sural
		traumatic elbow		
		disorders		
10.	Dr Punit Kumar	Role of three tesla	Dr. G S Pradhan	Dr.Jyoti Kumar
	Sah	magnetic resonance		Dr.Prabhat
		imaging in evaluation of		Shrivastava
		vascular malformations		Dr.Rajdeep Singh
		of extremities		
11.	Dr Ramandeep	Ultrasonography of lung	Dr. G S Pradhan	Dr. Anju Grag
	Singh	in evaluation of		Dr. Anjali Prakash
		interstitial lung diseases		Dr. Naresh Kumar
12.	Dr Rashmi Udupi	Multiparametric	Dr.Alpana	Dr. Rashmi Dixit
		magnetic resonance	Manchanda	Dr. Anurag Mishra
		imaging in evaluation of		Dr. Nita Khurana
		urinary bladder cancer		
13.	Dr Ritika Punia	Sonoelastographic	Dr.Alpana	Dr. G S Pradhan
		evaluation of chronic	Manchanda	Dr. R S Ahlawat
		kidney disease		Dr.Smita Kaushik
14.	Dr Rukhsar Khan	Comparison of	Dr. Anju Garg	Dr. Rashmi Dixit
		mammographic breast		Dr. Anjali Prakash
		density by visual		Dr. Swati Gupta
		assessment and		
		automated volumetric		
		software		
15.	Dr Serene Balaji	Correlation of Computed	Dr. Anju Garg	Dr. Rashmi Dixit
	P	Tomography Severity		Dr. Anjali Prakash
		Score with Body Mass		Dr.Sandeep Garg
		Index and Hepatic		
		Steatosis in Covid 19		
		patients		
16.	Dr Shivani	Role of multidetector	Dr.Jyoti Kumar	Dr.Sapna Singh
	Sharma	computed tomography in		Dr. U Jhamb
		upper airway disorder		Dr. Ravi Meher
17.	Dr Shweta Priti	Association of	Dr. Rashmi Dixit	Dr. Anju Garg
		mammographic breast		Dr. Nita Khurana
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		density with molecular classification of breast		Dr.Rajdeep Singh
		cancer		
18.	Dr Tashmeen	Comparison of	Dr. Anjali Prakash	Dr. Anju Garg
	Kaur Sethi	conventional 2D Full		Dr. Rashmi Dixit
		Field Digital		Dr.Rajdeep Singh
		Mammography (FFDM)		
		And Synthetic 2D		
		Mammography		

(II)Thesis to be submitted in 2022: 20

S.	Name	Title	Supervisors	Co-Supervisors
No				
1	Dr. Akanksha	Computed tomography findings in patients showing CNS		Dr. Anjali Prakash
	Johare	manifestations with COVID-19 infection	Dr. Sapna Singh	Dr. Sandeep Garg
2				Dr. Anjali Prakash
	Dr. Akarshi	Detection and quantification of hepatic fat in healthy	Dr. Rashmi	Dr. Sunita
	Gupta	population on 3 Tesla magnetic resonance imaging	Dixit	Aggarwal
3	Dr. Alfa	Role of ultrasound in the evaluation of wrist pain and its		Dr. Sapna Singh
	Shamim Saifi	comparison with 3 Tesla magnetic resonance imaging	Dr. Anju Garg	Dr. Sumit Sural.
4				Dr. Rashmi Dixit
				Dr. Sumit Sural
	Dr. Anya	Spectrum of Magnetic Resonance imaging findings in		Dr. Sushanto
	Arora	diabetic foot	Dr. Sapna Singh	Neogi
5				Dr. Gaurav
				Shanker Pradhan
	Dr. Chappa	Spectrum of Sonographic findings in haemophilic		Dr. Sunita
	Pravallika	arthropathy	Dr. Sapna Singh	Aggarwal
6				Dr. Gaurav
				Shanker Pradhan
	Dr. Deeksha	Role of computed tomography in acute invasive fungal		Dr. Nita Khurana
	Sindhu	rhinosinusitis	Dr. Jyoti Kumar	Dr. Ishwar Singh
7		Diffusion Weighted Magnetic Resonance imaging and		
		Quantitative Apparent Diffusion Coefficient in evaluation of	Dr. Alpana	Dr.Rashmi Dixit
	Dr. Ebinesh A	parenchymal changes in term neonates with Hypoxic	Manchanda	Dr. Ajay Kumar

		Ischemic brain injury		
8			Dr. Gaurav	1. Dr. Alpana
	Dr. H S Ajit	Evaluation of normal rotator cuff using high resolution	Shanker	Manchanda
	Kumar	ultrasonography in Indian adults	Pradhan	2. Dr. Sumit Sural
9	Dr. Juhi	Chest computed tomography findings in COVID-19	Dr. Rashmi	Dr. Anju Garg
	Agrawal	recovered patients	Dixit	Dr Sandeep garg
10				Dr. Jyoti Kumar
				Dr. Gaurav
		The relationship between frontal sinuspneumatization and		Shanker Pradhan
	Dr. Kaustav	different anatomic variants of paranasal sinuses on	Dr. Anjali	Dr. Vikas
	Jain	computed tomography	Prakash	Malhotra
11			Dr. Gaurav	
	Dr. Keerthana	Role of computed tomography of chest to determine the	Shanker	Dr. Anju Garg
	KM	short term prognosis in COVID-19 patients	Pradhan	Dr. Naresh Kumar
12				Dr. Alpana
				Manchanda
	Dr. Mankirat	Role of magnetic resonance imaging in pediatric ocular and		Dr. R.K. Saran
	Singh	orbit lesions	Dr. Jyoti Kumar	Dr. Ruchi Goel
13				Dr Rashmi Dixit
	Dr. Monika	Role of Digital breast tomosynthesis in the evaluation of	Dr. Anjali	Dr Nita Khurana
	Yadav	dense breast	Prakash	Dr Rajdeep Singh
14			Dr. Gaurav	
	Dr. Pallavi	Morphometric analysis of spinal cord and canal using three	Shanker	Dr. Jyoti Kumar
	Ghosh	tesla Magnetic Resonance Imaging in young healthy adults	Pradhan	Dr. Tarun Suri
15				Dr.Anju Garg
		Association of cardiovascular indices with lung involvement		Dr.Naresh Kumar
		on computed tomography in hospitalised COVID-19	Dr. Alpana	Dr.Binita
	Dr. Prasad M J	patients	Manchanda	Goswami
16		Comparison of image quality and radiation dose on low dose		
		and standard dose temporal bone computed tomography in		Dr. Anju Garg
	Dr. Rashma R	children	Dr. Jyoti Kumar	Dr. Ravi Meher
17				Dr Sapna Singh
	Dr. Shashank	Evaluation of soft tissue masses using multiparametric 3	Dr. Anjali	Dr Swati Gupta
	Rahangdale	Tesla magnetic resonance imaging	Prakash	Dr Reena Tomar
18		Ovarian-Adnexal Reporting and Data System Magnetic		Dr Radhika Batra
	Dr. Swarna	Resonance Imaging (ORADS-MRI) score for evaluation of		Dr Gauri Gandhi
	Saxena	sonographically indeterminate adnexal masses	Dr. Anju Garg	Dr Nita Khurana

19		Sonographic risk stratification of adnexal masses using the		Dr Radhika Batra
	Dr. Vinamrita	Ovarian Adnexal Reporting and Data System- Ultrasound		Dr Gauri Gandhi
	Patni	(ORADS-US)	Dr. Anju Garg	Dr Nita Khurana
20				Dr. Sapna Singh
	Dr. Waqar	Evaluation of normal liver stiffness by ultrasound	Dr. Rashmi	Dr. Sunita
	Azhar	elastography	Dixit	Aggarwal

There are more than 50 ongoing projects in various specialities with Radiodiagnosis as the coinvestigative department and the faculty members in the department as co-supervisors for these projects.

Intramural project - 1

Computed Tomographic analysis of uncinate process insertion/pneumatisation and their association with frontal sinusitis- Jyoti Kumar, Thaihamdao Haflongbar, Swati Gupta, Ravi Meher, Anupran Ghosh

Seminar/ conference presentations (National/International)

PRESENTATIONS

Title of Presentation		Name of Author	Conference
1.	Fetal ventriculomegaly:finding the	Dr. Vanita Baberwal	DIU 2020
	cause on fetal MRI	Dr. Anjali Prakash	
		Dr. Anju Garg	
		Dr. Sapna Singh	
		Dr. Sangeeta Gupta	
2.	Role of fetal MRI in the diagnosis	Dr. Vanita Baberwal	ISPR2020
	of thoracic congenital abnormalities	Dr. Anjali Prakash	
	and its impact on management	Dr. Anju Garg	
		Dr. Sapna Singh	
		Dr.Ajay Singh	
3.	Role of 3T MRI in the evaluation of	Dr. Santosh Meena	IREP 2020
	cartilage invasion in laryngeal	Dr.Sapna Singh	
	cancers	Dr Gaurav Pradhan	

	(won the third prize in Head and	Dr. Rashmi Dixit	
	Neck category)	Dr.Vikas Malhotra	
4.	Rare sino nasal masses –difficult to	Dr. Radhika Daga	DIU 2020
	diagnose?	Dr. Jyoti Kumar	
	, and the second	Dr. Gaurav Pradhan	
		Dr. Ravi Kumar	
		Dr. Vikas Malhotra	
5.	Imaging review of dystopic Os	Dr. Mohammad Shoaib	DIU 2020
	odontoideum :an uncommon entity	Dr. Anjali Prakash	
	with serious consequence	Dr. Jyoti Kumar	
	1	Dr. Sarthak Swarup	
6.	Iron deposition patterns in	Dr. Bala Subashree	DIU 2020
	thalassemia on 3T MR	Br. Bulu Subusinee	D10 2020
7.	Detection and characterization of	Dr. Damini S	DIU 2020
/ /	delamination of rotator cuff tendon	Dr. Gauarv Pradhan	DIC 2020
	tears on 3T MRI	Dr. Sapna Singh	
	tears on 31 Mixi	Dr. Sumit Sural	
		Di. Suiliit Surai	
8.	Contrast enhanced computed	Dr. Shubham Suryavanshi	- Conference on Recent advances in
	tomography and CT perfusion of	Dr. Jyoti Kumar	imaging by Delhi State chapter IRIA
	cervical lymph nodes in head and	Dr. Alpana Manchanda	Aug 2020 (online)
	neck squamous cell cancers	Dr. Ishwar Singh	riag 2020 (omine)
	neck squamous cen cancers	Dr. Nita Khurana	
		DI. Ivita Kiiurana	
9.	Comparison of CECT and CT	Dr. Shubham Suryavanshi	KSR-GMC 2020
	perfusion in differentiating benign	Dr. Jyoti Kumar	
	from malignant neck nodes in oral	Dr. Alpana Manchanda	
	cavity cancers	Dr. Ishwar Singh	
		Dr. Nita Khurana	
10.	Triple bolus multidetector	Dr. Ayush Jain	IRIA-ICRI IREP ONLINE 2020
	computed tomographic (MDCT)	Dr. Sapna Singh	
	urography in the evaluation of	Dr. Anjali Prakash	
	renal malignancy	Dr. Sushanto Neogi	
	,	Dr. Sunita Aggarwal	
		66	

Comparison between ultrasound and computed tomography in the evaluation of primary mesenteric solid	Dr. Snehal Kose Dr. Sapna Singh Dr. Anju Garg Dr. Alpana Manchanda Dr. Rajdeep Singh	IRIA-ICRI-IREP Online 2020 held from 10th October- 8th November, 2020
12. Ultrasonography based thyroid imaging, reporting and data system (TIRADS) in risk stratification of malignancy in thyroid nodules	Dr. Anjana Rao Dr. Alpana Manchanda, Dr. Anju Garg Dr. Shyamlata Jain Dr. C. B. Singh	73 rd Annual Conference of IRIA
13. Perfusion CT: A useful technique in predicting necrosis in early stage of severe, acute pancreatitis	Dr. Sayan Bhowmik, Dr. Alpana Manchanda, Dr. Jyoti Kumar Dr. Pawninder Lal, Dr. Sushanto Neogi	73 rd Annual Conference of IRIA
14. Temporomandibular joint internal derangement: Can MR Provide all answers	Dr. Anurag Mehndiratta Dr. Jyoti Kumar, Dr. Alpana Manchanda, Dr. Sujata Mohanti	73 rd Annual Conference of IRIA
15. Multiparametric MR Imaging in ocular and orbital space occupying	Dr. Apoorva Sehgal,	73 rd Annual Conference of IRIA

	lesions	Dr. Alpana Manchanda	
		Dr. Jyoti Kumar	
		D. D. 12	
		Dr. Ruchi	
16.	Spectrum of disease in patients	Dr Sanchita Gupta	RSNA Dec 2020
	presenting with symptoms of acute	Dr Rashmi Dixit	
	and chronic arterial limb ischemia	Dr Anju Garg	
	on CTA	Dr Anjali Prakash	
17.	3 Tesla Magnetic Resonance	Dr. Santosh Meena	Annual Conference of the
	imaging in the evaluation of	Dr. Sapna Singh	Chandigarh Chapter of IRIA March
	laryngeal tumors. (won the 3 rd prize	Dr. Gaurav Pradhan	2021
	in paper presentation)	Dr. Rashmi Dixit	
		Dr. Vikas Malhotra	
18.	Role of T1 weighted images in fetal	Dr. Vanita Baberwal	Annual Conference of the
	MRI	Dr. Anjali Prakash	Chandigarh Chapter of IRIA March
		Dr. Anju Garg	2021
		Dr. Sapna Singh	
		Dr. Sangeeta Gupta	
		Dr. Ajay Gupta	
19.	T1 and T2 mapping of articular	Dr. Shruti Mittal	Annual Conference of the
	cartilage and meniscus in	Dr. Gaurav Pradhan	Chandigarh Chapter of IRIA March
	osteoarthritis of knee using 3Tesla	Dr. Sapna Singh	2021
	MRI	Dr. Anju Garg	
20.	Reporting supraspinatus tears:	Dr. Damini S.	Annual Conference of the
	What all a radiology report should	Dr. Gaurav Pradhan	Chandigarh Chapter of IRIA March
	include	Dr. Sapna Singh	2021 (Poster presentation)
		Dr. Sumit Sural	
21.	Ultrasound and computed	Dr. Snehal Kose	Annual Conference of the
	tomography in the evaluation of	Dr. Sapna Singh	Chandigarh Chapter of IRIA March
	mesenteric lesions	Dr. Anju Garg	2021 (Poster presentation)
		Dr. Alpana Manchanda	
		Dr. Rajdeep Singh	
			<u>l</u>

Around 30 talks were delivered in various conferences by the faculty members:-

- 1. "Radiology in the times of COVID 19." SER panel discussion on Radiology in the time of COVID 19 on May 22nd 2020
- 2. "Renal and Retroperitoneal Masses". 7th course of AIIMS-MAMC-PGI Paediatric Imaging October 2020
- 3. "Imaging of endometriosis". IRIA ICRI E-Symposium on Womens Imaging 30th November 2020
- 4. "Radiation in Pregnancy". Annual SER conference 6th & 7th November 2020
- 5. "Developmental anomalies of the GIT', in the 7th Course of the 4th AIIMS MAMC PGI Imaging Course, on Paediatric Radiology, organised by AIIMS on 31st October20.
- 6. Childhood Biliopathies in 7th Course of the 4th AIIMS MAMC PGI Imaging Course, on Paediatric Radiology, organised by AIIMS on 31st October20.
- 7. 73rd annual conference of IRIA Jan 2020. Delivered a lecture on "MRI Safety"
- 8. Delhi imaging update 7-9th February 2020 -chaired a session
- 9. Annual Conference of the Chandigarh Chapter of Indian Radiological and Imaging Association (IRIA)22-23 Feb 2020. Delivered a talk on "Imaging of Renal cell carcinoma"
- 10. AIIMS MAMC PGI CME on 'Musculoskeletal and breast imaging' organised by PGI Chandigarh and delivered a lecture"MRI of Hip"
- 11. Indian resident education programme-IREP delivered a lecture"CT generations and beyond 9th November 2020.
- 12. Delivered a talk on "Solitary pulmonary nodule- An update" in the Delhi Imaging Update held at AIIMS from 7th _ 9th February, 2020.
- 13. Judged the resident paper poster presentation in the Delhi imaging update held at AIIMS from 7th _ 9th February, 2020.
- 14. Conducted a "Hot seat review/ Film reading session on Neuroradiology" at 10th Radiology Resident Hot Seat Review Course 2020 held at Apollo Hospital, Delhi from 21st -23rd Feb, 2020.
- 15. Delivered a lecture on "MRI of Knee" in the AIIMS-MAMC-PGI Imaging Course series on Musculoskeletal Radiology on 30th August 2020 (Virtual conference)
- 16. Delivered a talk on "Neuroimaging in HIV infection" in the IRIA-ICRI-IREP online 2020 held from 10th October -8th November, 2020 (Virtual conference)
- 17. Head and neck cases. In GRASP 2020, Bangalore, 1st and 2nd February 2020
- 18. Imaging in aerodigestive cases. In ICRI- IRIA Women's day Meet, Delhi, 8th February 2020.
- 19. Conducted a workshop on "Imaging temporomandibular joint". In 18th National triple O symposium and 4th International oral precancer and cancer conference, Maulana Azad institute of dental sciences, New Delhi, 6th to 8th March 2020.
- 20. Inner ear malformation. IRIA ICRI e symposium on Head and neck imaging. 31st May 2020.
- 21. Approach to jaw lesions. In Indian Resident Education Program by ICRI-IRIA, 17th October, 2020.
- 22. Childhood pulmonary infections. In 5th course on Pediatric Imaging in 3rd AIIMS-MAMC-PGI series, 30th October 2020.
- 23. Head and neck emergency. In 7th Annual Conference of Society of Emergency Radiology online, 6th-7th November 2020.

- 24. Temporal bone basics. In 9th ENT Update- online, 5th December 2020.
- 25. Residents Quiz in 1st Annual meet of ISHNR online, 6th December 2020.
- 26. Malignant Bone Tumors in AIIMS MAMC PGI Imaging Course Series on Musculoskeletal Imaging on 29th August 2020
- 27.Spotters in IRIA KOCHI & KREST KOCHI Webinar 2020 on 11th September 2020
- 28. 'Neuroimaging- When and What' at The Conference Medicine Update-2020 held at Maulana Azad medical college on 29th February 2020
- 29. Conducted a film reading session / model case presentation on Neuroradiology on 13th feb 2021.

Extension and Outreach activities: During Covid Pandemic first year postgraduate students were posted in health centers and community outreach programmes for contact tracing.

Faculty strength: 9

S.No.	Name of Faculty	Designation
1.	Dr. Anju Garg	Director Professor & HOD
2.	Dr. Gaurav Shanker Pradhan	Director Professor
3.	Dr. Alpana Manchanda	Director Professor
4.	Dr. Rashmi Dixit	Director Professor
5.	Dr. Anjali Prakash	Director Professor
6.	Dr. Sapna Singh	Director Professor
7.	Dr. Jyoti Kumar	Professor
8.	Dr. Swati Gupta	Associate Professor
9.	Dr. Radhika Batra	Associate Professor
10.	Dr. Satyam	Specialist

Other Significant information:

Dr Anju Garg, HOD was co-editor of following books-

Books Edited-

- Dr. Anju Garg was co editor of the textbook Diagnostic Imaging Musculoskeletal and Breast Imaging 4th
 Edition Jaypee Brothers Medical Publishers(P) Ltd. Ed-Gupta, Garg, Sandhu, 2020
- 2. Dr. Anju Garg was co editor of the textbook Diagnostic Imaging Paediatric Imaging 4rdEdition Jaypee Brothers Medical Publishers(P) Ltd. Ed-Gupta,Garg, Sandhu, 2020

16 chapters were contributed by the faculty members in the textbooks of Radiology.

Chapters Contributed-

Following chapters were contributed in the Text book of Musculoskeletal and Breast Imaging 4^{th} Edition Jaypee Brothers Medical Publishers(P) Ltd. Eds-Gupta , Garg , Sandhu 2020

- 1. Tuberculosis of bones and joints Gaurav Shanker Pradhan, Rashmi Dixit, Jyoti Kumar.
- 2. Tuberculosis of Spine-Rashmi Dixit, Gaurav Shanker, Pradhan, Radhika Batra
- 3. Degenerative Diseases Of Spine- Jyoti Kumar, Anju Garg, Anjali Prakash
- 4. Skeletal Disorders Of Metabolic and Endocrine Origin- Alpana Manchanda, Jyoti Kumar, Swati Gupta
- 5. Malignant Bone Tumors-Anju Garg, Radhika Batra, Sapna Singh.
- 6. Imaging in Marrow Disorders- Benign and Malignant- Swati Gupta, Sapna Singh, Alpana Manchanda
- 7. Magnetic Resonance Imaging of The Hip and Pelvis- Anjali Prakash, Alpana Manchanda, Rashmi Dixit
- 8. Magnetic Resonance Imaging of Knee-Sapna Singh, Anjali Prakash, Gaurav Shanker Pradhan

Following chapters were contributed in the Text book of Diagnostic Radiology- Paediatric Imaging 4^{th} Edition Jaypee Brothers Medical Publishers(P) Ltd. Eds - Gupta, Garg , Sandhu, 2020

- 1. Childhood pulmonary Infections- JyotiKumar, AnjaliPrakash, Alpana Manchanda
- 2. Developmental anomalies of Gastrointestinal Tract-AlpanaManchanda, AnjuGarg, RadhikaBatra
- 3. Childhood Biliopathies-Rashmi Dixit, Sapna Singh, Anju Garg
- 4. Renal and Retroperitoneal Masses-Anju Garg, Alpana Manchanda, Radhika Batra
- 5. Skeletal Dysplasia- Gaurav Shanker Pradhan, Radhika Batra, Sapna Singh
- 6. Imaging of Pediatric Joint Pathology-Anjali Prakash, Rajat Jain, Gaurav Shanker Pradhan, Jyoti Kumar
- 7. Craniospinal Sonography- Radhika Batra, Rashmi Dixit, Anjali Prakash
- 8. Metabolic Disorders of Brain-Sapna Singh, Jyoti Kumar, Rashmi Dixit

Representation on expert committee/bodies and awards:

Dr. Anju Garg

1) Member of the state supervisory board under the PC & PNDT.

- Member of the technical specification and evaluation committee for purchase of Radiology equipments for AIIMS.
- 3) Member of technical specification and evaluation committee for purchase of radiology equipments for the Delhi government hospitals (CPA).
- 4) Member of the technical committee for Essential Drugs and other Consumable and non-consumable items for department of Radiodiagnosis for Delhi Govt hospitals.
- 5) Member of the pharmaco-vigilance committee MAMC.
- 6) Member of Subject Expert Committee (Radiodiagnosis) at Central Drugs Standard Control Organisation (CDSCO).
- 7) Expert in selection committee for senior residents at MAMC & LN Hospital 8) Expert in selection committee for faculty at Baba Sahab Ambedkar Hospital.
- 9) Member of the PG Expert Group of NMC.
- 10) Member of expert committee of LNH for selection of various paramedical posts.
- 11) Executive member of the International Federation of Ultrasound in Medicine & Biology (IFUMB) Delhi Chapter.
- 12) Executive member of the Indian Society of Paediatric Radiology.
- 13) Member of Women's Imaging Subspeciality group of ICRI '20.
- 14) Part of the 4 member committee who formulated Women's Imaging guidelines 2020 for Indian college of Radiology and Imaging.
- 15) External expert for MD thesis evaluation from various institutes across the country.
- 16) Expert reviewer for the IJRI and MAMC journal.

Dr Gauray Pradhan

1) On panel as 'teaching subject expert' in the selection committee for the recruitment of teaching faculty at ESI hospital and Medical College Faridabad.

Dr Alpana Manchanda

- 1) Member of board constituted for interview and selection of senior Residents appointed at LNH.
- 2) On panel as 'teaching subject expert' in the selection committee for the recruitment of teaching faculty of North Delhi Municipal Corporation Medical College, Delhi.
- 3) On panel as external examiner for MD Radio diagnosis of Baba Farid

University Punjab; Banaras Hindu University, Varanasi; AIIMS, New Delhi.

- 4) Appointed as assessor for thesis evaluation for DNB students by National Board of Examinations.
- 5) Nodal Officer of PC&PNDT from the department of Radio diagnosis,

MAMC.

Dr. Rashmi Dixit

- 1) Subject expert National Board.
- 2) Member Pharmavigilance committee.

Dr. Anjali Prakash

- 1) National Board Of Examinations –member speciality board of Radiodiagnosis. OSCE coordinator, National webinar coordinator
- 2) NABH- Member, Accreditation and technical committee for Radio diagnosis.
- 3) Technical committee- ILBS, Delhi.
- 4) Member TAC-AIIMS DELHI.
- 5) AIIMS, RISHIKESH-member selection board for faculty.
- 6) Library Advisory Committee-MAMC.
- 7) Raksha –save the girl child programme of IRIA –North zone co-ordinator.
- 8) President Elect-Indian Radiological and Imaging Association Delhi.
- Awarded President appreciation Award 2020 presented on 30th January 2021 by Indian radiological and Imaging Association.

Dr Sapna Singh

- 1) Subject expert for DNB MCQ workshops, thesis checking and paper setting.
- 2) Subject expert for DNB examination.
- 3) Awarded the Academic Excellence Award in DIU-2021.

Dr. Jyoti Kumar

- 1) Member of Head and Neck Imaging Subspeciality group of ICRI '20.
- 2) Founding member of Indian Society of Head and Neck Radiology.
- Part of the 5 member committee who formulated head and neck Imaging guidelines '20 for Indian college of Radiology and Imaging.
- 4) Member of Subject Expert Committee (Radiodiagnosis) at Central Drugs Standard Control Organisation (CDSCO), Directorate General of Health Services (DGHS).
- 5) Member of outreach programme committee of IRIA '20 for "Oncoimaging".

- 6) External expert for DNB in 'OSCE' and 'MCQ' workshops.
- 7) External expert for MD and DNB thesis evaluation from various institutes across the country.
- 8) Coordinator for IRIA ICRI Head and Neck online teaching program 2021.

Dr Radhika Batra: Member of IT committee Lok Nayak Hospital and MAMC.

RADIODIAGNOSIS (UCMS)

2. Major Activities and Achievements (Maximum 150 words):

Besides MBBS teaching the Department of Radio-diagnosis is running an undergraduate course B.Sc. (Medical Technology) Radiography, two major postgraduate courses, MD Radio-diagnosis and M.Sc. (Medical Imaging Technology) Radiography. The department boasts of excellent placement of its B.Sc. and M.Sc. (MIT) Radiography students, with many students placed in reputed organizations like Indian Railways, JIPMER Pondicherry, AIIMS New Delhi, DSSSB Delhi and PGI Chandigarh. All our post graduate students are well placed across the country both in government and private sector and many are working overseas.

The faculty is involved in continuous research, has undertaken funded projects; has numerous publications and is also active in various conferences/ CMEs.

The department has a 64 slice Multidetector CT scanner, fluoroscopy, multiple digital radiography and high end ultrasound/Doppler machines. It provides round the clock services and has been providing uninterrupted imaging services during the COVID Pandemic.

We are constantly upgrading the department; there was an addition of 03 static digital radiography systems, one digital portable Xray machine and a high end ultrasound machine in the department in the year 2020-21, and 07 new radiographers were appointed.

2. Honors/Distinctions:

- 1. Certificate of appreciation awarded to Dr. Shuchi Bhatt on INTERNATIONAL WOMEN'S DAY 2020 Organized by IRIA, Delhi IRIA house, New Delhi.
- 2. Certificate for appreciation of "Corona warriors" awarded to Dr. Shuchi Bhatt on 22 March, 2021 at Delhi Vidhan Sabha, New Delhi
- 3. Appointed as co-opted executive member of IRIA, Delhi branch for the year 2021
- 4. Doctors excellence award given to Dr. Gopesh Mehrotra by Delhi Medical Association, Delhi

5. Dr. Arunima Aggarwal

- 1. Certificate of appreciation for outstanding performance in the $11^{\rm th}$ Radiology Resident's Hot seat Review course 2021
- 2. Certificate of distinction for third prixe in overall performance in the 11th Radiology Resident's Hot seat Review course 2021.

6. Dr. Shrea Gulati

1. Hot seat review course 2021

2. Certificate of distinction for performance in spotters in 11th Radiology Residents Hot Seat Review Course 2021.

7. Dr. Saloni Dagar.

- 1. Certificate of appreciation for outstanding performance in the 11th Radiology Resident's Hot Seat Review course 2021.
- 2. Academic Excellence Award for outstanding scholastic performance in the PG Mock Examination of Webinar 2020 series organized by IRIA Kochi & KREST Kochi.

8. Dr. Shikha Aggarwal

Sharda Vishwanathan Prize for MBBS (highest percentage of marks in Obstetrics and Gynecology) in 2020 97th Annual Convocation of University of Delhi, held on 27th Feb.2021

3. Publications

Dr Vinita Rathi

- 1. Singh P, Jain S, Rajaram S, **Rathi V**, Gupta B, Kalra K. (**2020**), Pregnancy and labor outcomes in squat versus western style sitting toilet users: a pilot study. International Journal of Reproduction, Contraception, Obstetrics and Gynecology, 9(11); 4601-4605
- 2. Malla D, **Rathi V**, Gomber S, Upreti L. (**2020**) Can lung ultrasound differentiate between bacterial and viral pneumonia in children J Clin Ultrasound; 49(1), 91–100.
- 3. Yadav V, **Rathi V**. (2021)<u>B</u>ronchial carcinoid with bronchocele masquerading as Scimitar syndrome on chest radiograph. Radiology Case Reports; 16:710-713.
- 4. Gulalti S, **Rathi V**, Jain S, Bhatt S. (**2021**) Incidentalomas of the Female genital tract on 64 slice MDCT: A clinico-radiological pictorial review. Abdominal Radiology DOI: <u>10.1007/s00261-021-03086-9</u>Corpus ID: 233355959
- 5. Dagar S, **Rathi V**. (**2021**) Incidental floating aortic thrombus in severe pulmonary COVID-19 infection.ClinicalImage.Indian J Med Res. June. DOI:10.4103/ijmr.IJMR_4590_20.

DR. SHUCHI BHATT

- 1. Yadav V, **Bhatt S**, Athaullah, Dangwal S. (2021) Rare occurrence of dural arteriovenous fistula in a child: Multi-modality imaging and literature review. Radiology Case Reports, 16(4), 879-883.
- **2.** Agarwal A, Tandon A. **Bhatt S**, Agarwal A, Dagar S, Bansal H. (2021) COVID19 pneumonia with cavitation and cystic lung changes: MDCT spectrum of a gamut of etiologies A pictorial review. BJR Open, 3: 20210007.
- **3.** Shekhar H,Sharma N, Singh SK, PKGarg, **Bhatt S**, Saha R, Verma AK. (2021).Clinico-radiological profile of the patients with empyema thoracis: A prospective analytical study. <u>Indian Journal of Tuberculosis</u>. (Online 11 March). https://doi.org/10.1016/j.ijtb.2021.03.007
- 4. **Bhatt S**, Bansal H, Nayak S, Dangwal S. (2021) High presacral collection approached through the perineal route: A novel computed tomography-guided technique. South African Journal of Radiology. 25(1), a2014.
- 5. Suneja A, Faridi F, **Bhatt S**, (2021). Guleria K, Mehndiratta M, Sharma R. Effect of Vitamin D3 supplementation on symptomatic uterine leiomyoma in women with Hypovitaminosis D. January-March, 12(1), 53-60.
- 6. Gulati S, Rathi V, Jain S, **Bhatt S**. (April 2021). Incidentalomas of the Female genital tract on 64 slice MDCT: A clinico-radiological pictorial review. Abdom Radiol Doi.org/10.1007/s00261-021-03086-9

University of Delhi: Annual Report 2020-21

- 7. Rai S, Garg P K, Bhatt S, (2020). Latha T K, Verma A K, Banerjee B D, Singh M P. The diagnostic role of micro RNA 21 in patients with non-small cell lung cancer: an exploratory study". Lung India, 37(1), 501-505.
- **8.** Swaroop S, **Bhatt S**, Rawal R, Tandon A, Dangwal S.(2020). Tuberculosis a great masquerader; Unveiling rare sites of Musculoskeletal involvement through imaging- A Case series. South African Journal of Radiology, 24(1), a1919.
- 9. Tandon A, Khullar T, Maheshwari S, **Bhatt S**, Narang S.(2020) "High Resolution Ultrasound in Sub-clinical Diabetic Neuropathy: A Potential Screening Tool". Ultrasound. Sage journals,0(0),1-12.
- 10. Suneja A, Garg A, **Bhatt S**, Guleria K, Sv M, Sharma R.(2020). Impact of Opportunistic Salpingectomy on Ovarian Reserve and Vascularity in Patients undergoing Hysterectomy". Indian Journal of Gynecologic Oncology, 18(4), 107.
- 11. Sabharwal T, Tandon A, **Bhatt S**, Gupta K. Voluminous Abdomino-pelvic Cystic Mass in an Adolescent Girl: Rare Presentation of Imperforate Hymen. J Clin Cases Rep 4(S8),4-6,ISSN, 2582-0435
- 12. **Bhatt S**, Banerjee A, Tandon A, Dangwal S, Gupta A. (2020). Kaleidoscopic View Of Male Urethral Pathologies On 64 Slice Multi-detector CT Urethrography- A Novel Technique. Journal: South African Journal of Radiology. S Afr J Rad., 24(1), a1964.
- **13.** Chawla S, **Bhatt S**, Tandon A, Meena G, Dangwal S. (2020). Bilateral Hutch diverticula in an elderly male: Revelation of an unknown past. S Afr J Rad,24(1),a1963.

Dr Anupama Tandon

- 1. **Tandon A**, Khullar T, Maheshwari S, Bhatt S, Narang S. (2020). **"High Resolution Ultrasound in Sub-clinical Diabetic Neuropathy: A Potential Screening Tool"**. Ultrasound. 0(0) 1-12.
- 2. Aggarwal A, **Tandon A**, Bhatt S, Aggarwal A, Dagar S, Bansal H. (2021). COVID19 pneumonia with cavitation and cystic lung changes: multidetector computed tomography spectrum of a gamut of etiologies. BJR Open, 3: 20210007.
- 3. Sabharwal T, **Tandon A**, Bhatt S, and Gupta K. (2020). Voluminous Abdomino-pelvic Cystic Mass in an Adolescent Girl: Rare Presentation of Imperforate Hymen. Journal of Clinical Cases and Reports 4(58) ISSN: 2582-0435.
- 4. Yadav A, **Tandon A**. (2021). The influence of volumetric tumor doubling time on survival of patients with intracranial tumors. International journal of scientific research. Volume 10(4) ,39-43.
- 5. Swaroop S, Bhatt S, Rawal R, **Tandon A**, Dangwal S. (2020). Tuberculosis a great masquerader; Unveiling rare sites of Musculoskeletal involvement through imaging- A Case series. South African Journal of Radiology, 24(1), a1919.
- 6. Bhatt S, Banerjee A, **Tandon A**, Dangwal S, Gupta A. (2020). Kaleidoscopic View Of Male Urethral Pathologies On 64 Slice Multi-detector CT Urethrography- A Novel Technique. Journal: South African Journal of Radiology. S Afr J Rad, 24(1), a 1964.
- 7. Chawla S, Bhatt S, **Tandon A**, Meena G, Dangwal S. (2020). Bilateral Hutch diverticula in an elderly male: Revelation of an unknown past. S Afr J Rad,24(1),a1963.

Dr. A.K. Srivastava

- 1. **Srivastava** A. (Chanchal kaushik, inderjeet singh sandhu, A.K Srivastava estimates of patient doses and kerma- area product monitoring in digital radiography, radiation protection dosimetry vol. 00, no. 00, pp. 1–9.
- 7. **Journals** NONE
- 8. **Research Projects** -Ongoing under guidance of Dr. Anupama Tandon
- (1) Research fellowship on project title "To study the DNA damage and repair mechanism in the patients undergoing multidetector computed tomography (MDCT)" Granted in 2019 for 03 years tenure, Grant of Rupees 16 Lac 50 thousand approx.
- (2) ICMR support for MD thesis "Role of low dose CT perfusion imaging in evaluation of breast cancer using 64 slice MDCT: a pilot study: Grant of Rs.50,000/-. Granted in 2020

Seminars / Conference - Presentations (National / International)

Single line space between two entries (Please do not include if only attended)

Conference invited lecture / live demo:

Dr. Anupama Tandon:

- 1. ICR-IRIA IREP Oct- NOV 2020- Delivered talk on "Imaging approach to bone tumors" virtual meeting.
- 2. Faculty at MSK & Genitourinary Imaging Film Reading session on 20th February 2021 of IRIA Delhi. (Virtual meet).

Dr. Shuchi Bhatt:

15. Faculty Strength

- 1. Panelist for film reading session for Postgraduate Radio-diagnosis students organized by IRIA Delhi Chapter on 6th Feb.2021 online platform.
- 2. Invited faculty for talk on "Imaging in Thromboembolism" in Delhi Imaging Update 2021 organized by IRIA Delhi Chapter on 17th April, 2021 on line Platform.
- 9. National/International MoUs Signed NIL
- 10. Other Inter-Institutional Collaboration NIL
- 11. Students under Exchange Programme NIL
- 12. Placement Details (Number and percentage of students placed) NIL
- 13. Extension and Outreach activities NIL
- 14. Number of M.Phil / Ph.D. Degrees Awarded NIL

- Professor- 04 (UCMS - 03 & CHS - 01) - Non-Teaching - 03 (01 Medical Physicist cum RSO from UCMS

01 Medical Physicist - GTBH

01 Medical Specialist Grade-III

RADIOTHERAPY (MAMC)

- 1. NAME OF THE HEAD OF THE DEPARTMENT: Dr. Arun Kumar Rathi
- 2. MEMBERS WHO HAVE LEFT DURING THE PERIOD:NIL

3. ADDITION OF THE FACULTY DURING THE PERIOD:NIL

4. RESEARCH SCHEME

- a) Ongoing projects: Dr. Anurita Srivastava
 - Database creation for computational predictive analysis of treatment response assessment in Esophageal cancer patients in India" Project funded by extramural grant from ICMR
 - II. Trials & tribulations of cancer patients during Covid-19 pandemic .Multicenter project ongoing
- III. Part of HBCR under ICMR project of National Centre for Disease Informatics and Research (NCDIR).

b)On going thesis

- Dr. Nayan Agarwal: Biodosimetric comparison of head and neck squamous cell carcinoma patients undergoing concurrent chemoradiation with or without gefitinib by dicentric assay.
- 2. Dr. Shashi: Occurrence and prognostic significance of p16 in locally advanced carcinoma cervix patients
- 3. Dr. Nity: Systemic inflammatory markers in carcinoma cervix patients treated with chemoradiation
- 4. **Dr. Tejasi:** Systemic inflammatory markers in patients of carcinoma esophagus undergoing neoadjuvant treatment
- 5. **Dr. Srishti**: Occurrence and Clinico-Pathological correlation of founder mutations 185delag (brca1) and 6174delt (brca2) in patients of locally advanced breast cancer.
- 6. **Dr. Abhishek Yadav** Biodosimetric comparison of head and neck cancer patients treated with concurrent chemotherapy versus CRISTIE regimen by dicentric chromosomal assay
- 7. **Dr. Fazlu Rehman P** Randomised control trial to assess impact of nutritional intervention on unscheduled treatment gaps in head and neck cancer patients receiving radiation
- 8. **Dr. Mohit Kumar Sharma-** The proportion of P53 R273H mutations, its clinicopathological significance and implication in 5-fluorouracil and oxaliplatin based chemotherapy in colon cancer patients
- 9. **Dr. Prabhakar Gupta-** Predictive value of P16 in esophageal squamous cell carcinoma treated with neoadjuvant therapy
- 10. **Dr. Ravinder Kaur** Proportion and prognostic significance of P16 positivity in locally advanced carcinoma anal canal patients
- 11. **Dr. Tanshi Daljit** Impact of serum vitamin D level and VDR gene expression on outcome in patients of cervical cancer treated with chemoradiation

1) (b) Details of thesis completed during the year:

 Dr. Deepshika Rai: Comparison of cisplatin with paclitaxel and carboplatin as concurrentchemotherapy regime in treatment of carcinoma cervix

- 2. **Dr. Himanshi Kaushik**: Comparison of biodosimetry in head and neck cancer patients treated with concurrent chemoradiotherapy versus accelerated fractionation radiotherapy by dicentric chromosomal aberration
- 3. **Dr. Nitish Kumar**: Comparison of effect of early versus delayed surgery after neoadjuvant therapy in carcinoma esophagus.
- 4. **Dr. Ankita Katoch**: To compare toxicity profile of mFOLFOX-6 with CAPOX, given as adjuvantchemotherapy in carcinoma rectum
- 5. Dr. Lakshmi Raj: Prognostic significance of p16 expression in oropharyngeal cancers
- 5. TRAINEES FROM OTHER AGENCIES: Nil.
- 6. TRAINING COURSE/CONFERENCES/WORKSHOPS ORGANIZED: NIL

7. PUBLICATIONS DURING THE PERIOD:

- I. Mayank Aggarwal, Archana Aggarwal, Savita Arora, Arun Kumar Rathi, Kishore Singh. Demographic and Clinicopathological profile of patients of gastrointestinal stromal tumor from a tertiary care center of north India: An observational study. J Can Res Therapeutics. 2020;16 (Suppl.1): S99-103.
- II. Nishant Sagar, Meeta Singh, Neelakshi Goyal, Nita Khurana, Kishore Singh, Ravi Meher. Radiation-induced leiomyosarcoma of oral cavity: Two cases with a review of literature. J Cancer Research & Earney: Therapeutics. 2020;16 (Suppl.1): S230 232.
- III. Kishore Singh, Rubu Sunku, Arun K. Rathi, Gaurav S. Pradhan. Predicting outcome of advanced headand-neck cancer by measuring tumor blood perfusion in patients receiving neoadjuvant chemotherapy. J Cancer Research Therapeutics. 2020;16 (Suppl.1): S34 - 38.
- IV. Kishore Singh and Wineeta Melgandi. Book review Fundamentals of radiation oncology Physical, biological and clinical aspects. J Cancer Research Therapeutics. 2020;16 (6): 1546.
- V. Savita Arora, Neha Sharma, Arun Kumar Rathi, Kishore Singh, Kavita Sehrawat. Complete androgen insensitivity syndrome with intra-abdominal seminoma in a phenotypic female: A rare presentation. J Cancer Research & Cancer Research & DOI: 10.4103/jcrt.JCRT_302_18].
- VI. Kishore Singh, Anurita Srivastava, Siddharth Srivastava, Aditi Aggarwal, Varshu Goel, Arun Kumar Rathi. Significance of Inter aorto-caval lymph nodes in gallbladder cancer management. Journal of Clinical Oncology 38, no. 15_suppl [DOI:10.1200/JCO.2020.38.15_suppl.e16607]
- VII. Christie Regimen" palliative radiotherapy in advanced head-and-neck cancer: A single-center experience A Srivastava, N Adhikari, DR Sonkar, K Singh, AK Rathi
- VIII. Significance of Inter aorto-caval lymph nodes in gall bladder cancer management. K Singh, A Srivastava, S Srivastava, A Aggarwal, V Goel, AK Rathi, ...Journal of Clinical Oncology 38 (15_suppl), e1660 e16607 2020

- IX. Inter aorto caval lymph nodes in Gall bladder cancer: Reality or hype?S Srivastva, A Srivastava, A Dahale, U Sonika, R Srivastava, P Sakhuja, ...JOURNAL OF GASTROENTEROLOGY AND HEPATOLOGY 34 391-391, 2019
- X. Dosimetric impact of dwell time deviation constraint on inverse brachytherapy treatment planning and comparison with conventional optimization method for interstitial brachytherapy implants Saurabh Roy1, V Subramani2, Kishore Singh3, Arun Kumar Rathi3 1 Department of Radiotherapy, Lok Nayak Hospital, Delhi; Research and Development Centre, Bharathiar University, Coimbatore, Tamil Nadu, India 2 Department of Radiotherapy, Dr. BRA IRCH, AIIMS, Delhi, India 3 Department of Radiotherapy, Lok Nayak Hospital, Delhi, India, Journal of clinical research and therapeutics,oct 2020
- XI. A research paper title "Concentration-dependent reddish-orange photoluminescence studies of Sm3+ ions in borosilicate glasses" Mohit Kumar, A.S.Rao,... International journal Optical Materials.

8. BOOKS/CHAPTERS CONTRIBUTED:

- a. Dr. Kishore Singh- and Dr. Kumar Prabhat have contributed a Chapter on Principles of chemotherapy in gynecological cancer in the book Management of Gynecological cancer, MAMC(2021)
- b. Dr Arun Kumar Rathi, Dr. Savita Arora, Dr. Faiz A. Akram, Dr Wineeta, Dr. Kavita Sehrawat
 -contributed a Chapter on Principles of radiotherapy in gynecological cancer in the book

 Management of Gynecological cancer, MAMC (2021),
- c. Dr Arun Kumar Rathi ,Dr. Kavita Sehrawat Chapter on Ca Anal Canal in MAMC Surgery
 Update (2021)

9. WORKSHOPS/CONFERENCES/SYMPOSIUM ATTENDED:

- i. Dr Kishore Singh attended "3rd Annual India Hospital Design & Build Summit 2020", on 20th Feb, 2020 in New Delhi, India.
- ii. Dr. Savita Arora presented a Lecture on management of Carcinoma cervix under bannership of NARCHI, Delhi, organized by LHMC N.Delhi
- iii. Mr.Mohit Kumar(physicist)
 - a) Oral Presentation (OT-14) entitled "Er3+ ions doped borosilicate glasses for photonic applications" in Online National Conference on Recent Advances in Functional Materials (RAFM-2020) organised by Department of Physics, ARSD College, University of Delhi during 5-6th November 2020 and got Award of Excellence for Best Oral Presentation.
 - b) Presented poster entitled "Lithium Bismuth Borosilicate Glasses Activated with Sm³⁺ for Optoelectronic Application" in the International Conference on Atomic, Molecular, Optical and

University of Delhi: Annual Report 2020-21

Nano Physics with Applications (CAMNP 2019), Delhi Technological University DTU, Delhi, during 18-20th Dec 2019.

10. SIGNIFICANT EVENTS(HONORS TO FACULTY):

Dr Kishore Singh

- a) Invited as chairperson at "Official San Antonio Breast Cancer Symposium® (SABCS®) India", on 7th and 8th March 2020.
- b) Invited as chairperson at "Best of ASTRO 2020" on 15th & amp 16th August 2020.
- c) Invited as panelist at "4th International Oral Pre-Cancer and Oral Cancer Congress & Drawn" from 6th to 8th March, 2020
- d) Guest of honor at inaugural function of training program on 'Hospital preparedness for fire safety and disaster management' at GGSIPU, Delhi on 04.01.2020.
- e) M.D Examiner at
 - i. AIIMS, New Delhi
 - ii. BHU, Varanasi
 - iii. AMU, Aligarh
 - iv. KGMU, Lucknow
 - v. ILBS, Delhi

Dr. A. K. Rathi

- 1. Post graduate examiner at:
 - a. Bikaner, Rajasthan.
 - b. PGIMS, Rohtak, Haryana.
 - c. AIIMS. Delhi.
 - d. Dehradun, Uttakhand.
- 2. PhD examiner at Shri Mata Vaishno Devi University, Katra, J &K
- 3. Examiner at National Board of Examination (NBE).
- 4. Expert for faculty interview at Lady Hardinge Medical College, New Delhi.

vi.

Dr.Savita Arora: M.D. Examiner at

- i. AIIMS, N.Delhi (For thesis evaluation)
- ii. VMMC, N. Delhi
- iii. SNMC, Agra

11. FELLOWSHIP:NIL

12. REPRESENTATION ON EXPERT COMMITTEE/BODIES:

Dr. Kishore Singh

- a. Independent Expert Committee for examination of reports of Serious Adverse Events (SAE's) of Death occurred during clinical trials at DCG (I), CDSCO (HQ), FDA, Ministry of Health and Family Welfare.
- b. Expert member for Delhi Medical Council.
- c. Subject expert for DNB practical examination.
- d. Subject expert for selection of Assistant Professor in Radiation Physics Department Invitation as Subject Expert at Pt. B.D. Sharma University of Health Sciences, Rohtak on 04.03.2020
- e. Member expert of selection committee for recruitment of Assistant Professor at Delhi State Cancer Institute

Dr A. K. Rathi

- a. Convenor at National Board of Examination (NBE).
- b. Assessor and chief coordinator of exams, dept of radiation oncology, NBE

13. HEALTH SERVICES TO THE COMMUNITY: NIL

14. LAB DATA:NIL.

15. NEW FACILITIES ADDED

- i. CT Simulator installed in the department
- ii. Site modification for installation of linear accelerator started.

16. ANY OTHER WORTH MENTIONING INFORMATION:

Dr. Kishore Singh

- i. Worked as Medical Director Lok Nayak Hospital, Delhi till 27.03.2020.
- ii. Working as 'Editor in Chief' of Journal of Cancer research and Therapeutics, official Journal of Association of Radiation Oncologists of India.

Dr A.K.Rathi

 Working as executive editor of Journal of Cancer research and Therapeutics, official Journal of Association of Radiation Oncologists of India

Radiation Oncology

University of Delhi 98th Annual Report for the period of 01.04.2020 to 31.03.2021

Department of Radiation Oncology Faculty of Medical Sciences

1.Major Activities and Achievements:

CT Simulator was installed in the department. Site modification for installation of linear accelerator has started.

2.Honours/Distinctions: NIL

3. Publications:

I. Christie Regimen" palliative radiotherapy in advanced head-and-neck cancer: A single-center

experience A Srivastava, N Adhikari, DR Sonkar, K Singh, AK Rathi

II. Significance of Inter aorto-caval lymph nodes in gall bladder cancer management. K Singh, A

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(15_suppl), e1660 e16607 2020

III. Kishore Singh, Rubu Sunku, Arun K. Rathi, Gaurav S. Pradhan. Predicting outcome of advanced

head-and-neck cancer by measuring tumor blood perfusion in patients receiving neoadjuvant

chemotherapy. J Cancer Research Therapeutics. 2020;16 (Suppl.1): S34 - 38.

IV. Kishore Singh and Wineeta Melgandi. Book review Fundamentals of radiation oncology - Physical,

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Rathi. Significance of Inter aorto-caval lymph nodes in gallbladder cancer management. Journal of

Clinical Oncology 38, no. 15_suppl [DOI:10.1200/JCO.2020.38.15_suppl.e16607]

VI. Mayank Aggarwal, Archana Aggarwal, Savita Arora, Arun Kumar Rathi, Kishore Singh.

Demographic and Clinicopathological profile of patients of gastrointestinal stromal tumor from a

tertiary care center of north India: An observational study. J Can Res Therapeutics. 2020;16

(Suppl.1): S99-103.

VII. A research paper title "Concentration-dependent reddish-orange photoluminescence studies of Sm3+

ions in borosilicate glasses" Mohit Kumar, A.S.Rao,... International journal Optical Materials

- VIII. Nishant Sagar, Meeta Singh, Neelakshi Goyal, Nita Khurana, Kishore Singh, Ravi Meher. Radiation -induced leiomyosarcoma of oral cavity: Two cases with a review of literature. J Cancer Research & Camp; Therapeutics. 2020;16 (Suppl.1): S230 232.
 - IX. Savita Arora, Neha Sharma, Arun Kumar Rathi, Kishore Singh, Kavita Sehrawat. Complete androgen insensitivity syndrome with intra-abdominal seminoma in a phenotypic female: A rare presentation. J Cancer Research & Camp; Therapeutics. [E-published ahead of print] [DOI: 10.4103/jcrt.JCRT_302_18].
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- XI. Dosimetric impact of dwell time deviation constraint on inverse brachytherapy treatment planning and comparison with conventional optimization method for interstitial brachytherapy implants Saurabh Roy1, V Subramani2, Kishore Singh3, Arun Kumar Rathi3 1 Department of Radiotherapy, Lok Nayak Hospital, Delhi; Research and Development Centre, Bharathiar University, Coimbatore, Tamil Nadu, India 2 Department of Radiotherapy, Dr. BRA IRCH, AIIMS, Delhi, India 3 Department of Radiotherapy, Lok Nayak Hospital, Delhi, India, Journal of clinical research and therapeutics, oct 2020

XII. A research paper title "Concentration-dependent reddish-orange photoluminescence studies of Sm3+ ions in borosilicate glasses" Mohit Kumar, A.S.Rao,... International journal Optical Materials.

BOOKS/CHAPTERS CONTRIBUTED:

- d. Dr. Kishore Singh- and Dr. Kumar Prabhat have contributed a Chapter on Principles of chemotherapy in gynecological cancer in the book Management of Gynecological cancer, MAMC(2021)
- e. Dr Arun Kumar Rathi, Dr. Savita Arora, Dr. Faiz A. Akram, Dr Wineeta, Dr. Kavita Sehrawat
 contributed a Chapter on Principles of radiotherapy in gynecological cancer in the book
 Management of Gynecological cancer, MAMC (2021),
- f. Dr Arun Kumar Rathi ,Dr. Kavita Sehrawat Chapter on Ca Anal Canal in MAMC Surgery Update (2021)

- **4.Journals**:Dr. Kishore Singh is Working as 'Editor in Chief' of Journal of Cancer research and Therapeutics, official Journal of Association of Radiation Oncologists of India.
- Dr A.K. Rathi is Working as executive editor of Journal of Cancer research and Therapeutics, official Journal of Association of Radiation Oncologists of India

5. Research Projects:

- b) Ongoing projects:
- Dr. Anurita Srivastava
- IV. Database creation for computational predictive analysis of treatment response assessment in Esophageal cancer patients in India" Project funded by extramural grant from ICMR.Fund granted annually Rs 2597840/- (to be shared by 8 centres)
- V. Trials & tribulations of cancer patients during Covid-19 pandemic .Multicenter project ongoing
- VI. Part of HBCR under ICMR project of National Centre for Disease Informatics and Research (NCDIR). Fund received annually:Rs 1998500/-
- VII. SCC antigen in Esophageal cancer funded by MRU Rs 1 lakh in total.

b) On going Post Graduate thesis

- 12. Dr. Nayan Agarwal: Biodosimetric comparison of head and neck squamous cell carcinoma patients undergoing concurrent chemoradiation with or without gefitinib by dicentric assay.
- 13. Dr. Shashi: Occurrence and prognostic significance of p16 in locally advanced carcinoma cervix patients
- 14. Dr. Nity: Systemic inflammatory markers in carcinoma cervix patients treated with chemoradiation
- 15. Dr. Tejasi: Systemic inflammatory markers in patients of carcinoma esophagus undergoing neoadjuvant treatment
- 16. Dr. Srishti: Occurrence and Clinico-Pathological correlation of founder mutations 185delag (brca1) and 6174delt (brca2) in patients of locally advanced breast cancer.
- 17. Dr. Abhishek Yadav Biodosimetric comparison of head and neck cancer patients treated with concurrent chemotherapy versus CRISTIE regimen by dicentric chromosomal assay
- 18. Dr. Fazlu Rehman P Randomised control trial to assess impact of nutritional intervention on unscheduled treatment gaps in head and neck cancer patients receiving radiation
- 19. Dr. Mohit Kumar Sharma- The proportion of P53 R273H mutations, its clinicopathological significance and implication in 5-fluorouracil and oxaliplatin based chemotherapy in colon cancer patients
- 20. Dr. Prabhakar Gupta- Predictive value of P16 in esophageal squamous cell carcinoma treated with neoadjuvant therapy
- 21. Dr. Ravinder Kaur- Proportion and prognostic significance of P16 positivity in locally advanced carcinoma anal canal patients
- 22. Dr. Tanshi Daljit- Impact of serum vitamin D level and VDR gene expression on outcome in patients of cervical cancer treated with chemoradiation

Seminar/Conference Presentations(National/International): Dr. Anurita Srivastava presented UPAROI lectures hosted by MAX hospital on September 8,2020. Topic: Relevant radiology and delineation in Rectal cancer. Dr Savita Arora: Delivered a lecture on carcinoma cervix under banner of Delhi branch of National association of reproductive and child health, in association with LHMC in August, 2020.

16.Faculty Strength: 6 (six)

17.Other Significant Information: Dr A.K. Rathi appointed as national convenor for Radiation Oncology at Diplomate of National Board.

Dr K. Singh appointed as secretory of Research Society, Maulana Azad

Medical college

SURGERY (MAMC)

1. Major Activities and Achievements

- Dr Anubhav Vindal was Appointed International Surgical Tutor, The Royal College of Surgeons of Edinburgh, UK.
- Residents presented papers in competitive sections in various national and international conferences and bagged awards
- Department team (Dr Lovenish Bains and Dr Anurag Mishra) was instrumental in implementing the surgical safety check list.
- Collaborated with International hubs- COVIDSurg Collaborative and GlobalSurg Collaborative for collaborative research (Dr Lovenish Bains, Dr Rajdeep Singh, Dr Anurag Mishra)
- Designing Gasless Laparoscopy Lift Device (RAIS) with University of Leeds (Dr Anurag Mishra, Dr Lovenish Bains)

2. Honours and Distinction

- All faculty of Department of Surgery were felicitated with Certificate of Appreciation as Corona Warriors by Delhi Government and Lok Nayak Hospital, 25th Mar 2021
- Dr C B Singh, Dr Rajdeep Singh and Dr Lovenish Bains were felicitated with Certificate of Appreciation for exemplary work as Corona Warriors by Delhi Legislative Assembly, 19th Feb 2021
- Dr Anurag Mishra Felicitated by District Admin, Gurgaon as COVID Warrior.
- Dr Lovenish Bains identified as Publons Academy Mentor- Web of Science by Clarivate Analytics
- Dr Lovenish Bains Joined as Academic Consultant (Global Surgery), WHO Collaborating Centre for Research in Surgical Care Delivery in LMICs. Mumbai, India (IND- 146), (Region-SEARO)

3. Publications

Total of 50 plus publications in various indexed journals in year 2020-21 from department.

4. Journals

University of Delhi: Annual Report 2020-21

Faculty of department is contributing as Editors/ reviewers in various international and national journals. Currently total such roles is numbering more than 30

5. Research Projects

a. International Collaborative Projects/Multi-centeric Projects

- i. TAFT (Trauma Audit Filter Trial)- Dr Rajdeep Singh, Dr Anurag Mishra
- ii. TTRIS (Trauma Triage in India Study)- Dr Rajdeep Singh, Dr Anurag Mishra
- Evaluation of RAIS device for Gasless Laparocopy in India Dr Anurag Mishra, Dr Lovenish Bains
- iv. Gasless Laparoscopy Trial Dr Anurag Mishra
- v. Essential Research Skills Delphi study- Panelist. By University of Oxford, TDR, the Special Programme for Research and Training in Tropical Diseases and The Global Health Network- Dr Lovenish Bains
- vi. A Delphi process to determine surgical COVID-19 research priorities: PRODUCE Study- Phase 3 Dr Lovenish Bains
- vii. The Study of Context Dependent Reprocessing of Laparoscopic Equipment in Low-Resource Hospitals Dr Lovenish Bains
- viii. To assess the attitude and beliefs about Surgical Safety Checklist in a North Indian tertiary care hospital Dr Lovenish Bains, Dr Anurag Mishra
- ix. Outcomes of Surgery In COVID-19 Infection: India Cohort Study (*Covidsurg India*)
 Dr Lovenish Bains
- x. Determining the optimal timing for surgery following SARS-CoV-2 infection: A collaborative global cohort study (*CovidSurg Week*) Dr Lovenish Bains, Dr Rajdeep Singh, Dr Anurag Mishra
- xi. Essential Emergency and Critical Care Delphi (Round 1 and 2). London School of Hygiene and Tropical Medicine & Peri-operative Medicine and Intensive Care, Karolinska Institute. Dr Lovenish Bains
- xii. Delphi Survery-- Developing a Core Descriptor Set in patients undergoing Perforated Peptic Ulcer Repair. By University of Sheffield, NHS Trust. Dr Lovenish Bains
- xiii. GI Surgery Outcomes: Multicontinent- Delphi Process- Dr Anurag Mishra
- xiv. Role of Whatsapp in improving patient, attendant and doctor communication at a COVID dedicated tertiary care hospital.- Dr Manu Vats

Thesis

- 16 high quality thesis were submitted in year 2020-21. Also 16 new proposals submitted and approved for Year 2021-22
- Patents Filed/ granted: None
- 7. Seminars Organised

8. Conferences Organised

- o Surgery Update 2020, 2nd-5th Feb 2021. MAMC, New Delhi
- o INDO UK SURGICON 2020; October 15th, 16th 2020.
- o SCOPE 2021, Delhi State Chapter of ASI, January 7th − 10th, 2021.

9. Seminar/ Conference Presentations (National/International)

Several (50 plus) presentations made by faculty and residents of department in several prestigious international and national platforms like ACS 2020, SAGES, ASICON 2020, SCOPE 2020, Surgery Update 2020

SURGERY (UCMS)

1. Major Activities and Achievements (max 150 words) In Paragraph form

Five new faculty members (Assistant Professors) from UCMS and one non teaching NFSG faculty from GTB Hospital joined the Department. One Faculty member (Asst Prof, UCMS) left the Department. The faculty members published several papers in the leading indexed International medical specialty journals with high citation index. The faculty members received presitgous assignments as per list under other significant information. The Department acquired 25 Multi para monitorsmedical equipment. The Department successfully conducted online classes lectures and hospital postings of the MBBS students in Surgery in the virtual online mode due to conversion of the UCMS & GTB hospital by the competent authority to fully covid for most of the period in the year 2020 to 2021.

2. Honors/Distinctions – No information available.

3. Publications (List all publications during 2020-21)

- 1) Singh, I., Behera, D. P., TK, A., & Gupta, S. (2021). Efficacy and safety of tamsulosin vs its combination with mirabegron in the management of lower urinary tract non-neurogenic overactive bladder symptoms (OABS) because of Benign Prostatic Enlargement (BPE)-An open label randomised controlled clinical study. International Journal of Clinical Practice, e14184.
- 2) Singh, I., Aravind, T. K., Behera, D. P., Panesar, N., & Jain, D. (2020). Malignant mesothelioma of the spermatic cord mimicking a benign inguinoscrotal swelling: case report with review of literature. African Journal of Urology, 26(1), 1-4.
- 3) Singh I, Aravind TK, Behera DP, Patel D. Extra Scrotal Spermatocele A Unique Case Presentation & Brief Review of literature. *Annal Urol & Nephrol*. 2020;2(2):1-3. http://dx.doi.org/10.33552/AUN.2020.02.000535 AUN.MS.ID.000535.
- 4) Singh, I., Aravind, T. K., & Panesar, N. (2020). Perineal Ectopic Testis (PET): Ignorance is "Not" a Bliss. Indian Journal of Surgery, 82(6), 1306-1307.
- 5) Singh, I., Aravind, T. K., Behera, D. P., & Panesar, N. (2020). Laparoscopic ureterolithotomy for the management of distal ureteric giant calculi in the endourology era–case report & Brief review of literature. European Journal of Medical Case Reports, 4(8), 259-262.
- 6) Singh, I., Tk, A., & Gupta, S. (2020). Efficacy and safety of tadalafil vs tamsulosin in lower urinary tract symptoms (LUTS) as a result of benign prostate hyperplasia (BPH)—open label randomised controlled study. International Journal of Clinical Practice, 74(8), e13530.
- 7) Kaur, N., Tanveer, N., & Naskar, S. (2021). A Diagnostic Enigma—a Rare Presentation of Juvenile Fibroadenoma in a Premenarchal Girl. Journal of pediatric and adolescent gynecology.
- 8) Patil PM, Sharma K, Kaur N. (2020) Acute necrotising pancreatitis masquerading as psoas abscess: A report of two cases. Arch Surg Clin Res. 4: 018-021.
- 9) Kaur, N., Kumar, R., Jain, A., & Saxena, A. K. (2021). Sensory Changes and Postmastectomy Pain Following Preservation of Intercostobrachial Nerve in Breast Cancer Surgery: a Prospective Randomized Study. Indian Journal of Surgical Oncology, 12(1), 108-113.
- 10) Jariwala P, Kaur N. (2021) A descriptive study on prevalence of arm/shoulder problems and its impact on quality of life in breast cancer survivors. Indian J Cancer 58:201-6.
- 11) Ghanshela, R., Banerjee, B. D., Siddarth, M., & Gupta, S. (2020). DNA repair gene polymorphism (XPA and XPG) and risk of urinary bladder cancer in North-Indian population. Meta Gene, 24, 100676.
- 12) Jain, B. K., Gupta, H., Mohta, M., Sharma, N., & Gupta, S. (2021). Simple Anal Fistula: Clinical Criteria for Diagnosis and Local Anesthesia with Conscious Sedation for Surgery-An Observational Study. Annals of Colorectal Research, 9(1), 24-31.
- 13) Bagla, C., & Agrawal, V. (2020). Onycholemmal Carcinoma: a Rare, Specific Squamous Cell Malignancy. Indian Journal of Surgery, 1-3.
- 14) Agrawal, V., & Gupta, S. (2020). Situs Inversus-A Not-so-Uncommon Entity. Indian Journal of Surgery, 82(4), 742-743.
- 15) Agrawal, V., & Gupta, S. (2020). Chronic Mesentero-Axial Gastric Volvulus Associated with a Parahiatal Diaphragmatic Hernia: A Rare Entity. Indian Journal of Surgery, 82(4), 731-732.
- 16) Nayar R, Gupta A, Agrawal V. Multiple myeloma of thyroid cartilage: A case report and review of literature. Journal of Rheumatology Research. JRR, Sept. 2020. 2(3): 146-153.
- 17) Gupta, Suneja A, Agrawal V, Pathak AA. "Conservative Management of Uroperitoneum after repair of Bladder rupture". International Journal of Scientific Research (IJSR) Vol.9: Issue-7. July, 2020. Pg 68-69.

18)

- **4.** Number of M.Phil./Ph.D. Degrees Awarded-13 Postgraduate students awarded MS [General Surgery].
- **5. Faculty Strength:** 9(Teaching) +1 (NFSG –Non-Teaching)

6. Other Significant Information

- Dr Iqbal Singh (Professor CAS- Appointed) was Faculty appointed as Advisor to assist the Union Public Service Comission (UPSC) New Delhi for the Combined Medical Services Examination 2020 in conduct of personality test for recruitment of general duty medical officers from 18th to 22nd January.
- 2) Dr Iqbal Singh (Professor CAS- Appointed) was invited to Chair a Video/Poster Session in the 30th Annual Conference NZUSICON 2020 (22-24th Jan'2021) held in the virtual Online Mode.
- 3) Dr Iqbal Singh (Professor CAS- Appointed) was invited as Faculty to Chair a Urology Session in the 38th Annual MAMC Surgery Update in MAMC by the Department of Surgery Maulana Azad Medical College on 4th February 2021 as a physical event.
- 4) Dr Iqbal Singh (Professor CAS- Appointed) was Invited by the Delhi Medical Council (DMC) as a coopted member to look in to allegations of medical negligence in the specialty of Urology Surgery in 2020 and 2021.
- 5) Dr Iqbal Singh (Professor CAS- Appointed) was invited by the National Board of Examinations, Ministry of Health & Family welfare, Govt of India for Postgraduate & post Doctoral DNB/FNB Courses as an Assessor for assessment of General Surgery Department in Delhi.
- 6) Dr Iqbal Singh (Professor CAS- Appointed) was invited as a Reviewer to evaluate and review manuscripts submitted for publication in the specialty of Urology Surgery by the Editors of several journals like International Urology Nephrology, Indian Journalof Urology, Indian Journal of Surgery, Journalof Endourology etc in year 2020-2021.
- 7) Dr. Vivek Agrawal hosted visiting specialists from Bangladesh Medical Services, August 2020.
- 8) Dr. Vivek Agrawal appointed Teacher and Examiner, Surgery Clinical Oriented Postgraduate Examination "SCOPE Course 2021" (virtual mode) organized from 7th to 10th January 2021 under the aegis of Delhi State Chapter-ASI.
- 9) Dr. Vivek Agrawal invited speaker in Clinical Skill Update 2021. 28th to 31st January, (online) virtual platform
- 10) Dr. Vivek Agrawal invited speaker in MAMC Surgery Update 2021. February 2nd to 5th. Chairperson for the lecture session on Thyroid diseases and MEN on 4th February.

SURGERY (LHMC)

1. MAJOR ACTIVITIES AND ACHIEVEMENTS:

Department of Surgery successfully conducted 3rd edition of LHMC SURGERY CLINICAL UPDATE on online platform from 28th to 31st Jan'2021. Update was attended by ~ 800 delegates and ~ 100 faculty members both national and international. Dr. Sunil Kumar, DGHS graced the valedictory function and distributed awards to the best presenters. A **Monthly Meeting of Delhi State Chapter** was organised in Sept'2020 which was attended by around 100 delegates. Department conducted **Pre-Hospital Trauma Training Courses** and majority of our trained students were employed in CAT Ambulances, playing an important role in prehospital care of trauma victims. More than 100 **Bariatric procedures** have been successfully performed with excellent outcome. During **COVID crisis**, we have been organising **Online theory and clinical classes** for UGs and PGs on Microsoft Teams platform. Faculty & Resident doctors from the Department are regularly doing **duties in Covid wards**. **Endourological Procedures** like TURP (for BHP), TURBT (bladder tumours), URS were done routinely. **Vascular Surgery** procedures—A-V fistula for CRF patients (awaiting transplant/ undergoing dialysis) were routinely performed. Department has an active **Oncosurgical Programme** delivering comprehensive surgical & medical management of Gastrointestinal, Urological, Head& Neck and Breast cancers. For Diagnostic and Research purposes, Impedance pH monitoring, Urodynamic studies and Esophageal Manometery is done in the

Department itself. Advance laparoscopic surgeries using high definition camera were routinely performed. Establishing Robotic Surgery in the Department is in the pipeline and our future area of thrust.

2. HONOURS / DISTINCTIONS

- 1. Dr. Romesh Lal: Joined as HOD Surgery wef from 3rd Feb'2020.
- 2. Dr. Shaji Thomas, Appointed Principal, Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi, wef 3 Feb 2020
- 3. Dr Romesh Lal was appointed as an expert member of PG Board of Surgery, BDSIMS, Rohtak(Haryana)
- 4. Dr Romesh Lal was appointed as a panel member in NBE Teaching Programme
- 5. Dr. Priya Hazrah: Reviewer postgraduate thesis work AIIMS, New Delhi Peer reviewer journal of minimal access surgery
 - 6. Dr. Priya Hazrah : Completed DIPLOMA IN MINIMAL ACCESS SURGERY with specialization in HPB Surgery from THE COLLEGE OF AMASI
 - 7. Dr. Priya Hazrah: Selected for NAMS Medical Scientist exchange program 2020-2021
- 8. Dr. Gyan Saurabh, Nominated as National NBE Webinar Coordinator in Specialty of General Surgery by National Board of Examination.
- 9. Dr. Gyan Saurabh: Reviewer: Journal of Minimal Access Surgery, Indian Journal of Surgery.
- 10. Dr. Shadan Ali, Appraiser for the conduct of Foreign Medical Graduate Examination (FMGE) June 2020 Session on 31st AUGUST 2020 by NBE.
- 11. Dr. Shadan Ali, Appraiser for the conduct of National Eligibility Cum Entrance Test Super Specialty (NEET SS) 2020 on 15th September 2020 by NBE.
- 12. Dr. Shadan Ali reviewed following papers.
 - IJOS-D-20-01417Re: "A case report on laparoscopic management of Superior Mesenteric artery syndrome" 4 August 2020.
 - b. Anorectal malignant amelanotic melanoma: Report of a rare aggressive primary tumor" [JCRT]: Thank you for your valuable suggestions: JCRT_461_20, 30 April 2020
- 13. Dr. Sudipta Saha is routinely doing TURP for BPH patients which is new addition of services provided
- 14. Dr. Kusum Meena. 3rd Prize for presentation in ASICON in free paper category
- 15. Dr Nikhil Talwar :Elected as a member of Academic Council, Delhi University in February 2021.

Achievements of Post Graduate Students:

- 1. Dr. Janiita Shamkant Kunaikar received best research paper Award 1st Prize in session 6 for the paper titled "Effect of neoadjuvant chemotherapy on steroid hormone and Her 2 neu receptor status in breast cancer patients" during the virtual ASICON 17th-19th Dec 2020
- 2. Dr. Spandana J received Dr. C Palanivelu Best Post Graduate Paper Award 1st prize in (session 8(5)) for the paper titled "Correlation between serum high density lipoprotein cholesterol and severity of acute biliary pancreatitis- a prospective observational study" during the virtual ASICON 17th-19th December 2020
- 3. Dr. Suruchi Kumari received 1st Prize in Best paper award (Session 10) for paper titled, "Is non Acid reflux the real culprit behind gastro-oesophageal reflux after laparoscopic sleeve gastrectomy" during the virtual ASICON 2020, 17th-19th December 2020
- 4. Dr. Manju received Best Free Paper Award 1st Prize (Session 4, Station 10) for the paper titled "Short term post-operative pain and patient discomfort following laparoscopic TAPP inguinal hernia repair with composite mesh vs polypropylene mesh: a randomized controlled trial" during the virtual ASICON 17th-19th Dec 2020
- 5. Dr. Sanjay Meena received Dr. C Palanivelu Best Post Graduate Paper Award 2nd prize in (session 8(2) for the paper titled "comparison of transversus abdominis plane block guided by laparoscopy versus transabdominal ultrasound guided block in patients undergoing bariatric surgery: A randomized single blind comparative study" during the virtual ASICON 17th-19th Dec 2020

3. PUBLICATIONS:

- 1. Singh B. K, Saha S, Agarwal S, Rathore Y. S. (2020). Malignant Brenner tumour of the ovary manifesting as distal intestinal obstruction and perforation. *BMJ Case Reports CP*, 13(6), e235394.
- 2. Gupta R, Andley M, **Saha S**., & Kumar A. (2020). True Primary "Idiopathic" Enterolithiasis as an Unusual Cause of Bowel Perforation. *Tropical Gastroenterology*, *39*(4), 223-225
- 3. Neogi S, Sengar M, Mohta A. Postoperative manometric profile in rectovestibular fistula and rectourethral fistula: a comparative study. IP Int J Med Pediatr Oncol 2020; 6(2):65-67.
- 4. Kaushal M, Agarwal P, Srivastava N, Sharma D, Bhardwaj M, Ahuja A. Synchronous malignancies: A tale of two different tumors. Indian J Pathol Microbiol 2020;63:147-9
- 5. Parmar P, Chaudhary R, Singh R, Lal R, Borgharia S, Andley M, Saurabh G. Acute mesenteric ischemia: an uncommon presentation of COVID-19, , Int Surg J. 2021 Mar;8(3):1057-1059
- 6. Parmar P, Ali S,Lal R,Borgharia S, Andley M, Saurabh G. Duodenal adenocarcinoma: a rare cause of intestinal obstruction in young adult., Int Surg J. 2021 Mar;8(3):1030-1032.
- 7. Chaudhary P, Nagpal A, Borgharia S, Lal R. Esophageal tuberculosis: a systematic review. Indian Journal of Otorhinolarngology and head and neck surgery. 2020. DOI 10.1007/s12070-021-02541-9
- 8. Chaudhary P, Bhadana U, Lal R. A retrospective cohort study of coexistence of carcinoma and tuberculosis of colon: 12-year experience. Indian journal of surgical oncology. 2020. 12(1); 61-66. DOI: 10.1007/s13193-020-01249-6
- 9. Chaudhary P, Lal R. Rectal tuberculosis: A systematic review. Indian Journal of Tuberculosis. 2020.
- 10. Singh SK, Gupta A, Parmar P, Chaudhary P, Lal R. Rapunzel Syndrome: A case report and review of literature. Annals of internal medicine and dental research. 2020;6(3):SG01-SG-04
- Bansal LK, Alam A, Dash S, Chaudhary P. Congenital diaphragmatic hernia (Bochkdalek)- becomes symptomatic in seventh decade of life- a rare case report. Indian J Surg. 2020. DOI: 10.1007/s 12262-020-02248-1
- 12. Gupta AK, Raj A, Poddar DD, Bansal LK, Chaudhary P. New Four-fold technique to spread the self-gripping mesh in open inguinal hernia surgery. Indian J Surg. 2020. DOI: 10.1007/s12262-021-02718-0
- 13. Jagannath S, Aggarwal L, Ali S, Kumar A, Mohta A. Male breast carcinoma in the oldest old: an extremely rare entity. Int Surg J 2021;8:424-6.
- 14. Saha S, Vats M, Gupta R, Thakur B, Kochhar G, Saxena S. Can Native Arteriovenous Fistula Be Safely Made by Trainees? Comparison of Results of Native Arteriovenous Fistula for Vascular Access Made by Trainees with that by Consultant. *Indian Journal of Surgery* 2020;82:367–370.
- 15. Saha S, Mohta A. An invited commentary on "risk factors and oncological outcome for intravesical recurrence in organ-confined upper urinary tract urothelial carcinoma patients after radical nephroureterectomy" Int J Surg. 2020;77:63.
- Garg A, Bansal S, Saha S, Kumar A. Study of correlation of urodynamic profile with symptom scoring and ultrasonographic parameters in patients with benign prostatic hyperplasia. J Family Med Prim Care. 2020; 9: 215–220.

- 17. Garg A, Kathpalia U, Bansal S, Andley M, Saha S. An observational study of SLN mapping in patients of locally advanced breast cancer following NCT. International Journal of Medical and Biomedical Studies 2020;4:83-87.
- 18. Gupta R, Andley M, Saha S, Kumar A. "Gaint Scalp Metastasis: an unusual presentation of cutaneous malignant melanoma. Indian Journal of Surgery, 83;338-340(2020).
- 19. Meena K, Arsia A, Non Resolving Seroma After Simple Mastectomy: Its Time to Rule Out Malignancy (India Journal of Research, Dec.'20), Surgery 2018, Volume 14 DOI: 10.7438/1584-9341-C1-002
- 20. Meena K and Arsia A . "Condyloma acuminata: seeking early treatment can avoid surgical intervention: A report of two cases", International Journal of Current Research.2021 13, (01), 15860-15862
- 21. Ashish Arsia, **Priya Hazrah**, Shabab Anwar, Shaji Thomas, Pooja Abbey, Smita Singh. Zollinger ellison syndrome due to primary nodal gastrinoma located outside the limits of the conventional gastrinoma triangle: report of a case. Int Surg J. 2021 May;8(5):1653-1657. DOI: https://dx.doi.org/10.18203/2349-2902.isj20211852
- 22. Vandana Singh, Lalit Aggarwal, **Priya Hazrah**, Shadan Ali, Ashok Kumar, Anup Mohta. Pleomorphic leiomyosarcoma of colonic mesentery: an unusual cause of lower GI bleed case report and literature review. Int Surg J. 2021 Feb;8(2):754-756. DOI: https://dx.doi.org/10.18203/2349-2902.isj20210399
- 23. Shadan Ali.Male carcinoma in the oldest of old: an extremely rare entity: International Surgery journal. Int Surg J.2021 Jan 8(1): 424-426
- 24. Shadan Ali. Duodenal adenocarcinoma: a rare cause of intestinal obstruction in young adult: International Surgery Journal *Parmar P et al. Int Surg J. 2021 Mar;8(3):1030-1032* http://www.ijsurgery.com
- 25. Shadan Ali. Pleomorphic leiomyosarcoma of colonic mesentery: an unusual cause of lower GI bleed case report and literature review International Surgery Journal *Singh V et al. Int Surg J. 2021 Feb;8(2):754-756* http://www.ijsurgery.com

Book/ Chapter Contributed

- 1. Mohta A. Surgical Causes of Respiratory distress in Neonates and their management. In: Mathur NB. Ed. Essential Neonatology. 2nd edition. New Delhi: CBS Publishers; 2020. Pp 351-359.
- 2. Mohta A. Acute Abdomen. In Gupta P (Ed) Principles of Pediatric and Neonatal emergencies.4th Ed. New Delhi: Jaypee Brothers Medical Publishers.2020. Pp 796-803.
- 3. Mohta A, Mohta M. Accurate References add to the credibility. In. Mishra D, Shah D. (Eds). The Art and Science of Writing a Scientific Paper. New Delhi: CBS Publishers and Distributors. 2020. Pp. 85-92.
- 4. Dr. Poras Chaudhary wrote a Chapter on "Pancreatic tuberculosis" for a book "Gastointestinal tuberculosis" in collaboration with department of gastroenterology, PGI Chandigarh

4. JOURNALS

Number of Department teachers serving as Editor / Member of Editorial board :> 10 faculty member are reviewers in reputed indexed national / international journals

5. **RESEARCH PROJECTS:**

S. no	Name of the Student	Name of Supervisor	Name / s of Co- supervisor / s	Title of Thesis
1.	Dr. Rahul Choudhary	Dr. Romesh Lal, Dir. Prof.	Dr. Deborshi Sharma (Surgery) Dr. Poras Chaudhary (Surgery)	Evaluation of the effect of clinical Predictors on duration of Surgery and surgical outcome in patients undergoing endoscopic component sepration technique with IPOM herrnioplasty for large midline incisional hernias
2.	Dr. Manisha Aggarwal	Dr. Shaji Thomas, Director Profesor.	Dr. Kiran Aggarwal (Pathology) Dr. Smita Tripathi (Bio-chemistry) Dr. O.P. Pathania (Surgery)	Study of correlation of serum vitamin –D levels in untreated breast cancer patients with their Ki67 tumor proliferation index
3.	Dr. Shobhit Sharad	Dr. Anup Mohta, Director Profesor.	Dr. Pawan Kumar (Surgery) Dr. Ravinder Kaur (Microbiology)	To study the need of extended antibiotic therapy after accidental bile spillage during laparoscopic cholecystectomy and its correlation with bile/gall bladder wall culture
4.	Dr. Kayenaat Puran Singh Jassi	Dr. Sanjeev K. Tudu Director- Professor	Dr. Manoj Andley (Surgery) Dr. Gyan Saurabh (Surgery) Dr. Harmeet S. Rehan (Pharmacology)	Effect of laparoscopic sleeve gastrectomy on serum levels of leptin, ghrelin and chemerin in morbidly obese patients.
5.	Dr. Tanvi Vijay	Dr. Manoj Andley Director- Professor	Dr. Gyan Saurabh (Surgery) Dr. Ravinder Kaur (Microbiology) Dr. Shailaja Shukla (Pathology)	To study the effect of helicobacter pylori on gastroesophageal reflux in morbidly obese patients undergoing laparoscopic sleeve gastrectomy.
6.	Dr. Gautam Anand	Dr. Deborshi Sharma, Profesor.	Dr. Romesh Lal (Surgery) Dr. Ashok Kumar (Surgery) Dr. Vaishali Bhardwaj (Gastroenterology, AVIMS & RML)	Compare the utility of preoperative transient elastography and intraoperative visual liver score with liver biopsy in morbidly obese patients undergoing bariatric surgery: A prospective observational study.

7.	Dr. Jahanavi Manthri	Dr. Nain Singh	Dr. Sudipta Saha	A comparative study to evaluate the
7.	Dr. Jananavi Manunri	Professor	(Surgery)	effect of low and standard
		110103301	Dr. Azaz Akhtar	pressure pneumoperitoneum on
			Siddiqui (Surgery)	posteoperative liver function tests
			Staatqui (Suigely)	during
				laparoscopic cholecystectomy
8.	Dr.Ashutosh Nagpal	Dr. Poras	Dr. Romesh Lal	Correlation of Ki-67 expression with
		Chaudhary	(Surgery)	the stage of colorectal carcinoma.
		Professor	Dr. Anita Nangia	
			(Pathology)	
9.	Dr. Lam Vasudeva	Dr. Ashok	Dr. Deborshi	Serum D-dimer levels at admission
		Kumar	Sharma	for prediction of severity in acute
		Director-	(Surgery)	Pancreatitis.
		Professor		
10.	Dr. Manchikanti	Dr. Kusum	Dr. Shaji Thomas	Assessment of factors affecting
	Dinesh	Meena	(Surgery	lquality of life in breast cancer
		Professor	Dr. Manoj Andley	patients
4.4	D M 1 D 1'	D D 1 I I	(Surgery)	using eortc BR 45 questionnare
11.	Dr. Meghna Purohit	Dr. Romesh Lal	Dr. S. K. Sinha	Impact on intra-abdominal pressure
			Dr. Anita Pawar	following endoscopic component separation technique with laparoscopic
				mesh reconstruction for large midline
				incisional hernias.
12.	Dr. Mansi Bansal	Dr. Anup Mohta	Dr. Ekta Debnath	Correlation of serum biomarkers
14.	Di. Mansi Dansai	Dr. Anup Wonta	Di. Ekta Deonath	Procalcitonin and D-dimer with grade
				of diabetic foot ulcer.
13.	Dr. Anil Choudhary	Dr. Shadan Ali	Dr. Pawan Kumar,	Comparative study of Post-operative
10.		211 2111011111111	Dr. Rahul Pusluri,	pain following laparoscopic ventral
			Dr. Azaz Akhtar	hernia repair by Enhanced-view
				Totally Extraperitoneal and
				Intraperitoneal onlay mesh approach.
14.	Dr. Sabah Fatima	Dr.Manoj	Dr. Gyan Saurabh	Change in polysomnographic indices
		Andley	Dr. R. K. Dhamija	after laparoscopic sleeve gastrectomy
			Dr. Sunita Mondal	in patients with morbid obesity
15.	Dr. M Sai Sri Harsha	Dr. Ashok	-	Correlation of Neutrophil-To-
		Kumar		Lymphocyte ratio with the severity of
1.0	D. D.1.1177	D	D.M. 1 4 11	acute biliary pancreatitis.
16.	Dr. Rahil Kumar.	Dr. Gyan	Dr.Manoj Andley	Impact on Carotid intima-media
		Saurabh	Dr. Madhur	thickness after laparoscopic sleeve
			Yadav	gastrectomy in patients with morbid
17.	Dr. Ishaan Bhagat	Dr. Sudipta	Dr. Bhawna Satija Dr. Anup Mohta	obesity. Assessment of achievement of critical
1/,	Di. Ishaan Dhagat	Saha	Dr. Anup Monta Dr.Manoj Andley	view of safety during Laparoscopic
		Jana	Distrained White A	cholecystectomy: An observational
				study.
18.	Dr. Mangarai Mukund	Dr. Poras	Dr. Kusum Meena	Correlation of EGFR and Ki-657
10.	21. 1. migurui iviukuilu	Chaudhary	Dr. Anita Nangia	expression with the stage of Gall
				bladder carcinoma
19.	Dr. Vivek Kumar	Dr. Azaz Akhtar	Dr. Nain Singh,	Comparison of ultrasonic shears versus
		Siddiqui	Dr. Gyan Saurabh	electrocautery in modified radical
			Dr. Shadan Ali	mastectomy: A randomised prospective
				study.
20.	Dr. Siva Sai Kumar	Dr. Pawan	Dr. Manoj Andley	Comparison of Post-operative pain
	Malla	Kumar	Dr. Shadan Ali	following mesh fixation using human
				fibrin glue versus staples in
				laparoscopic trans-abdominal

		preperitoneal inguinal hernial repair –
		A randomized controlled trial

No funding agency is involved in any of the above projects .

POST GRADUATE THESIS SUBMITTED AND ACCEPTED BY UNIVERSITY OF DELHI:

1.	Dr. Kundaikar Janitta Sham	Effect	Dr. Shaji Thomas	Dr. O.P. Pathania,
	kant	of Neoadjuvant Chemotherap y on Steroid Hormones and her 2 Neu Receptor Status in Breast Cancer Patients.	J	Dr. Manoj Andley, Dr. Kiran Agarwal
2.	Dr. Padala Sam Benhur	Evaluation of serum procalcitonin as a predictor of complicated appendicitis	Dr. O.P. Pathania	Dr.Romesh Lal, Dr. Poras Chaudhary
3.	Dr. Vandana	Assessment of changes in bone mineral density by using dual energy x-ray absorptiometry scan after bariatric surgery	Dr. Ajay Kumar	Dr Ashok Kumar Dr.Deborshi Sha rma Dr Anil Taneja
4.	Dr. Parth Parmar	A study of venous thromboembolic (VTE) complications following laparoscopic mesh hernioplasty for midline ventral Hernias.	Dr. Romesh Lal	Dr.Deborshi Sharma, Dr. Poras Chaudhary, Dr. U.C. Garga
5.	Dr. Ravi Ranjan	Efficacy of Antral resection versus antral preservation in Laparoscopic Sleeve Gastrectomy – A randomized comparative study.	Dr. Manoj Andley	Dr. Gyan Saurabh
6.	Dr. Spandana J.	Correlation between Serum High Density Lipoprotein Cholesterol and the severity of Acute Biliary Pancreatitis – A prospective observational study		Dr.Deborshi Sharma
7.	Dr. Sanjay Meena	Comparison of transversus abdominis plane block guided by laparoscopy versus transabdominal ultrasound guided block in patients undergoing bariatric surgery.	Dr. Deborshi Shar ma	Dr. Romesh Lal, Dr. Ashok Kumar
8.	Dr. Prashant Puwada	i i	Dr. Nain Singh	Dr. O.P. Pathania
9.	Dr. Suruchi Kumari	Evaluation of Gastro- Esophageal reflux in morbidly	•	Dr. Manoj Andley, Dr. Aparna

		obese patients before and		Agarwal
		after Laparoscopic sleeve		
		Gastrectomy using 24HR		
		multichannel intraluminal		
		impedance ph monitoring		
10.	Dr. Apoorva Saxena	Evaluation of factors	Dr. Sudipta Saha	Dr. O.P. Pathania
		influencing outcome in		
		patients undergoing TURP for		
		Benign Prostatic Hyperplasia		
11.	Dr. Manju	Comparative Study Of Short	Dr. Pawan Kumar	Dr. Shaji Thomas
		Term Post-Operative Pain		
		And Patient Discomfort		
		Following Laparoscopic		
		Trans-Abdominal Pre-		
		Peritoneal Inguinal Hernia		
		Repair With Composite Mesh		
		Vs Polypropylene Mesh		

6.PATENTS FILED / GRANTED: NONE

7. SEMINARS ORGANIZED:

Sl No	Faculty Member	Organizers Name	Venue & Date
1		Organizing Chairman, Monthly meet, Delhi State Chapter, ASI	LHMC Sept'2020
	All faculty members		1

8.CONFERENCES ORGANIZED:

Sl No	Faculty Member	Organizers Name	Venue & Date
1.	Dr. Romesh Lal (Organizing Chairman)	Department of Surgery, LHMC	Monthly meet, Delhi State Chapter, ASI, LHMC Sept'2020
2.	Dr. Romesh Lal Organizing Chairman Dr. Gyan Saurabh ,Organising Secretary Dr. Lalit Agarwal Organising Secretary Dr. Ashish Arsia ,Treasurer	Department of Surgery LHMC	LHMC Surgery PG Clinical Update 28 th Jan'2021-31st Jan'2021 Virtual platform

	Dr. Saurabh Borgharia					
	<u>Treasurer</u>					
	All faculty members					
3.	Dr. Nikhil Talwar	Department of Surgery LHMC	Faculty	Co-ordina	tor	of
			Medicus	Conventus	2020	at
			Lady	Hardinge	Medi	ical
			College.	New Delhi		

9.SEMINAR / CONFERENCE PRESENTATION:

	Name	Role/ Topic	Organiser	Name of the conference, Venue Date
Inte	ernational confe	rence		
1.	Dr. Anup Mohta	Delegate	SSPH , Noida	Virtual 27 th International Meeting of Pediatric Colorectal Club 12-13 Dec 2020
2	Dr. Gyan Saurabh	Delegate	European Association for Endoscopic Surgery	28 th International EAES congress, 24- 27 June 2020, Virtual Congress
3	Dr. Sudipta Saha	Delegate	American College of Surgeons	ACS Clinical Congress 2020 3-7, October. 2020 Online
	National C	onference		
1.	Dr. Romesh Lal Dr. Shaji Thomas	Chairperson Expert lecture,	Annual Conference ASI Delhi Chapter	SURGICON, 2020, 6 TH -8 TH November 2020
	Dr. Manoj Andley Dr. Gyan Saurabh Dr. Ashish	Chairperson Chairperson	Department of Surgical Disciplines, All India Institute of Medical Sciences (AIIMS), New Delhi	
	Dr. Shadan Ali	CHAIRPERSON/C ompetitive E Poster Chairperson/ Video presentation		
		Speaker-		

	Saha	Participated in a		
	Sana	debate during the		
		symposium on de-		
		escalation in cancer		
		surgery. debated for		
		the motion on the		
		topic: Is hemi-		
		thyroidectomy apt in low risk		
		Differentiated		
		thyroid cancer		
		(PTC)?		
		Judge of		
		competitive poster		
		presentation		
	Dr. Rahul			
	Pusuluri	Chairperson		
		•		
	Dr. Kusum	chairperson for		
	Meena	scientific session		
		and judge for poster session		
		SCSSIOII		
	Dr Azaz	Faculty		
	Akhtar			
2.	Dr. Romesh	Chairnerson	American College of Surgeons -India	GURUKKUL
۷٠	Lal	Champerson	Chapter,	ACSCON 2020,
		Chairperson	<u>-</u>	Annual Conference of
	Dr. Manoj			the American College
	Andley			of Surgeons -India
				Chapter,
		Speaker- talk on		Dog' 2020
	Dr. Gyan	"Tracheostomy" &		Dec' 2020
	Saurabh	"X-ray Abdomen"		
		Chairnerson		Online
	Dr. Priya	Chairperson		
	Hazrah			

3.	Dr. Romesh Lal	Chairperson	Department of Surgery, Lady Hardinge Medical College, Delhi	LHMC Surgery Clinical UPDATE
	Dr. Anup Mohta	Chairperson Speaker- Talk on		2021 . 28 th Jan to 31 st Jan 2021.
	Dr. Manoj Andley	"Operative procedures"		Lady Hardinge Medical college, Delhi (Online)
	Dr. Priya Hazrah	Speaker – Talk on ,Decoding TNM classification		
	Dr. Gyan Saurabh	Speaker-Talk on "ward rounds"		
	Dr. Sudpita Saha	Lecture- How to approach surgical specimen in MS / DNB Exam		
	Dr. Ashish Arsia,	Faculty Faculty		
	Dr Pawan Kumar	Faculty		
	Dr. Azaz Akhtar	_		
	Dr. Nikhil Talwar	Faculty		
	All faculty members			
4.	Dr. Romesh Lal Dr. Manoj	Chairperson	38th Annual MAMC Surgery Update- National Continuing Medical Education Programme in Surgery at Maulana Azad Medical College, New	Maulana Azad Medical College, New Delhi on 02-05 February 2021.
	Andley	Speaker	Delhi on 02-05 February 2021.	redition 2021.
	Dr. Gyan	Speaker ," Whats new in trauma		

	Saurabh	management "		
	Dr Nikhil Talwar Dr. Suidpta Saha	Chairperson Speaker, "Multiple endocrine neoplasia"		
5.	Dr. Shaji Thomas	Guest of Honour	1st Digital Conference on One Health	6th July 2020.
6.	Dr. Anup Mohta Dr.Nikhil Talwar	Moderator Faculty	SCOPE course Faculty at SCOPE COURSE 2021 ASI Delhi Chapter	Under the aegis of Delhi State Chapter, Association of Surgeons of India on 7th to 10th January 2021
	Dr. Priya Hazrah	Video demonstration - MRM		
7.	Dr. Anup Mohta	Participant	IAP	Virtual IAP Training Programme on Good Clinical Practices and Research Ethics 22-23 Aug 2020
		Faculty	Virtual Workshop on "Doing more with less-reducing waste and improving quality" on 13 th August 2020 by Institute for Healthcare Improvement and BMJ	Institute for Healthcare Improvement and BMJ
		Faculty	Participated in 27 th International Meeting of Pediatric Colorectal Club 2020 organized on 12-13 December 2020	12-13 December 2020
		Delegate	Institute for Healthcare Improvement and BMJ	Virtual Workshop on "Improving Safety Post Pandemic" on 30 th July 2020
		Delegate	Institute for Healthcare Improvement and BMJ	Virtual Workshop on "Leadership and culture for Change during Covid 19" on 6th August 2020
		Delegate	Institute for Healthcare Improvement	Virtual Workshop on

			and BMJ	" Doing more with
				less-reducing waste
				and improving
				quality" on 13 th August 2020
		Delegate	Delhi State Legal Services Authority	E-Add-on – course on
		Deregate	Zom	Legal issues from 10-
			X 11	8-2020 to 14-9-2020
		Chairperson	Indian Association of Pediatric Surgeons	e-IAPSCON from 16- 18 October 2020
8.	Dr. Shaji	Chairperson	13th SELSICON&12th IHSCON	AIIMS, 30th -31st Oct
	Thomas		held on October 30-31,2020	2020.
	Dr. Gyan	Chairperson		
	Saurabh			
	Dr. Kusum	Presented Paper,		
	Meena	"Radiological		
		investigation misleading for early		
		recurrence after		
		TAPP for large		
9.	Da Daires	inguinal hernia"	ASI RRC conference 22nd	ASI RRC conference
9.	Dr. Priya Hazrah	Faculty	September 2020 Early Breast Cancer	22nd September 2020
	Huzhun		September 2020 Early Breast Cancer	Early Breast Cancer
10.	Dr. Gyan	Member	MCI, Curriculum implementation	Online, 16 th -17 th July
	Saurabh	Curriculum Committee, LHMC	Support Program II	2020
11.	Dr. Gyan	Speaker -Talk on	RPC, LHMC	1 st Year PG protocol
	Saurabh	"Writing Review of		Writing workshop,
		literature"		Virtual 21-23 rd Aug 2020
12.	Dr. Priya	Chairperson	ASOMACON 2020	ASOMACON 2020
	Hazrah		Asian Society of Mastology	December 2020
		Chairperson / judge		
	Dr. Gyan	in Paper presentation		
	Saurabh	Session		
13.	Dr. Gyan	Chairperson	AIIMS, New Delhi	TRAUMA, 2020
	Saurabh	-		Virtual 3-5 Dec 2020
14.	Dr. Gyan	Speaker	In Association with American	GURUKKULCON
	Saurabh		College of Surgeons	2020 9 th -13 th Dec 2020
15.	Dr. Shadan	Chairperson/	ASI RRC 2020 zone 6	ASI RRC 2020 as
	Ali	parotid swelling,		facu zone 6, parotid swelling, 23rd
				September 2020.
1		1	I .	I *

16.	Dr. Shadan Ali	Chairperson / Clinical Case Presentation	http://www.youtube.com/c/GENERA LSURGERYPGCLINICS Host - Dr M Kanagavel - Prof Vivekananda S Nathan Faculty Relations	PG CLINICS GENERAL SURGERY FRIDAY 11 12 2020 0800PM
17.	Dr. Shadan Ali	Chairperson/ Video presentation Presented, Paper titled Study of 81	80th Annual conference of ASI from 17-19th December 2020	ASICON 2020, 18/12/2020
	Dr. Kusum Meena	cases of intestinal obstruction :Experi ence over 5 years duration		
18.	Dr. Shadan Ali	Delegate	15th Annual international conference of Association of minimal access surgeons of India	AMASICON 2020, 20 th -22 nd November 2020
	Dr. Kusum Meena	Presented, "Poster titled Managing recurrent psoas abscess with minimally invasive surgical technique"		
19.	Dr. Shadan Ali	Delegate	webinar@mediknit.org	Bio Statistics for Surgeons" Aug 24, 2020 07:00 PM webinar@mediknit.or g
20.	Dr. Shadan Ali	Delegate	How to write a scientific paper- a step-by-step approach" webinar@mediknit.org	How to write a scientific paper- a step-by-step approach" Sep 05, 2020 06:00 PM webinar@mediknit.or g
21.	Dr. Shadan Ali	Delegate	NSEP, ASI	Clinical Evaluation- pearls for practical examination" 3 rd September 2020, 9- 10PM
22.	Dr. Shadan Ali	Delegate	EDGE https://jnjmeetings.zoom.us/webinar/r egister/WN4QY32jESFit-6ghugH- Qw	EDGE Bariatric and metabolic surgery May - 5:30 PM https://jnjmeetings.zoo m.us/webinar/register/ WN4QY32jESFit- 6ghugH-Qw
23.	Dr. Shadan Ali	Delegate	EDGE https://jnjmeetings.zoom.us/webinar/r egister/WN -4QY32jESFit-6ghugH-	EDGE Laparoscopic hernia surgery April - 5:30 PM

			Qw	https://jnjmeetings.zoo m.us/webinar/register/ WN -4QY32jESFit- 6ghugH-Qw	
24.	Dr. Shadan Ali	Delegate	Hernia Society of India,	Technical Innovations in Hernia Surgery."Jugaad"* is the Indian term for Technical Innovation.	
				Date - 26/09/2020, Saturday. Time- <u>6 to 8 pm</u>	
				https://www.docplexus .com/technical- innovations-in-hernia- surgery	
25.	Dr. Shadan	Faculty	Speaker on the topic "Setting up of	organized by Dr Baba	
	Ali		laparoscopic surgery unit:	Saheb Ambedkar	
			Instruments and Troubleshooting in	Medical College and	
			the wbinar	Hospital -" Revisiting	
				Laparoscopic Surgery	
				- Back to Basics" on	
				17th January 2021.	
26	D . D .1. 1	Claire	CCDII	011	
26.	Dr. Rahul Pusuluri	Chairperson	SGRH	Oncology advances in colorectal Cancers 1-2 Feb 2020.	
27.	Dr. Nikhil Talwar	Online Certificate Course	Delhi Legal Services	Medical Jurisprudence organised by Delhi Legal Services. August 2020	
28.	Dr. Nikhil Talwar	Delegate	Webinar on Bone Health in Solid Tumors	RGCI, Delhi Sept 2020	
29.	Dr. Nikhil Talwar	Delegate	Webinar on Nutrition in the Critically III	Rabin Medical Center, Beilinson Campus, Petach Tikva, Israel. September, 2020	
30.	Dr. Nikhil Talwar	Delegate	Webinar on "An Update on Triple Negative Breast Cancer	RGCI, Delhi. July 2020	
31.	Dr. Nikhil Talwar	Delegate	Webinar on "Metastatic Breast Cancer	RGCI, Delhi. July 2020	
32.	Dr. Nikhil Talwar	Faculty	Medicus Conventus 2020 at Lady Hardinge Medical College, New Delhi	LHMC , New Delhi	

16. FACULTY STRENGTH: 27

Professor of Excellence:

Dr. O.P. Pathania

Dr. Shaji Thomas

Director Professor & Head:

Dr. Romesh Lal

Director Professor:

Dr. Anup Mohta

Dr. Sanjeev Kumar Tudu

Dr. Manoj Andley

Dr. Ashok Kumar

Professor:

Dr. Deborshi Sharma

Dr. Nain Singh

Dr. Priya Hazrah

Dr. Gyan Saurabh

Dr. Sudipta Saha

Dr. Arun Kapoor

Dr. Lalit Aggarwal

Dr. Ashish Kumar Arsia

Dr. Pawan kumar

Dr. Rahul Pusuluri

Dr. Poras Ikram Chowdhary

Dr. Shadan Ali

Dr. Kusum Meena

Dr. Azaz Siddique

Dr. Sanjay Kumar

Dr. Nikhil Talwar

Dr. Saurabh Borgharia

Associate Professor:

Dr. Rajeev Kumar (on Lien)

Assistant Professor on contractual post

Dr. Preeti Juneja

Dr. Ranvir Singh (joined on 29th March 2021)

17. OTHER SIGNIFICANT INFORMATION:

During COVID crisis, we have been organizing Online theory and clinical classes for UGs and PGs on Microsoft Teams platform. Faculty & Resident doctors from the Department are regularly doing duties in COVID wards.

Faculty members from Department of Surgery have always been operating upon patients with malignancy and Emergency even during peak COVID crisis. Elective surgeries were performed taking all universal precautions after ascertaining COVID negative status of the patients

Dr. Sudipta Saha is Routinely doing TURP for BPH patients which is new addition of services provided. Dr. Nain Singh, Dr. Gyan Saurabh, Dr. Sudipta Saha, Dr. Lalit Agarwal, Dr. Shadan Ali, Dr. Pawan kumar, Dr. Azaz Akhtar, Dr. Saurabh Borgharia ,Dr. Rajeev Kumar and Dr Ranveer Singh have successfully completed their assigned duty in COVID control room.

REPRESENTATION ON EXPERT BODIES / COMMITTEES:

Dr. Romesh Lal:

- i. External expert for the interview of various faculty positions at ESIS Medical College, Faridabad
- ii. External expert for the interview of various faculty positions at Rohtak University.
- iii. Evaluation of MS thesis, Punjab university, Chandigarh

Dr. Shaji Thomas:

- Member, Technical Resource Group (TRG) for finalising Minimum standards for Trauma Care Facilities, Ministry of Health and Family Welfare.
- Expert for interview for Faculty positions, Dr Baba Saheb Ambedkar Medical College and Hospital, NCT Delhi.
- 3. Member, Selection Board, Senior Research Associate, CSIR.
- 4. Member, Board of Studies for Undergraduate medical courses, AIIMS, Bhubaneswar.
- 5. Moderator, DNB Examinations.

Dr. Anup Mohta

- a) Principal Assessor for National Accreditation Board for Hospitals and Healthcare Providers
- b) Member, Entry Level Certification Committee of NABH
- c) Member, Institutional Ethics Committee of Maulana Azad Medical College, New Delhi
- d) Member, Institutional Ethics Committee of Chacha Nehru Bal Chikitsalaya, Delhi
- e) Member, Institutional Ethics committee, Janakpuri Superspecialty Hospital
- f) Member, Institutional Ethics Committee, Lady Hardinge Medical College
- g) Member, Steering Committee for GCP Professionals Certification Scheme (GCPPCS), Translational Health Sciences and Technology Institute, Faridabad.
- i) Assessor for National Board of Examinations.
- j) Associate Editor, Indian Pediatrics

Dr. Manoj Andley:

- i. MS examiner (Surgery), ABVIMS, Dr. RML Hospital New Delhi, OCT 2020
- ii. External Examiner MS (Surgery), AIIMS Rishikesh Virtual, Dec 2020
- iii. DNB Examiner for fellowship exit exam in specialty MAS, 21-23 Dec 2020
- iv. DNB Examiner Surgery Exit exam in Railway Hospital, New Delhi Aug 2020

Dr. Gyan Saurabh:

- Nodal Officer E-Classes
- ii. Member of Technical Specification / Evaluation Committee, AIIMS, New Delhi.
- iii. External expert, Interview for the post of Assistant Professor of Surgery (on contractual basis), VMMC Safdarjung Hospital, New Delhi.
- iv. External Examiner, MS (Surgery) at VMMC, Safdarjung Hospital, New Delhi
- v. MCh (Trauma Surgery & Critical Care) Examiner, AIIMS, New Delhi, 6th June 2020
- vi. DNB (General Surgery) Examiner, DDU Hospital, New Delhi 16th July 2020
- vii. Nodal Officer, Emergency & Trauma block at LHMC

Dr. Sudipta Saha

Recognized as examiner for post graduate General surgery by National Board of Examination. Appointed as examiner for theory papers for postgraduate DNB examination conducted by National Board of Examination in Jan 2021.

Appointed as thesis evaluator for MCh Breast and endocrinology course by AIIMS, New Delhi MBBS external examiner for MBBS students held in Jan 2021 at AIIMS Rishikesh

Dr. Pawan Kumar

As a warden of postgraduate hostel tried to lookafter problems of residence,accommodation,other necessary important issues of students during Covid pandemics

Dr. Shadan Ali

- a. Appointed as expert for conducting of interview for the post of lecturer in surgery by J&K
 public service commission, held from 23.02.2021 to 26.02.2021 at Jammu.
- b. **Expert** for appointment of faculty external member at ESI-PGIMSR New Delhi on 22/02/2021.
- c. External examiner and theory paper setter for "MS Surgery" at JNMCH, AMU, Aligarh.
- Faculty cum Examiner-Onsite assessment of DNB practical OSCE stations- June 2020 STATION OF DNB surgery candidates.

Dr Azaz Akhtar

- a- member of security committee-actively involve to improve the security in hospital campus
- b- Nodal Officer Medical examination board-to provide the smooth arrangement for medical examination for various central Gov post in covid pandemic time
- c- Nodal officer for foreign aid instrument

UNIVERSITY COLLEGE OF MEDICAL SCIENCES

1. MAJOR ACTIVITIES AND ACHIEVEMENTS

University College of Medical Sciences comes in the class of top few medical colleges in India. Its ranking by various agencies had been quite high, it secured rank 19 in NIRF ranking and 9th rank in India today ranking

among top medical colleges in India. Since the very start of Covid-19 pandemic, the college along with the associated GTB hospital has been shouldering the added responsibility of managing covid patients and giving excellent care. A new virology research & diagnostic laboratory has been established which is ICMR recognized and almost thirty eight thousand RTPCR for SARS CoV 2 detection tests have been performed so far. In spite of the enormous additional work related to pandemic, teaching has been continuing non-stop in hybrid mode. New MBBS curriculum has been implemented and CISP training has been imparted to faculty members. Students have excelled in academics, secured 127 distinctions and top ranks in University examinations. The college has received research grant of more than ninety two lakh rupees in this year. The faculty has been continuing with their research and have published almost five hundred articles including fifty-six books/chapters. Two of the faculty members, Dr A K Jain and Dr B D Banerjee have been listed amongst top 2% scientists from India in the world by an independent study done by Stanford University scientists. "Indian Spine Journal" has been indexed with 'Directory of Open access Journals' (DOAJ) and Scopus. Its editor in chief and associate editor from UCMS The publications have always been a strong point of UCMS. After almost a decade, more than 60 new faculty members have been recruited and long due promotion of the teaching and non-teaching staff have been granted to continue with the legacy of University College of Medical Sciences and associated GTB hospital.

2. HONOURS/DISTINCTIONS

Dr Saxena A K, Anaesthesiology

International Association for Study of Pain (IASP), USA, Award for "Excellence in pain research and management in developing countries", 18th World Congress on Pain 2020.

Dr Mehndiratta M, Biochemistry

Received certificate of Merit in 9th Annual CME of Clinical Biochemistry, (2020), and on Cardiovascular Risk Stratification in Patients and Healthy Population, Role of Laboratory Medicine organized by Sir Ganga Ram Hospital and Association of Clinical Biochemists of India- Delhi Chapter on 9th December, 2020

Dr Gupta A, Community Medicine

Certified as Faculty by Indian College of Obstetricians & Gynecologist. FICOG -2020

Dr Grover C, Dermatology

"Prof VN Sehgal Award"-2021 by the Indian Association of Dermatologists, Venereologists and Leprologists for contribution to the field of Dermatology.

Dr Singal A, Dermatology

'Hall of Fame Award' from 7^{th} Annual DAAS Summit, for extra-ordinary academic achievements, July (2020)

Dr Sachdeva S, ENT

PG III; First Prize at Torrent Young Scholar Award

Amitesh Aggarwal, Medicine

Awarded Fellowship of Research Society for Study of Diabetes in India in 2020

Dr Satendra Singh, Physiology

Awarded by His Excellency President of India with the National Award at the 11th National Voters' Day for making the elections in India disabled-friendly-25 Jan 2021

Dr. Aaradhana, Pediatrics

Received Dr James Flett Endownent Award - First Prize -2021

Dr Suneja A, Obstetrics& Gynaecology

Post graduate supervised thesis received prestigious "R D Pandit award" from FOGSI, a National Body, 2020

Dr Gupta B,Obstetrics& Gynaecology

Commonwealth Medical Fellowship in Gyn Oncology at University of Birmingham, Pan Birmingham Gyne Oncolgy Centre, UK. March-Sep. 2020.

Dr Guleria K, Obstetrics& Gynaecology

FOGSI Dr Rajat Ray award in Fetal Medicine (first prize- Federation of Obs& Gyn of India (FOGSI) award.-Sept. 2020

Dr.Sandhya Jain, Obstetrics& Gynaecology

Royal college of Obstetrician and Gynaecologist Oxford overseas award-2020

Dr Jain A K, Orthopaedics

Bombay Spine Society Oration – Medical Management of Spine Tuberculosis on 20.12.2020) delivered by Prof A. K. Jain

3. STUDENTS WITH DISTINCTIONS:

127 DISTINCTIONS AMONGST 77 STUDENTS

Fourteen students secured distinctions in all 3 subjects in 1st Prof (NS) (A) Exam, (2020) held in Feb., 2021

Agastya Aggarwal

Aneeket Modak

Anika Batra

Bhavya Pahwa

Ishika Gupta

Joshika

Mehak Singh

Nadeem Mohammad

Pragya Mitra

Radhika Jain

Vansh Raina

Vanshika Aggarwal

Varun Garg

Yash Karnani

4. **PUBLICATIONS**:

TOTAL NUMBER: 477 INCLUDING 56 BOOKS/CHAPTERS

- 1. Jain AK, Rajasekaran S, Jaggi KR, Myneedu VP.2020. <u>Tuberculosis of the Spine.</u> J Bone Joint Surg Am. ;102(7):617-628.
- 2. Saxena AK, Malik A. (2020) The dawn of a new era on research on precision medicine for pain and the scope of diagnostic biomarkers: Is it a "neurologic pain signature" and is it construct validation?? Indian J Pain;34:1-2.
- 3. Saxena AK, Choudhary S, Gaur D. (2020) "Abdominal pain" in COVID-19 patients: A conundrum for the pain physician. Indian J Pain.30 (2);128-130
- 4. Sharma A, Bisht D, Das S, Rai G, Dutt S, Arora VK. Molecular Detection of Aspergillus in Sputum of Patients with Lower Respiratory Tract Infections. Int J Appl Basic Med Res. (2020) Apr-Jun;10(2):86-90. doi: 10.4103/ijabmr.IJABMR_364_18. PMID: 32566523; PMCID: PMC7289198.
- 5. Garg P K, Chishi N, Kumar R, Latha TK., Rai S, Banerjee, B D., & Gupta S.(2021). Organochlorine Pesticide Tissue Levels in Benign and Malignant Breast Disease: A Comparative Exploratory Study. Journal of Environmental Pathology, Toxicology and Oncology, 40(1), 43-50.
- 6. Ghanshela R, Banerjee, B D, Siddarth M, & Gupta S. (2020). DNA repair gene polymorphism (XPA and XPG) and risk of urinary bladder cancer in North-Indian population. Meta Gene, 24, 1-7.
- 7. Labh R., Gupta, R.(2021). Emerging Trends in the Long-Acting Antiretroviral Therapy: Current Status and Therapeutic Challenges. Curr HIV Res, 19,4-13.
- 8. <u>Choudhary S, Saxena AK, Bajaj M, Banerjee A.</u> (2020) A comprehensive review of complications following ultrasound-guided blocks: "Continue D'avancer". Indian J Pain: 34 (3): 160-163
- 9. Kumar S, Zafar A, Jain AK, Aggarwal AN, Bhayana H, Dhammi IK .2021. Analysis of potential bone donors and deferrel rates for bone bank in tertiary care hospital. Ortho J MPC. 21(1)22-27.
- 10. Rai S, Garg, PK., Bhatt S, Latha TK, Verma AK, Banerjee BD., & Singh M.P. (2020). The diagnostic role of microRNA 21 in patients with nonsmall cell lung cancer: An exploratory study. Lung India: Official Organ of Indian Chest Society, 37(6), 501.

5. JOURNALS

- Published by college: "Indian spine Journal"
- Number of college teachers serving as Editor(s)/Member(s) of Editorial Board -18

6. RESEARCH PROJECTS

Principal Investigator	Title of the Project	Year	Funding agency	Grant Rs.
Dr Suneja A	Capacity building through HRRCs and teaching institutes to operationalize government guidelines for screening of common cancers (oral, breast and cervical) – ICMR Task Force study. Three-year project 2018-2021.	Three-year project 2018-2021.	ICMR	Rs 48 Lakhs
Dr Sharma AK	Spatial Epidemiological Approach to Malaria Elimination Research (SEAMER).	2021-2023	ICMR	Rs 83,45,000
Dr Upadhyay MK	Industrial stakeholders' engagement in air pollution control in Delhi- a behavioral change communication based approach	Feb. 2021 to Feb. 2022	Principal Scientific Advisor to Govt. of India	8 lacs
Dr Guleria K	To see the Effect of Obstructive Sleep Apnoea in North Indian Women with Polycystic Ovary Syndrome (OSA & PCOS study)in collaboration with AIIMS, New Delhi. (sanctioned in Nov. 2019) Validation of Preeclampsia Congo Red Detection kit (Point-of-Care test) multicentric project in collaboration with AIIMS, New Delhi.	3 years (patient recruitment postponed due to COVID- 19) 1 year (patient recruitment postponed due to COVID- 19)	DST	Rs 69 lacs (Multi centric project)
Dr Kotru M	BCR-ABL fusion transcript in pediatric acute lymphoblastic leukemia'	2 years	MRU	2.5 lac

SEMINARS ORGANIZED: 10

- Anesthesia department organized, in association with Indian Society of Anaesthesiologists Delhi Chapter, a monthly clinical meeting on 4th December (2020).
- 2. Increasing Burden of COPD: A Discussion, 19 December (2020)
- 3. How to make your facility Baby Friendly- In context to Breastfeeding- in collaboration with MIYCN-IAPSM and Delhi Gynaecologist Forum 1st Aug (2020)
- Difficulties During Breastfeeding in collaboration with MIYCN-IAPSM and Delhi Gynaecologist Forum 5th Aug 2020
- Myths & Misconceptions about Breastfeeding- in collaboration with MIYCN-IAPSM and Delhi Gynaecologist Forum 6thAug ,2020
- 6. Webinar Series in Head & Neck Oncosurgery: Sessions I-IV: Oral Cancer, Larynx, Salivary Gland, Thyroid, Affiliation- University of Chicago
- 7. IAMM Workshop (Delhi Chapter) On 27.1.2021: Diagnostic algorithm for coinfection in Covid 19.
- 8. Workshop on RTPCR at CRL/MRU for 30 faculty members of UCMS & GTBH at CRL/MRU: 10.3.2021: Applications of RTPCR techniques in clinical Research
- 9. Symposium on Navigating Doctor-Patient Relationships organised with Vidhi Centre, Forum for the Medical Ethics Society and Bucksbaum Institute for Clinical Excellence, University of Chicago, 15-16 Feb 2020
- 10. Knowledge, attitude and practices with covid appropriate behaviours during Covid 19 pandemic

7. CONFERENCES ORGANIZED: 15

- 1. 'Poshancon (2020)', the first National Conference of Maternal, Infant and Young Child Nutrition National Working group of IAPSM on 16th and 17th October (2020) on zoom platform.
- 2. International symposium on COVID-Impressions (COVIMPRESSIONS) Impressions on COVID: Local Action, Global Impact,27.05.20,Funded by UCMS and GTBH and Johns Hopkins Bloomberg School Of Public Health.
- 3. Biostatistical Analysis,27.01.21-10.03.21funded by JHU
- 4. Diagnostic algorithm for coinfection in COVID-19" dated 28th January 2021.Funding agency support: VIRTUAL MICRO-D -CON 12th ANNUAL CONFERENCE OF IAMM DELHI CHAPTER.
- **5.** Overview of HIV- testing lab Network organized by HIV-unit, Virology Section, Department of Microbiology, University College of Medical Sciences, (University of Delhi), Dilshad Garden on.02.02.2021.
- **6.** "Surgical site infections- Basics & Case Studies" in E-Microcon (2020), First Virtual National Conference of Indian Association of Medical Microbiologists. (8th 11th December, (2020)) 3.
- **7.** "2019 Corona Virus: An update" organized by Department of Microbiology, University College of Medical Sciences, (University of Delhi), Dilshad Garden on 20.02.2020.
- **8.** Sero diagnosis of HIV infection on External Quality Assessment Scheme (EQAS) for HIV organized by HIV-unit.
- **9.** E-Microcon (2020), First Virtual National Conference of Indian Association of Medical Microbiologists. (8th 11th December, (2020))

- CIAP Pedicon 2021, 57th Annual Conference of Indian Academy of Pediatrics, Mumbai,4-7 February
- 11. Indian Academy of Pediatrics North Zone Pediweek 'Himalaya' (Virtual),30 August to 5 September (2020)
- 12. International Board Review Course with 4 days teaching of spectrum of Pediatrics Emergencies and Trauma topics (e-EMPART) and Point of Care Ultrasound workshop (e EPICON), Supporting agency INDO US Emergency and Trauma Collaborative, Academic College of Emergency Experts in India,22nd November (2020), 29th November (2020), 6th December 2021 and 13th December 2021
- 13. Neocon (2020), Annual Conference of NNF, 1-4 October (2020)
- 14. Neonatal Resuscitation Programme (NRP) at UCMS & GTB Hospital., 7th, March 2021
- 15. Advanced Neonatal Ventilation Workshop at UCMS >B Hospital. 21, March 2021

8. SEMINAR/CONFERENCE PRESENTATIONS:

TOTAL: 419

- 1. Dr Saxena AK, Anaesthesiology ,Delivered a talk on Pathophysiology, diagnosis and management of Neuropathic pain during a webinar organized by Indian Society for Study of Pain (ISSP)
- 2. Dr Mehndiratta M, Biochemistry, Keynote Speaker in Webinar on "Implementation of CBME: concepts, concerns and challenges" organised by ELSEVIER on 20th August (2020)
- 3. Dr Gupta A, Community Medicine ,Attended an International e-Conference & delivered a lecture on "Breast Feeding In Covid19 & Special Circumstances" organized by Mahadevananda Mahavidyalaya, West Bengal, August (2020).
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- 5. Dr Raizada , Medicine, A delivered a talk on "Anemia in Elderly" at eAPICON held at Mumbai 4th-7th March 2021
- 6. Arora VK, Pathology, Online guest lecture: Follicular lesions of thyroid cytopathology CME (UPCYTOCON) organized by SRMSIMS, Bareilly on December 13, (2020).
- 7. Naskar S,Tanveer N,Sharma S,Kaur N, Pathology, A comparison of of nuclear and cytoplasmic immuno expression of p16 in breast neoplasms.Oral Paper presentation in 6th Emirates Pathology and Digital Pathology Conference held online on February 9 ,2021
- 8. Dr Singh A, Obs and Gyane, , Virtual Fertivision, Conference, titled as "Effect of vitamin D supplementation on serum VEGF levels in vitamin D deficient polycystic ovarian syndrome patients" in 16 TH Annual Conference.
- Dr Jain AK, Orthopaedics, Key Note Address on Drug Resistant Spinal Tuberculosis organised by ASSI
 Dr Tandon A, Radiology, Delivered talk on "Imaging approach to bone tumors" virtual meeting, CR-IRIA IREP Oct- NOV 2020.

OTHER INTER-INSTITUTIONAL COLLABORATION

National Candidemia Network with Deptt of Microbiology PGIMER Chandigargh: 2021-2022

LIBRARY DEVELOPMENT:

Library purchased 196 textbooks and reference books for an outlay of Rs.12,88,213.00/- and subscribed 110 current journals (51 Foreign Journals and 59 Indian Journals) for Rs. 44,11,743.00/-. The total number of books in the library is 20584, in addition library has an asset of 25088 bound journals, 1534 WHO Publications, 1148 Thesis and 416 CDs. The library is member of ERMED Consortium through which users can access 235+ e-journals. The prestigious Developing Library Network (DELNET) facility is also provided to all the users. This year the library with the help of University of Delhi also provided access to anti-plagiarism software known as "URKUND" to its users for plagiarism check. The library is fully wifi enabled to provide easy access to resources and also provides facility of 24 hours reading room to its users.

FACULTY STRENGTH: 143

Director Professor(s): 39

• Professor(s): 44

Associate Professor: Nil

• Assistant professor: 60

FINANCIAL ALLOCATION AND UTILIZATIONS

(a) Grant sanctioned: Rs.15,489.40 Lakh

(b) Utilized: Rs.15,036.21 Lakh

OTHER SIGNIFICANT INFORMATION

- 1. Dr Jain A K, Orthopaedics, Dean, Faculty of Medical Sciences.
- 2. Dr. Garg S, Biochemistry, received copyright Gopal N, Amle D, Garg S. Copyright for OSLER model for assessment of medical students in clinical Biochemistry, copyright no. L -92593/(2020) dated 06/07/(2020)
- 3. "Indian Spine Journal" got indexed with 'Directory of Open Access Journals (DOAJ) and Scopus.

SURGERY (UCMS)

Major Activities and Achievements

Five new faculty members (Assistant Professors) from UCMS and one non teaching NFSG faculty from GTB Hospital joined the Department. One Faculty member (Asst Prof, UCMS) left the Department. The faculty members published several papers in the leading indexed International medical specialty journals with high citation index. The faculty members received presitgous assignments as per list under other significant information. The Department acquired 25 Multi para monitorsmedical equipment. The Department successfully conducted online classes lectures and hospital postings of the MBBS students in Surgery in the virtual online mode due to conversion of the UCMS >B hospital by the competent authority to fully covid for most of the period in the year 2020 to 2021.

Publications

- 1. Singh, I., Behera, D. P., TK, A., & Gupta, S. (2021). Efficacy and safety of tamsulosin vs its combination with mirabegron in the management of lower urinary tract non-neurogenic overactive bladder symptoms (OABS) because of Benign Prostatic Enlargement (BPE)-An open label randomised controlled clinical study. International Journal of Clinical Practice, e14184.
- 2. Singh, I., Aravind, T. K., Behera, D. P., Panesar, N., & Jain, D. (2020). Malignant mesothelioma of the spermatic cord mimicking a benign inguinoscrotal swelling: case report with review of literature. African Journal of Urology, 26(1), 1-4.
- 3. Singh I, Aravind TK, Behera DP, Patel D. 2020); Extra Scrotal Spermatocele A Unique Case Presentation & Brief Review of literature. Annal Urol& Nephrol. 2 (2):1-3. AUN.MS.ID.000535.
- 4. Singh, I., Aravind, T. K., & Panesar, N. (2020). Perineal Ectopic Testis (PET): Ignorance is "Not" a Bliss. Indian Journal of Surgery, 82(6), 1306-1307.
- 5. Singh, I., Aravind, T. K., Behera, D. P., & Panesar, N. (2020). Laparoscopic ureterolithotomy for the management of distal ureteric giant calculi in the endourology era—case report & Brief review of literature. European Journal of Medical Case Reports, 4(8), 259-262.
- 6. Singh, I., Tk, A., & Gupta, S. (2020). Efficacy and safety of tadalafil vs tamsulosin in lower urinary tract symptoms (LUTS) as a result of benign prostate hyperplasia (BPH)—open label randomised controlled study. International Journal of Clinical Practice, 74(8), e13530.
- 7. Patil PM, Sharma K, Kaur N. (2020) Acute necrotising pancreatitis masquerading as psoas abscess: A report of two cases. Arch Surg Clin Res. 4: 018-021.
- 8. Kaur, N., Kumar, R., Jain, A., & Saxena, A. K. (2021). Sensory Changes and Postmastectomy Pain Following Preservation of Intercostobrachial Nerve in Breast Cancer Surgery: a Prospective Randomized Study. Indian Journal of Surgical Oncology, 12(1), 108-113.
- 9. Bagla, C., & Agrawal, V. (2020). Onycholemmal Carcinoma: a Rare, Specific Squamous Cell Malignancy. Indian Journal of Surgery, 1-3.
- 10. Agrawal, V., & Gupta, S. (2020). Situs Inversus-A Not-so-Uncommon Entity. Indian Journal of Surgery, 82(4), 742-743.
- 11. Agrawal, V., & Gupta, S. (2020). Chronic Mesentero-Axial Gastric Volvulus Associated with a Parahiatal Diaphragmatic Hernia: A Rare Entity. Indian Journal of Surgery, 82(4), 731-732.
- 12. Nayar R, Gupta A, Agrawal V. Multiple myeloma of thyroid cartilage: A case report and review of literature. Journal of Rheumatology Research. JRR, Sept. (2020). 2(3): 146-153.
- 7. Faculty Strength: 9(Teaching) +1 (NFSG –Non-Teaching)

8. Other Significant Information

- 1. Dr Iqbal Singh (Professor CAS- Appointed) was Faculty appointed as Advisor to assist the Union Public Service Comission (UPSC) New Delhi for the Combined Medical Services Examination 2020 in conduct of personality test for recruitment of general duty medical officers from 18th to 22nd January.
- 2. Dr Iqbal Singh (Professor CAS- Appointed) was invited to Chair a Video/Poster Session in the 30th Annual Conference NZUSICON 2020 (22-24th Jan'2021) held in the virtual Online Mode.
- 3. Dr Iqbal Singh (Professor CAS- Appointed) was invited as Faculty to Chair a Urology Session in the 38th Annual MAMC Surgery Update in MAMC by the Department of Surgery Maulana Azad Medical College on 4th February 2021 as a physical event.
- 4. Dr Iqbal Singh (Professor CAS- Appointed) was Invited by the Delhi Medical Council (DMC) as a co-opted member to look in to allegations of medical negligence in the specialty of Urology Surgery in 2020 and 2021.
- 5. Dr Iqbal Singh (Professor CAS- Appointed) was invited by the National Board of Examinations, Ministry of Health & Family welfare, Govt of India for Postgraduate&post DoctoralDNB/FNB Courses as an Assessor for assessment of General Surgery Department in Delhi.
- 6. Dr Iqbal Singh (Professor CAS- Appointed) was invited as a Reviewer to evaluate and review manuscripts submitted for publication in the specialty of Urology Surgery by the Editors of several journals like International Urolgy Nephrology, Indian Journal Urology, Indian Journal of Surgery, Journal of Endourology etc in year 2020-2021.
- 7. Dr. Vivek Agrawal hosted visiting specialists from Bangladesh Medical Services, August 2020.

- 8. Dr. Vivek Agrawal appointed Teacher and Examiner, Surgery Clinical Oriented Postgraduate Examination "SCOPE Course 2021" (virtual mode) organized from 7th to 10th January 2021 under the aegis of Delhi State Chapter-ASI.
- 9. Dr. Vivek Agrawal invited speaker in Clinical Skill Update 2021. 28th to 31st January, (online) virtual platform
- 10. Dr. Vivek Agrawal invited speaker in MAMC Surgery Update 2021. February 2nd to 5th. Chairperson for the lecture session on Thyroid diseases and MEN on 4th February.

UNIVERSITY COLLEGE OF MEDICAL SCIENCES

Major activities and achievements

UCMS secured rank 19 in NIRF ranking and 9th rank in India today ranking among top medical colleges in India. A new virology research & diagnostic laboratory has been established which is ICMR recognized and almost thirty eight thousand RTPCR for SARS CoV 2 detection tests have been performed so far. New MBBS curriculum has been implemented and CISP training has been imparted to faculty members. Students have excelled in academics, secured 127 distinctions and top ranks in University examinations. The college has received research grant of more than ninety two lakh rupees in this year. The faculty has been continuing with their research and have published almost five hundred articles including fifty-six books/chapters. Two of the faculty members, Dr A K Jain and Dr B D Banerjee have been listed amongst top 2% scientists from India in the world by an independent study done by Stanford University scientists. "Indian Spine Journal" has been indexed with 'Directory of Open access Journals' (DOAJ) and Scopus. Its editor in chief and associate editor from UCMS The publications have always been a strong point of UCMS.

Honours/Distinctions

Dr Saxena A K, Anaesthesiology International Association for Study of Pain (IASP), USA, Award for "Excellence in pain research and management in developing countries", 18th World Congress on Pain 2020.

Dr Mehndiratta M, Biochemistry received certificate of Merit in 9th Annual CME of Clinical Biochemistry, (2020), and on Cardiovascular Risk Stratification in Patients and Healthy Population, Role of Laboratory Medicine organized by Sir Ganga Ram Hospital and Association of Clinical Biochemists of India- Delhi Chapter on December 9, 2020

Dr Gupta A, Community Medicine certified as Faculty by Indian College of Obstetricians & Gynecologist. FICOG -2020

Dr Grover C, Dermatology "Prof VN Sehgal Award"-2021 by the Indian Association of Dermatologists, Venereologists and Leprologists for contribution to the field of Dermatology.

Dr Singal A, Dermatology 'Hall of Fame Award' from 7^{th} Annual DAAS Summit, for extra-ordinary academic achievements, July (2020)

Dr Sachdeva S, ENT, PG III received the First Prize at Torrent Young Scholar Award

Amitesh Aggarwal, Medicine was awarded Fellowship of Research Society for Study of Diabetes in India in 2020

Dr Satendra Singh, Physiology was awarded by His Excellency President of India with the National Award at the 11th National Voters' Day for making the elections in India disabled-friendly on Jan 25, 2021

Dr. Aaradhana, Pediatrics received Dr James Flett Endownent Award - First Prize -2021

Dr Suneja A, Obstetrics& Gynaecology, Post graduate supervised thesis received prestigious "R D Pandit award" from FOGSI, a National Body,2020

Dr Gupta B,Obstetrics& Gynaecology, commonwealth Medical Fellowship in Gyn Oncology at University of Birmingham, Pan Birmingham Gyne Oncolgy Centre, UK. March-Sep. 2020.

Dr Guleria K, Obstetrics& Gynaecology, FOGSI Dr Rajat Ray award in Fetal Medicine (first prize-Federation of Obs& Gyn of India (FOGSI) award in Sept. 2020

Dr.Sandhya Jain, Obstetrics& Gynaecology, Royal college of Obstetrician and Gynaecologist Oxford overseas award-2020

Dr Jain A K, Orthopaedics, Bombay Spine Society Oration – Medical Management of Spine Tuberculosis on December 20, 2020

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TOTAL NUMBER: 477 INCLUDING 56 BOOKS/CHAPTERS

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Saxena AK, Malik A. (2020) The dawn of a new era on research on precision medicine for pain and the scope of diagnostic biomarkers: Is it a "neurologic pain signature" and is it construct validation?? Indian J Pain;34:1-2.

University of Delhi: Annual Report 2020-21

Saxena AK, Choudhary S, Gaur D. (2020) "Abdominal pain" in COVID-19 patients: A conundrum for the pain physician. Indian J Pain.30 (2);128-130

Sharma A, Bisht D, Das S, Rai G, Dutt S, Arora VK. Molecular Detection of Aspergillus in Sputum of Patients with Lower Respiratory Tract Infections. Int J Appl Basic Med Res. (2020) Apr-Jun;10(2):86-90. doi: 10.4103/ijabmr.IJABMR_364_18. PMID: 32566523; PMCID: PMC7289198.

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Labh R., Gupta, R.(2021). Emerging Trends in the Long-Acting Antiretroviral Therapy: Current Status and Therapeutic Challenges. Curr HIV Res, 19,4-13.

Choudhary S, Saxena AK, Bajaj M, Banerjee A. (2020) A comprehensive review of complications following ultrasound-guided blocks: "Continue D'avancer". Indian J Pain: 34 (3): 160-163

Kumar S, Zafar A, Jain AK, Aggarwal AN, Bhayana H, Dhammi IK .2021. Analysis of potential bone donors and deferrel rates for bone bank in tertiary care hospital. Ortho J MPC. 21(1)22-27.

Rai S, Garg, PK., Bhatt S, Latha TK, Verma AK, Banerjee BD., & Singh M.P. (2020). The diagnostic role of microRNA 21 in patients with nonsmall cell lung cancer: An exploratory study. Lung India: Official Organ of Indian Chest Society, 37(6), 501.

Journals

Published by college: "Indian spine Journal"

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board: 18

Research projects

Dr Suneja A, Capacity building through HRRCs and teaching institutes to operationalize government guidelines for screening of common cancers (oral, breast and cervical) – ICMR Task Force study. Three-year project 2018-2021. ICMR, Rs. 48,00000

Dr Sharma AK, Spatial Epidemiological Approach to Malaria Elimination Research (SEAMER), 2021-2023, ICMR, 85,45,000

Dr Upadhyay MK, Industrial stakeholders' engagement in air pollution control in Delhi- a behavioral change communication based approach, 2021-22, Principal Scientic Advisor to Govt. of India, Rs. 8,00000

Dr Guleria K. To see the Effect of Obstructive Sleep Apnoea in North Indian Women with Polycystic Ovary Syndrome (OSA & PCOS study) in collaboration with AIIMS, New Delhi. (sanctioned in Nov. 2019), 3 years, Patient recruitment postponed due to covid 19. And Validation of Preeclampsia Congo Red Detection kit (Point-of-Care test) multicentric project in collaboration with AIIMS, New Delhi; one year Patient recruitment postponed due to covid 19, DST. Rs. 69,00000 (Multicentric Project)

Dr Kotru M, BCR-ABL fusion transcript in pediatric acute lymphoblastic leukemia' 2 years, MRU, Rs. 250000

Seminars organized

Anesthesia department organized, in association with Indian Society of Anaesthesiologists - Delhi Chapter, a monthly clinical meeting on December 4, 2020

Increasing Burden of COPD: A Discussion, 19 December (2020)

How to make your facility Baby Friendly- In context to Breastfeeding- in collaboration with MIYCN-IAPSM and Delhi Gynaecologist Forum on Aug 1, 2020

Difficulties During Breastfeeding — in collaboration with MIYCN-IAPSM and Delhi Gynaecologist Forum - August 5, 2020

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Ghanshela R, Banerjee, B D, Siddarth M, & Gupta S. (2020). DNA repair gene polymorphism (XPA and XPG) and risk of urinary bladder cancer in North-Indian population. Meta Gene, 24, 1-7.

Labh R., Gupta, R.(2021). Emerging Trends in the Long-Acting Antiretroviral Therapy: Current Status and Therapeutic Challenges.Curr HIV Res,19,4-13.

Choudhary_S, Saxena_AK, Bajaj_M, Banerjee_A. (2020) A comprehensive review of complications following ultrasound-guided blocks: "Continue D'avancer". Indian_J Pain: 34 (3): 160-163

Kumar S, Zafar A, Jain AK, Aggarwal AN, Bhayana H, Dhammi IK .2021. Analysis of potential bone donors and deferrel rates for bone bank in tertiary care hospital. Ortho J MPC. 21(1)22-27.

Rai S, Garg, PK., Bhatt S, Latha TK, Verma AK, Banerjee BD., & Singh M.P. (2020). The diagnostic role of microRNA 21 in patients with nonsmall cell lung cancer: An exploratory study. Lung India: Official Organ of Indian Chest Society, 37(6), 501.

Journals

Published by college: "Indian spine Journal"

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board: 18

Research projects

Dr Suneja A, Capacity building through HRRCs and teaching institutes to operationalize government guidelines for screening of common cancers (oral, breast and cervical) – ICMR Task Force study. Three-year project 2018-2021. ICMR, Rs. 48,00000

Dr Sharma AK, Spatial Epidemiological Approach to Malaria Elimination Research (SEAMER), 2021-2023, ICMR, 85,45,000

Dr Upadhyay MK, Industrial stakeholders' engagement in air pollution control in Delhi- a behavioral change communication based approach, 2021-22, Principal Scientic Advisor to Govt. of India, Rs. 8,00000

Dr Guleria K. To see the Effect of Obstructive Sleep Apnoea in North Indian Women with Polycystic Ovary Syndrome (OSA & PCOS study) in collaboration with AIIMS, New Delhi. (sanctioned in Nov. 2019), 3 years, Patient recruitment postponed due to covid 19. And Validation of Preeclampsia Congo Red Detection kit (Point-of-Care test) multicentric project in collaboration with AIIMS, New Delhi; one year Patient recruitment postponed due to covid 19, DST. Rs. 69,00000 (Multicentric Project)

Dr Kotru M, BCR-ABL fusion transcript in pediatric acute lymphoblastic leukemia' 2 years, MRU, Rs. 250000

Seminars organized

Anesthesia department organized, in association with Indian Society of Anaesthesiologists - Delhi Chapter, a monthly clinical meeting on December 4, 2020

Increasing Burden of COPD: A Discussion, 19 December (2020)

How to make your facility Baby Friendly- In context to Breastfeeding- in collaboration with MIYCN-IAPSM and Delhi Gynaecologist Forum on Aug 1, 2020

Difficulties During Breastfeeding — in collaboration with MIYCN-IAPSM and Delhi Gynaecologist Forum - August 5, 2020

Myths & Misconceptions about Breastfeeding- in collaboration with MIYCN-IAPSM and Delhi Gynaecologist Forum on August, 2020

Webinar Series in Head & Neck Oncosurgery: Sessions I-IV: Oral Cancer, Larynx, Salivary Gland, Thyroid, Affiliation-University of Chicago

IAMM Workshop (Delhi Chapter) On Diagnostic algorithm for coinfection in Covid 19 on January 27, 2021

Workshop on RTPCR at CRL/MRU for 30 faculty members of UCMS & GTBH at CRL/MRU on March 10, 2021

Symposium on Navigating Doctor-Patient Relationships organised with Vidhi Centre, Forum for the Medical Ethics Society and Bucksbaum Institute for Clinical Excellence, University of Chicago on Feb 15-16, 2020 Knowledge, attitude and practices with covid appropriate behaviours during Covid 19 pandemic **Conference Organized** 'Poshancon (2020)', the first National Conference of Maternal, Infant and Young Child Nutrition National Working group of IAPSM on October 16-17, 2020 on zoom platform. International symposium on COVID-Impressions (COVIMPRESSIONS) – Impressions on COVID: Local Action, Global Impact, May 27, 2020, Funded by UCMS and GTBH and Johns Hopkins Bloomberg School Of Public Health. Biostatistical Analysis from January 27-March 10, 2021, funded by JHU Diagnostic algorithm for coinfection in COVID-19" dated on January 28, 2021. Funding agency support: VIRTUAL MICRO-D -CON 12th ANNUAL CONFERENCE OF IAMM DELHI CHAPTER. Overview of HIV- testing lab Network organized by HIV-unit, Virology Section, Department of Microbiology, University College of Medical Sciences, (University of Delhi), Dilshad Garden on February 2, 2021. "Surgical site infections- Basics & Case Studies" in E-Microcon (2020), First Virtual National Conference of Indian Association of Medical Microbiologists from December 8-11, 2020 "2019 Corona Virus: An update" organized by Department of Microbiology, University College of Medical Sciences, (University of Delhi), Dilshad Garden on February 20, 2021

E-Microcon (2020), First Virtual National Conference of Indian Association of Medical Microbiologists, December 8-11, 2020

CIAP Pedicon 2021, 57th Annual Conference of Indian Academy of Pediatrics, Mumbai from February 4-7, 2021

Indian Academy of Pediatrics North Zone Pediweek 'Himalaya' (Virtual) from August 30 to September 5, 2020

Seminar/conference presentations

Dr Saxena AK, Anaesthesiology ,Delivered a talk on Pathophysiology, diagnosis and management of Neuropathic pain during a webinar organized by Indian Society for Study of Pain (ISSP)

Dr Mehndiratta M, Biochemistry, Keynote Speaker in Webinar on "Implementation of CBME: concepts, concerns and challenges" organised by ELSEVIER on August 20, 2020

Dr Gupta A, Community Medicine ,Attended an International e-Conference & delivered a lecture on "Breast Feeding In Covid19 & Special Circumstances" organized by Mahadevananda Mahavidyalaya, West Bengal in, August 2020.

Dr Singhal A, Dermatology, delivered keynote lecture on 'Tropical Dermatology' during 11th annual state conference CUTICON KN -"Endemic, epidemic and pandemics: Dermatologist's perspective" held on November 28-29, 2020.

Dr Raizada, Medicine, A delivered a talk on "Anemia in Elderly" at eAPICON held at Mumbai March 4-7, 2021

Arora VK, Pathology, Online guest lecture: Follicular lesions of thyroid cytopathology CME (UPCYTOCON) organized by SRMSIMS, Bareilly on December 13, 2020.

Naskar S,Tanveer N,Sharma S,Kaur N, Pathology, A comparison of of nuclear and cytoplasmic immuno expression of p16 in breast neoplasms. Oral Paper presentation in 6th Emirates Pathology and Digital Pathology Conference held online on February 9, 2021

Dr Singh A, Obs and Gyane, , Virtual Fertivision, Conference, titled as "Effect of vitamin D supplementation on serum VEGF levels in vitamin D deficient polycystic ovarian syndrome patients" in 16 TH Annual Conference.

Dr Jain AK, Orthopaedics, Key Note Address on Drug Resistant Spinal Tuberculosis organised by ASSI

Dr Tandon A, Radiology, Delivered talk on "Imaging approach to bone tumors" – virtual meeting, CR-IRIA IREP Oct-Nov 2020.

Other Inter-Institutional collaboration

National Candidemia Network with Deptt of Microbiology PGIMER Chandigargh: 2021-2022

Library development:

Library purchased 196 textbooks and reference books for an outlay of Rs.12,88,213.00/- and subscribed 110 current journals (51 Foreign Journals and 59 Indian Journals) for Rs. 44,11,743.00/-. The total number of books in the library is 20584, in addition library has an asset of 25088 bound journals, 1534 WHO Publications, 1148 Thesis and 416 CDs. The library is member of ERMED Consortium through which users can access 235+ e-journals. The prestigious Developing Library Network (DELNET) facility is also provided to all the users. This year the library with the help of University of Delhi also provided access to anti-plagiarism software known as "URKUND" to its users for plagiarism check. The library is fully wifi enabled to provide easy access to resources and also provides facility of 24 hours reading room to its users.

Faculty Strength

Director Professor(s): 39

Professor(s): 44

Associate Professor: Nil

Assistant professor: 60

Financial allocation and utilizations

Grant sanctioned: Rs.15,489.40 Lakh

Grant Utilized: Rs.15,036.21 Lakh

Other significant information

Dr. Garg S, Biochemistry, received copyright - Gopal N, Amle D, Garg S. Copyright for OSLER model for assessment of medical students in clinical Biochemistry, copyright no. L -92593/(2020) dated 06/07/(2020) "Indian Spine Journal" got indexed with 'Directory of Open Access Journals (DOAJ) and Scopus.

V.P. CHEST INSTITUTE

Major Activities/Achievements

The Institute continued its 'education', 'research' and 'patient care' activities. The Institute has 13 ongoing research projects by various governmental agencies, namely, AYUSH, DHR, CCRUM, DST, DIPAS, ICMR, NIF to the tune of 150.00 Crores. Started telemedicine services in September 2020. Home-based Pulmonary Rehabilitation for post-Covid patients started in June 2021. VPCI has also started Post-Covid Respiratory Management Centre which was inaugurated by the Hon'ble Vice Chancellor of the University. VPCI is an ampanelled hospital under the Ayushman Bharat Pradhan Mantri Jan Arogya Yogana (PMJAY). During 2020-21, over 8500 new patients registered at our OPD for consultation and over 17100 old patients came to OPD for follow-up. The Indoor General Ward admitted over 800 patients and the Emergency Ward admitted and provided treatment to over 4,500 patients. The RICU admitted 132 patients for intensive care. During the period, the National Tobacco Quit Line Service (NTQLS) (toll-free no. 1800-11-2356) attended to more than 11.05 lakhs calls landed on the Interactive Voice Response (IVR) with success rate of 27%. At the Pollen Count Station at VPCI, a total of 726 slides were mounted and analyzed during this period.

Honours/Distinctions

Dr. Anita Kotwani is Member of Technical Advisory Group and Core working Group constituted by Ministry of health & Family Welfare, GOI on AMR to oversee and coordinate policy decisions and activities relating to AMR including development and operationalizing the National Action Plan on AMR.

Dr. Anuradha Chowdhary was Elected Fellow, Indian Academy of Sciences, Bengaluru, 2021; Elected Fellow, International Society of Antimicrobial Agents & Chemotherapy, 2021; was Highly cited Researcher, Web of Science/Clarivate; 2020

Dr. Kavita Gulati is Coordinator: Adverse Drug Reaction Monitoring Centre (AMC) under the Pharmacovigilance Programme of India, Indian Pharmacopeia Commission (IPC-CDSCO) (2017 – ongoing); is a Nodal Officer, Multidisciplinary Research Unit of Department of Health Research, ICMR at VPCI. From 21.05.2019-continued) is Member Expert (Pharmacology) in IHEC of PGIMER, RML Hospital (2017- continued); is an Expert in Project Evaluation Committee of Indian Council of Medical Research (ICMR), 2019-continued

Dr. Madhu Khanna - Vallabhbhai Patel Chest Institute, Delhi (Virology Unit) has been designated as ICMR centre for COVID-19 testing; was a CPCSEA Nominee in Shri Ram Institute.19, University Road, near Hansraj College, Delhi-110007.

Dr. Malini Shariff was designated for serosurveillance of COVID; was Member of Editorial Board of The Indian Journal of Chest Diseases and Allied Sciences; received PK Pillai IAMM Delhi Chapter award for best poster, Malini Shariff, Jyoti Choudhary & Kiran Beri. Gram-negative bacterial infections in ICU patients: A two-year study 12th Annual conference of IAMM Delhi Chapter,, 28th to 30th January, 2021

Dr. Raj Kumar was Expert Member, Selection Committee meeting for selection of Assistant Professor and Associate Professor at Institute of Medical Sciences, BHU, UP on August 16, 2020; was Co-Author for chapter progress in Tobacco control- the Indian experience for Report on Tobacco Control in India 2020 MoH&FW developed by HRIDAY by WHO and CDC, USA. Dt. 25.08.2020

Dr. Ritu Kulshrestha was the Member of Scientific Advisory committee for MRHRU External Member of the Scientific Advisory Group for the Dept of Health Research, MOHFW, GOI established Model Rural Health Research Unit (MRHRU) at Khotpura, Panipat, Haryana in collaboration with the Kalpana Chawla Government Medical College, Karnal under mentorship of ICMR-NICPR, Noida since March 2021

Dr. Vishwajeet Rohil was nominated as an External Expert of External Board Review committee at Defence Institute of Physiology and Allied Sciences, was nominated as DBT Nominee for Institutional Biosafety Committee at Defence Institute of Physiology and Allied Sciences.

Publications

Anshu P, Nitin G and Raj K. (2020) Prevalance of Obstructive Sleep Apnoea in Patients with Chronic Obstructive Pulmonary Disease. *Indian J Chest Dis Allied Sci*; 62:139-143.

Arendrup MC, Jørgensen KM, Hare RK, Chowdhary A. (2020). In vitro activity of ibrexafungerp (SCY-078) against Candida auris isolates as determined by EUCAST methodology and comparison with activity against C. albicans and C. glabrata and with the activities of six comparator agents. *Antimicrob Agents Chemother*. 64:e02136-19.

Arendrup MC, Chowdhary A, Jørgensen KM Meletiadis J. 2020. Manogepix (APX001A), (2020) In vitro activity against Candida auris: Head to head comparison of EUCAST and CLSI MICs. *Antimicrob Agents Chemother*. 2020; 64:e00656-20.

Arendrup MC, Jørgensen KM, Guinea J, Lagrou K, Chryssanthou E, Hayette MP, Barchiesi F, Lass-Florl C, Hamal P, Dannaoui E, Chowdhary A, Meletiadis J. 2020. Multicentre validation of a EUCAST method for the antifungal susceptibility testing of microconidia-forming dermatophytes. *J Antimicrob Chemotherapy*. 75(7):1807-1819.

Azmi I, Faizan MI, Kumar R, Raj Yadav S, Chaudhary N, Kumar Singh D, Butola R, Ganotra A, Datt Joshi G, Deep Jhingan G, Iqbal J, Joshi MC, Ahmad T. A. (2021). Saliva-Based RNA Extraction-Free Workflow Integrated With Cas13a for SARS-CoV-2 Detection. *Front Cell Infect Microbiol*. 2021 Mar 16;11:632646. doi: 10.3389/fcimb.2021.632646. PMID: 33796478; PMCID: PMC8009180.

Babita, Gulati K, Menon BK, Kumar R, Ray A. (2020). A Clinical study to evaluate the effects of Yoga and Pharmacotherapy on pulmonary functions, mechanism of inflammation and quality of life in bronchial asthma patients. *Clin Invest*.10 (4), 106-116, 2020

Bhattacharyya K, Nemaysh V, Joon M, Pratap R, Varma-Basil M, Bose M, Brahmachari V. (2020). Correlation of drug resistance with single nucleotide variations through genome analysis and experimental validation in a multi-drug resistant clinical isolate of M. tuberculosis. *BMC Microbiol.* 2020 Jul 25;20(1):223. doi: 10.1186/s12866-020-01912-6.

Bidaud AL, Djenontin E, Botterel F, Chowdhary A, Dannaoui E. (2020). Colistin interacts synergistically with echinocandins against Candida auris. *Int J Antimicrob Agents*. 55 (3): 105901.

Bruno, M., Kersten, S., Bain, J.M. Jaeger M, Rosati D, Kruppa MD, Lowman DW, Rice PJ, Graves B, Ma Z, Jiao YN, Chowdhary A, Renieris G, van de Veerdonk FL, Kullberg BJ, Giamarellos-Bourboulis EJ, Hoischen A, Gow NAR. Brown AJP, Meis JF, Williams DL, Netea MG. (2020). Transcriptional and functional insights into the host immune response against the emerging fungal pathogen Candida auris. *Nat Microbiol* 2020; 5:1516–1531

Chauhan V, Shrivastava K, Anand S, Kumar C, Singh A, Varma-Basil M. (2020). Draft Genome Sequence of Mycobacterium simiae, a Potential Pathogen Isolated from the Normal Human Oral Cavity. .Microbiol Resour Announc. 2020. 12;9(46):e01185-20.

Book Chapters

Gulati K, Thokchom SK, Joshi JC, Ray A. Regulatory guidelines for nutraceuticals in India: an overview, In: Nutraceuticals: Efficacy, Safety And Toxicity, 2nd Edition (Ed: Ramesh C. Gupta Rajiv Lall, Ajay Srivastava), Elsevier Inc./Academic Press, Chapter 74, 2021, 1273-1280 [ISBN: 978-0-12-821038-3]

Gulati K, Thokchom SK, Ray A. Impact of chemical warfare agents on immune system. In: Gupta RC (ed). Handbook of Toxicology of Chemical Warfare Agents, Third Edition. San Diego: Elsevier Inc./Academic Press, 2020: 685-704. https://doi.org/10.1016/B978-0-12-819090-6.00042-8

Gulati K, Verma P, Rai N, Ray A. Role of Nutraceuticals in Respiratory and Allied Diseases, In: Nutraceuticals: Efficacy, Safety And Toxicity, 2nd Edition (Ed: Ramesh C. Gupta), Elsevier Inc./Academic Press, Chapter 7, 2021, 101-116 [ISBN: 978-0-12-821038-3

Journals

Published by the College: Indian Journal of Chest Diseases and Allied Sciences (IJCDAS)

Number of College teachers serving as Editor(s)/Member(s)/ of Editorial Board: 04

In addition to the Journal, the Institute publishes VPCI News Letter

Seminar/Conference Presentations

Dr. Ajita Kapur presented a paper on "Sodium valproate induced pancreatitis: A unique case report" in 12th Indian Society for Rational Pharmacotherapeutics (ISRPT) Conference held on February 12-13, 2021 organized by EPL, PGIMER, Chandigarh.

Dr. Anuradha Chaudhary delivered lecture on "Candida auris: is this emergent pathogen still a global concern", INFOCUS, October 17-24, 2020 the Latin American Forum of Fungal Infections in Clinical Practice

Dr. Kavita Gulati was invited to deliver Plenary Lecture during Virtual Biennial South Asian Association of Physiologists VII and Physiological Society of India Conference 202, entitled'Newer insights into the neuromodulatory role of Nitric oxide' at HIMSAR, March 24-25, 2021

Dr. Mandira Varma Basil presented talk on "Diagnosis of drug resistant tuberculosis: concerns in an endemic region and our experience with isoniazid monoresistance" at 3rd Asian African Congress of Mycobacteriology held online on January 27-29, 2021.

Dr. Nitin Goel was Faculty in workshop on "Allergy and Immunotherapy" in the 22nd Joint National Conference of National College of Chest Physicians (India) and Indian Chest Society, NAPCON-2020 (virtual) from January 27-31, 2021.

Dr. Nitin Goel delivered Oral paper presentation for the NAPCON 2020 AWARD SESSION on YOUNG CONSULTANTS BEST PAPER titled "Clinico-radiological characteristics of post-COVID-19 at a tertiary pulmonary care centre" at 22nd Joint National Conference of National College of Chest Physicians (India) and Indian Chest Society, NAPCON-2020 (virtual) from January 27-31, 2021.

Dr. Parul Mrigpuri delivered Faculty lecture on "Antimicrobial properties of Apismellifera"s Bee Venom" in the Session on Practice changing research in Respiratory Infections NAPCON 2020 on January 27-31, 2021

Dr, Raj Kumar delivered keynote address during National Online Conference 2020, organised by ESDA in associantin with Dr. BR Amedkar College, CSIR-NEERI, Delhi, Amity University etc from 5-6 June, 2020.

Dr, Raj Kumar delivered ICS - Dr. C. V. Ramakrishnan Oration Lecture, on' Air Pollution and Lung Health'on 28th Jan, 2021 during Virtual 22nd Joint National Conference of the Indian Chest Society (ICS) and National College of Chest Physicians (NCCP)" Virtual NAPCON-2020 at Delhi from January 27-31, 2021.

Dr. Ritu Kulshrestha, Mahor Pawan, Romani D, Tanveer F, Mishra AK, Dinda AK. Combination therapy of pirfenidone and bleomycin in lung cancer: prevents EMT of cancer cells and reduces their invasive potential. Paper presented at Virtual Keystone eSymposia on Tumour metabolism and microenvironment. January 25-28, 2021

Dr. Sonam Spalgais delivered Faculty lecture on "Primary Clofazimine and Bedaquiline Resistance among Isolates from patients with Multidrug-Resistant Tuberculosis." in session of Practice-changing Research in TB at NAPCON 2020 held on January 27-31, 2021

Dr. Vishal Bansal delivered online lecture on 'Role of Exercise Training in management of Chronic Respiratory Diseases', in Refresher Course in Health Management organized by UGC-Human Resource Development Centre, Sri Venkateshwara University, Tirupati – 517502, Andhra Pradesh from November 16-28, 2020.

Research Projects

MoHFW, 2015-22, National Tobacco Quit Line Services (NTQLS), 840.86 lakhs

DHR, MoHFW, 2014-22, Multidisciplinary Research Unit (MRU), 409.78 lakhs

AYUSH, 2018-22, A clinical study to evaluate the effects of yogic intervention on Pulmonary functions, inflammatory markers, oxidative stress and health status in patients of chronic obstructive pulmonary disease (COPD), 25.84 lakhs

AYUSH (CCRUM), 2017-21, Experimental studies on the hepato-protective and immune modulatory effects of Dawa-ul-kurkum, a polyherbal Unani Preparation, and its cellular and molecular mechanisms in rats, 57.23 lakhs

DBT, 2018-21, Smart regulations of antibiotic use in India: Understanding, innovating and improving Compliance, 55.97 lakhs

ICMR, 2017-20, Multilocus microsatellite typing and antifungals profile of Clinical cryptococcus neoformans species complex isolated from patients of cryptococcosis, 29.52 lakhs

LSRB DRDO, 2018-20, Cognitive Performance after short Duration Submaximal Exercise in young adults, 20.44 lakhs

ICMR, 2019-22, development of a rapid phenotypic assay to differentiate between Mycobacterium tuberculosis and non-tuberculosis mycobacteria, 17.09 lakhs

ICMR, 2019-22, Designing of inhalational polymeric nanoparticle drug delivery systems for the treatment of lung fibrosis, 10.42 lakhs

ICMR, 2020-23, Exploration of azole resistance in Candida tropicalis: Detection of ERG11 gene mutations and azole resistant genotypes, 20.21 lakhs

ICMR, 2020-23, Triple targeting engineered virus: A tool to counter influenza infection, 13.28 lakhs

DST, 2021-24, Genomic insights of azole and terbinafine resistance in clonal Trichophyton mentagrophytes/interdigitalis spp. Complex causing alarming difficult to treat dermatophytosis in north India, 19.03 lakhs

ICMR, 2021-24, Pharmacological studies on Hedychium spicatum on airway inflammation and remodeling in experimental model of bronchial asthma, 8.70 lakhs

Seminars Organised

Vigilance Awareness Week with the theme "Vigilant India, Prosperous India" was observed by VPCI from October 10-November 02, 2020.

One-day Workshop on Biostatistics on February 25, 2020.

Training Course on Pulmonary Rehabilitation from March 09-10, 2021.

Workshop cum Training Programme on "Proposal Writing and Ethical Issues in Biomedical Research" on March 11, 2021.

Lecture on "COVID - 19 Pandemic: Vaccines and Mutants" on March 2021.

The 7th International Yoga Day was celebrated by VPCI in collaboration with the Morarji Desai National Institute of Yoga, in Virtual mode on June 21, 2021.

A felicitation programme was held to present Achievement Awards to the Counsellors working in National Tobacco QuitLine Services (NTQLS) on August 2021.

Seminar/Conference Presentations

Dr. Ajita Kapur, "Sodium valproate induced pancreatitis: A unique case report" in 12th Indian Society for Rational Pharmacotherapeutics (ISRPT) Conference held from February 12-13, 2021 organized by EPL, PGIMER, Chandigarh.

Dr. Anuradha Chaudhary, "Candida auris: is this emergent pathogen still a global concern", INFOCUS, October 17-24, 2020 the Latin American Forum of Fungal Infections in Clinical Practice

Dr. Mandira Varma Basil, "Diagnosis of drug resistant tuberculosis: concerns in an endemic region and our experience with isoniazid monoresistance" at 3rd Asian African Congress of Mycobacteriology held online January 27-29, 2021.

Dr. Nitin Goel was the faculty in te workshop entitled "Allergy and Immunotherapy" in the 22nd Joint National Conference of National College of Chest Physicians (India) and Indian Chest Society, NAPCON-2020 (virtual) from January 27-31, 2021.

Dr. Parul Mrigpuri was one of the Faculty member for the Lecture cum demonstration (1) Skin Prick Test (SPT): Practical Demonstration (Virtual); Case Discussion: Clinical Interpretation of Diagnostic Tests and Starting of Immunotherapy NAPCON 2020 January 27-31, 2021

Dr. Ritu Kulshrestha, Pawan K, Rajkumar, Menon B, Goel N, Spalgias S, Mrigpuri P.. Correlation of programmed cell death receptor ligand-1 (PD-L1) expression with KRAS mutation in lung cancer

patients –study from tertiary care centre in North India. ePoster paper presented at IASCLC Virtual World Conference on Lung Cancer (WCLC 2020), Singapore, January 28-31, 2021.

Dr. Sonam Spalgais, "Primary Clofazimine and Bedaquiline Resistance among Isolates from patients with Multidrug-Resistant Tuberculosis." in session of Practice-changing Research in TB at NAPCON 2020 held from January 27-31, 2021

Dr. Vishal Bansal, 'Role of Exercise Training in management of Chronic Respiratory Diseases', in Refresher Course in Health Management organized by UGC-Human Resource Development Centre, Sri Venkateshwara University, Tirupati – 517502, Andhra Pradesh from November 16-28, 2020.

National/International MoUs Signed

Dept. of Pharmacology, VPCI: CCRUM collaborative project

Dept. of Microbiology with Central Research Laboratory, Kempegowda Institute of Medical Sciences(KIMS), Bangalore

Other Inter-Institutional Collaboration

All India Institute of Medical Sciences, New Delhi.

Institute of Nuclear Medicine & Allied Sciences, DRDO, Delhi.

Rajan Babu Institute for Pulmonary Medicine & Tuberculosis (RBIPMT), New Delhi.

Amity University, NOIDA

SRM University

Lady Hardinge Medical College, New Delhi.

Vardhman Mahavir Medical College & Safdarjung Hospital, New Delhi.

Centre for Disease Dynamics and Economic Policy & and National Institute of Animal Biotechnology.

Central Council for Research in Unani Medicine, Ministry of AYUSH.

Defence Institute of Physiology and Allied Sciences, DRDO, Delhi.

CSIR-IGIB (Institute of Genomics and Integrative Biology), Delhi.

Placement Details

Number and percentage of students placed: 100 %

Library Development

The Institute has one of the best library in the field of Pulmonary Disease and Allied Sciences having 10130 Books, 25025 bound Journals, 177 CD's, 580 Thesis and 31 National and International Reports. A total 10 Journals (04 International and 06 National) are being received on exchange programme with the Institute's Journal and 03 Journals (02 International and 01 National) are received on complimentary basis. VPCI is a member of National Level ERMED Consortium (e-journals) for the Calendar Since year 2018. ERMED Consortium subscribed 239+ e-journals from five publishers. All e-journals are configured on Static IP / IP's of our Institute. Library initiates appropriate efforts from time to time to create awareness among staff, research scholars, students, etc. to enhance maximum utilisation of e-journals through customised e-journals gateway http://www.ermed.in and benefit of access/download of articles from the 'Cochrane Library'. The Internet services have been provided right on the desktop of each Faculty Member through DUCC network /LAN and a separate Leased line

connectivity (VPCI) with 10 Mbps from MTNL. Library also provides inter-library loan facilities and reprographic services on demand. The Library follows an open Access system. Library is equipped with modern information technology equipment's and continues to provide Internet/ e-mail services to the users to access CAS (Current Awareness Services) and SDI (Selective Dissemination of Information) services. These are provided to the users in the form of online/offline through e-mail and/or in print during the year. Library uses "LibSys 4.0" Library Management Software, which is an integrated multiuser library management system that supports all in-house operations of the Library. The 'LibSys' consists of modules on acquisition, cataloguing, circulation, serials, article indexing and OPAC.

Faculty Strength

Faculty Strength

Associate Professor: 04 Assistant professor: 14

Financial Allocation and Utilization

Grant sanctioned Rs. 61.69 Crores **Grant Utilized** Rs. 60.44 Crores

Other Significant Information

Dr. Ritu Kulshrestha received training on the, "Statistical Data Analysis using SPSS", Online Training program organized by Science Tech Institute, Lucknow, January 21-27, 2021

Additional information

The AMC at Vallabhbhai Patel Chest Institute was approved under Pharmacovigilance Programme of India (PVPI), initiated by CDSCO, the Government of India in 2014. As a Coordinator of Adverse Drug Reaction Monitoring Centre (AMC) of Pharmacovigilance Program of India, MoH & FW, GOI, at V. P Chest Institute, the ADRs are reported to Indian Pharmacopeia Commission (IPC). During current financial year (2020-2021) we reported total 183 Individual Case Safety Reports (ICSRs), through online software (Vigiflow) to National Coordination Centre (NCC) at IPC. The Causality Assessment of the ICSRs was performed as per WHO scale. The Causal relationship of 139 ADR cases was of Possible category and 44 cases were of Probable category. The cases were submitted to Indian Pharmacopeia Commission (IPC) which are later submitted to Uppasala Monitoring Centre, Sweden. In addition we reviewed and analysed 100 Marketing Authorization Holder (MAH)- (ICSRs) from IPC and prepared the score sheets. Our AMC is involved in disseminating the awareness about reporting adverse events following COVID-19 Vaccination among PG medical students, nurses, health care professional and other staff.

The Institute was approved for a multidisciplinary Research Unit (MRU) by Department of Health Research, Govt. of India and is functional since 2015-16. The MRU at VPCI is actively involved in various research activities since its inception. In 2020-2021, 6 projects were functional and 2 have been completed; and reports have been submitted to the DHR. Regularly Quarterly progress Reports of these projects are sent to DHR.

FACULTY OF MUSIC & FINE ARTS

DEPARTMENT OF MUSIC

Major Activities and Achievements:

On 21 June 2020, the Department celebrated the International Yoga Day by holding an online workshop on Yoga. On 3-4 September 2020, the Department organized a Virtual Live "Malhar Utsav", an annual festival of music, which celebrates the spirit of the Rainy season through Malhar ragas. In Dec. 2020, an International MoU was signed between the University of Delhi and Singapore Indian Fine Arts Society (SIFAS). On 16 Feb. 2021, the Department celebrated in online mode, the "Vasantotsav" Festival, celebrating the essence of the Spring Season through rendition of the associated ragas. On 25-26 Feb. 2021, the Department organized a two-day International Webinar, with participants from 7 countries. Also, two volumes of Vageeshwari, the UGC-CARE listed peer-reviewed research journal of the Department was published. Apart from these, many online workshops in Hindustani and Karnatak music too were organized for the benefit of the teachers and students alike.

Honours/Distinctions:

1. Bhalla, D.O. Bharat Sanchar Award, by Bharat Sanchar Nigam Ltd., Govt. of India, for 'Valuable Contribution to Music & Dance', 8 Mar. 2021

Publications:

International: 3

1. Bhalla, D.O. —3

National: 7

- 2. Bhalla, D.O. —3
- 3. Maharani, A.—2
- 4. Soren, S.N. —2

Details of Publications:

- 5. Bhalla, D.O. (2020). Moods and Expressions of Rhythms of Kerala. *Journal of Emerging Technologies and Innovative Research*, 7(10), 230-239.
- □ Bhalla, D.O. (2020). Impact of Carnatic music training on the mathematical ability of children. *Early Child Development and Care. Taylor and Francis Online*. Retrieved from https://doi.org/10.1080/03004430.2020.1832484.
- 6. Bhalla, D.O. (2021). Laasya: Concept and Application in Mohiniattam. *Journal of Emerging Technologies and Innovative Research*, 8(2), 671-678.
- 7. Bhalla, D.O. (2020). The influence of Gita Govinda in the Performing Arts of Kerala. *Naad Nartan Journal of Dance and Music*, 8(2), 9-13.
- 8. Bhalla, D.O. (2021). Natya Dharmi and Lok Dharmi in the Angika Abhinaya of Mohiniattam. *Sameeksha*, 19, 71-85.
- 9. Bhalla, D.O. (2021). Sopana Sangita: The Temple Music Tradition of Kerala. *Itihaas Darpan: Akhila Bharatiya Itihasa Sankalna Yojana*, 26 (Part 1), 87-90.

- 10. Mahajan, A. (2020). Vaadya Sangeet evam Raag Nirupan, Delhi, Delhi: Sanjay Prakashan.
- 11. Mahajan, A. (2020). Raga Declination in Instrumental Music, Delhi, Delhi: Sanjay Prakashan.
- 12. Soren, S.N. (2020). Pracheen kaal mein Bhartiya Sanskriti tatha Sangeet ka Vikas, Sangitika, 13, 32-38.
- 13. Soren, S.N. (2020). Gwalior Gharane ki Khayal shaili ka Takniki Paksh, *Vageeshwari*, 34, 45-52.

Journals:

1. Published by the Department

Vageeshwari, published in Dec. 2020 (Vol. 34) and Feb. 2021 (Vol. 35, special issue)

1. Number of Department teachers serving as Editor(s)/Member(s) of Editorial Board

9

Seminars Organized: 2

International:

Webinar – Traditional music in different cultures: Opportunities and challenges in the changing global scenario on 25-26 Feb. 2021. The panelists were –

- Dr. Paolo Pacciola (Italy); Ethnomusicologist and musician (diploma Pianoforte, Conservatorio di Musica Tito Schipa di Lecce); Ethnic music in Eastern Europe Italy; 25 Feb. 2021.
- Mr. Ravibandhu Vidyapathy (Sri Lanka); Traditional Dancer, Choreographer, Percussionist & Composer; Traditional music in South Asia Sri Lanka; 25 Feb. 2021
- Dr. Wararat Warirak & group (Thailand), Assistant Professor, Dept. of Music, Faculty of Humanities Science, Pibulsongkram Rajabhat University, Thailand; Western Music recital, 25 Feb. 2021
- Dr. Maryam Gharasou (Iran); Faculty of Performing Arts and Music, University of Tehran, Iran; Traditional music in the Middle East Iran; 26 Feb. 2021.
- Dr. Stanley Scott (USA); Lecturer in World Music, Southern Connecticut State University, USA, & Prof. Dorothea Hast (USA); Lecturer in World Music, Eastern Connecticut State University, USA; Folk music in Western Europe Ireland; 26 Feb. 2021.
- Ms. Va Bophary (Cambodia); Royal University of Fine Arts, Phnom Penh, Cambodia; Ethnic music in South-east Asia Cambodia; 26 Feb. 2021.
- Prof. Manop Wisuttipat & group (Thailand): Professor of Thai Traditional Music, Dept. of Thai and Asian Music, Faculty of Fine Arts, Srinakharinwirot University, Thailand; Thai Classical Music recital; 26 Feb. 2021

National:

Two-day Virtual Live Malhar Utsav 2020, a National Programme of Music organized on 3-4 Sept. 2020. Performances were as follows:

- 1. Veena recital by Vidushi Tirupati Srivani Yalla (Tirupati)
- 2. Hindustani Vocal recital (Khayal) by Pandit Shashank Maktedar (Goa)
- 3. Karnatak Vocal recital by Vidushi Kanchana Ranjini Sisters (Bengaluru)
- 4. Sitar recital by Ustad Saeed Zafar Khan (Delhi)
- 5. Tabla solo by Pt. Vinod Lele (Delhi)

Seminar/Conference Presentations (National / International):

International: 3

- 1. Bhalla, D.O. -1
- 2. Mahajan, A. -1
- 3. Soren, S.N.-1

National: 11

- 4. Bhalla, D.O. -8
- 5. Mahajan, A. -3

National/International MoU Signed:

With Foreign Educational institution:

An International MoU titled – "Cultural, Academic and Research Collaboration Agreement in Indian Music" was signed in Dec. 2020 between the University of Delhi and the Singapore Indian Fine Arts Society (SIFAS), Singapore. The Dept. of Music, University of Delhi, and SIFAS, shall collaborate in various spheres of Indian music, such as performance, teaching-learning and research.

Number of Ph.D. /M.Phil. Awarded:

- 1. Ph.D. 10
- 2. M.Phil. 18

Faculty Strength:

Sanctioned strength: 41 Total teachers working: 26

Professor: 11
 Associate Professor: 00
 Assistant Professor: 05
 Asst. Professor (ad-hoc): 06
 Guest lecturer: 04

Other Significant Information:

Apart from the aforementioned, the following activities took place:

International:

An International Virtual Live Symposia on "Facets of Tabla in and around the globe: In the context of Hindustani Classical Music since the 1950s" by Pt. Swapan Chaudhuri (USA), legendary Tabla maestro & recipient of Padma Shri, on 17 June 2020.

National:

- 1. A Virtual Live Performance & an Interactive Session on "Voice Culture: Techniques & Benefits" by Pt. Kaivalya Kumar, eminent Hindustani vocalist of Kirana Gharana, on 16 May 2020.
- 2. A Virtual Live Performance & an Interactive Session on "Aesthetical development of Ragas: The Ramanad Krishnan and Neyyatinkara Vasudevan Bani" by Dr. Sreevalsan J. Menon, eminent Karnatak music vocalist, on 19 May 2020.
- 3. A Virtual Live Performance & an Interactive Session on "A Star in Sitar: Pt. Debu Chaudhuri and his concept of beauty in Ragas" by Sitar maestro & Padma Bhushan awardee Pt. Debu Chaudhuri, on 19 June 2020.

FACULTY OF SCIENCE

DEPARTMENT OF ANTHROPOLOGY

1. Major Activities and Achievements

Professor Manoj Kumar Singh his team of researchers discovered a human settlement from 6th to 7th century BCE, in <u>Umra village</u> in Sultanpur district. The settlement could have been a part of the ancient trade route towards Allahabad according to ASI. This news was published in Times of India on 17 March 2021. https://timesofindia.indiatimes.com/city/delhi/du-dept-unearths-settlement-on-highway-site-may-date-back-to-6th-7th-century-bc/articleshow/81537717.cms The department successfully organized seven webinars during the COVID-19 lockdown period. More than 2000 participants from across the country and abroad registered. The Department of Anthropology successfully organized the Indian Anthropology Congress 2021 on the theme "Anthropology: Theory to Application" from 21st February to 23rd February in dual mode (online and offline). There were 42 parallel sessions, 3 memorial lectures and one round table session. The Conference had more than 230 paper presentations and more than 300 registered participants.

2. Honours / Distinctions

- Prof. P.C. Joshi was appointed as Pro Vice Chancellor of University of Delhi in June 2020. He took over the charge of Acting Vice Chancellor in September 2020.
- Prof. Manoj Kumar Singh was appointed Joint Proctor of University of Delhi in November 2020.
- Prof. K. N. Saraswathy was appointed as Provost of Under-Graduate Hostel for Girls, University of Delhi
- Dr. Avitoli G. Zhimo was appointed as Assistant Director, Centre for Himalayan Studies, University of Delhi. February 2021.

3. Publications

- Achoubi, N., Asghar, M., Wahengbam, A.K.G.S., Singh, S.J., Saraswathy, K.N., & Murry, B. (2020). Prevalence and Molecular Characterization of Glucose-6Phosphate Dehydrogenase Deficiency among Brahmins and Muslims of Manipur, India. *Indian Journal of Public Health Research & Development*, 11(1), 278-282.
- Agarwal, T., Lyngdoh, T., Dudbridge, F., Chandak, G.R., Kinra, S., Prabhakaran, D., Reddy, K.S., Smith, G.D., Ebrahim, S., Gupta, V., Walia, G.K. (2020) Causal relationship between lipid and glycemic levels in Indian population: Bidirectional Mendelian Randomization Approach. *PLoS One15(1):e0228269. doi: 10.1371/journal.pone.0228269.*

- Bindhani, B.K., Devi, N.K., & Nayak, J.K. (2020). Knowledge, awareness, and attitude of premarital screening with special focus on sickle cell disease: a study from Odisha. *Journal of Community Genetics*, 11(4), 445-449.
- Chandiok, K., Thakur, M.K., Garg, P.R., Devi, N.K., & Saraswathy, K.N. (2020). Surveillance analysis of the effects of dietary and lifestyle determinants on plasma homocysteine levels by combining the MTHFR C677T polymorphism in a rural North Indian population. *Meta Gene*, 100742.
- Chatterjee, S.K., Yadav, S., Saraswathy, K.N., & Mondal, P.R. (2021). Genetic polymorphism of dopamine receptor D4 (DRD4) gene in ten Indian rhesus macaques (Macaca mulatta mulatta). Meta Gene, 100891.
- Dhamija, R., Saluja, A., Saraswathy, K., & Goyal, A. (2021). Endothelial Nitric Oxide Synthase (Glu298Asp) Polymorphism Is Associated Significantly With Ischemic Stroke Presenting With Seizures And Altered Sensorium. Neurology India (4961).
- Gogoi, A.J., & Saraswathy, K.N. (2020). A study of Obesity and Hypertension among adults of Meghwal community, Udapur, Rajasthan (India). *Journal of Human Ecology*. 7(1-3), 90-97
- Graetz et al. (2020) Mapping disparities in education across low-and middle-income countries. *Nature*; 577(7789):235-238. doi: 10.1038/s41586-019-1872-1.
- Gret, Gulshan and Srivastava, M. (2020). Mainpat (Phendling) Tibetan Refugee Settlement Chhattisgarh Mein Arthik Palayan ki Samasya .*Radha Kamal Mukkherjee Chintan Parampara*. 22(2): 19-26. Samaj Vigyan Sansthan, Bareilly U.P http://www.chintanparampara.in/pdf/JULY-DEC-2020.pdf
- Hussain, A., Yadav, S., Hadda, V., Suri, T. M., Tiwari, P., Mittal, S., ... & Mohan, A. (2020). Covid-19: A Comprehensive Review of a Formidable Foe and the Road Ahead. *Expert Review of Respiratory Medicine*. https://doi.org/10.1080/17476348.2020.1782198
- Kaur, P., Kunwar, A., Sharma, M., Mitra, J., Das, C., Swasticharan, L., Tayade, S., Singh, G.B., Bitragunta, S., Durgad, K., Das, B., Dar, S., Bharadwaj, R., Joshi, C., Bharadwaj, V., Khedkar, S., Chenji, S., Reddy, S.K., Sreedhar, C., Parasuraman, G., Kasiviswanathan, S., Viswanathan, V., Uike, P., Gaigaware, P., Yadav, S., Dhaliwal, R.S., Ramakrishnan. S., Tullu, F.T., Bhargava, B. 2020. India Hypertension Control Initiative—Hypertension treatment and blood pressure control in a cohort in 24 sentinel clinics. India. The Journal Clinical Hypertension. 00:1-10.site of https://doi.org/10.1111/jch.14141.
- Kaur, S., Chandel, S., & Chandel, S. (2021). The relationship between body mass index and blood pressure: A study among school going children of Rajasthan, India. Indian Journal of Physiology and Pharmacology, 64(3), 236-241.
- Kaur, L., Puri, M., Sachdeva, M.P., Mishra, J., & Saraswathy, K.N. (2021). Maternal One Carbon Metabolism and Interleukin-10 &-17 synergistically influence the mode of delivery in Women with Early Onset Pre-Eclampsia. *Pregnancy Hypertension*. 24:79 89.
- Kinra, S., Gregson, J., Prabhakaran, P., Gupta, V., Walia, G.K., Bhogadi, S., Gupta, R., Aggarwal, A., Kulkarni, B., Smith, G.D., Radha Krishna, K.V., Ebrahim, S., Kuper, H., Ben-Shlomo, Y. (2020) Effect of Supplemental nutrition during intra-uterine life and early childhood and risk of cardiovascular disease in young adulthood: Andhra Pradesh Children and Parents Study (APCAPs). *PLoS Medicine* 17(7): e1003183. [IF: 10]
- Kulshreshtha, M., Babu, N., Goel, N.J., & Chandel, S. (2020). Disordered eating attitudes and body shape concerns among North Indian Kathak dancers. *International Journal of Eating Disorders*. 1-7.

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- Longkumer, I., Devi, N.K., Murry, B., & Saraswathy, K.N. (2020). Differential risk factors and morbidity/mortality pattern in type 2 diabetes: A study among two Mendelian populations with different ancestry (India). *Diabetes & Metabolic Syndrome: Clinical Research & Reviews*, 14(6), 1769-1776.
- Longkumer, I., Devi, N. K., Murry, B., & Saraswathy, K. N. (2021). Disparity in Metabolic Syndrome Contributors and 10-Year CVD Risk: a Study Among Two Populations of Different Ancestry in India. *SN Comprehensive Clinical Medicine*, 3(2), 618-624.
- Mahajan, C. (2021). "Pastoral Subjectivity: Sedentarisation and Healthcare Challenges of the Gujjars of Jammu and Kashmir". *Journal of the Indian Anthropological Society*, Vol. 56, No. 2, pp. 154-172.
- Mahajan, C. (2021). Review of "Fiction As History: the Novel and the City in Modern North India" by Vasudha Dalmia. *Pacific Affairs*, Vol. 94, No. 2, pp. 445-447.
- Mahajan, C. (2021). "Narrating Fear, Tracing Landscape: Memory and Militancy ka Daur in Doda, Jammu and Kashmir". Sociological Bulletin, Vol. 70, No. 1, pp. 42-58. https://doi.org/10.1177/0038022920956749
- Mahajan, C. (2020). Review of "Matriliny among the Khasis: A Study in Retrospect and Prospect" by M. Sasikumar. *Journal of Anthropological Survey of India*, Vol. 69, No. 2, pp. 307-309. https://doi.org/10.1177/2277436X20970298
- Mahajan, C. (2020). Review of "Kashmir: History, Politics, Representation." by Chitralekha Zutshi. *Contributions to Indian Sociology*, Vol. 54, No. 1, pp. 83-85. https://doi.org/10.1177/0069966719885670
- Mangla, A.G., Dhamija, N., Gupta, U., Dhall, M (2020). Anthropometric Markers as a Paradigm for Obesity Risk Assessment. *Journal of Biosciences and Medicines*. 8(2):1-16.
- Mehta, A. (2020). Towards Well-being: An Anthropological Study of Migrant Women Labourers in Delhi. *Journal of sociology and social anthropology*, volume 11 number 1-2 pages 132-141.
- Mishra, J., Tomar, A., Puri, M., Jain, A., & Saraswathy, K. N. (2020). Trends of folate, vitamin B12, and homocysteine levels in different trimesters of pregnancy and pregnancy outcomes. *American Journal of Human Biology*, e23388.
- Negi, S. (2020). Homelessness, Contestation and Subjectivities'. Journal of Anthropological Society 55: 238-258
- Prasad, S., Longkumer, I., & Saraswathy, K.N. (2020). Prevalence of Hypertension and Adiposity Indicators Among Children and Adolescents of Meghwal Community: A Cross-sectional Study from Udaipur, Rajasthan (India). *The Oriental Anthropologist*, 0972558X20975252.
- Rulu, P., Sievert, L.L., Dhall, M., Bertone, E.R., Johnson (2020). Symptoms at midlife among women in Nagaland, India. *American Journal of Human Biology*. https://doi.org/10.1002/ajhb.23456
- Shimrah, C., Kaur, S.,& Chandel, S. (2020). SomatotypeCharacteristics of Sunni Muslim population: a cross-sectional study. *The Oriental Anthropologist*, 0972558X2091369.
- Singh, N., Singh, S., & Chandel, S. (2020). A study of blood pressure and BMI among tribal adolescents of Narmada district, Gujart, India. *Al Ameen Journal of Medical Sciences*, 13(4),291-294.
- Singh, N., Singh, S., Kshatriya, G.K. (2020). Determination of Age at Menarche and its Association with Socio-Economic Status and Physical Activity: A Study Among Tibetan Adolescent Girls of Kangra District, Himachal Pradesh, India. *Online J Health Allied Scs.*, 19(1), 2.

- Singh, S., Singh, N., Kshatriya, G.K. (2020). Assessment of Agreement between the National (Indian Academy of Pediatrics) and International (Centers for Disease Control and World Health Organization) growth references among Tibetan adolescent girls of Kangra District, Himachal Pradesh. *Medical Journal of Dr. DY Patil Vidyapeeth*, 13(6), 624.
- Singh, S., Singh, N., Kshatriya, G.K. (2020). Assessment of Nutritional Status and Body Composition in Tibetan Adolescent girls of Kangra district, Himachal Pradesh. *Anthropological Review*, 83(4), 395-405.
- Thakur, M.K., Saraswathy, K.N., & Devi, N.K. (2020). Intergenerational Differences in the Physical Activity Pattern: A Familial Study From Rural Haryana, India. *International Quarterly of Community Health Education*, 40(2), 91-97.
- Yadav, S., Longkumer, I., Joshi, S., & Saraswathy, K.N. (2021). Methylenetetrahydrofolate reductase gene polymorphism, global DNA methylation and blood pressure: a population-based study from North India. *BMC Medical Genomics*, 14(1), 1-8.
- Yadav, K.K. (2021). Negotiating marginalty: conflict over Tribal Development in India, Rajkishor Mahana, *Journal of Anthropological survey of India* 70(1): 151-154
- Zhimo, A.G. (2020). 'Indigenous system of Governance and its implication: The case of Sumi Naga. *Indian Anthropologist.* 49(2): 41-56.

Book Chapters

- Mahajan, C. (2020). "Everyday Communalism and Shifting Food Practices in Jammu and Kashmir." *In* Reeta Chowdhary and Mohita Bhatia (ed.) *Religion and Politics in Jammu and Kashmir*, Routledge. pp. 161-175. https://doi.org/10.4324/9781003052289-8
- Zhimo, A.G. (2021). 'Indigenising Christianity: Politics of Conversion among the Sumi Naga'. *In India's Tribes: Unfolding Realities*, Edited by Vinay Kumar Srivastava. New Delhi: Sage Publications Indian Pvt. Ltd.

E-contents

- Zhimo, Avitoli. 2020. *Ecotourism*. eGyanKosh, IGNOU. http://egyankosh.ac.in/bitstream/123456789/65767/1/Unit-9.pdf
- Zhimo, Avitoli G. 2021. Tribal Arts and Aesthetics. SWAYAM, NRC-Tribal Studies. https://youtu.be/5UTXivk2ots
- Zhimo, A.G. 2020. *Religious Conversion among the Tribes in India*. SWAYAM, NRC-Tribal Studies. MHRD. https://youtu.be/UWxVpihOwAo

4. Research Projects

S.	Project Title	Year/	Funding	Sanctioned
No.		Period	Agency	Amount
01	Genetic and epigenetic mechanisms of homocysteine metabolic pathway in cognitive impairment: A population based case-control study from Haryana PI: Prof. K. N. Saraswathy	2019-2022	DST-CSRI	Rs. 47,87,260/-
02	Infertility and its Psychological Impact: A Hospital based Case Control Study from North India PI: Prof. K. N. Saraswathy and Dr.	2019-2021	NCW	Rs. 12,91,500/-

	ChakravertiMahajan			
03	Global DNA methylation in Menopause: A population based follow-up pilot study from Haryana (North India) PI: Prof. K. N. Saraswathy	2020-2021	University of Delhi, Institute of Eminence Grant	Rs. 5,00,000/-
04	An Assessment of Social and Mental Health of Communities Living on the India-Pakistan Border in Jammu and Kashmir PI: Prof. P.C. Joshi and Dr. Chakraverti Mahajan	2021-2023	ICSSR	Rs. 14,50,000/-
05	Hypertension: An epigenetic follow-up and health systems assessment study from North India PI: Dr. Suniti Yadav and Dr. Chakraverti Mahajan	2020-2021	University of Delhi, Institute of Eminence Grant	Rs. 5,00,000/-

5. Seminars organized

- International webinar on 'Gandhian Thoughts in Human Welfare' on 25th August 2020.
- Webinar on 'Forensics: An important need of the society' on 23rd July 2020.
- Webinar on 'Mental Health and well-being in PostCOVID world' on 20th July 2020.
- Webinar on 'Anthropological response to COVID-19' on 7th July 2020.
- International webinar on 'Far away from home' on 25th May 2020. Former students studying abroad discussed their recent research and their daily negotiation in times of pandemic lockdown. Kritika Pandey (University of Southern California), Maximilian Apel (Freie Universität Berlin), Nilisha Vashist (University College London), Sneha Roy (University of Wales), Hardik Gaurav (Bristol) were the invited speakers.
- Webinar conclave on 'Recent advances in Anthropological research' from 8-9 May 2020.
- Panel discussion on 'Ethnographic Fieldwork at Ze-mnui' was held on Wednesday 19th February 2020 at 2:00 PM in the Seminar Hall, Department of Anthropology, University of Delhi.
- Seminar on 'Population Genetics in Public Health' in the Department of Anthropology, University of Delhi, Delhi on January 31.
- Seminar on 'Fashioning Tradition in a Rajasthani printing town' by Ms. Meherose Borthwick, University of Sydney, Thursday, 17th December 2020.

6. Conferences organized

- Organized an International Conference on "Anthropology of Food and Health" from 27th to 29th February 2020 in University of Delhi.
- Organized Indian Anthropology Congress on the theme "Anthropology: Theory to Application" under the aegis of INCAA from 21-23 February 2021 in hybrid mode.

7. Training/Refresher course

- Dr. Avitoli G. Zhimo completed two weeks Refresher Course on 'Tribal Studies' organized by HRDC, Ravi Shankar Shukla University, Raipur from 23rd November 2020 to 5th December 2020.
- Dr. Vipin Gupta completed two weeks Refresher Course on 'Tribal Studies' organized by HRDC, Ravi Shankar Shukla University, Raipur from 23rd November 2020 to 5th December 2020.
- Dr. Shivani Chandel completed the 'Winter School (collaboration and conflict management)' course in online mode organized by the UGC-Human Resource Development Centre, Kumaun University, Nainital from 16th to 30th December, 2020.
- Dr. Meenal Dhall attended Faculty Development Programme on "ICT Enhanced Teaching Learning And Creating MOOCs" on 18th August, 2020 under the MHRD-sponsored Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT), organized by Teaching Learning Centre (TLC), Ramanujan College in association with Shivaji College, University of Delhi.
- Dr. Meenal Dhall successfully attended National One Week Online Faculty Training Program on "Pedagogical training for effective online teaching & learning" from 3rd -7th August, 2020, organized by Deen Dayal Upadhyaya College (University of Delhi) and K.T.H.M. College, Nashik, Maharashtra.
- Dr. Chakraverti Mahajan attended a 'Two Week Refresher Course in Social Sciences' organised by the UGC Human Resource Development Centre, Guru Nanak Dev University, Amritsar from 20 February to 4 March 2020.
- Dr. Chakraverti Mahajan attended an online workshop on 'Planning and Organizing Research Using Scopus and Mendeley' organised by the Department of Education, Guru Nanak Dev University, Amritsar on April 10.
- Dr. M. Kennedy Singh completed a Refresher Course in 'Environmental science, Water, Earth and Environment' from 27/10/2020 to 10/11/2020 organised by CPDHE (UGC-HRDC), University of Delhi, Delhi.
- Dr. Naorem Kiranmala Devi completed the 'Winter School (collaboration and conflict management)' course in online mode organized by the UGC-Human Resource Development Centre, Kumaun University, Nainital from 16th to 30th December, 2020.

8. Workshop organized

• Online Workshop 'The Craft of Research Methodology: Advances and Applications' held from 27th to 29th July 2020. Registered participants: 1003.

9. Seminars/Conference Presentations (National /International)

International

- Zhimo, A.G. presented / screened her ethnographic film 'The village on the cliff', International Union of Anthropological and Ethnological Sciences (IUAES) 2020, March 9-14, 2021.
- Zhimo, A.G., 'Transforming an Indigenous Community in India's Northeast: From Dependency to Involvement', International conference on 'Science, Society and Politics in South Asia', March 3 4, 2020, Bhubaneswar, Odisha.
- Gupta V., 'An introduction to GaRBH cohort', International Conference on Anthropology of Food and Health, February 27 29, 2020, Delhi

- Dhall, M., 'Quality of life, lifestyle diseases, mental health and cognitive functioning: A neuroanthropological approach', Neurology virtual, 19-20 November, 2020.
- Dhall, M., 'Nutrition and food habits of African and Indian population: An Anthropological perspective', First Africa Food Environment Research Network (FERN 2020) virtual meeting, November 3-5, 2020.

National

- Zhimo, A.G. presented a paper on 'Problematic visual representation of the indigenous communities', national e-conference on *Life*, *Livelihood and Rights of Indigenous People and Traditional Knowledge*, 9th August 2020, organized by University School of Law and Legal Studies, Guru Gobind Singh Indraprastha University, New Delhi.
- Chandel, S. presented a paper titled "Being Fit in Today's World" in Indian Anthropology Congress 2021 on "Anthropology: Theory to Application", Organized by Department of Anthropology, University of Delhi, February 21-23, 2021.
- Chandel, S., presented a paper titled "Designing in Post COVID-19 Era: Insight from Ergonomic Anthropology" in webinar on "Anthropological response to COVID-19" organized by Department of Anthropology, University of Delhi, 7th July 2020.
- Dhall, M., "Health and Nutrition among various populations of India: An Anthropological perspective", National virtual symposium on 'Indian Food Anthropology A cross cultural empowerment symposium for health practitioners', organized by The Maharaja Sayajirao University of Baroda, Gujarat and Dr. Ram Manohar Lohia Institute of Medical Sciences, Lucknow, UP, 4th September, 2020.
- Mahajan, C. presented a paper titled "Aftermath of an Armed Conflict: Everyday Nationalism and Hindu-Muslim Relations in Doda, Jammu and Kashmir", in Indian Anthropology Congress 2021, 'Anthropology: Theory to Application' organized by the Department of Anthropology, University of Delhi and the Indian National Confederation and Academy of Anthropologists (INCAA), February 21-23, 2021.
- Mahajan, C. presented an online paper "Being Punjabi in the Pandemic: Convivial Gatherings in the Digital Sphere" in the webinar 'Anthropological response to COVID-19' organized by Department of Anthropology, University of Delhi, July 7, 2020.
- Yadav, S. contributed as a speaker on the topic "The untold story of managing Covid-19 in India" in a webinar on "Anthropological response to COVID-19" organized by Department of Anthropology, University of Delhi, July 7, 2020.
- Srivastava, M. presented a paper on 'Exploring the meaning of Women Empowerment in Buddhism; a conversation with three Buddhist nuns' National Seminar on "Anthropology: Theory to Application" organized by Dept. of Anthropology and INCAA, Delhi, Feb 21-Feb 23 2021.
- Srivastava, M. Invited lecture on 'Culture in Margins Exploring marginalisation of women in Buddhism' in National conference organized by Rajdhani College University of Delhi on the theme of "Culture Matters", March 22-23, 2021.

10. Students under Exchange Programme

Inbound students: Meherose Borthwick, a PhD candidate from University of Sydney is affiliated to Department of Anthropology, University of Delhi for her fieldwork in India from 2019-2020. Her topic is Materially India: Fashioning class and gender in a Rajasthan textile printing town. Her Indian guide is Dr. Avitoli G Zhimo

11. Extension and Outreach activities:

- Prof. S.M. Patnaik and Prof. K.N. Saraswathy contributed to Oriya and Telugu versions, respectively, of FAQs on Patients with Hypertension, Diabetes and Heart Diseases in view of Coronavirus/COVID-19 Pandemic for ICMR.
 - Available on https://www.icmr.gov.in/cfaqs.html.
- Prof. K. N. Saraswathy delivered an online invited lecture titled "Covid-19 in India: An Anthropological Insight" on 11th April, 2020 organized by Department of Anthropology, Amity Institute of Biotechnology, Noida
- Prof. K. N. Saraswathy delivered an online invited lecture titled "Anthropology and health research in pre and post COVID-19 times" on 4th May, 2020 organized by Department of Anthropology, Rajiv Gandhi University, Arunachal Pradesh
- Prof. K. N. Saraswathy delivered an online invited lecture titled "Epigenetic Shadow of COVID-19" on 7th July, 2020, Department of Anthropology, University of Delhi
- Prof. K. N. Saraswathy delivered an online invited lecture titled "COVID-19 phenotype through human DNA and viral RNA" on 29th August, 2020 organized by Anthropological Survey of India
- Prof. K. N. Saraswathy delivered an online invited lecture titled "Genetics and Epigenetics in Health: An Anthropological Understanding" on 16th November, 2020 organized by Anthropological Survey of India through their International Lecture Series from 3rd November, 2020 to 16th November, 2020
- Prof. K. N. Saraswathy delivered an online invited lecture titled "Research Proposals and Research Grants" on 30th November, 2020 in the 2nd Faculty Induction Program organized by University of Allahabad, Prayagraj, UP
- Prof. K. N. Saraswathy delivered an online invited lecture titled "Anthropology in genomic and epigenomic era" on 13th December, 2020 in the Online Symposium on Biological Anthropology in the 21st Century organized by United Indian Anthropology Forum (UIAF).
- Dr. Avitoli G. Zhimo delivered an invited online lecture on 'Visual Anthropology: Creative methods and Ethics' in a National level lecture series in Anthropology organized by Vivekananda college for Women, Barisha, Kolkata on 24th September 2020.
- Dr. Avitoli G. Zhimo delivered an invited online lecture on 'Introduction to Visual Anthropology' organized by the Department of Anthropology, School of Social Sciences, Indira Gandhi National Open University (IGNOU), New Delhi on 20th August 2020.
- Dr. Avitoli G. Zhimo delivered an invited lecture via MS Teams on 'Media Anthropology' at an Industry Expert and Alumni Interaction at Amity Institute of Anthropology on 16th July 2020.
- Dr. Avitoli G. Zhimo delivered an invited lecture on "Visual Ethnography: Images" in an *Online Course on Ethnography* organized by the Anthropos India Foundation held from June 18-20, 2020.
- Dr. Avitoli G. Zhimo delivered an invited lecture on "Visual Ethnography: Ethnographic Films" in an *Online Course on Ethnography* organized by the Anthropos India Foundation held from June 18-20, 2020.
- Dr. Avitoli G. Zhimo delivered an invited talk on 'The Othering of Northeast people' in a webinar on *Racialisation and Migration* Let's talk dialogues on 12th May 2020.
- Dr. Avitoli G. Zhimo delivered an invited online lecture on 'Visual Ethnography' in a 5-day online Faculty Development Programme on *Emerging Issues in Social Science Research* organized by Rajiv Gandhi University from 4th to 8th May 2020.

- Gupta V. Research Methods. Invited Online Lecture in Research Methodology Workshop 27th-29th July, 2020, Organized by Department of Anthropology, University of Delhi.
- Gupta V. Life Course Epidemiology. Invited Online Lecture in Faculty Development Program on "Emerging Issues in Social Science Research" 4th -7th May, 2020, Organized by Department of Anthropology, Rajiv Gandhi University, Arunachal Pradesh.
- Chakraverti Mahajan delivered an online lecture entitled "Gender, Militarization and Violence: Ethnographic Notes from Jammu and Kashmir" in a webinar organized by the United India Anthropological Forum on 8 March 2021.
- Chakraverti Mahajan delivered an online lecture entitled "Teaching Anthropology" in a webinar organized by the Department of Anthropology, Eliezer Joldan Memorial College, Leh, ladakh on 30 January 2021.
- Dr. Chakraverti Mahajan delivered an online lecture entitled "Reimaging Punjab in the Digital World" organized by Lyallpur Young Historians Club, Faislabad, Pakistan, 8 November 2020
- Dr. Chakraverti Mahajan delivered an online lecture entitled "The Relevance of Ethnography in Anthropology" organized by the Department of Anthropology, Government General Degree College and IQAC, Singur on 21 August 2020.
- Dr. Chakraverti Mahajan delivered an online lecture "Virtual Ethnography" in the online workshop *The Craft of Research Methodology: Advances and Applications* organized by the Department of Anthropology, University of Delhi on July 27-29, 2020.
- Dr. Chakraverti Mahajan delivered an online lecture "Fieldwork Tradition in Anthropology" organized by the Discipline of Anthropology, School of Social Sciences, Indira Gandhi National Open University (IGNOU), New Delhi on 11 May 2020.
- Dr. Chakraverti Mahajan delivered an online lecture entitled "Observation in Fieldwork" organized by the Department of Social Work, University of Kashmir, Srinagar on 24 June 2020.
- Dr. Chakraverti Mahajan was invited as a resource person in a three day workshop on Peace Education and Collaborative Learning Workshop-I organized by the Department of Social Work, Central University of Jammu in collaboration with Kargil Development Project at Jammu on January 9-11, 2020.
- Dr. Chakraverti Mahajan delivered a lecture entitled "Research Methodology in Folklore Studies" to participants of the Short term certificate course in Folklore and Intangible Cultural Heritage conducted by the Indira Gandhi National Centre for the Arts (IGNCA), New Delhi on 20 January 2020.
- Dr. Chakraverti Mahajan delivered a lecture entitled "Fieldwork in Folklore Studies" to the participants of the Short term certificate course in Folklore and Intangible Cultural Heritage conducted by the Indira Gandhi National Centre for the Arts (IGNCA), New Delhi on 21 January 2020.
- Dr. Meenal Dhall contributed as Plenary Speaker & Chair at the International Conference on "People, Environment, Science & Pandemic" organized by Bhagini Nivedita College, University of Delhi from June 5-7, 2020.
- Dr. Meenal Dhall delivered a lecture on 'Methods of studying Body composition and their variation during growth' organized by the Department of Anthropology, Amity University on 27 October 2020.
- Dr. Meenal Dhall delivered a lecture on 'Nutrition and Health' organized by the Department of Anthropology, Amity University on 2nd November 2020.

- Dr. M. Kennedy Singh delivered an invited lecture in a webinar on "Reflections on Entrepreneurship Development and North East India" organised by Bhaskaracharya College of Applied Science, (DU), 8 October 2020.
- Dr. Suniti Yadav delivered an online lecture on "Surfing the waves of Genetics in Anthropological Research" in the Online Workshop on Anthropological Research Techniques, May 19-23, 2020, organized by Department of Anthropology, Manipur University.
- Dr. Suniti Yadav contributed to FAQs on Patients with Hypertension, Diabetes and Heart Diseases in view of Coronavirus/COVID-19 Pandemic for ICMR. Available on - https://www.icmr.gov.in/cfaqs.html
- Dr. Naorem Kiranmala Devi was invited for a talk on "An Anthropological Glance at COVID-19". by Lady Irwin College, University of Delhi, 27th may, 2020.

12. Number of M.Phil. Ph.D. awarded

Ph.D. − 8 M.Phil. − 10

13. Faculty strength: 16

Department of Botany

1. Major Activities and Achievements

The Department of Botany continues to be engaged in a productive manner in both teaching and research. The M.Sc. Botany program imparts education in diverse subject areas related to Plant Sciences with an objective of providing holistic education to students. Interdisciplinary papers are offered with the involvement of faculty from other departments of Delhi University. The Department faculty is engaged in high quality research on several plant species ranging from algae, bryophytes, pteridophytes and gymnosperms to crop plants, medicinal plants and forest trees. Research paradigms range from morphological, anatomical, genetics, physiological and biochemical studies to genomics, proteomics and transgenic studies, study of ecosystems, conservation studies, evolution and plant-based nanotechnological approaches against different human cancer cell lines and mosquito vectors. This extensive diversity of research paradigms allows students to gain an interdisciplinary outlook and training in cutting-edge technologies. The faculty has an active publication profile and their work is recognized in various National and International forums.

2. Honours/Distinctions

Prof. Rajesh Tandon

• Vishwambhar Puri Medal (2020)

Prof. Rupam Kapoor

- Elected as President (2020) Mycological Society of India.
- K. Natrajan Memorial award lecture (2020) by Mycological Society of India

Prof. Shailendra Goel

- Member of various boards/committees viz., EC member ADNAT, CCMB, Hyderabad; Member, Board of Studies, Jamia Milia Islamia; Member, Board of Studies, NIPGR, JNU; Member, Academic Council, JNU; Member, Board of Studies, Department of Biotechnology, Delhi Technological University and Member, Board of Studies, Sikkim University
- Co-Coordinator, IQAC, University of Delhi

Prof. Suman Lakhanpaul

- Vice-President, Society for Ecological Research and Natural Resource Management
- Secretary, Indian Association of Mycoplasmologists

 Member, Special Committee for Drug Standardization of Central Council for Research in Homoeopathy (CCRH), AYUSH

Prof. Veena Agrawal

- Member, Program Advisory Committee (PAC) of Organismal and Evolutionary Biology (OEB) of Science and Engineering Research Board (SERB), DST, Govt. of India (February 2019-2022).
- Expert Member of Apex Committees of RUSA (Rashtriya Uchhatar Siksha Abhiyan), MHRD, Govt. of India for M.D. University, Rohtak (Haryana) and Rajasthan University, Jaipur (Rajasthan) for two years w.e.f. September 2019 for evaluation of research projects and approval for funding to University Teachers.
- Expert Member (Assessors') of NAAC (National Assessment and Accreditation Council), MHRD, India, w.e.f. May 2019 till date for evaluation of progress of Universities in India.

3. Publications

- Agnihotri, A. and Seth, C.S. (2020). Does jasmonic acid regulate photosynthesis, clastogenecity, and phytochelatins in *Brassica juncea* L. in response to Pb-subcellular distribution? *Chemosphere*, 243, 125361.
- Arora S, Mishra G. (2021) Effect of gibberellin, methyl jasmonate and myoinositol on biomass and eicosapentaenoic acid productivities in eustigmatophyte *Monodopsis subterranea* CCALA 830. *Journal of Applied Phycology*. 33(1) 287-299. https://doi.org/10.1007/s10811-020-02317-8
- Arya M., Prakash S., Sougrakpam Y., and Deswal, R. (2021) Brassica juncea leaf cuticle proteome analysis shows myrosinase protein, antifreeze activity, and post-translationally modified secretory proteins. Plant Physiology and Biochemistry, https://doi.org/10.1016/j.plaphy.2021.02.012
- Berry E., Choudhary, A.K., Mishra, G., Tandon, R., Geeta, R. (2020) *Justicia adhatoda* L. reveals two morphotypes with possible functional significance. *Journal of Plant Research* 133, 783–805.
- Bhardwaj, D., Sahoo, R.K., Naqvi, A.R. Lakhanpaul, S. Tuteja, N. (2020) Pea Gβ subunit of G proteins has a role in nitric oxide-induced stomatal closure in response to heat and drought stress. *Protoplasma* 257, 1639–1654.
- Bhardwaj, E., Lal, M., Anand, S., Sandip Das (2020). Independent recurrent evolution of MICRORNA genes converging onto similar non-canonical organisation across green plant lineages is driven by local and segmental duplication events in species, family and lineages. *Plant Science* 301:110661
- Chandra, A., Saradhi, P.P., Maikhuri, R.K., Saxena, K.G. & Rao, K.S. (2021) Impact of farm yard manure on cropping cycle in a rainfed agroecosystem of central Himalaya. *Vegetos*, 34: 249-262.
- Chaudhary K., Geeta R., Panjabi P. (2021). Origin and diversification of *ECERIFERUM1* (*CER1*) and *ECERIFERUM3* (*CER3*) genes in land plants and phylogenetic evidence that the ancestral *CER1/3* gene resulted from the fusion of pre-existing domains. *Molecular Phylogenetics and Evolution*, 159, 107101. https://doi.org/10.1016/j.ympev.2021.107101
- Choudhary A.K., Mishra G. (2021) Functional characterization and expression profile of microsomal *FAD2* and *FAD3* genes involved in linoleic and α-linolenic acid production in *Leucas cephalotes*. *Physiology and Molecular Biology of Plants*. 27, pp 1233–1244 https://doi.org/10.1007/s12298-021-01016-z
- Divya, S., Sharmila, P., Dinakaran, J., Yamal, G., Rao, K.S. & Pardha-Saradhi, P. (2020) Specific H+level is crucial for accurate phosphate quantification using ascorbate as a reductant. *Protoplasma*, 257 (1): 319-330.

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- Gogna, M., Choudhary, A., Mishra, G., Kapoor, R., Bhatla, S.C. (2020) Changes in lipid composition in response to salt stress and its possible interaction with intracellular Na+-K+ ratio in sunflower (*Helianthus annuus* L.). *Environmental and Experimental Botany* 178, 104147.
- Gupta, P. and Seth, C.S. (2020) Interactive role of exogenous 24 Epibrassinolide and endogenous NO in *Brassica juncea* L. under salinity stress: Evidence for NR-dependent NO biosynthesis. *Nitric Oxide*, 97, 33-47
- Gupta, S., Thokchom, S.D., Kapoor, R. (2021) Arbuscular mycorrhiza improves photosynthesis and
 restores alteration in sugar metabolism in *Triticum aestivum* L. grown in arsenic contaminated soil.
 Frontiers in Plant Science https://doi.org/10.3389/fpls.2021.640379
- Hajong, S., Kapoor, R. (2020) An amalgam of pathogenic and beneficial endophytic fungi colonizing four Dendrobium species from Meghalaya, India. *Journal of Basic Microbiology*. 60:415–423.
- Jangir, P., Mehra, N., Sharma, K., Singh, N., Mamta Rani, Kapoor, R. (2021) Secreted in Xylem genes: drivers of host adaptation in *Fusarium oxysporum*. Frontiers in Plant Science doi.org/10.3389/fpls.2021.628611
- Kanojia A and Mudgil Y. (2020) Detailed in silico analysis of Arabidopsis N-myc Downregulated Like (NDL) interactome with reference to stress sensing. *Phytomorphology*, 70 (3&4), 85-102.
- Kasana, S., Dwivedi, M., Uniyal, P.L. & Pandey, A.K. (2020) An updated circumscription of *Saussurea* (Cardueae, Asteraceae) and allied genera based on morphological and molecular data. *Phytotaxa* 450 (2), 173–187.
- Kasana, S., Uniyal, P.L. & Pandey, A.K. (2021) Taxonomic revision of genus *Dolomiaea* DC. (Asteraceae: Cardueae) in India. *Rheedea* 31(1), 1 10.
- Kashshik, S., <u>Vashishtha</u>, A., <u>Shweta, S., Sharma, K.K.</u> and <u>Lakhanpaul</u>, S. (2020) Essential amino acid profiling of the four lac hosts belonging to genus *Flemingia*: its implications on lac productivity *Physiology and Molecular Biology of Plants* 26:s1867–1874.
- Kaushal, S. and Baishya, R. (2021) Stand structure and species diversity regulates biomass carbon stock under major Central Himalayan forest types of India. *Ecological Processes*, 10:14, 1-18. https://doi.org/10.1186/s13717-021-00283-8.
- Kumar, D. and Seth, C.S. (2021) Photosynthesis, lipid peroxidation, and antioxidative responses of *Helianthus annuus* L. against chromium (VI) accumulation. *International Journal of Phytoremediation*. doi.org/10.1080/15226514.2021.1958747
- Kumar, D., Kumar, P., Singh, H., & Agrawal, V. (2020) Biocontrol of mosquito vectors through herbalderived silver nanoparticles: prospects and challenges. *Environmental Science and Pollution Research International (Springer)* 27:25987-26024
- Kumar, R., Khungar, L., Shimphrui, R. Tiwari, L.D., Tripathi, G., Sarkar, N.K., Surekha-Katiyar Agarwal, Agarwal, M., Grover, A. (2020) AtHsp101 research sets course of action for the genetic improvement of crops against heat stress. *J. Plant Biochem. Biotechnol.* **29**, 715–732. https://doi.org/10.1007/s13562-020-00624-2.
- Laishram, J., Saxena, K.G. & Rao, K.S. (2020) Rice cultivar diversity, associated indigenous knowledge and management practices in a lowland village landscape from north-eastern India. *Vegetos*, 33 (1): 172-186.
- Malik S., Kasana, S. and Lakhanpaul S. (2020) Chloroplast DNA marker as a tool to study the molecular phylogeny of Indian *Barleria* L. (Acanthaceae). *Medicinal Plants* 12 (4): 609-614.

- Mann, N., Uniyal, P.L. and Lakhanpaul, S. (2020) Incidence of *in situ* pollen germination in three species of *Viola L.* of Uttarakhand. *Natl. Acad. Sci. Lett.* 44, 63–65
- Marhold...Arora, J., Lakhanpaul, S....Pandit M.K. (2020) International Association for Plant Taxonomy (IAPT) Chromosome data 33/1 Taxon https://doi.org/10.1002/tax.12414
- Meena, A. & Rao, K.S. (2021) Assessment of soil microbial and enzyme activity in the rhizosphere zone under different land use/cover of a semiarid region, India. *Ecological Processes*, 10:16
- Meena, A., Hanief, M., Dinakaran, J. & Rao, K.S. (2020) Soil moisture controls the spatio-temporal
 pattern of soil respiration under different land use systems in a semi-arid ecosystem of Delhi,
 India. *Ecological Processes*, 9 (1): 15.
- Nindavat, S., & Agrawal, V. (2020). Arabian Primrose leaf extract mediated synthesis of silver nanoparticles: their industrial and biomedical applications. *Artificial Cells, Nanomedicine, and Biotechnology* (Taylor & Francis) 48, 1259-1271.
- Prakash S., and Deswal, R. (2020). Analysis of temporally evolved nanoparticles-protein corona highlighted the potential ability of gold nanoparticles to stably interact with proteins and influence the major biochemical pathways in *Brassica juncea*. *Plant Physiology and Biochemistry*, Vol.146, pp. 143-156.
- Rajput, S., & Agrawal, V. (2020) Micropropagation of *Atropa acuminata* Royle ex Lindl. (a critically endangered medicinal herb) through root callus and evaluation of genetic fidelity, enzymatic and non-enzymatic antioxidant activity of regenerants. *Acta Physioogiae Plantarum* 42: 160. DOI: 10.1007/s11738-020-03145-6).
- Rajput, S., Kumar, D., & Agrawal, V. (2020) Green synthesis of silver nanoparticles using Indian Belladonna extract and their potential antioxidant, anti-inflammatory, anticancer and larvicidal activities. *Plant Cell Reports* 39: 921-939.
- Rathore, P., Raina, S.N., Kumar, S. and Bhat, V. (2020) Retro-element *Gypsy*-163 is Differentially Methylated in Reproductive Tissues of Apomictic and Sexual Plants of *Cenchrus ciliaris*. *Front. Genet.* 11:795.
- Raxwal, V.K., Ghosh, S., Singh S., Katiyar-Agarwal S., Goel, S., Jagannath, A., Kumar, A., Scaria, V., & Agarwal, M. (2020). Abiotic stress-mediated modulation of the chromatin landscape in *Arabidopsis thaliana*. *Journal of Experimental Botany*, 71(17), 5280-5293. https://doi.org/10.1093/jxb/eraa286.
- Saini, H., Yadav, R., Kumar, D., Kumar, G., & Agrawal, V. (2020) *Cullen corylifolium* (L.) Medik. Seed extract, an excellent system for fabrication of silver nanoparticles and their multipotency validation against different mosquito vectors and human cervical cancer cell line. *Journal of Cluster Science* 31(1), 161-175.
- Sharma B., and Deswal, R. (2020) Ecophysiolomic analysis of stress tolerant Himalayan shrub *Hipppophae rhamnoides* shows multifactorial acclimation strategies induced by diverse environmental conditions. *Physiologia Plantarum*, https://doi.org/10.1111/ppl.12942
- Sharma B., and Deswal, R. (2021) Comparative proteome profiling of seabuckthorn leaves from low altitude 'Sikkim' and high altitude 'Himachal Pradesh' Himalayan region hints towards differential stress adaptive responses" *Journal of Proteins and Proteomics* Vol. 12, pp 125–141.
- Sharma B., Arora S., Sahoo D., and Deswal R. (2020) Comparative fatty acid profiling of Indian Seabuckthorn showed altitudinal gradient dependent species-specific variations, *Physiol. Mol. Biol. Plants.* 26(1): 41-49

- Sharma, P., Bhandari, P.K., Dhyani, A. & Uniyal, P.L. (2020) Assessing the potential of anatomical characters for the circumscription of species of *Ephedra* in India. *Pleione* 14(1), 83 96.
- Sharma S., and Deswal, R., (2021) *Dioscorea alata* Tuber Proteome Analysis Uncovers Differentially Regulated Growth-associated Pathways of Tuber Development, *Plant and Cell Physiology* 62 (1), 191-204
- Shashi, and Bhat, V. (2021). Enhanced somatic embryogenesis and plantlet regeneration in *Cenchrus ciliaris* L. *In Vitro Cellular & Developmental Biology Plant, 57,* 499–509.
- Shivanna, K.R., Tandon, R. (2020) Studies on developmental biology of dispersed pollen grains: Contribution of the Department of Botany, University of Delhi. *International Journal of Developmental Biology*, 64, 7-19.
- Singh, A., Lakhanpaul, S. (2020) Detection, characterization and evolutionary aspects of S54LP of SP (SAP54 Like Protein of Sesame Phyllody): a phytoplasma effector molecule associated with phyllody development in sesame (Sesamum indicum L.). Physiol Mol Biol Plants. Mar;26(3):445-458.
- Singh A., Verma P. and Lakhanpaul, S. (2020) Exploring the methylation status of selected flowering genes in healthy and phyllody infected sesame plants. *Phytopathognic Mollicutes* 10 (1) 36-42.
- Singh, K.N., Parveen, S., Kaushik, P., Goel, S., Jagannath, A., Kumar, K., Agarwal, M. (2021) Identification and validation of in silico mined polymorphic EST-SSR for genetic diversity and cross-species transferability studies in Safflower. *Journal of Plant Biochemistry and Biotechnology*. https://doi.org/10.1007/s13562-021-00673-1
- Singh, T., Sharma, U., & Agrawal, V. (2020). Isolation and optimization of plumbagin production in root callus of *Plumbago zeylanica* L. augmented with chitosan and yeast extract. *Industrial Crops and Products* 151, 112446.
- Singh, T., Yadav, R., & Agrawal, V. (2020). Effective protocol for isolation and marked enhancement of psoralen, daidzein and genistein in the cotyledon callus cultures of *Cullen corylifolium* (L.) Medik. *Industrial Crops and Products* 143, 111905.
- Singh, S., Geeta, R., Sandip Das (2020) Comparative sequence analysis across Brassicaceae, regulatory diversity in KCS5 and KCS6 homologs from *Arabidopsis thaliana* and *Brassica juncea*, and intronic fragment as a negative transcriptional regulator. *Gene Expression Patterns* 38: 119146
- Sundari, D.L., Goyal, S., Shashi, Kulkarni, V.M., Kumar, S. and Bhat, V. (2020) Assessment of biolistic and Agrobacterium-mediated genetic transformation methods in Cenchrus ciliaris. Nucleus 63(3), 303-312.
- Thakur, J., Dwivedi, M., Singh, N., Uniyal, P.L., Goel, S., Pandey, A.K. (2021) Applicability of Start Codon Targeted (SCoT) and Inter Simple Sequence Repeat (ISSR) markers in assessing genetic diversity in *Crepidium acuminatum* (D. Don) Szlach. *Journal of Applied Research on Medicinal and Aromatic Plants*. 23, 100310.
- Thokchom, S.D., Gupta, S., Kapoor, R. (2020) Arbuscular mycorrhiza augments essential oil composition and antioxidant properties of *Ocimum tenuiflorum* L. a popular green tea additive. *Industrial Crops and Products* 153: 112418.
- Tomar, U. and Baishya, R. (2020). Seasonality and moisture regime control soil respiration, enzyme activities, and soil microbial biomass carbon in a semi-arid forest of Delhi, India. *Ecological Processes*, 9:50, https://doi.org/10.1186/s13717-020-00252-7

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- Tripathy M. K., Deswal R., and Sopory, S. K. (2021) Plant RABs: Role in Development and in Abiotic and Biotic Stress Responses, Current Genomics 22 (1), 26-40
- Veera, S.N.S., Panda, R.M., Behera, M.D., Goel, S., Roy, P.S., Barik, S.K. (2020) Prediction of upslope movement of Rhododendron arboreum in Western Himalaya. *Tropical Ecology*, 1-7
- Verma, N., Pathak, N., Singh, A., Bhat, K.V. and Lakhanpaul S. (2020) Investigations on diverse sesame (*S. indicum* L.) germplasm and its wild allies reveal wide variation in antioxidant potential. *Physiology and Molecular Biology of Plants* 26(4):697-704

Books/Chapters

- Bhandari, P.K. & Uniyal, P.L. (2020). Availability and application of the plant resources of Khombheravnath of Garhwal Himalaya, Uttarakhand, India. *In S. Pant*, A. Sharma, & V. Sharma (Eds.), Ethnobotany and biodiversity conservation (pp 90-108). Indu Book Services Pvt. Ltd. New Delhi.
- Bhardwaj, A.R., Pandey, R., Agarwal M., Katiyar-Agarwal, S. (2021) Northern Blotting Technique for Detection and Expression Analysis of mRNAs and Small RNAs. *In*: Jin H., Kaloshian I. (eds) RNA Abundance Analysis. Methods in Molecular Biology, vol 2170. Humana, New York, NY. https://doi.org/10.1007/978-1-0716-0743-5_12.
- Giri, P., Kumari, P., Sharma, P. & Uniyal, P.L. (2021). Ethnomedicinal uses of Pteridophytes for Treating Various Human Ailments in India, *In* L.J. Singh & V. Rajan, New Vistas in Indian Flora (Vol-I (pp 201-214). Bishen Singh Mahendra Pal Singh, Dehradun.
- Lal, M., Bhardwaj, E., Chahar, N., Dangwal, M., Sandip Das* (2020) (Trans)Gene flow: Mechanisms, biosafety concerns and mitigation for containment. *In*: Tandon, R., Shivanna, K.R., Kaul, M. (*Eds*): Reproductive Ecology of Flowering Plants: Patterns and Processes. Springer Nature Singapore Pte Ltd. ISBN: 978-981-15-4209-1
- Pandit, S., Mishra, G. (2020) Lipid Mediated Regulation of Protein Kinases. (Ed.) Girdhar K. Pandey.
 Protein Kinases and Stress Signaling in Plants: Functional Genomic Perspective. Wiley Blackwell.
 https://doi.org/10.1002/9781119541578.ch7
- Saxena, K.G., Rao, K.S. & Maikhuri, R.K. (2021) Long-term tracking of multiple benefits of participatory forest restoration in marginal cultural landscapes in Himalaya. *In*: Nishi, M., Subramanian, S.M., Gupta, H., Yoshino, M., Takahashi, Y., Miwa, K. & Takeda, T. (Eds.) Fostering Transformative Change for Sustainability in the Context of Socio-Ecological Production Landscapes and Seascapes (SEPLS), Springer, Singapore. pp. 61-76.
- Saxena, K.G. & Rao, K.S. (2020) Climate change and vegetation phenology. *In*: Tandon, R., Shivanna, K. R.,
 & Kaul, M. (*Eds.*) Reproductive Ecology of Flowering Plants: Patterns and Processes, Springer-Verlag, Berlin. pp 25-39.
- Tandon, R., Shivanna, K.R., Koul, M. (Eds). 2020. Reproductive Ecology of Flowering Plants: Patterns and Processes. Singapore: Springer Nature Singapore Pte Ltd.

4. Journals

Published by the Department

- Phytomorphology (six monthly journal published by the International Society of Plant Morphologists)
- The Botanica (The Annual scientific magazine of the Delhi University Botanical Society)

Number of Department teachers serving as Editor(s)/Member(s) of Editorial Board

• Prof. Renu Deswal:

- o Associate Editor, Journal of Proteins and Proteomics
- O Associate Editor, Frontiers in Plant Physiology, Plant Proteomics
- Prof. P.L. Uniyal: Editorial Board Member, The Journal of Orchid Society of India.
- Prof. Rupam Kapoor:
 - Associate Editor "3Biotech" (Agriculturally Important Pathogenic and Symbiotic Fungi)
 Springer
 - Review Editor on the Editorial Board of Frontiers in Plant Science Plant Symbiotic Interactions.
 - Member, Editorial Board, Journal of Mycology and Plant Pathology published by Indian Society of Mycology and Plant Pathology.
 - o Member, Editorial Board, MycoAsia Journal of Modern Mycology, A publication of Society for Mycology in SAARC region.
 - Member, Editorial Board, Journal of Plant Developmental Sciences

• Prof. S. Goel:

- o Academic Editor, PLOS ONE
- o Advisory Board Member of Amity Journal of Advanced Research in Biotechnology and Nanobiotechnology.
- o Review Editor, Frontiers in Genetics

5. Research Projects (Ongoing)

S. No.	Project Title	Year/	Funding	Sanctioned
		Period	Agency	Amount
1	Bio-assay guided Isolation, Identification and Elicitation of Anticancerous bioactive compounds from Nardostachys jatamansi, Psoralea corylifolia and Plumbago zeylenica PI: Prof. Veena Agrawal	2017- 2020	DST-SERB	Rs. 33.18 Lakhs
2	Large scale purification, characterization and crystallization of myrosinase (from <i>Brassica juncea</i>) – a step towards designing <i>B. juncea</i> as functional food PI: Renu Deswal	2020-2021	Institute of Eminence, University of Delhi	Rs. 5 Lakhs
3	Deciphering evolution of dioecy and gender determination mechanism in Himalayan Seabuckthorn using molecular and cytogenetic tools. PI: Prof. Rajesh Tandon	2020-2023	DST SERB	Rs. 23.87 Lakhs
4	Diversity and performance of key forest tree species and bryophytes in gap and non-gap areas along an altitudinal gradient in Uttarakhand PI: Prof. P.L. Uniyal	2018-2021	DST SERB	Rs. 41 Lakhs.
5	Induction of autonomous endosperm development in <i>Pennisetum</i> species by down-regulating a Polycomb gene <i>CCEZ1</i> using RNAi approach. PI: Prof. Vishnu Bhat	2016-2020	DAE-BRNS	Rs. 22.98 Lakhs
6	Epigenetic regulation of retrotransponsons in apomictic and sexual plants of <i>Cenchrus ciliaris</i> . PI: Prof. Vishnu Bhat	2020-2021	Institute of Eminence, University of Delhi	Rs. 2.5 Lakhs
7	Deciphering the mechanisms of reduced uptake and accumulation of Arsenic (As)	2020-2023	DST-SERB	Rs. 36.33 Lakhs

	in grain by arbuscular mycorrhizal fungi			
	to develop mitigation strategies for			
	wheat irrigated with As-contaminated			
	ground water in India			
	PI: Prof. Rupam Kapoor			
8	Diversity and Indigenous Knowledge on	2020-2023	National	Rs. 22.75 Lakhs
	Macrofungi in Trans Himayalan District		Mission on	
	of Kargil.		Himalayan	
	Co-PI: Prof. Rupam Kapoor	2010 2021	Studies, MoEF	D 20.72 I 11
9	Development of SNP markers and	2018-2021	SERB-DST	Rs. 30.73 Lakhs
	association mapping for agronomic traits			
	on a core collection of the oilseed crop, Carthamus tinctorius (Safflower)			
	PI: Prof. S. Goel			
10	Whole genome and transcriptome	2018-2021	DBT	Rs. 21 Lakhs
10	changes as a consequence of allo and	2010-2021	DB1	Ks. 21 Lakiis
	auto-polyploidy in <i>Vigna</i> L.: Phase II.			
	PI: Prof. S. Goel			
11	A biotechnological approach to elucidate	2019-2022	DBT	Rs. 89 Lakhs
	adaptation mechanism, migration pattern			
	and reproductive biology of indicator			
	temperate alpine plants in Himalayas in			
	response to changing climate			
	PI : Prof. S. Goel			
12	Deciphering evolution of dioecy and	2021-2024	DST-SERB	Rs. 23.87 Lakhs
	gender determination mechanism in			
	Himalayan Seabuckthorn using			
	molecular and cytogenetic tools			
13	Co-PI : Prof. S. Goel Exploiting Genetic Diversity for	2020-2025	DBT	Rs. 481.73 Lakhs
13	Improvement of Safflower through	2020-2023	DB1	NS. 401./3 Lakiis
	Genomics Assisted Discovery of			
	QTLs/Genes Associated with Agronomic			
	Traits			
	PI: Prof. Arun Jagannath			
	Co-PI : Prof. S. Goel			
14	Quantifying the total ecosystem level	2017-2021	DST-SERB	Rs. 41.48 lakhs
	carbon sequestration potential of			
	different forest ecosystem along an			
	elevational gradient in Uttarakhand,			
	Western Himalaya in different climate			
	scenarios			
1.5	PI : Dr. Ratul Baishya	2010 2022	Dom cepp	D 46 2 F 11
15	Phosphatidic acid-protein interactions:	2019-2022	DST-SERB	Rs. 46.3 Lakhs
	molecular mechanism and role during			
	abiotic stress in Arabidopsis Prof. G. Mishra			
16	Identification of super donors and alleles	2018-2022	ICAR-NASF	Rs. 101.36 Lakhs
10	for spikelet fertility and low chalkiness	2010-2022	ICAK-NASI'	101.30 Lanis
	under thermal stress in rice			
	PI: Prof. Manu Agarwal			
17	Global perspective of transcriptome,	2019-2022	DBT	Rs. 56.66 Lakhs
	proteome and metabolome of root knot			
	nematode effectors conferring host			
	specificity and host response to them			
	during disease development			
			1	

	PI: Prof. Manu Agarwal			
18	Identification of miRNAs from contrasting lines of Carthamus and their contribution intolerance against Fusarium wilt PI: Prof. Manu Agarwal	2019-2022	DST-SERB	Rs. 40.35 Lakhs
19	Characterization of role of miR159 in male-meiosis and filament elongation <i>Brassica juncea</i> and <i>Arabidopsis thaliana</i> : strategies for crop improvement PI: Dr. Sandip Das	2019-2022	DBT	Rs. 67.66 Lakhs
20	Root Development related Signaling Networks: Role of At N-myc Downregulated Like Proteins and Interacting Partners PI: Dr. Yashwanti Mudgil	2018-2021	DBT	Rs. 49.87 lakhs
21	Delineating the effector biology phytoplasma affecting selected crop taxa India with special emphasis on sesame (<i>Sesamum indicum L.</i>) PI: Prof. Suman Lakhanpaul	2020-2023	ICAR-NASF	Rs. 80 Lakhs

6. Patents Filed/Granted

• Prof. Veena Agrawal: Indian Patent Filed titled "An Improved And Cost Effective Method For Enhanced Production of Psoralen In The Green Seed Cotyledon Callus Of *Cullen Corylifolium*" through NDRC, India in the Indian Patent Office in June, 2020 vide Application no. 202011013766.

7. Seminar/Conference Presentations (National/International)

International

- Agrawal, V. (2020) Delivered online seminar on "Marker assisted selection of elite genotypes of some medicinal plants, their micro-propagation and isolation of anticancerous compounds", "2020 World Congress on In Vitro Biology" San Diego, USA. June 6-10, 2020; Organized by Society of In Vitro Biology, USA. Abstract published in *The Journal of In Vitro Dev. Biology* Animal 56, (Supp. 1). P.28
- Yadav, R. & Agrawal, V. (2020) Contributed paper on "Bioengineering of Herbal (*Piper longum L.*) leaf extract mediated nanoparticles and their biomedical applications", "2020 World Congress on In Vitro Biology" San Diego, USA. June 6-10, 2020; Organized by Society of In Vitro Biology, USA. Contributed paper in *The Journal of In Vitro Dev. Biology* Animal 56, (Supp. 1), pp. 52-53.
- Deswal, R. (2021) "Detection and characterization of antifreeze activity from *Brassica juncea* leaf cuticle" submitted at CRYO2021, 58th Annual meeting of the Society for Cryobiology, 2021, Baltimore, United States.
- Deswal, R. (2020) "Comparative Characterization of Green And Chemically Synthesized Gold Nanoparticles Protein Corona Formed at Nano-Bio Interface"; First International Conference on Innovations in Biotechnology and Life Sciences (ICIBLS 2020) organized by Dept. of Biotechnology, Delhi Technological University from 18 - 20 Dec 2020.
- Tandon, R. (2020) Invited speaker, One-day International Webinar on "Contemporary Issues in Biological Sciences", Sunderban Hazi Desrath College, West Bengal. 27 September, 2020.

National

- Thakur, J., Abbas, N.S. and Uniyal, P.L. (2021) National conference-cum-workshop on Interdisciplinary Approaches to Taxonomy, Conservation and economic utilization on floriculturally and medicinally important Orchids and Orchid Show, Botanical Survey of India, Eastern Regional Centre, Shillong (March 5-7, 2021).
 - o "Genetic Diversity assessment of *Crepidium acuminatum* (D.Don) Szlach. using Scot and ISSR markers" (Poster Presentation) pp 3.
 - Study of phenology, reproductive potential and factors that influence the population structure of medicinally important taxon, *Crepidium acuminatum* (D.Don) Szlach. (Poster Presentation) pp 8.
- Kasana, S., Uniyal, P.L. & Pandey, A.K. (2021) "Resolving the systematic position of *Jurinea* Cass. and its allies". (Poster presentation). pp 137. XLIII All India Botanical Conference of the Indian Botanical Society (IBS) and Indian Botanic Garden Conference on "Sustainable Development of Plant Resources and Conservation of Threatened Plants in Botanic Gardens", National Botanical Research Institute, Lucknow (March 19-21, 2021)
- Kapoor, R. (2021) delivered Presidential address on "Arbuscular Mycorrhiza in Sustainable Agriculture: Prospective and Challenges", National Conference on Biodiversity and Biotechnology of Fungi & 47th Annual Meeting of Mycological Society of India, Department of Botany, Punjabi University, Patiala, February 22-24, 2021.
- Kapoor, R. (2021) delivered Prof. K. Natarajan Memorial Lecture on "Understanding the role of some novel components in modulating virulence of necrotrophic fungus *Botrytis cinerea*", National Conference on Biodiversity and Biotechnology of Fungi & 47th Annual Meeting of Mycological Society of India, Department of Botany, Punjabi University, Patiala, February 22-24, 2021.
- Kapoor, R. (2021) Invited lecture on "Arbuscular Mycorrhizal Fungi in improving the production of secondary metabolites of high commercial value" in Two-day webinar on "Plant Science Research Post COVID-19", organised by Department of Botany, Rajiv Gandhi University and Tennessee State University, Nashville, USA, January 22 & 23, 2021.
- Das, S. (2020). "MicroRNA Genomics: Evolutionary trajectory, organisational and regulatory diversity lessons from Brassicaceae". AMU Centenary Celebration; Department of Botany; Aligarh Muslim University, Aligarh; Webinar on Plant microRNA Research; October 27, 2020
- Baishya, R. (2021). "Biodiversity, ecology, mapping and conservation aspects of medicinal plants of North-East India". Webinar-cum-Workshop on 'Prospects in Horticulture: Cultivation of Medicinal Plants in North-East India'. Organized by Rajdhani College, University of Delhi, March 13, 2021.
- Mudgil, Y. (2021) "Molecular Characterization of Stress Interactome of NDL-AGB1 module in *Arabidopsis thaliana*", Virtual Joint Indo-Canadian workshop on "Science and Technology for the New Age – Acquisition, Analysis and Adaptation" organized by IIT Delhi and University of Alberta, sponsored by Ministry of Education Government of India and Shastri Indo-Canadian Institute. March 4-5, 2021.
- Baishya, R. (2021) "Culture and Traditional Communities in Management of Biodiversity and Ecosystem Services in North-East India - Special Reference to Meghalaya", 'International Webinar on Community, Culture & Conflict in a Globalized World' organized by JB College (Autonomous), Jorhat, Assam, January 23, 2021.

8. Other Inter-Institutional Collaboration

 Prof. Veena Agrawal: Collaborative research with National Institute of Malaria Research (ICMR), New Delhi • Prof. Arun Jagannath and Prof. Shailendra Goel: Collaborative research with Denmark Technical University and Indian Institute of Oilseeds Research, Hyderabad

9. Extension and Outreach Activities

- Baishya, R. (2020) Online assessment of Participants in Two-day workshop on "Carbon sequestration and solid waste management - A perspective held on 11 November, 2020. Organized and conducted online quiz in two-day workshop for participants of DBT star college scheme, Kirori Mal College, University of Delhi.
- Baishya, R. (2020). "Technological interventions in Carbon and solid waste management", Two-day workshop on "Carbon sequestration and solid waste management-A perspective", Organized by Kirori Mal College under DBT Star College Scheme, University of Delhi, November 5-6, 2020.
- Baishya, R. (2020). "Trends in Climate change research: Special reference to plants and soil" organized by Prakriti, the Environmental Society at Lady Shri Ram College for Women, University of Delhi on 5th November, 2020.
- Jagannath, A. (2021) Invited lecture on "Life Sciences: Dissolving Boundaries in Biology Education and Research" in a Refresher Course on 'Life Sciences and Biotechnology: Recent trends, advances and challenges' January 25 February 8, 2021, CPDHE, University of Delhi.
- Jagannath, A. (2020) Invited lecture on "Introduction to Programming", Online lecture on September 26 for students of "Certificate Program in Bioinformatics & Computational Biology", Sri Venkateswara College, University of Delhi
- Jagannath, A. (2020) Invited lecture on "Impact of COVID-19 on research progress in Life Sciences: Mitigation of losses and the way forward", National Webinar organized on July 5th by Mansarovar Global University and National Academy of Sciences, Bhopal Chapter
- Deswal, R. (2021). Webinar on "Sexual Harassment at the workplace" organized by Internal Complaints Committee, Lady Irwin College, University of Delhi, 3rd March 2021.
- Deswal, R. (2020). Invited Lecture on "Phytonanotechnology", 18th Refresher Program in Life Sciences -Recent Trends in Life Sciences, organized by UGC, DAVV, Indore, 3rd November 2020
- Deswal, R. (2020). Invited Lecture "Proteomics an omics tool to understand Plant Physiology", 18th Refresher program in Life Sciences Recent trends in Life Sciences, organized by UGC, DAVV, Indore on 3rd November 2020.
- Deswal, R. Invited lecture as chief guest on "Roles and rules of ICC" organized by Lady Irwin College, University of Delhi.
- Uniyal, P.L. (2021). Organized a Refresher Course in life Sciences: 'Life Sciences and Biotechnology: Recent trends, advances and challenges', January 25 February 8, 2021, in association with CPDHE, University of Delhi.

10. Number of M.Phil./Ph.D. Degrees Awarded

Ph.D. : 17M.Phil. : 06

11. Faculty Strength

Professor : 13Associate Professor : 01

Department of Chemistry

1. Major Activities and Achievements

: 05

The Department of Chemistry is one of the premier teaching and research Departments in the country. The spectrum of research areas pursued here is broad, ranging from experimental to theoretical studies on chemical biology, synthetic methodology development, electrochemistry, polymers, bio-organic, coordination, green material, medicinal, natural products, nano-, and synthetic chemistry. In the last one-year, faculty members published more than 250 research papers in high-impact peer-reviewed journals and 33 Ph.D. degrees were awarded. Apart from collaborating internationally, faculty members were invited to share their work through keynote, plenary and invited lectures in national/international conferences and various institutions. Extramural research projects secured by faculty facilitated in developing and upgrading state-of-the-art laboratory facilities and in training young research scholars. Many faculty members were conferred prestigious medals, honors and one faculty member was selected as Fellow of Indian Academy of Sciences. Several M.Sc students graduating from the Department chose to pursue Ph.D. in chemistry in reputed global institutions.

2. Publications

- 1. Aggarwal, L., & Biswas, P. (2020). Interaction volume is a measure of the aggregation propensity of amyloid-β. *The Journal of Physical Chemistry Letters*, 11(10) 3993-4000. https://doi.org/10.1021/acs.jpclett.0c00922
- 2. Aggarwal, L., & Biswas, P. (2021). Hydration thermodynamics of the N-terminal FAD mutants of amyloid-β, *Journal of Chemical Information and Modeling*, 61(1), 298-310. https://doi.org/10.1021/acs.jcim.0c01286
- 3. Aggarwal, L., & Biswas, P. (2021). Hydration thermodynamics of familial parkinson's disease linked mutants of α-synuclein. *Journal of Chemical Information and Modeling*, 61(4), 1850-1858. https://doi.org/10.1021/acs.jcim.1c00034
- 4. Agnihotri, S., Mohan, T., Jha, D., Gautam, H. K., & Roy, I. (2020). Dual modality FeS nanoparticles with reactive oxygen species-induced and photothermal toxicity toward pathogenic bacteria. *ACS Omega*, 5(1), 597-602. https://doi.org/10.1021/acsomega.9b03177
- 5. Ahmad, S., Pandey, M. K., Das, S., Mishra, A., & Nagarajan, R. (2021). Morphology controlled green synthesis of photoluminescent LaPO₄: Ce³⁺-Tb³⁺ nanorods. *Chemical Physics Letters*, 776, 138704. https://doi.org/10.1016/j.cplett.2021.138704
- 6. Ahmed, M. U., Ahmed, S. I., Ahmed, N., Awan, A. T., Bhadra, A., Bhattarai, S., Kumar, M., Dhimal, M., Shreshtha, U. B., Abbas, S., Kaur-Ghumaan, S., & Wahajuddin, M. (2021, February 17). An overview of science diplomacy in south asia. *Science & Diplomacy*. Retrieved from https://www.sciencediplomacy.org/article/2021/overview-science-diplomacy-in-south-asia.
- 7. Agarwal, T., & Kaur-Ghumaan, S. (2020). Mono-and dinuclear mimics of the [FeFe] hydrogenase enzyme featuring bis(monothiolato) and 1, 3, 5-triaza-7-phosphaadamantane ligands. *Inorganica Chimica Acta*, 504, 119442. https://doi.org/10.1016/j.ica.2020.119442
- 8. Antil, B., Kumar, L., Ranjan, R., Shenoy, S., Tarafder, K., Gopinath, C. S., & Deka, S. (2021). One-dimensional multichannel g-C₃N_{4.7} nanostructure realizing an efficient photocatalytic hydrogen evolution reaction and its theoretical investigations. *ACS Applied Energy Materials*, 4(4), 3118-3129. https://doi.org/10.1021/acsaem.0c02858

- 9. Antil, R., Ranjan, R., Chinnakonda, G. S., & Deka, S. (2020). Directed holey and ordered g-C₃N_{4.5} nanosheets by hard template nanocasting approach for sustainable visible-light hydrogen evolution with prominent quantum efficiency. *Journal of Materials Chemistry* A, 8, 13328-13339. https://doi.org/10.1039/D0TA02734K
- Arora, G., Gagandeep, Behura, A., Gosain, T. P., Shaliwal, R. P., Kidwai, S., Singh, P., Kulangara, S., Kandi, Dhiman, R., Rawat, D. S., & Singh, R. (2020). NSC 18725, a pyrazole derivative inhibits growth of intracellular *Mycobacterium tuberculosis* by induction of autophagy. *Frontiers in Microbiology*, 10, 3051. https://doi.org/10.3389/fmicb.2019.03051
- 11. Arora, G., Gupta, R., Yadav, P., Dixit, R., Srivastava, A., & Sharma, R. K. (2021). Ultrasonically-mediated one-pot synthesis of substituted imidazoles via sulfamic acid functionalized hollow magnetically retrievable solid-acid catalyst. *Current Research in Green and Sustainable Chemistry*, 4, 100050. https://doi.org/10.1016/j.crgsc.2020.100050
- 12. Arora, G., Yadav, M., Gaur, R., Gupta, R., Yadav, P., Dixit, R., & Sharma, R. K. (2021). Fabrication, functionalization and advanced applications of magnetic hollow materials in confined catalysis and environmental remediation. *Nanoscale*, *13*, 10967-110003. https://doi.org/10.1039/D1NR01010G
- 13. Asha, K., Biswas, N. K., Saxena, S., Satsangi, V. R., Shrivastav, R., Kant, R., & Dass, S. (2021). Effect of 100 KeV Ar⁺ ion beam irradiation on ZnO thin films-Influence of morphology vis-a-vis electrode/electrolyte interface and its impact on photoelectrochemical water. *International Journal of Hydrogen Energy*, 46(40), 20858-20870. https://doi.org/10.1016/j.ijhydene.2021.03.216
- 14. Atri, S., Gusain, M., Kumar, P., & Nagarajan, R. (2020). Role of the solvent medium in the wetchemical synthesis of CuSbS₂, Cu₃SbS₃, and bismuth substituted Cu₃SbS₃. *Journal of Chemical Sciences*, 132, 132. https://doi.org/10.1007/s12039-020-01831-z
- 15. Atri, S., Pokhriyal, M., & Uma, S. (2020). Synergistic influence of d⁰ (Nb⁵⁺) and d¹⁰ (Cd²⁺) cations in stabilizing non-centrosymmetric Dion-Jacobson layered perovskites, A'Cd₂Nb₃O₁₀ (A' = Rb, Cs). *Inorganic Chemistry*, *59*(12), 8044-8053. https://doi.org/10.1021/acs.inorgchem.0c00291
- 16. Atri, S., Uma, S., & Nagarajan, R. (2020). Magnetic and photocatalytic properties of nano-sized sulfur-doped trirutile oxide, CuSb₂O₆. *Materials Science and Semiconductor Processing*, 119, 105226. https://doi.org/10.1016/j.mssp.2020.105226
- 17. Ayushee, Patel, M., Meena, P., Jahan, K., Bharatam, P. V., & Verma, A. K., (2021). Base-mediated anti-Markovnikov hydroamidation of vinyl arenes with arylamides. *Organic Letters*, 23(2), 565-570. https://doi.org/10.1021/acs.orglett.0c04084
- 18. Bahuguna, A., Bharatam, P. V., & Rawat, D. S. (2021). 3D QSAR studies on cationic amphiphilic indole derivatives for antimycobacterial activity. *Journal of Biochemical and Molecular Toxicology*, 35(3), e22675. https://doi.org/10.1002/jbt.22675
- 19. Bahuguna, A., Rawat, D. S., (2020). An overview of new antitubercular drugs, drug candidates, and their targets. *Medicinal Research Reviews*, 40(1), 263-292. https://doi.org/10.1002/med.21602
- 20. Bahuguna, A., Rawat, S., & Rawat, D. S. (2021). QcrB in *Mycobacterium tuberculosis*: The new drug target of antitubercular agents. *Medicinal Research Reviews*, 41(4), 2565-2581. https://doi.org/10.1002/med.21779
- 21. Bajaj, R., Gupta, M., Nagarajan, R., Rao, A. S., & Prakash, G. V. (2020). Strong structural phase sensitive rare-earth photoluminescence color flips in KLaF⁴:RE³⁺ (RE³⁺ = Eu³⁺, Er^{3+/}Yb³⁺⁾ nanocrystals. *Dalton Transactions*, 49,10058-10068. https://doi.org/10.1039/D0DT01179G

- 22. Batra, N., Rajendran, V., Wadi, I., Ghosh, P. C., & Nath, M. (2020). Synthesis and antimalarial activity of sulfonamide-attached coumarin-[1,2,3]-triazoles. *Indian Journal of Chemistry-Section* B, 59B (10), 1545-1555. Retrieved from http://nopr.niscair.res.in/handle/123456789/55466
- 23. Batra, N., Rajendran, V., Wadi, I., Lathwal, A., Dutta, R. K., Ghosh, P. C., Gupta, R. D., & Nath, M. (2020). Synthesis, characterization, and antiplasmodial efficacy of sulfonamide-appended [1,2,3]-triazoles. *Journal of Heterocyclic Chemistry*, *57*(4), 1625-1636. https://doi.org/10.1002/jhet.3888
- 24. Bhakuni, K., Sindhu, A., Bisht, M., & Venkatesu, P. (2021). Exploring the counteracting and refolding ability of choline-based ionic liquids toward crowding environment-induced changes in HSA structure. *ACS Sustainable Chemistry & Engineering*, 9(1), 422-437. https://doi.org/10.1021/acssuschemeng.0c07550
- 25. Bhatt, A. N., Rai, Y., Verma, A., Pandey, S., Kaushik, K., Parmar, V. S., Arya, A., Prasad, A. K., & Dwarakanath, B. S. (2020). Non-enzymatic protein acetylation by 7-acetoxy-4-methylcoumarin: implications in protein biochemistry. *Protein & Peptide Letters*, 27(4), 736-743. https://doi.org/10.2174/0929866527666200305143016.
- 26. Bhattacharyya, K., Nemaysh, V., Joon, M., Pratap, R., Basil, M. V., & Bose, M. (2021). Correlation of drug resistance with single nucleotide variations through genome analysis and experimental validation in a multi-drug resistant clinical isolate of *M. tuberculosis*. *BMC Microbiology*, 20, 223. https://doi.org/10.1186/s12866-020-01912-6
- 27. Chahal, V., & Kakkar, R. (2021). Theoretical investigation of the structural and electronic features of SLC-0111, a novel inhibitor of human carbonic anhydrase IX, and its anion. *Structural Chemistry*, 32, 1843-1856. https://doi.org/10.1007/s11224-021-01741-x
- 28. Chahal, V., Nirwan, S., & Kakkar, R. (2020). A comparative study of the binding modes of SLC-0111 and its analogues in the hCA II and hCA IX active sites using QM/MM, molecular docking, MM-GBSA and MD approaches. *Biophysical Chemistry*, 265, 106439. https://doi.org/10.1016/j.bpc.2020.106439
- 29. Chakraborty, N., Jha, D., Gautam, H. K., & Roy, I. (2020). Peroxidase-like behavior and photothermal effect of chitosan coated Prussian-blue nanoparticles: Dual-modality antibacterial action with enhanced bioaffinity. *Materials Advances*, *1*, 774-782. https://doi.org/10.1039/D0MA00231C
- 30. Chandel, S., Lee, S., Lee, S., Kim, S., Singh, S.P., Kim, J., & Rai, A.K. (2020). Hierarchically nanorod structured Na₂Ti₆O₁₃/Na₂Ti₃O₇ nanocomposite as a superior anode for high-performance sodium ion battery. *Journal of Electroanalytical Chemistry*, 877, 114747. https://doi.org/10.1016/j.jelechem.2020.114747
- 31. Chaturvedi, A., Chaudhary, S., Pant, V., Jha, P., Kumaran, S. S., Hussain, F., & Mishra, A. K. (2021). 5-HT_{1A} targeting PARCEST agent DO3AM-MPP with potential for receptor imaging: Synthesis, physico-chemical and MR studies. *Bioorganic Chemistry*, 106, 104487. https://doi.org/10.1016/j.bioorg.2020.104487
- 32. Chaudhary, K., Bhakuni, K., Mogha, N. K., Venkatesu, P., & Masram, D. T. (2020). Sustainable solvothermal conversion of waste biomass to functional carbon material: Extending its utility as a biocompatible cosolvent for lysozyme. *ACS Biomaterials Science & Engineering*, 6(9), 4881-4892. https://doi.org/10.1021/acsbiomaterials.0c00461
- 33. Chaudhary, K., Kumar, K., Venkatesu, P., & Masram, D. T. (2020). In-depth understanding of a nano-bio interface between lysozyme and Au NP-immobilized N-doped reduced graphene oxide 2-D scaffolds. *Nanoscale Advances*, 2, 2146-2159. https://doi.org/10.1039/D0NA00155D

- 34. Chaudhary, K., Kumar, K., Venkatesu, P., & Masram, D. T. (2021). Protein immobilization on graphene oxide or reduced graphene oxide surface and their applications: Influence over activity, structural and thermal stability of protein. *Advances in Colloid and Interface Science*, 289, 102367. https://doi.org/10.1016/j.cis.2021.102367
- 35. Chaudhary, K., Mogha, N. K., Lalwani, S., Sharma, R. K., & Masram, D. T. (2020). Ruthenium oxide nanoparticles immobilized over *Citrus limetta* waste derived carbon material for electrochemical detection of hexestrol. *Journal of Materials Chemistry* B, 8, 7956-7965. https://doi.org/10.1039/D0TB00263A
- 36. Chaudhary, P., Deepa, Meena, D. R., Aalam, M. J., Yadav, G. D., & Singh, S. (2021). Cellulose sulfate: an efficient heterogeneous catalyst for the ring-opening of epoxides with alcohols and anilines. *Synthetic Communications*, 51(12), 1834-1846. https://doi.org/10.1080/00397911.2021.1910304
- 37. Chaudhary, S., Mukherjee, M., Paul, T. K., Taraphder, S., & Milton, M. D. (2020). Novel thiazoline-phenothiazine based "push-pull" molecules as fluorescent probes for volatile acids detection. *Journal of Photochemistry and Photobiology* A: *Chemistry*, 397, 112509. https://doi.org/10.1016/j.jphotochem.2020.112509
- 38. Choudhary, S., Kumar, V., Malik, V., Nagarajan, R., Annapoorni, S., & Malik, R. (2020). Synthesis of ZnO@Ag dumbbells for highly efficient visible-light photocatalysts. *Journal of Physics: Condensed Matter*, 32(40), 405202. https://doi.org/10.1088/1361-648X/ab9e2e
- 39. Das, V., Kaushik, R., & Hussain, F. (2020). Heterometallic 3d-4f polyoxometalates: an emerging field with structural diversity to multiple applications. *Coordination Chemistry Reviews*, 413, 213271. https://doi.org/10.1016/j.ccr.2020.213271
- 40. Deepa, & Singh, S. (2021). Recent development of recoverable MacMillan catalyst in asymmetric organic transformations. *Advanced Synthesis & Catalysis*, 363(3), 629-656. https://doi.org/10.1002/adsc.202000994
- 41. Deswal, N., Shrivastava, A., Hossain, M. S., Gahlyan, P., Bawa, R., Gupta, R. D., & Kumar, R. (2021). Design, synthesis, evaluation and molecular docking studies of novel triazole linked 1,4-dihydropyridine-isatin scaffolds as potent anticancer agents. *ChemistrySelect*, 6(4), 717-725. https://doi.org/10.1002/slct.202003948
- 42. Devi, S. P., Mittal, A., & Kakkar, R. (2021). Computational studies on reactions of some organic azides with C–H bonds. *ChemistrySelect*, 6(17), 4368-4381. https://doi.org/10.1002/slct.202101037
- 43. Elagamy, A., Althagafi, I., & Pratap, R. (2021). Step-wise and one-pot synthesis of highly substituted conjugated trienes from 2-oxobenzo[h]chromenes/2H-pyran-2-ones. *Organic & Biomolecular Chemistry*, 19, 3901-3910. https://doi.org/10.1039/D1OB00314C
- 44. Faujdar, H., Spannenberg, A., & Kaur-Ghumaan, S. (2020). Structural and HER studies of diphosphine-monothiolate complexes [Fe₂(CO)₄(μ-naphthalene-2-thiolate)₂(μ-dppe)] and [Fe₂(CO)₄(μ-naphthalene-2-thiolate)₂(μ-DPEPhos)]. *Inorganica Chimica Acta*, 501, 119227. https://doi.org/10.1016/j.ica.2019.119227
- 45. Gagandeep, Singh, M., Kidawi, S., Das, U. S., Velpandian, T., Singh, R., & Rawat, D. S. (2021). Mono-carbonyl curcuminoids as anti-tuberculosis agents with their moderate in-vitro metabolic stability on human liver microsomes. *Journal of Biochemical & Molecular Toxicology*, 35(6), 1-10. https://doi.org/10.1002/jbt.22754
- **46.** Gagandeep, Kumar, P., *Kandi*, S. K., Mukhopadhyay, K., & Rawat, D. S. (2020). Synthesis of novel monocarbonyl curcuminoids, evaluation of their efficacy against MRSA, including ex vivo infection

- model and their mechanistic studies. European Journal of Medicinal Chemistry, 195, 112276. https://doi.org/10.1016/j.ejmech.2020.112276
- 47. Gandhi, S., Issar, S., Mahapatro, A. K., & Roy, I. (2020). Cobalt ferrite nanoparticles for bimodal hyperthermia and their mechanistic interactions with lysozyme. *Journal of Molecular Liquids*, *310*, 113194. https://doi.org/10.1016/j.molliq.2020.113194
- 48. Gandhi, S., & Roy, I. (2020). Biomedical in vivo studies with ORMOSIL nanoparticles containing active agents. In: E. Ferrari & M. Soloviev (Eds.), *Nanoparticles in biology and medicine. Methods in molecular biology* (Vol. 2118, pp. 121-138). Humana, New York, NY. https://doi.org/10.1007/978-1-0716-0319-2 9
- 49. Garkoti, Shabir, C., & Mozumdar, S. (2020). Amine-terminated ionic liquid modified magnetic graphene oxide (MGO-IL-NH₂): a highly efficient and reusable nanocatalyst for the synthesis of 3-amino alkylated indoles. *ChemistrySelect*, 5(14), 4337. https://doi.org/10.1002/slct.202000336
- 50. Gaur, P., Prasad, S., Kumar, B., Sharma, S. K., & Vats, P. (2021). High-altitude hypoxia induced reactive oxygen species generation, signaling, and mitigation approaches. *International Journal of Biometeorology*, 65, 601-615. https://doi.org/10.1007/s00484-020-02037-1
- 51. Goel, S., Munjal, M., Sharma, R. K., & Singh, G. (2021). 14-Advanced applications of green materials in supercapacitors. In: S. Ahmed (Ed.), *Woodhead publishing in materials*, *Applications of advanced green materials* (pp. 339-371). Woodhead Publishing. https://doi.org/10.1016/B978-0-12-820484-9.00014-3
- 52. Goel, S., Singh, G., & Sharma, R. K. (2020). Rapid microwaving route for pseudocapacitive nanostructured polypyrroles. *Materials Chemistry and Physics* 244, 122694. https://doi.org/10.1016/j.matchemphys.2020.122694
- 53. Gopalaiah, K., & Tiwari, A. (2020). Synthesis of (E)-3-Alkylideneindolin-2-ones by an iron-catalyzed aerobic oxidative condensation of Csp³–H bonds of oxindoles and benzylamines. *European Journal of Organic Chemistry*, 2020(46), 7229-7237. https://doi.org/10.1002/ejoc.202001300
- 54. Grover, S., Sahu, V., Singh, G., & Sharma, R. K. (2020). High specific energy ternary nanocmposite polyaniline: Manganese dioxide@ MWCNT electrode for asymmetric supercapacitor. *Journal of Energy Storage*, 29, 101411. https://doi.org/10.1016/j.est.2020.101411
- 55. Gulati, A., Malik, J., Mandeep, & Kakkar, R. (2020). Peanut shell biotemplate to fabricate porous magnetic Co₃O₄ coral reef and its catalytic properties for p-nitrophenol reduction and oxidative dye degradation. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 604, 125328. https://doi.org/10.1016/j.colsurfa.2020.125328
- 56. Gulati, A., Mandeep, Malik, J., & Kakkar, R. (2020). Mesoporous rGO@ZnO composite: Facile synthesis and excellent water treatment performance by pesticide adsorption and catalytic oxidative dye degradation. *Chemical Engineering Research and Design*, 160, 254-263. https://doi.org/10.1016/j.cherd.2020.04.040
- 57. Gulati, U., U. Chinna, U. R., Rawat, D. S., & Zaleski, J. M. (2020). Development of magnesium oxide–silver hybrid nanocatalysts for synergistic carbon dioxide activation to afford esters and heterocycles at ambient pressure, *Green Chemistry*, 22(10), 3170-3177. https://doi.org/10.1039/C9GC04040D
- 58. Gulati, U., Chinna U. R., & Rawat, D. S. (2020). Magnetically recoverable Ni@CuI hybrid nanocatalysts to afford spiropyrroline heterocycles from ketoximes and alkenes. *Asian Journal of Organic Chemistry*, 9(07), 1059-1064. https://doi.org/10.1002/ajoc.202000145

- 59. Gulati, U., Chinna R. U., & Rawat, D. S. (2020). Renewable RGO@CuI nanocomposites for redox triggered single electron transfer (SET) reaction under aerobic and anaerobic conditions. *ChemCatChem*, 12(14), 3728-3736. https://doi.org/10.1002/cctc.202000314
- 60. Gulati, U., Rawat, S., & Rawat, D. S. (2020). Transition-metal-free, one-pot, tandem C1-indolylation and N-alkylation of tetrahydroisoquinoline in biodegradable PEG solvent. *Tetrahedral Letters*, 61(37), 152304. https://doi.org/10.1016/j.tetlet.2020.152304
- 61. Gupta, G., Verma, S., Nagarajan, R., & Rath, S. (2021). Microstructural and bandgap investigations of wurtzite-phase ZnMgO nano powders synthesized by ball-milling. *Physica B: Condensed Matter*, 604, 412735. https://doi.org/10.1016/j.physb.2020.412735
- 62. Gupta, P., Garkoti, C., Shabir, J., Surabhi, Sah, D., & Mozumdar, S. (2021, June 18). Amine grafted Fe₃O₄ immobilized graphene oxide as a recyclable and effectual nanocomposite for the regioselective ring opening reaction. *Research on Chemical Intermediates*. https://doi.org/10.1007/s11164-021-04509-4
- 63. Gupta, R., Arora, G., Yadav, P., Dixit, R., Srivastava, A., & Sharma, R. K. (2021). A magnetically retrievable copper ionic liquid nanocatalyst for cyclooxidative synthesis of 2-phenylquinazolin-4 (3*H*)-ones. *Dalton Transactions*, 50(03), 890-898. https://doi.org/10.1039/D0DT03634J
- 64. Gupta, S., & Biswas, P. (2020). Conformations of poly(propylene imine) dendrimers in an ionic liquid at different pH, *Soft Matter*, 16(36), 8400-8411. https://doi.org/10.1039/D0SM01026J
- 65. Gupta, S., & Biswas, P. (2020). Conformational properties of complexes of poly(propylene imine) dendrimers with linear polyelectrolytes in dilute solutions. *The Journal of Chemical Physics*, 153, 194902. https://doi.org/10.1063/5.0030270 (Invited article in a special issue on "Special collection in honour of women in chemical physics and physical chemistry").
- 66. Guryev, E. L., Smyshlyaeva, A. S., Shilyagina, N. Y., Sokolova, E. A., Shanwar, S., Kostyuk, A. B., Lyubeshkin, A. V., Schulga, A. A., Konovalova, E. V., Lin, Q., Roy, I., Balalaeva, I. V., Deyev, S. M., Zvyagin, A. V. (2020). UCNP-based photoluminescent nanomedicines for targeted imaging and theranostics of cancer. *Molecules*, 25(18), 4302. https://doi.org/10.3390/molecules25184302
- 67. Gusain, M., Nagarajan, R., & Singh, S. K. (2020), Highly ordered polyaniline: synthesis, characterization and electrochemical properties, *Polymer Bulletin*, 77, 3277-3286. https://doi.org/10.1007/s00289-019-02912-x
- 68. Handa, M., & Biswas, P. (2021). Intramolecular relaxation of ring polymers in dilute solutions. *Journal of Rheology*, 65(03), 381. https://doi.org/10.1122/8.0000153
- 69. Jogender, & Kakkar, R. (2021). Decontamination of chloropicrin (PS) and its analogues using graphene and modified graphene surfaces: A computational study. *Structural Chemistry*, *32*, 1883-1892. https://doi.org/10.1007/s11224-021-01767-1
- 70. Jogender, Badhani, B., Mandeep, & Kakkar, R. (2020). A DFT-D2 study on the adsorption of phosgene derivatives and chloromethyl chloroformate on pristine and Fe₄-decorated graphene. *Journal of Molecular Graphics and Modelling*, 101, 107754. https://doi.org/10.1016/j.jmgm.2020.107754
- 71. Jogender, Mandeep, & Kakkar, R. (2020). A DFT-D2 study on Mo_{4-x}Co_x (x = 0–3) cluster-decorated graphene and the adsorption of SO₂F₂ and SOF₂ on Mo₄-decorated graphene. *Journal of Nanoparticle Research*, 22, 285. https://doi.org/10.1007/s11051-020-05014-2

- 72. Jogender, Mandeep, Badhani, B., & Kakkar, R. (2020). Adsorption of methyl isocyanate on M4 (M = Fe, Ni, and Cu) cluster-decorated graphene and vacancy graphene: A DFT-D2 study. *Structural Chemistry*, *31*, 1983-1997. https://doi.org/10.1007/s11224-020-01552-6
- 73. Joshi, A., Singh, G., & Sharma, R. K. (2020). Engineering multiple defects for active sites exposure towards enhancement of Ni₃S₂ charge storage characteristics. *Chemical Engineering Journal*, 384, 123364. https://doi.org/10.1016/j.cej.2019.123364
- 74. Joshi, A., Tomar, A. K., Singh, G., & Sharma, R. K. (2021). Engineering oxygen defects in the boron nanosheet for stabilizing complex bonding structure: An approach for high-performance supercapacitor, *Chemical Engineering Journal*, 407, 127122. https://doi.org/10.1016/j.cej.2020.127122
- 75. Kakkati, P., Singh, P., Yadav, P., & Awasthi, S. K. (2021). Aiding the versatility of simple ammonium ionic liquid by the synthesis of bioactive 1,2,3,4-tetrahydropyrimidine, 2-aminothiazole and quinazolinones derivatives. *New Journal of Chemistry*, 45(15), 6724-6738. https://doi.org/10.1039/D1NJ00280E
- 76. Kant, R., Kaur, J., & Mishra, G. K. (2020). Theory for influence of the metal electrolyte interface on heterogeneous electron transfer rate constant: fractional electron transferred transition state approach. *The Journal of Physical Chemistry* C, 124(04), 2273-2288. https://doi.org/10.1021/acs.jpcc.9b09461
- 77. Kant, R., & Goswami, N. (2021). Semi-Microscopic theory for underscreening induced anomalous migration-diffusion coupling. *The Journal of Physical Chemistry* C, *125*(24), 13677-13687. https://doi.org/10.1021/acs.jpcc.1c03316
- 78. Kashyap, K., & Kakkar, R. (2020). Exploring structural requirements of isoform selective histone deacetylase inhibitors: A comparative *in silico* study. *Journal of Biomolecular Structure and Dynamics*, 39(02), 502-517. https://doi.org/10.1080/07391102.2019.1711191
- 79. Kashyap, K., & Kakkar, R. (2020). Pharmacophore-enabled virtual screening, molecular docking and molecular dynamics studies for identification of potent and selective histone deacetylase 8 inhibitors.

 *Computers in Biology and Medicine, 123, 103850.

 https://doi.org/10.1016/j.compbiomed.2020.103850
- 80. Kashyap, K., & Kakkar, R. (2021). In silico study of the synergistic anti-tumor effect of hybrid topoisomerase-HDAC inhibitors. *Pure and Applied Chemistry*, (), 000010151520210111. https://doi.org/10.1515/pac-2021-0111
- 81. Kaushik, P., Kumar, A., Kumar, P., Kumar, S., Singh B. K., & Bahadur, V. (2020). Cu-catalyzed one-pot multicomponent approach for the synthesis of symmetric and asymmetric 1,4-dihydropyridine (1,4-DHP) linked 1,2,3-triazole derivatives. *Synthetic Communications*, 50(13), 2033-2042. https://doi.org/10.1080/00397911.2020.1762222
- 82. Kaushik, R., & Hussain, F. (2020). Synthesis and characterization of nanoclusters: inorganic-organic hybrid copper and cobalt containing arsenotungstates(III) with lone pair on heteroatom incorporating bidentate N-donating ligands. *Indian Journal of Chemistry-Section A*, 59A(11), 1602-1608. Retrieved from http://nopr.niscair.res.in/handle/123456789/55594
- 83. Kaushik, R., Khan, I., Gupta, R., & Hussain, F. (2020). Synthesis of $Na_2[((RE)_4(H_2O)_6Sb_6O_4)(SbW_{10}O_{37})_2(SbW_8O_{31})_2]$ [(RE)^{III} = Y, Gd, Tb, Dy, Ho, Er, Tm, Yb]: Synthesis, characterization and catalytic application. *Inorganic Chemistry Communications*, 122, 108265. https://doi.org/10.1016/j.inoche.2020.108265
- 84. Khan, I., Das, V., Teillout, A. L., Mbomekallé, I. M., De Oliveira, P., Sahoo, S. C., & Hussain, F. (2021). Tetrameric lanthanide-substituted silicotungstate {Ln₈Si₄W₄₀} Nanoclusters: Synthesis, structural characterization, electrochemistry, and catalytic application for oxidation of thioethers.

- European Journal of Inorganic Chemistry, 2021(11), 1071-1081. https://doi.org/10.1002/ejic.202001096
- 85. Khatri, V., Bhatia, S., Deep, S., Kohli, E., Haag, R., Senapati, N. N., & Prasad, A. K. (2020). Exploring hydrophobic diastereomeric 2, 6-anhydro-glycoheptitols for their enzymatic polymerization with PEG: Towards delivery applications. *New Journal of Chemistry*, 44(36), 15369-15375. https://doi.org/10.1039/D0NJ02642E
- 86. Krishna, P. B., Achazi, K., Böttcher, C., Haag, R., & Sharma, S. K. (2021). Newer non-ionic A₂B₂-type enzyme-responsive amphiphiles for drug delivery. *ChemMedChem*, *16*(09), 1457-1466. https://doi.org/10.1002/cmdc.202100031
- 87. Krishna, Kumari, S., Yadav, D., & Sharma, S. K. (2020). Cu (II) Schiff base complex grafted guar gum: Catalyst for benzophenone derivatives synthesis. *Applied Catalysis* A: *General*, 601, 117529. https://doi.org/10.1016/j.apcata.2020.117529
- 88. Kumar, A., Kumar, M., & Verma, A. K. (2020). Well-defined palladium N-heterocyclic carbene complexes: Direct C–H bond arylation of heteroarenes. *Journal of Organic Chemistry*, 2020, 85(21), 13983-13996. https://doi.org/10.1021/acs.joc.0c02024
- 89. Kumar, A., Mahiya, K., Prasad, A. K., & Singh, S. K. (Ahead-of-Print). Multicomponent synthesis of 4-aryl-1, 4-dihydro-oxochromeno [3,2-b] oxoindeno [6,5-e] pyridine. *Polycyclic Aromatic Compounds*. https://doi.org/10.1080/10406638.2020.1852269
- 90. Kumar, A., Thirumal, M., & Kumar, S. (2021). Visually detecting cyanide ion in aqueous solution sensitively and selectively using a merocyanine salt with the help of a smartphone. *Journal of Molecular Structure*, 1245, 130757. https://doi.org/10.1016/j.molstruc.2021.130757
- 91. Kumar, A., Sharma, A., Chen, Y., Jones, M. M., Vanyo, S. T., Li, C., Visser, M. B. Mahajan, S. D., Sharma, R. K., & Swihart, M. T. (2020). Copper@ZIF-8 core-shell nanowires for reusable antimicrobial face masks. *Advanced Functional Materials*, 31(10), 2008054. https://doi.org/10.1002/adfm.202008054
- 92. Kumar, B., Maity, M., Shankar, B., Kumar, S., & Prasad, A. K. (2021). Synthesis of D-glycopyranosyl depsipeptides using Passerini reaction. *Carbohydrate Research*, 500, 108236. https://doi.org/10.1016/j.carres.2021.108236
- 93. Kumar, B., Shankar, B., Kumar, S., Maity, J., & Prasad, A. K. (2020). Multicomponent one pot synthesis of *C*-glucosides of 1-azaindolizines. *Synthetic Communications*, 50(18), 2853-2859. https://doi.org/10.1080/00397911.2020.1786586
- 94. Kumar, B., Vashisht, H., Goyal, M., Kumar, A., Benhiba, F., Prasad, A. K., Kumar, S., Bahadur, I., & Zarrouk, A. (2020). Study of adsorption mechanism of chalcone derivatives on mild steel-sulfuric acid interface. *Journal of Molecular Liquids*, 318, 113890. https://doi.org/10.1016/j.molliq.2020.113890
- 95. Kumar, D., Tomar, A. K., Singh, G., & Sharma, R. K. (2020). Interlayer gap widened 2D α-Co (OH)₂ nanoplates with decavanadate anion for high potential aqueous supercapacitor. *Electrochimica Acta*, *363*, 137238. https://doi.org/10.1016/j.electacta.2020.137238
- 96. Kumar, P., Pachisia, S., & Gupta, R. (2021). Turn-on detection of assorted phosphates by luminescent chemosensors. *Inorganic Chemistry Frontiers*, 8, 3587-3607. https://doi.org/10.1039/D1QI00032B (Invited Article)
- 97. Kumar, D., Tomar, A. K., Singal, S., Singh, G., & Sharma, R. K. (2020). Ammonium decavanadate nanodots/reduced graphene oxide nanoribbon as "inorganic-organic" hybrid electrode for high

- potential aqueous symmetric supercapacitors. *Journal of Power Sources*, 462, 228173. https://doi.org/10.1016/j.jpowsour.2020.228173
- 98. Kumar, A., & Deka, S. (2020). PdSn hollow alloy nanoparticles prepared by *in-situ* galvanic replacement process for exclusive hydrogen evolution reaction and durable electrocatalysis. *Applied Catalysis* A: *General*, 599, 117575. https://doi.org/10.1016/j.apcata.2020.117575
- 99. Kumar, G., & Masram, D. T. (2021). Sustainable synthesis of MOF-5@GO nanocomposites for efficient removal of rhodamine B from water. *ACS Omega*, 6(14), 9587-9599. https://doi.org/10.1021/acsomega.1c00143
- 100.Kumar, G., Kumar, G., & Gupta, R. (2021). Effect of pyridyl donors from organic ligands versus metalloligands on material design. *Inorganic Chemistry Frontiers*, 8, 1334-1373. https://doi.org/10.1039/D0QI00768D (Invited Article)
- 101.Kumar, K., Kumar, P., Joshi, P., & Rawat, D. S. (2020). IBX-TfOH mediated oxidation of alcohols to aldehydes and ketones under mild reaction conditions. *Tetrahedron Letters*, *61*(15), 151749. https://doi.org/10.1016/j.tetlet.2020.151749
 Featured in *Organic Chemistry* Highlights, Oxidation: The Sherman/Williams synthesis of Baulamycin A (https://www.organic-chemistry.org/Highlights/2021/25January.shtm)
- 102.Kumar, L., Boruah, P. K., Borthakur, S., Saikia, L., Das, M. R., & Deka, S. (2021). CuCo-Layered double hydroxide nanosheet-based polyhedrons for flexible supercapacitor cells. *ACS Applied Nano Materials* 4(05), 5250-5262. https://doi.org/10.1021/acsanm.1c00628
- 103.Kumar, L., Chauhan, M., Boruah, P. K., Das, M. R., Hashmi, S. A., & Deka, S. (2020). Coral shaped bifunctional NiCo₂O₄ nanostructure: A material for highly efficient electrochemical charge storage and electrocatalytic oxygen evolution reaction. *ACS Applied Energy Materials*, *3*(07), 6793-6804. https://doi.org/10.1021/acsaem.0c00909
- 104.Kumar, M., Srivastav, S., & Kant, R. (2020). Influence of electrode roughness on DC biased admittance of quasi-reversible charge transfer with uncompensated solution resistance. *Journal of Electroanalytical Chemistry*, 877,114609. https://doi.org/10.1016/j.jelechem.2020.114609
- 105.Kumar, M., Kumar, G., Kant, A., & Masram, D. T. (2020). Role of metallodrugs in medicinal inorganic chemistry. In: A. A. Sahid-ul-Islam, A. A. Hashmi & S. A. Khan (Eds.), *Advances in metallodrugs: Preparation and applications in medicinal chemistry* (pp. 71-113). John Wiley & Sons, Inc. https://doi.org/10.1002/9781119640868.ch3
- 106.Kumar, M., Kumar, G., & Masram, D. T. (2020). Copper (II) complexes containing enoxacin and heterocyclic ligands: synthesis, crystal structures and their biological perspectives. *New Journal of Chemistry*, 44(20), 8595-8613. https://doi.org/10.1039/D0NJ01192D
- 107. Kumar, M., Kumar, R., Rana, N., & Prasad, A. K. (2020). Chemo-enzymatic synthesis of 3'-azido/-amino-C-4'-spirooxetano-*xylo* nucleosides. *Current Green Chemistry*, 7(01), 120-127. https://doi.org/10.2174/2213346107666200110092413
- 108.Kumar, M., Lal, N., Luthra, P. M., & Masram, D. T. (2021). Exploring binding plus cleavage activities of nickel^{II} complexes towards DNA and proteins. *New Journal of Chemistry*, 45(15), 6693-6708. https://doi.org/10.1039/D0NJ06210C
- 109.Kumar, M., Verma, S., & Verma, A. K. (2020). Ru(II)-catalyzed oxidative olefination of benzamides: switchable aza-Michael and aza-Wacker reaction for synthesis of isoindolinones. *Organic Letters*, 22(12), 4620-4626. https://doi.org/10.1021/acs.orglett.0c01237

- 110.Kumar, R., Bimal, D., Kavita, Kumar, M., Mathur, D., Maity, J., Singh, S. K., Thirumal, M., & Prasad, A. K. (2020). Synthesis and antitubercular activity of 4,5-disubstituted *N*¹-(5'-deoxythymidin-5'-yl)-1,2,3-triazoles. *ChemistrySelect*, 5(28), 8839-8845. https://doi.org/10.1002/slct.202001854
- 111.Kumar, R., Kumar, M., Kumar, V., Kumar, A., Haque, N., Kumar, R., & Prasad, A. K. (2020). Recent progress in the synthesis of *C-4'*-spironucleosides and its future perspectives. *Synthetic Communications*, 50(22), 3369-3396. https://doi.org/10.1080/00397911.2020.1803914
- 112.Kumar, R., & Takkar, P. (2021). Repositioning of isatin hybrids as novel anti-tubercular agents overcoming pre-existing antibiotics resistance. *Medicinal Chemistry Research*, *30*, 847-876. https://doi.org/10.1007/s00044-021-02699-5
- 113.Kaur-Ghumaan, S., Ahmed, N., Lim, B. H., & Khan, S. (2020). A global call for united actions to address climate change. *GYA Connections*, 8, 33-35. Retrieved from https://globalyoungacademy.net/wp-content/uploads/2020/06/Connections-issue-8.pdf
- 114. Kumar, R., Yadav, N., Leekha, A., Bawa, R., Gahlyan, P., Bhandari, M., Arora, R., Verma, A. K., & Kakkar, R. (2021). Novel 1-triazolylpyranopyrazoles as highly potent anticancer agents obtained *via* MW-assisted synthesis. *ChemistrySelect*, 6(04), 589-594. https://doi.org/10.1002/slct.202003680
- 115. Kumar, S., & Nagarajan, R. (2020). Polyol intercalation in copper substituted zinc hydroxide acetate and evaluation of its adsorptive role towards Congo red dye. *Applied Clay Science*, *185*, 105411. https://doi.org/10.1016/j.clay.2019.105411
- 116.Kumar, S., Sindhu, A., & Venkatesu, P. (2021). Ionic liquid-modified gold nanoparticles for enhancing antimicrobial activity and the thermal stability of enzymes. *ACS Applied Nano Materials*, 4(03), 3185-3196. https://doi.org/10.1021/acsanm.1c00401
- 117.Kumar, S., Singla, H., Maity, J., Mangla, P. & Prasad, A. K. (2020). Chemo-enzymatic route to bridged homolyxofuranosyl-pyrimidines. *Carbohydrate Research*, 492, 108013. https://doi.org/10.1016/j.carres.2020.108013
- 118.Kumari, A., Satsangi, V. R., Shrivastav, R., Kant, R., & Dass, S. (2020). Effect of morphology and impact of the electrode/electrolyte interface on the PEC response of Fe₂O₃ based systems-comparison of two preparation techniques. *RSC Advances*, *10*, 42256-42266. https://doi.org/10.1039/D0RA07870K
- 119. Kumari, M., Sharma, M., Rani, S., Bagchi, D., Bera, A., Mukherjee, D., Pal, S. K., & Mozumdar, S. (2021). Solvent dependent photophysical study of stable and medicinally active diketone modified pyrazole derivatives of curcumin: A spectroscopic study. *Journal of Photochemistry and Photobiology* A: *Chemistry*, 416,113337. https://doi.org/10.1016/j.jphotochem.2021.113337
- 120.Kushwaha, S., & Nagarajan, R. (2020). Black TiO₂-graphitic carbon nanocomposite from a single source precursor and its interaction with colored and colorless contaminants under visible radiation. *Materials Research Bulletin*, *132*, 110983. https://doi.org/10.1016/j.materresbull.2020.110983
- 121.Kushwaha, S., & Nagarajan, R. (2021). Spin glass behavior and oxidative catalytic property of Zn₂MnO₄ from a metathesis driven metastable precursor. *Journal of Physics and Chemistry of Solids*, 157, 110206. https://doi.org/10.1016/j.jpcs.2021.110206
- 122. Kushwaha, S., & Nagarajan, R. (2021). Visible light photocatalysis promoted by homogenously doped (non-metals) anatase from a chelated titanium precursor. *Materials Science in Semiconductor Processing*, 134, 106039. https://doi.org/10.1016/j.mssp.2021.106039
- 123.Lalji, R. S. K., Kumar, P., Gupta, M., Parmar, V. S., & Singh, B. K. (2020). Palladium-catalyzed decarboxylative synthesis of 5*H*-benzo[4,5][1,3]oxazine[2,3-*a*]isoindole-5,11(6a*H*)-diones using 2-

- phenyl-4*H*-benzo[d][1,3]oxazin-4-ones and α -oxo carboxylic acids. *Advanced Synthesis & Catalysis*, 362(03), 552-560. https://doi.org/10.1002/adsc.201901142
- 124.Lamichhane, N., Sharma, S., Parul, Verma, A. K., Roy, I., & Sen, T. (2021). Iron oxide-based magneto-optical nanocomposites for in vivo biomedical applications. *Biomedicines*, *9*(03), 288. https://doi.org/10.3390/biomedicines9030288
- 125.Lathwal, A., Mathew, B. P., & Nath, M. (2021). Syntheses, biological and material significance of dihydro[1,3]oxazine derivatives: An overview. *Current Organic Chemistry*, 25(01), 133-174. https://doi.org/10.2174/1385272824999201008154659
- 126.Maikhuri, V. K., Khatri, V., Kumar, A., Singh, B., & Prasad, A. K. (2020). Synthesis of sugar diene and its Pd-catalyzed transformation into chromanes. *The Journal of Organic Chemistry*, 85(11), 7068–7076. https://doi.org/10.1021/acs.joc.0c00432
- 127.Mittal, A., Singh, A. K., Kumar, A., Parmanand, Achazi, K., Haag, R., & Sharma, S. K. (2020). Fabrication of oligo-glycerol based hydrolase responsive amphiphilic nanocarriers. *Polymers for Advanced Technologies*, *31*(06), 1208-1217. https://doi.org/10.1002/pat.4851
- 128.Manchanda, P., Achazi, K., Verma, D., Böttcher, C., Haag, R. & Sharma, S. K. (2020). Chemoenzymatic synthesis of *D*-glucitol-based non-ionic amphiphilic architectures as nanocarriers. *Polymers*, *12*(06), 1421. https://doi.org/10.3390/polym12061421
- 129.Mandeep, Gulati, A., & Kakkar, R. (2020). DFT study of adsorption of glyphosate pesticide on Pt-Cu decorated pyridine-like nitrogen-doped graphene. *Journal of Nanoparticle Research*, 22(01), 17. https://doi.org/10.1007/s11051-019-4730-z
- 130.Mandeep, Gulati, A., Jogender, & Kakkar, R. (2021). DFT study of carbaryl pesticide adsorption on vacancy and nitrogen-doped graphene decorated with platinum clusters. *Structural Chemistry*, 32(04), 1541-1551. https://doi.org/10.1007/s11224-020-01693-8
- 131.Mandujano, H. C, Gonzalez, S. L., Episcopo, N., Uma, S., Poudel, N., Gofryk, K., Garay, Y. E., Lopez, J. A, Zhang, Q., Calder, S., & Nair, H. S. (2021). Absence of long-range magnetic order in lithium-containing honeycombs in the Li-Cr-Sb(Te)-O phases. *Journal of Physics: Condensed Matter*, 33(29), 295802. https://doi.org/10.1088/1361-648X/abff90
- 132.Matta, A., Sharma, A. K., Tomar, S., Cao, P., Kumar, S., Balwani, S., Ghosh, B., Prasad, A K., der Eycken, E. V. V., DePass, A. L., Wengel, J., Parmar, V. S., Len, C., & Singh, B. K. (2020). Synthesis and anti-inflammatory activity evaluation of novel chroman derivatives. *New Journal of Chemistry*, 44, 13716-13727. https://doi.org/10.1039/D0NJ02125C
- 133.Mishra, G. K., & Kant, R. (2020). Modular theory for DC-biased electrochemical impedance response of supercapacitor. *Journal of Power Sources*, 473, 228467. https://doi.org/10.1016/j.jpowsour.2020.228467
- 134.Mishra, M., Sinha, N. K., & Thirupathi, N. (2021). Reactions of cycloplatinated guanidine complexes with Hg(OC(O)CF₃)₂: Formation of a one-dimensional coordination polymer containing a Pt₂Hg(μ₂-S(O)Me₂-S,O) repeating unit versus a discrete Pt₂Hg₂ complex. *Inorganic Chemistry*, 60(06), 3879-3892. https://doi.org/10.1021/acs.inorgchem.0c03674
- 135.Mishra, P. K., Chatterjee, S., & Verma, A. K. (2020). 2-Alkynylarylnitrile: An emerging precursor for the generation of carbo- and heterocycles. *ACS Omega*, 5(50), 32133-32139. https://doi.org/10.1021/acsomega.0c04242
- 136.Mishra, P. K., Kumar, A., & Verma, A.K. (2020). BF₃-etherate-catalyzed tandem reaction of 2-formylarylketones with electron-rich arenes/heteroarenes: An assembly of isobenzofurans. *Chemical Communications*, 56, 6122-6125. https://doi.org/10.1039/D0CC02760J

- 137.Mishra, S., Bhandari, A., Singh, D., Gupta, R., Olmstead, M. M., & Patra, A. K. (2021). Bis(μ-thiolato)-dicopper containing fully spin delocalized mixed valence copper–sulfur clusters and their electronic structural properties with relevance to the Cu_A site. *Inorganic Chemistry*, 60(08), 5779-5790. https://doi.org/10.1021/acs.inorgchem.1c00075
- 138.Mittal, A., Devi, S. P., & Kakkar, R. (2020). A DFT study of the conformational and electronic properties of echinatin, a retrochalcone, and its anion in the gas phase and aqueous solution. *Structural Chemistry*, *31*(06), 2513-2524. https://doi.org/10.1007/s11224-020-01598-6
- 139.Mittal, A., Gopishankar, N., Koleda, J., Verma, A. K., & Kumara, P. (2020). Development and characterization of urethane substituted diacetylene based radiochromic films for medical radiation dosimetry. *Radiation Physics and Chemistry*, 177, 109119. https://doi.org/10.1016/j.radphyschem.2020.109119
- 140.Mittal, A., Kumar, M., Gopishankar, N., Kumar P., & Verma, A. K. (2021). Quantification of narrow-band UVB radiation doses in phototherapy using diacetylene based film dosimeters. *Scientific Reports*, *11*, 684. https://doi.org/10.1038/s41598-020-80115-5
- 141.Mittal, R., Kumar, A., & Awasthi, S. K. (2021). Practical scale up synthesis of carboxylic acids and their bioisosteres 5-substituted-1*H*-tetrazoles catalyzed by graphene oxide-based solid acid carbocatalyst. *RSC Advances*, *11*(19), 1116611176. https://doi.org/10.1039/D1RA01053K
- 142.Munjal, M., Tiwari, B., Lalwani, S., Sharma, M., Singh, G., & Sharma, R. K. (2020). An insight of bioelectricity production in mediator less microbial fuel cell using mesoporous cobalt ferrite anode. *International Journal of Hydrogen Energy*, 45(22), 12525-12534. https://doi.org/10.1016/j.ijhydene.2020.02.184
- 143.Munjal, M., Yadav, D. K., Sharma, R. K., & Singh, G. (2021). Development of suitable cathode catalyst for biofuel cells. In: Inamuddin, M. I. Ahamed, R. Boddula & M. Rezakazemi (Eds.), *Biofuel cells: Materials and challenges* (pp. 317). https://doi.org/10.1002/9781119725008.ch12
- 144. Nagarajan, R., Ahmad, S., Kumar, M., Gupta, M., & Prakash, G. V. (2020). Energy upconversion in rare-earth-doped tin-based double halo perovskites, A₂SnCl₆ (A = K, Rb, and Cs). *European Journal of Inorganic Chemistry*, 2020(45), 295-4302. https://doi.org/10.1002/ejic.202000748
- 145.Nagarajan, R., & Kumari, P. (2021). Antimony substitution leading to structural transformation (Bixbyite → Fluorite) and altering the optical band gap in Y₂O₃. *Journal of Alloys and Compounds*, 863, 158733. https://doi.org/10.1016/j.jallcom.2021.158733
- 146.Nagarajan, R., & Pandey, J. (2020). The emergence of bifunctional catalytic proper-ty by the introduction of Bi³⁺ in defect fluorite structured PrO_{1.833}. *Dalton Transactions*, 49, 12707-12715. https://doi.org/10.1039/D0DT02121K
- 147.Nagpal, M., & Kakkar, R. (2020a). Adsorptive degradation of phosmet using hierarchically porous calcium oxide: an experimental and theoretical study. *ChemistrySelect*, 5(03), 1235-1246. https://doi.org/10.1002/slct.201904740
- 148.Nagpal, M., & Kakkar, R. (2020). Facile synthesis of mesoporous magnesium oxide—graphene oxide composite for efficient and highly selective adsorption of hazardous anionic dyes. *Research on Chemical Intermediates*, 46(05), 2497-2521. https://doi.org/10.1007/s11164-020-04103-0
- 149.Nagpal, M., & Kakkar, R. (2020). Selective adsorption and separation of toxic cationic dyes using hierarchically porous SDBS modified vaterite microspheres (Hr-SMV). *Journal of Physics and Chemistry of Solids*, *146*, 109598. https://doi.org/10.1016/j.jpcs.2020.109598

- 150.Neha, Katyal, D., & Kant, R. (2020). Dynamics of dendrimer and star polymers in layered random flow: influence of excluded volume interactions. *Pramana Journal of Physics*, 94, 149. https://doi.org/10.1007/s12043-020-02020-w
- 151.Neha, & Kant, R. (2021). Static structure factor and viscoelastic properties of dendrimer grafted nanoparticles in solution. *The Journal of Physical Chemistry* B, 125, 1951-1959. https://doi.org/10.1021/acs.jpcb.0c10458
- 152.Nirwan, S., Chahal, V., & Kakkar, R. (2020). Structure-based virtual screening, free energy of binding and molecular dynamics simulations to propose novel inhibitors of Mtb-MurB oxidoreductase enzyme. *Journal of Biomolecular Structure and Dynamics*, 39(02), 656-671. https://doi.org/10.1080/07391102.2020.1712258
- 153.Nisa, K., Khaatri, V., Kumar, S., Arora, S., Ahmad, S., Dandia, A., Thirumal, M., Kashyap, H. K., & Chauhan, S. M. S. (2020). Synthesis and redox properties of superbenzene porphyrin conjugates. *Inorganic Chemistry*, 59(22), 16168-16177. https://doi.org/10.1021/acs.inorgchem.0c01682
- 154.Oshi, R., Singh, P., Sharma, N. K., Ponnan, P., Saluja, D., Gambhir, J. K., Rawat, D. S., Parmar, V. S., Dwarakanath, B. S., Prasad, A. K., & Raj, H. G. (2021). Site-directed mutagenesis in the P-domain of calreticulin transacylase identifies Lys-207 as the active site residue. *3 Biotech*, *11*, 113. https://doi.org/10.1007/s13205-021-02659-1
- 155. Pachisia, S., Kishan, R., Singhal, D., & Gupta, R. (2021). Half-sandwich ruthenium complexes of amide-phosphine based ligands: H-bonding cavity assisted binding and reduction of nitrosubstrates, *Inorganic Chemistry*, 60(03), 2009-2022. https://doi.org/10.1021/acs.inorgchem.0c03505
- 156.Pachisia, S., & Gupta, R. (2020). Architectural and catalytic aspect of designer materials build using metalloligands of pyridine-2,6-dicarboxamide based ligands. *Dalton Transactions*, 49(42), 14731-14748. https://doi.org/10.1039/D0DT03058A
- 157.Pandey, I. K., Agarwal, T., Mobin, S. M., Stein, M., & Kaur-Ghumaan, S. (2021). Switching siteractivity in hydrogenase model systems by introducing a pendant amine ligand. *ACS Omega*, *6*(06), 4192-4203. https://doi.org/10.1021/acsomega.0c04901
- 158.Parshad, B., Prasad, S., Bhatia, S., Mittal, A, Pan, Y., Mishra, P., Sharma, S. K., & Fruk, L. (2020). Non-ionic small amphiphile based nanostructures for biomedical applications. *RSC Advances*, 10(69), 42098-42115. https://doi.org/10.1039/D0RA08092F
- 159.Parmanand, Mittal, A., Singh, A. K., Aarti, Achazi, K., Nie, C., Haag, R., & Sharma, S. K. (2020). Oligo-glycerol based non-ionic amphiphilic nanocarriers for lipase mediated controlled drug release. *RSC Advances*, *10*(61), 37555-37563. https://doi.org/10.1039/D0RA07392J
- 160. Pavani, P., Kumar, K., Rani, A., Venkatesu, P., & Lee. M. J. (2021). Insight into interactions between enzyme and biological buffers: Enhanced thermal stability of stem bromelain. *Journal Molecular Liquids*, 322, 114526. https://doi.org/10.1016/j.molliq.2020.114526
- 161.Prabha, D., Pachisia, S., & Gupta, R. (2021). Cobalt mediated *N*-alkylation of amines by alcohols: role of hydrogen bonding pocket. *Inorganic Chemistry Frontiers*, 8(06), 1599-1609. https://doi.org/10.1039/D0QI01374A
- 162. Purohit, G., Kharkwal, A., Rawat, D. S. (2020). CuIn-ethylxanthate a "versatile precursor" for photosensitization of graphene-quantum dots and nanocatalyzed synthesis of imidazopyridines with ideal green chemistry metrics. *ACS Sustainable Chemistry & Engineering*, 8(14), 5544-5557. https://doi.org/10.1021/acssuschemeng.9b07371

- **163.**Purohit, G., Rawat, D. S., & Reiser, O. (2020). Palladium nanocatalysts encapsultated on porous silica@magnetic carbon-coated cobalt nanoparticles for sustainable hydrogenations of nitroarenes, alkenes and alkynes, *ChemCatChem*, *12*(02), 569-575. https://doi.org/10.1002/cctc.201901371
- 164.Rajput, R., Sharma, P., Mishra, J., Bhardwaj, A., Sharma, R. K., Singh, K., Bansal, A., & Misra, K. (2020). Bioactive fractions from the chinese caterpillar mushroom, *Ophiocordyceps sinensis* (ascomycetes), elucidate adaptogenic role against hypoxia stress. *International Journal of Medicinal Mushrooms*, 22(11), 1121-1133. Retrieved from 10.1615/IntJMedMushrooms.2020036713
- 165.Rani, S., Bagchi, D., Pal, U., Kumari, M., Sharma, M., Bera, A., Shabir, J., Pal, S. K., Dasgupta, T. S., & Mozumdar, S. (2020). The role of imidazolium-based surface-active ionic liquid to restrain the excited-state intramolecular H-atom transfer dynamics of medicinal pigment curcumin: A theoretical and experimental Approach. *ACS Omega*, 5(40), 25582-25592. https://doi.org/10.1021/acsomega.0c02438
- 166.Rao, R. P., Sharma. S., Mehrotra, T., Das, R., Kumar, R., Singh, R., Roy, I., & Basu, T. (2020). Rapid electrochemical monitoring of bacterial respiration for gram-positive and gram-negative microbes: Potential application in antimicrobial susceptibility testing. *Analytical Chemistry*, 92(06), 4266-4274. https://doi.org/10.1021/acs.analchem.9b04810
- 167.Rashmi, Singh, A. K., Achazi, K., Ehrmann, S., Böttcher, C., Haag, R., & Sharma, S. K. (2020). Stimuli-responsive non-ionic gemini amphiphiles for drug delivery applications. *Polymer Chemistry*, 11(42), 6772-6782. https://doi.org/10.1039/D0PY01040E
- 168.Rashmi, Zabihi, F., Singh, A. K., Achazi, K., Schade, B., Hedtrich, S., Haag, R., & Sharma, S. K. (2020). Non-ionic PEG-oligoglycerol dendron conjugated nano-carriers for transdermal delivery. *International Journal of Pharmaceutics*, 580, 119212. https://doi.org/10.1016/j.ijpharm.2020.119212
- 169.Rawat, S., Rawat D. S., & Negi, B. (2021). Synthesis, *in silico* pharmacokinetic analysis and anticancer activity evaluation of benzothiazole-triazole hybrids. *Indian Journal of Chem*istry, *Section* B, 60(03), 409-417. Retrieved from http://op.niscair.res.in/index.php/IJCB/article/view/38659/465479020
- 170.Rawat, M., & Rawat, D. S. (2020). CuO@NiO nanocomposite catalyzed synthesis of biologically active indenoisoquinoline derivatives. *ACS Sustainable Chemistry Engineering* 8(36), 13701-13712. https://doi.org/10.1021/acssuschemeng.0c03898
- 171.Rungta, P., Kumar, M., Mangla, P., Kumar, S., & Prasad, A. K. (2020). Chemo-enzymatic access to *C*-4′-hydroxyl-tetrahydrofurano-spironucleosides. *New Journal of Chemistry*, *45*(03), 1609-1616. https://doi.org/10.1039/D0NJ03253K
- 172. Sachdeva, C., Wadhwa, A., Kumari, A., Hussain, F., Jha, P., & Kaushik, N. K. (2020). In silico potential of approved antimalarial drugs for repurposing against COVID-19. *OMICS: A Journal of Integrative Biology*, 24(10), 568-580. https://doi.org/10.1089/omi.2020.0071
- 173. Sachdeva, T., Gupta, S., & Milton, M. D. (2020). Smart organic materials with acidochromic properties. *Current Organic Chemistry*, 24(17), 1976-1998. https://doi.org/10.2174/1385272824999200729132853
- 174. Sachdeva, T., & Milton, M. D. (2020). AIEE active novel red-emitting D-π-A phenothiazine chalcones displaying Stokes shift, solvatochromism and "turn-on" reversible large mechanofluorochromism. 108539. Dyes and Pigments, 181, https://doi.org/10.1016/j.dyepig.2020.108539
- 175. Sachdeva, T., & Milton, M. D. (2020). Fluorescent dyes for moisture detection in organic solvents: Push-pull based phenothiazine aldehydes with large Stokes shifts. *Journal of Photochemistry and Photobiology* A: *Chemistry*, 402, 112804. https://doi.org/10.1016/j.jphotochem.2020.112804

- 176.Sachdeva, T., & Milton, M. D. (2021). Novel push-pull based phenothiazine-benzothiazole derivatives integrated with molecular logic gate operation for reversible volatile acid detection. *Journal of Molecular Structure*, 1243, 130768. https://doi.org/10.1016/j.molstruc.2021.130768
- 177.Sah, D., Shabir, J., Surabhi, Gupta, P., & Mozumdar, S. (2021). Palladium oxide-decorated mesoporous silica on graphene oxide nanosheets as a heterogeneous catalyst for the synthesis of β-substituted indole derivatives. *Dalton Transactions*, 50(16), 5644-5658. https://doi.org/10.1039/D1DT00408E
- 178.Sahoo, M. K., Gusain, M., Thangriyal, S., Nagarajan, R., & Rao, G. R. (2020). Energy storage study of trimetallic Cu₂MSnS₄ (M: Fe, Co, Ni) nanomaterials prepared by sequential crystallization method. *Journal of Solid State Chemistry*, 282, 121049. https://doi.org/10.1016/j.jssc.2019.121049
- 179.Saini, K. M., Saunthwal, R. K., Sushmita, & Verma, A. K. (2020). Synthesis of cyclopentaquinolinone and cyclopentapyridinone from *ortho*-alkynyl-N-arylaldehyde *via* superbase-promoted C-N, C-O, and C-C bond formation. *Organic & Biomolecular Chemistry*, *18*(29), 5594-5601. https://doi.org/10.1039/D0OB01281E
- 180.Sethi, A., Pandey, J., Uma, S., & Nagarajan, R. (2020). Luminescence properties of Eu³⁺-and Tb³⁺-doped δ-Bi₂O₃ stabilized by Th⁴⁺ substitution. *Journal of the American Ceramic Society*, 103(02), 1027-1036. https://doi.org/10.1111/jace.16768
- 181.Sethi, A., Uma, S., & Nagarajan, R. (2021). Oxygen ion conductivity studies of bismuth and bismuth-calcium co-doped ThO₂. *Ceramics International*, 47(15), 21498-21508. https://doi.org/10.1016/j.ceramint.2021.04.161
- 182. Shabir, J., Garkoti, C., Gupta, P., Sharma, M., Rani, S., Kumari, M., & Mozumdar, S. (2021). Ru_x Pd_y alloy nanoparticles uniformly anchored on reduced graphene oxide nanosheets (Ru_xPd_y@ rGO): A recyclable catalyst. *ACS Omega*, 6(02), 1415-1425. https://doi.org/10.1021/acsomega.0c05071
- 183. Shabir, J., Gupta, P., Sah, D., & Mozumdar, S. (2020). Magnetic core–shell dendritic mesoporous silica nanospheres anchored with diamine as an efficient and recyclable base catalyst. *New Journal of Chemistry*, 44(48), 21152-21166. https://doi.org/10.1039/D0NJ04822D
- 184.Shabir, J., Rani, S., Sharma, M., Garkoti, C., & Mozumdar, S. (2020). Synthesis of dendritic fibrous nanosilica over a cubic core (cSiO₂@DFNS) with catalytically efficient silver nanoparticles for reduction of nitroarenes and degradation of organic dyes. *RSC Advances*, 10(14), 8140-8151. https://doi.org/10.1039/D0RA00402B
- 185.Shah, C., Yadav, P., Althagafi, I., Nemaysh, V., Shaw, R., Elagamy, A., & Pratap, R. (2021). Base mediated synthesis of functionalized 2-(alkynyl) arylnitriles and their molecular docking study with aromatase receptor. *Organic & Biomolecular Chemistry*, 19(15), 3462-3468. https://doi.org/10.1039/D1OB00165E
- 186.Shally, Kumar, V., Althagafi, I., Kumar, A., Singhal, D., Kumar, A., Gupta, R., & Pratap, R. (2020) Design and synthesis of new functionalized 8-(thiophen-2-yl)-1,2,3,4-tetrahydroquinolines as turn-off chemosensors for selective recognition of Pd²⁺ ions. *New Journal of Chemistry*, 44(36), 15559-15566. https://doi.org/10.1039/D0NJ02272A
- 187.Sharma, A., Dixit, R., Sharma, S., Dutta, S., Yadav, S., Arora, B., Gawande, M. B., & Sharma, R. K. (2021). Efficient and sustainable Co₃O₄ nanocages based nickel catalyst: a suitable platform for the synthesis of quinoxaline derivatives. *Molecular Catalysis*, 504, 111454. https://doi.org/10.1016/j.mcat.2021.111454
- 188. Sharma, A., Kumar, A., Li, C., Hazari, P. P., Mahajan, S. D., Aalinkeel, R., Sharma, R. K., & Swihart, M. T. (2021). A cannabidiol-loaded Mg-gallate metal-organic framework-based potential

- therapeutic for glioblastomas. *Journal of Materials Chemistry* B, 9(10), 2505-2514. https://doi.org/10.1039/D0TB02780D
- 189.Sharma, A., Kumar, A., Li, C., Sharma, R. K., & Swihart, M. T. (2020). Microencapsulated UV filter@ ZIF-8 based sunscreens for broad spectrum UV protection. *RSC Advances*, *10*(56), 34254-34260. https://doi.org/10.1039/D0RA05828A
- 190.Sharma, B., Singh, P., Singh, A. K., & Awasthi, S. K. (2021). advancement of chimeric hybrid drugs to cure malaria infection: An overview with special emphasis on endoperoxide pharmacophores. *European Journal of Medicinal Chemistry*, 219, 113408. https://doi.org/10.1016/j.ejmech.2021.113408
- 191. Sharma, M., Pal, U., Kumari, M., Bagchi, D., Rani, S., Mukherjee, D., Bera, A., Pal, S. K., Dasgupta, T. S., & Mozumdar, S. (2021). Effect of solvent on the photophysical properties of isoxazole derivative of curcumin: A combined spectroscopic and theoretical study. *Journal of Photochemistry and Photobiology* A: *Chemistry*, 410, 113164. https://doi.org/10.1016/j.jphotochem.2021.113164
- 192. Sharma, M., Rani, S., & Mozumdar, S. (2021, In Press). Perturbations in the photophysical properties of isoxazole derivative of curcumin up on interaction with different anionic, cationic and non-ionic surfactants. *Journal of Molecular Liquids*, (), 116981. https://doi.org/10.1016/j.molliq.2021.116981
- 193. Sharma, R. K., Yadav, S., Dutta, S., Kale, H. B., Warkad, I. R., Zbořil, R., Varma, R. S., & Gawande, M. B. (2021). Silver nanomaterials: synthesis and (electro/photo) catalytic applications. *Chemical Society Reviews*, Advance article. https://doi.org/10.1039/DOCS00912A
- 194.Sharma, R. K., Solanki, K., Dixit, R., Sharma, S., & Dutta, S. (2021). Nanoengineered iron oxide-based sorbents for separation of various water pollutants: current status, opportunities and future outlook. *Environmental Science: Water Research & Technology*, 7(05), 818-860. https://doi.org/10.1039/D1EW00108F
- 195.Sharma, S., & Biswas, P. (2020). Conformational transitions of a DNA hairpin through transition path times. *Journal of Statistical Mechanics: Theory and Experiment*, 2020(07), 073411. https://doi.org/10.1088/1742-5468/aba0a7
- 196.Sharma, S., Chakraborty, N., Jha, D., Gautam, H. K., & Roy, I. (2020). Robust dual modality antibacterial action using silver-Prussian blue nanoscale coordination polymer. *Materials Science and Engineering: C*, 113, 110982. https://doi.org/10.1016/j.msec.2020.110982
- 197. Sharma, V. K., Olety, B., & Prasad, A. K. (2020). Chapter sixteen-N-acetylgalactosamine (GalNAc)-conjugates: Delivering oligonucleotide drugs to the liver. In: V. K. Tiwari (Ed.), *Carbohydrates in drug discovery and development* (pp. 641-667). Elsevier. https://doi.org/10.1016/B978-0-12-816675-8.00016-6
- 198.Shaw, R., Elagamy, A., Althagafi, I., & Pratap, R. (2020). Synthesis of alkynes from non-alkyne sources. *Organic & Biomolecular Chemistry*, 18(20), 3797-3817. https://doi.org/10.1039/D0OB00325E
- 199.Shrivastava, V., & Nagarajan, R. (2020). Consequences of Bi³⁺ introduction for Pr³⁺ in PrAlO₃. *Journal of Materials Science*, *55*(32), 15415-15425. https://doi.org/10.1007/s10853-020-05106-3
- 200. Shrivastava, V., & Nagarajan, R. (2020). Modulating the optical and magnetic properties of geometrically frustrated ZnV_2O_4 by the introduction of indium (nonmagnetic ions), iron, and chromium (magnetic ions). *Dalton Transactions*, 49(44), 15810-15820. https://doi.org/10.1039/D0DT02554B

- 201.Shrivastava, V., & Nagarajan, R. (2021). Iron substitution in PrAlO₃ perovskite leading to structural transformation and multiferroicity. *Ceramic International*, 47(16), 22957-22964. https://doi.org/10.1016/j.ceramint.2021.05.009
- 202.Shrivastava, V., & Nagarajan, R. (2020). Facile synthesis of α-Zn₂V₂O₇ and its catalytic role for the photo mediated conversion of benzyl alcohol. *Materials Letters*, 280, 128559. https://doi.org/10.1016/j.matlet.2020.128559
- 203. Sindhu, A., Bisht, M., Bahadur, I., & Venkatesu, P. (2021). Assessing the Compatibility of Mono-, Di-, and Tri-Cholinium Citrate Ionic Liquids for the Stability and Activity of α-Chymotrypsin. *ACS Sustainable Chemistry* & *Engineering*, 9(13), 4812-4822. https://doi.org/10.1021/acssuschemeng.1c00044
- 204. Singal, S., Joshi, A., Singh, G., & Sharma, R. K. (2020). Dual approach of antimonene hybridization and hierarchical structuration to expose more active sites for improved charge storage characteristics of VS4. *Journal of Power Sources*, 475, 228669. https://doi.org/10.1016/j.jpowsour.2020.228669
- 205.Singal, S., Joshi, A., Tomar, A. K., Sahu, V., Singh, G., & Sharma, R. K. (2020). Vacancies and edges: Enhancing supercapacitive performance metrics of electrode materials. *Journal of Energy Storage*, *31*, 101614. https://doi.org/10.1016/j.est.2020.101614
- 206. Singh, A., Maikhuri, V. K., Verma, V., Chhatwal, R. J., Sharma, D., & Prasad, A. K. (2020). Synthesis and carboxylate anion binding studies on cyclic sugar-amino acid hybrids. *Synthetic Communications*, 50(18), 2787-2795. https://doi.org/10.1080/00397911.2020.1785502
- 207. Singh, A., Malhotra, S., Bimal, D., Bouchet, L. M., Wedepohl, S., Calderón, M., & Prasad, A. K. (2021). Synthesis, self-assembly, and biological activities of pyrimidine-based cationic amphiphiles. *ACS omega*, 6(01), 103-112. https://doi.org/10.1021/acsomega.0c03623
- 208. Singh, D., Aggarwal, S., Singh, V. K., Pratap, R., Mishra, A. K., & Tiwari, A. K. (2021). Lanthanide (Ln³+) complexes of bifunctional chelate: Synthesis, physicochemical study and interaction with human serum albumin (HSA). *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 244, 118808. https://doi.org/10.1016/j.saa.2020.118808
- 209.Singh, J., Lathwal, A., Agarwal, S., & Nath, M. (2020). Microwave-accelerated approaches to diverse xanthenes: A review. *Current Microwave Chemistry*, 7(02), 99-111. https://doi.org/10.2174/2213335607999200417173336
- 210.Singh, J., Lee, S., Kim, S., Singh, S. P., Kim, J., & Rai, A. K. (2021). Fabrication of 1D mesoporous NiO nano-rods as high capacity and long-life anode material for lithium ion batteries. *Journal of Alloys and Compounds*, 850, 156755. https://doi.org/10.1016/j.jallcom.2020.156755
- 211.Singh, J., Lee, S., Kim, S., Singh, S. P., Kim, J., & Rai, A. K. (2021). Improved lithium storage in Fe_2O_3 nano-particles over nano-rods morphology. *Solid State Ionics*, *362*, 115586. https://doi.org/10.1016/j.ssi.2021.115586
- 212.Singh, P., & Nath, M. (2020). A modified Vilsmeier–Haack strategy to construct β-pyridine-fused 5,10,15,20-tetraarylporphyrins. *SynOpen*, *4*(02), 44-50. https://doi.org/10.1055/s-0040-1707519
- 213.Singh, S., Singh, S., Sharma, R. K., Kaul, A., Mathur, R., Tomar, S., Varshneya, R., & Mishra, A. K. (2020). Synthesis and preliminary evaluation of a ^{99m}Tc labelled deoxyglucose complex {[^{99m}Tc] DTPA-bis (DG)} as a potential SPECT based probe for tumor imaging. *New Journal of Chemistry*, 44(07), 3062-3071. https://doi.org/10.1039/C9NJ04705K
- 214. Singhal, D., Althagafi, I., Kumar, A., Yadav, S., Prasad, A. K., & Pratap, R. (2020). Thieno [3, 2-c] pyran: An ESIPT based fluorescence "turn-on" molecular chemosensor with AIE properties for the

- selective recognition of Zn²⁺ ion. *New Journal of Chemistry*, 44(28), 12019-12026. https://doi.org/10.1039/D0NJ02236E
- 215.Sonam, Chahal, V., & Kakkar, R. (2020). Theoretical study of the structural features and antioxidant potential of 4-thiazolidinones. *Structural Chemistry*, 31(04), 1599-1608. https://doi.org/10.1007/s11224-020-01517-9
- 216.Srivastav, S., Kumar, M., & Kant, R. (2021). Theory for influence of uncompensated solution resistance on EIS of diffusion limited adsorption at rough electrode. *Journal of Chemical Sciences*, 133, 50. https://doi.org/10.1007/s12039-021-01901-w
- 217.Subodh, Prakash, K., & Masram, D. T. (2020). Chromogenic covalent organic polymer-based microspheres as solid-state gas sensor. *Journal of Materials Chemistry* C, 8(27), 9201-9204. https://doi.org/10.1039/D0TC02129F
- 218.Subodh, Prakash, K., & Masram, D. T. (2021). Silver nanoparticles immobilized covalent organic microspheres for hydrogenation of nitroaromatics with intriguing catalytic activity. *ACS Applied Polymer Materials*, *3*(01), 310-318. https://doi.org/10.1021/acsapm.0c01111
- 219. Sushmita, Aggarwal, T., Kumar, S., & Verma, A. K. (2020). Exploring the behavior of the NFSI reagent as a nitrogen source. *Organic & Biomolecular Chemistry*, 18(36), 7056-7073. https://doi.org/10.1039/D0OB01429J
- 220. Sushmita, Aggarwal, T., Saini, K. M., & Verma, A. K. (2020). Olefin-oriented selective synthesis of linear and branched N-alkylated heterocycles by hydroamination. *European Journal of Organic Chemistry*, 2020(22), 3312-3316. https://doi.org/10.1002/ejoc.202000373
- 221.Tekuri, C. S., Singh, P., & Nath, M. (2020). Construction of coumarin-fused pyrido [2,3-b] porphyrins through a trichloroacetic acid-accelerated domino approach. *Organic & Biomolecular Chemistry*, 18(13), 2516-2523. https://doi.org/10.1039/D0OB00171F
- 222. Thakur, V., & Thirupathi, N. (2020). Syntheses and structural aspects of dinuclear cycloplatinated N,N',N"-triarylguanidinate (2–) complexes with a novel tridentate μ_2 - κ^2 (C, N): κ^1 N coordination mode. *Journal of Organometallic Chemistry*, 911, 121138. https://doi.org/10.1016/j.jorganchem.2020.121138
- 223. Thomas, A. M., Nag, S., Yadav, D. K., Uniyal, S., Uma, S., & Subramanian, Y. (2020). A new empirical potential for zeolite with variable Si/Al ratio: Simulations vs. experiments. *Microporous and Mesoporous Materials*, 300, 110119. https://doi.org/10.1016/j.micromeso.2020.110119
- 224. Tiwari, B., Joshi, A., Mohan, P., Sharma, R. K., & Singh, G. (2020). Oxygen-rich non-graphitic carbon derived from citrus sinensis for high-energy density pseudocapacitive charge storage. *ChemistrySelect*, *5*(47), 14993-15003. https://doi.org/10.1002/slct.202004098
- 225. Tiwari, B., Joshi, A., Munjal, M., Sharma, R. K., & Singh, G. (2020). A heterojunction of VO(OH)₂ nanorods onto hemp stem derived carbon for high voltage (1.5 V) symmetric supercapacitors. *Sustainable Energy & Fuels*, 4(10), 5102-5113. http://doi.org/10.1039/d0se01038c
- 226.Tomar, A. K., Joshi, A., Atri, S., Singh, G., & Sharma, R. K. (2020). Zero-dimensional ordered Sr₂CoMoO_{6-δ} double perovskite as high-rate anion intercalation pseudocapacitance. *ACS Applied Materials & Interfaces*, *12*(13), 15128-15137. https://doi.org/10.1021/acsami.9b22766
- 227. Tomar, A. K., Joshi, A., Singh, G., & Sharma, R. K. (2020). Triple perovskite oxide as an advanced pseudocapacitive material: Multifarious element approach with an ordered structure. *Journal of Materials Chemistry* A, 8(45), 24013-24023. https://doi.org/10.1039/D0TA08995H

- 228. Tomar, A. K., Joshi, A., Singh, G., & Sharma, R. K. (2020). Perovskite oxides as supercapacitive electrode: Properties, design and recent advances. *Coordination Chemistry Reviews*, 431, 213680. https://doi.org/10.1016/j.ccr.2020.213680
- 229.Tomar, N., Nagarajan, R., & Shivakumara, C. (2020). Soft chemical deintercalation of silver from delafossites AgFeO₂, and AgCrO₂. *Solid State Sciences*, 108, 106385. https://doi.org/10.1016/j.solidstatesciences.2020.106385
- 230.Ujjval, R., Deepa, M., Thomas, J. M., Sivasankar, C., & Thirupathi, N. (2020). Unusual $[Pt\{\kappa^2(C,N)\}]^+ \to [Pt\{\kappa^2(N,N)\}]^+$ coordination mode flip of the guanidinate(1-) ligand in cationic N,N',N''-tris(3,5-xylyl)guanidinatoplatinum(II) bis(phosphine) complexes. syntheses, structural and theoretical studies. *Organometallics*, 39(20), 3663-3678. https://doi.org/10.1021/acs.organomet.0c00408
- 231.Uniyal, S., Atri, S., Uma, S., & Nagarajan, R. (2021). Microstructural changes caused by Ba and Pr doping in nanosized Bi₂Ce₂O₇ leading to interesting optical, magnetic, and catalytic property. *CryEngComm*, 23(04), 986-999. https://doi.org/10.1039/D0CE01550D
- 232. Verma, D., & Sharma, S. K. (2021). Recent advances in guar gum-based drug delivery systems and their administrative routes. *International Journal of Biological Macromolecules*, 181, 653-671. https://doi.org/10.1016/j.ijbiomac.2021.03.087
- 233. Verma, S., Kumar, M., & Verma, A. K. (2020). Aza-Henry reaction: synthesis of nitronaphthylamines from 2-(alkynyl) benzonitriles. *Organic Letters*, 22(1), 130-134. https://doi.org/10.1021/acs.orglett.9b04045
- 234. Verma, V., Maikhuri, V. K., Khatri, V., Singh, A., & Prasad, A. K. (2021). Synthesis of hexopyransoyl pyrimidine homonucleosides. *Synthetic Communications*, 51(3), 446-452. https://doi.org/10.1080/00397911.2020.1836224
- 235. Wadi, I., Singh, P., Nath, M., Anvikar, & A. R., Sinha, A. (2020). Malaria transmission-blocking drugs: implications and future perspectives. *Future Medicinal Chemistry*, *12*(11), 1071. https://doi.org/10.4155/fmc-2020-0026
- 236. Yadav, D., Joshi, P. R., Sharma, S. K., & Menon. R. S. (2020). Regioselective Synthesis of Arylsulfonyl Benzophenones via Aerobic Oxidative [3+3] Benzannulation Reactions. *European Journal of Organic Chemistry*, 2020(40), 6370-6374. https://doi.org/10.1002/ejoc.202000931
- 237. Yadav, D., Krishna, Sharma, S. K., & Menon, R. S. (2020). Regioselective synthesis of arylsulfonyl heterocycles from bromoallyl sulfones via intramolecular Heck coupling reaction. *Organic & Biomolecular Chemistry*, 18(36), 7188-7192. https://doi.org/10.1039/D0OB01623C
- 238. Yadav, B., Pancharatana, P. D., Sharma, R. K., Kaur, G., Lata, S., & Singh, G. (2021). To evaluate an ionic liquid for anticorrosive impact on iron–carbon steel: synthesis, computational and experimental mechanism. *Chemical Papers*, 75(2), 789-803. https://doi.org/10.1007/s11696-020-01341-9
- 239. Yadav, D., & Awasthi, S. K. (2020). A Pd confined hierarchically conjugated covalent organic polymer for hydrogenation of nitroaromatics: catalysis, kinetics, thermodynamics and mechanism. *Green Chemistry*, 22(13), 4295-4303. https://doi.org/10.1039/D0GC01469A
- 240. Yadav, D., Dixit, A. K., Raghothama, S., & Awasthi, S. K. (2020). Ni-nanoparticles confined covalent organic polymers directed diaryl-selenides synthesis. *Dalton Transactions*, 49, 12266-12272. https://doi.org/10.1039/D0DT01327G

- 241.Yadav, M., Niveria, K., Sen, T., Roy, I., & Verma, A.K. (2021). Targeting nonapoptotic pathways with functionalized nanoparticles for cancer therapy: current and future perspectives. *Nanomedicine*, *16*(12), 1049-1065. https://doi.org/10.2217/nnm-2020-0443
- 242. Yadav, P., Kakkati, P., Singh, P. & Awasthi, S. K. (2021). Application of sulfonic acid fabricated cobalt ferrite nanoparticles as effective magnetic nanocatalyst for green and facile Synthesis of Benzimidazoles. *Applied Catalysis* A: *General*, 612, 118005. https://doi.org/10.1016/j.apcata.2021.118005
- 243. Yadav, P., Kumar, A., Althagafi, I., Nemaysh, V., Rai, R., & Pratap, R. (2021). Recent development of tetrahydro-quinoline/isoquinoline based compounds as anticancer agents. *Current Topics in Medicinal Chemistry*, Online ahead of print. https://doi.org/10.2174/1568026621666210526164208
- 244. Yadav, P., Pratap, R., & Ram, V. J. (2021). Natural and synthetic spirobutenolides and spirobutyrolactones. *Asian Journal of Organic Chemistry*, 9(10), 1377-1409. https://doi.org/10.1002/ajoc.202000259
- 245. Yadav, P., Sharma, B., Sharma, C., Singh, P., & Awasthi, S. K. (2020). Interactions between the antimalarial drug dispiro-tetraoxanes and human serum albumin: a combined study with spectroscopic methods and molecular modelling computational studies. *ACS Omega*, 5(12), 6472-6480. https://doi.org/10.1021/acsomega.9b04095
- 246. Yadav, P., Gopaliah, K., Shrivastava. V., & Nagarajan, R. (2021). Micro spherical Core-Shell MoO₂-graphitic C₃N₄ heterojunction promoted integration leading to kröhnke pyridines and degradation of xylenol orange. *MaterialsToday Communications*, 26, 102117. https://doi.org/10.1016/j.mtcomm.2021.102117
- 247. Yadav, P., Shrivastava, V., & Nagarajan, R. (2021). Carbon and nitrogen co-doped WO₃ as sonocatalyst. *Solid Sate Sciences*, 115, 106588. https://doi.org/10.1016/j.solidstatesciences.2021.106588
- 248. Yadav, R., Navjot, K. K., Kumar, S., Devunuri, D. N., & Venkatesu, P. (2021). Biophysical study on the phase transition behaviour of biocompatible thermoresponsive polymer influenced by tryptophan-based amino acid ionic liquids. *Polymer*, 228, 123871. https://doi.org/10.1016/j.polymer.2021.123871
- 249. Yadav, S., Dixit, R., Sharma, S., Dutta, S., Solanki, K., & Sharma, R. K. (2021). Magnetic metalorganic framework composites: structurally advanced catalytic materials for organic transformations. *Materials Advances*, 2021(2), 2153-2187. https://doi.org/10.1039/D0MA00982B
- 250. Yadav, S., Natarajan, M., Sathiyendiran, M., & Kaur-Ghumaan S. (2020). Electrochemical aspects of restricted rhenium (I)-based supramolecular complexes with semi-rigid benzimidazolyl and rigid hydroxyquinone ligands. *Journal of Chemical Sciences*, 132(1), 1. https://doi.org/10.1007/s12039-019-1689-3
- 251.Yadav, S., Vijayan, P., Yadav, S., & Gupta, R. (2021). Ruthenium complexes of phosphine-amide based ligands as efficient catalysts for transfer hydrogenation reactions. *Dalton Transactions*, *50*, 3269-3279. https://doi.org/10.1039/D0DT04401F

2. Journals

- 1. Prof. Parbati Biswas: Elected Member, Editorial Advisory Board, ACS Omega.
- Prof. Marilyn D. Milton: Member, Associate Editorial Board, Current Organic Chemistry (2019-2021), Bentham Science Publishers.

3. Prof. Ashok K. Prasad: Member, Editorial Board, Biocatalysis and Biotransformation, Taylor & Francis

4. Research Projects

Sl. No.	Project Title	Name of faculty	Year / Period	Funding Agency	Amount sanctioned (yearly basis)
1	Electrochemical Impedance at Rough and Porous Electrodes: Theory and Experimental Corroboration	Prof. Rama Kant	2017- 2020	SERB-DST, New Delhi	Rs 38,50,440
2	Theoretical Model for Inactivation Kinetics of Infectious Human Corona Virus on Metal Surfaces	Prof. Rama Kant	2020- 2021	SERB-DST special call (Short- term MATRICS project)	Rs.5,50,000
3	Investigation of migration effects on diffusive mass transport using Chronoamperometry: Theory and Experiments	Prof. Rama Kant	2020- 2021	Institute of Eminence (IoE), University of Delhi (Faculty Research Programme grant (FRPG))	Rs. 2,50,000
4	Synthesis of phenothiazine-based push-pull molecules with aggregation induced emission enhancement (AIEE) properties and its applications	Prof. M. D. Milton	2020- 2021	Institute of Eminence (IoE), University of Delhi (Faculty Research Programme grant (FRPG))	Rs. 2,50,000
5	Synthesis of praseodymium substituted polyoxometalates and their application on thioether oxidation	Dr. Firasat Hussain	2020- 2021	Institute of Eminence (IoE), University of Delhi (Faculty Research Programme grant (FRPG))	Rs. 2,50,000
6	Synthesis, Characterization and catalytic applications of organic-inorganic hybrid 3d-4f heterometallic polyoxotungstates	Dr. Firasat Hussain	2018- 2021	SERB-DST, New Delhi	Rs. 32,00,000
7	Bioinspired Systems with Improved Catalyst Stability as Alternative Renewable Energy Resources	Dr. Sandeep Kaur	2020- 2021	Institute of Eminence (IoE), University of Delhi (Faculty Research Programme grant (FRPG))	Rs. 2,50,000
8	Sugar mimicking hybrid azasugars: Design, synthesis and their evaluation as glycosidase inhibitors	Prof. Rakesh Kumar	2019- 2022	CSIR, New Delhi	Rs. 11,00000
9	Synthesis of Dihydropyridines and pyranopyrazole based fluorescent and colorimetric chemosensors for	Prof. Rakesh Kumar	2020- 2021	Institute of Eminence (IoE), University of	Rs. 2,50,000

10	the detection of ions and neutral molecules that are toxic to human health and environment Fabrication, characterization and application of functionalized silica	Prof. R. K. Sharma	2020- 2023	Delhi (Faculty Research Programme grant (FRPG)) DST, New Delhi	Rs 61,55,027
	based magnetic nanocatalyst for the degradation of organic pollutants from waste water				
11	To explore the structural polymorphism exhibited by G-rich sequences of TRPA1 gene	Prof. S. Kukreti	2020- 2021	Institute of Eminence (IoE), University of Delhi (Faculty Research Programme)	Rs. 2,50,000
12	Base-Mediated Anti-Markovnikov Hydroamidation of Vinyl Arenes with Arylamides	Prof. A. K Verma	2020- 2021	Institute of Eminence (IoE), University of Delhi (Faculty Research Programme grant (FRPG))	Rs. 5,00,000
13	Physicochemical performance evolution by tuning the growth variables of holey graphene nanoribbon carbon soot derived aerogel based asymmetric supercapacitor	Prof. Raj Kishore Sharma	2020- 2021	SERB-DST, New Delhi	~ Rs. 31,00,000

5. Seminars/webinar Organized

Total number: 4

- 1. Speaker: Yogacharya Varun Arya, on "Yoga to tackle Corona", 21st May, 2021 (online).
- 2. Speaker: Prof. Raj K Manchanda, on "How and when to integrate Ayush in Covid-19 care", 28th April, 2021 (online).
- 3. Speaker: Dr. Parmeshwar Arora, on "Let's tackle Corona with Ayurveda", 19th April, 2021 (online).
- 4. Speaker: Prof. V. Chandrasekhar, Professor and Director, TIFR, Hyderabad, on "Single molecule magnets", 2nd April, 2021 (online).

6. Conferences Organized

- 1. Dr. Sandeep Kaur, Organizing Committee Member, Science Diplomacy in South Asia, Online Workshop, organized by Science Diplomacy in South Asia Working Group (GYA), Halle, Germany, 21st Nov-13th Dec, 2020. https://sites.google.com/view/scidipsa/home?authuser=0
- 2. CPDHE Refresher course on Chemistry entitled, "Advances in Chemical Science" conducted by the Centre for Professional Development in Higher Education (CPDHE), UGC-HRDC, University of Delhi during 27th Oct -10th Nov, 2020.

7. Seminars/Conference Presentations (National/International)

- 1. Dr. Alok K. Rai: Session Chair in Seventh International Conference on Signal Processing and Integrated Networks, SPIN 2020; 28th Feb 2020, Amity University Noida, U.P.
- Prof. Rama Kant: Online Workshop in Electrochemistry at Kurukshetra University, 25th-26th June 2021, Three lectures: (i) Fundamental Electrochemical Phenomena at Rough and Porous Electrodes (90 minutes), 25th June, 2021, (ii) Electrode Kinetics on Nanostructured Metal (90 minutes), 26th June 2021, (iii) Modular Phenomenological Theory for Electrochemical Impedance Response of Devices (90 minutes), 26th June 2021.
- 3. Prof. Rama Kant: National Faculty Development Program, 28th-30th Dec 2020, Department of Mathematics, Academy of Maritime Education and Training (AMET) on "Mathematical Modelling of Electrochemical Impedance" (Two hrs).
- 4. Prof. Rama Kant: National e-Seminar, 18th-20th Nov 2020, Department of Chemistry, Nagaland University on "Anomalous Electrochemical Phenomena at Rough and Porous Electrodes".
- 5. Prof. Rama Kant: Guest Speaker in webinar in inaugural function, Hindi Paksh Samaaroh, 14th Sep 2020, CSIR Madras Complex, Taramani, Chennai on "Anomalous Electrochemistry of Rough Electrodes.
- 6. Prof. Parbati Biswas: Invited talk on "Measuring the Aggregation Propensity of Amyloid-β and its FAD Mutants" in online conference on Statistical Mechanics in Chemistry and Biology (SMCB), Organized by IISc Bangalore, IISER Tirupati and IIT Goa, 23rd January 2021.
- 7. Prof. Marilyn D. Milton: Talk on "Smart organic materials" in online Refresher Course on Chemistry for University and College teachers organized by CPDHE on 31st Oct 2020.
- 8. Shalu Gupta, Marilyn D. Milton: "Novel AIEE active pyridopyrazine and quinoxaline derivatives for mercury ion sensing and acidochromic applications" Oral Presentation by Ms. Shalu Gupta in the First Virtual JNOST Symposium XVI-J-NOST 31st October-1st Nov, 2020.
- 9. Dr. Sasanka Deka: Resource person, "Designing of electrodes for supercapacitor application, their study using electrochemistry from basic to calculation/data analysis" in Online Short-Term Certificate Course on Electrochemistry from Basics to Applications, Electrochemkuk Module 2, 11th July 2021, Kurukshetra University, Kurukshetra.
- 10. Dr. Sasanka Deka: Resource person, "Electrochemical water splitting- Hydrogen/oxygen generation" Online Short-Term Certificate Course on Electrochemistry from Basics to Applications, electrochemkuk2021, 21st June 25th June, 2021 Kurukshetra University, Kurukshetra.
- 11. Dr. Sasanka Deka: Invited talk on "Usefulness of nanostructured materials in energy conversion and storage," in "Nano Era" Nanotechnology for Global, 7th-11th June, 2021, Amity Institute of Nanotechnology, Amity University, Uttar Pradesh.
- 12. Dr. Sasanka Deka: Invited talk on "Nanomaterials: Synthesis diverseness", in Indo US Webinar and Lecture Series, MHRD SPARC, Jamia Milia Islamia, 1st-9th June 2021.
- 13. Dr. Sasanka Deka: Invited talk on "Electrochemistry: Electrodes and Electrochemical Cells" at Three weeks Lecture Series (Virtual) on Chemistry Education, organized by Department of Chemical Sciences, Tezpur University, Tezpur, Assam, India, 28th Jan-18th Feb 2021.
- 14. Dr. Sasanka Deka: Invited talk on "Usefulness of nanostructured catalyst materials in water splitting reaction" at ChemCatCon 1.0 Reactions on Surface" (online) hosted by IIT Gandhinagar, 11th -12th July 2020.
- 15. Dr. Sasanka Deka: Invited talk on "Basics of Nanoscience and its applications" at "An online workshop cum Guest lecture series on Chemistry Education for undergraduates" (online) organized by Sibsagar College, Dibrugarh University, Assam. 18th Dec 2020.

- 16. Prof. R. K. Sharma: Invited talk in 24th Annual Green Chemistry & Engineering, virtual Conference organized by ACS Green Chemistry Institute®, 18th June 2020.
- 17. Prof. R. K. Sharma: Delivered lecture in weekly webinar series on "Green Chemistry: Designing Chemistry for Environment and Human Health" organized by Save The Environment, Kolkata on 29th August, 2020.
- 18. Prof. R. K. Sharma: Guest of Honour and Keynote Speaker on "Green Chemistry in College Education" in Gyan Ganga: Initiative for Teaching-Learning Excellence in Chemistry on 7th Sep 2020, Virtual conference organized by Directorate of College Education, Rajasthan & Government Dungar College, Bikaner, Rajasthan.
- 19. Prof. R. K. Sharma: Invited as a Resource Person in Science Academies' Virtual Lecture Workshop on "Green and Sustainable Chemistry" organized by Department of Chemistry, Rajiv Gandhi University, Arunachal Pradesh on 17th-18th Dec, 2020.
- 20. Prof. R. K. Sharma: Keynote Speaker in virtual "National Conference on Recent Advances in Chemical & Environmental Sciences: (RACE2021)" organized by Department of Chemistry and Environmental Science, School of Sciences, ITM University Gwalior, 16th Jan 2021.
- 21. Prof. Akhilesh K. Verma: Invited speaker on "Cu-Catalyzed Synthesis of Indoloisoquinolines via Intramolecular Hydroamination: Mechanistic Insight Using Online Mass Spectrometry" in Foundation for Technology & Business Incubation (FTBI), NIT, Rourkela (Virtual) 23rd March 2021.
- 22. Prof. S. K. Sharma: Invited talk on "Chemo-enzymatic synthesis of amphiphilic polymers," in National Seminar on Applied Polymer Science and Technology (NSAPST-2020), 28th 29th Jan 2020, Sardar Patel University.
- 23. Prof. S. K. Sharma: Invited as an eminent mentor on "Biocatalysts: A Greener Approach in Organic Synthesis," DST 2nd Inspire Internship Science Camp 2020, 25th Jan 2020, Institute of Technology, Meerut.
- 24. Prof. S. K. Sharma: Prof. Dr. T. Balakrishnan Endowment Lecture in International Conference on Advances in Chemistry with Specific Reference to Catalysis, Sensors and Energy Materials (ICACSEM), 9th-10th Jan 2020, University of Madras, Chennai.
- 25. Prof. S. K. Sharma: Invited talk on "Bio catalytic synthesis of non-ionic Nano transporters for biomedical applications", at GVK Biosciences Private Limited, Hyderabad, 14th Feb 2020.
- 26. Prof. Raj K. Sharma: "Development of advanced materials for energy storage electrodes," in Development of energy storage materials (International), 17th March 2021, CRS University Jind, Haryana
- 27. Prof. Raj K. Sharma: "Lattice defects in energy storage materials: Strategy to boast performance", in Defect enriched electrode sin energy storage devices (National), 25th May 2020, CBLU, Bhiwani, Haryana
- 28. T. Agarwal and Sandeep Kaur-Ghumaan: Talk on "Switching Site-Reactivity in Hydrogenase Model Systems by Introducing a Pendant Amine Ligand", in online National Conference on Frontiers in Organometallics and Catalysis (FOMC-2021), Department of Chemistry, MNIT, Jaipur, 20th-22nd Jan 2021.
- 29. N. Kumar and Sandeep Kaur-Ghumaan: Talk on "2-Mercaptobenzimidazole ligand-based models of the [FeFe] hydrogenase: Synthesis, characterization and electrochemical studies" in online Conference on Catalysis for Sustainable Development (CATSCHOL-2020), Catalysis Society of India, Mumbai Chapter, 19th-20th Dec 2020.

30. N. Kumar and Sandeep Kaur-Ghumaan: Talk on "Bioinspired models of the [FeFe] hydrogenase enzyme using 2-mercaptobenzimidazole ligand: Synthesis and electrocatalytic proton reduction" in 57th Annual Convention of Chemists & International Conference on Recent Trends in Chemical Sciences (RTCS 2020, online), Indian Chemical Society, Kolkata, 26th-29th Dec 2020.

8. Other Inter-Institutional Collaboration

- Prof. Akhilesh K. Verma with Prof. Vincent Gandon, Université Paris-Saclay, Institut de Chimie Moléculaire et des Matériaux d'Orsay (ICMMO), Equipe de Catalyse Moléculaire, (Bâtiment 420) 91405 Orsay Cedex, France
- 2. Prof. Diwan S. Rawat with Prof. Dr. Oliver Reiser, Institut für Organische Chemie, Universität Regensburg, Universitätsstr. 31, 93053 Regensburg
- 3. Dr. Shibdas Banerjee with IISER, Tirupati, India
- 4. Prof. Diwan S. Rawat with Prof. P. V. Bhartam, NIPER, Mohali, India
- 5. Prof. Sunil K Sharma with Prof. Dr. Rainer Haag, Freie Universitat Berlin, Germany
- 6. Prof. Ashok K Prasad with JAIST Visiting Faculty, Nomi Ishikawa, Japan

9. Students under Exchange Programme

Mr. Manoj Kumar under DST-DAAD program Prof. Dr. Oliver Reiser Institut für Organische Chemie Universität Regensburg Universitätsstr. 31 93053 Regensburg

10. Placement Details (Number and percentage of students placed)

- 1. Dr. Kapil Mohan Saini and Shiv Kumar, Kalindi College, University of Delhi, Delhi 110007
- 2. Dr. Pawan Kumar Mishra received Postdoc at Cardiff University, U.K.
- 3. Dr. Rakesh K. Saunthwal received Postdoc with Prof. Scott E, Denmark, University of Illinois Urbana-Champaign

Placement percentage: 40%

11. Extension and Outreach Activities

- 1. Faculty development Program on Mass Spectrometry and Thermal Analysis Techniques from 13-18 July 2020 (One Week). Centre for Ocean Research, Satyabhama Institute of Science and Technology, Chennai (Online mode).
- 2. Short term Course on Recent advances in Nanoscience and Nanotechnology (RANN-2020) (Under TEQIP-III) from 24-28 Aug 2020 (One Week). Department of Physics, National Institute of Technology, Srinagar, Jammu and Kashmir (Online mode).
- 3. Faculty Development Program on Recent advances on Molecular Chemistry and Functional Materials from 17-21 Aug 2020 (One Week). Amity Institute of Click Chemistry Research and Studies (AICCRS) under the umbrella of Amity University, Noida campus (Online mode).

12. Number of M.Phil/Ph.D. Degrees Awarded

13. Faculty Strength

33

98th Annual Report Department of Environmental Studies University of Delhi

Major activities and achievements

The Department is engaged in teaching and research through its two post-graduate courses in Environmental Studies (M.A. in Environmental Studies and M.Sc. in Environmental Studies) and Ph.D. program. Each year, we admit 68 students (M.Sc. 39 and M.A. 29) from varied academic backgrounds across various disciplines through an all-India entrance test conducted by National Testing Agency. The department has sixteen regular faculty members who are involved in teaching and research in fundamental and applied aspects of ecology and environment. The department is actively involved in socially relevant research connected to national development and environmental health, thereby mitigating issues arising from environmental degradation. The faculty has successfully secured extramural research projects over the years, which has helped develop state-of-the-art laboratory facilities and train research scholars leading to publications in top-tier journals such as Nature, Science, and other high-impact journals. The faculty members are recognized globally, widely collaborate with international experts and deliver keynote and plenary lectures of their research findings at National and International Institutions/conferences.

Honors/Distinctions

Prof. M. K. Pandit

- Ngee Ann Kongsi Distinguished Visiting Professor, National University of Singapore
- Indian (INSA) representative at BRICS Academy of Sciences
- Indian (INSA) representative at G-20 Science Academies.

Publications

Arora J., Suman Lakhanpaul, S., & Pandit, M. K. (2020). IAPT Chromosome data 33/1. Taxon, 69, E3–E4.

Barhadiya, G., Singh, S., Ghosh, C., Basumatar, R., & Purkayastha, J. (2020). Diversity and conservation potential of captive chelonian colonies at temple ponds in North-East India. *Herpetological Bulletin*, 154, 12–17.

Bawa, K. S., Goodale, E., Mtemi, W., Chen, Y. F., Barthakur, R., Goodale, U., Liu J., Jiang A., Mammides, C., Meegaskumbura, M., Pandit M. K. & Cao, K. F. (2020). China and India: Toward a sustainable world. *Science* (New York, NY), 369(6503), 515 (Letter).

Barhadiya, G., & Ghosh, C. (2020). Parasitic infestation and site preference of the tick *Amblyomma gervaisi* on the monitor lizard *Varanus bengalensis* in India. *Herpetological Bulletin*, 153, 35–36.

Barhadiya, G., Singh, G., Ghosh, C., & Singh, S. (2020). Nocturnal emergence of small freshwater turtles in temple ponds in Assam, India: A strategy to avoid aggression and predation by large softshells? *Reptiles & Amphibians*, 27(3), 426-427.

Biju, S. D., Garg, S., Gokulakrishnan, G., Chandrakasan, S., Thammachoti, P., Ren, J., Gopika, C., Bisht, K., Hamidy, A., & Shouche, Y. (2020). New insights on the systematics and reproductive behaviour in tree frogs of the genus *Feihyla*, with description of a new related genus from Asia (Anura, Rhacophoridae). *Zootaxa*, 4878(1), 1–55.

- Biswas, A., Divya, S., Sharmila, P., & Pardha-Saradhi, P. (2020). Light promoted brown staining of protoplasm by Ag⁺ is ideal to test wheat pollen viability rapidly. *PloS One*, 15(12), e0243856.
- Chandra, A., Pardha-Saradhi, P., Maikhuri, R. K., Saxena, K. G., & Rao, K. S. (2021). Impact of farm yard manure on cropping cycle in a rainfed agroecosystem of Central Himalaya. *Vegetos*, 34(1), 249–262.
- Chen, X., Vanangamudi, A., Wang, J., Jegatheesan, J., Mishra, V., Sharma, R., Gray, S.R., Kujawae, J., Wojciech, F., & Dumée, L. F. (2020). Direct contact membrane distillation for effective concentration of perfluoroalkyl substances–Impact of surface fouling and material stability. *Water Research*, 182, 116010.
- Dave, J., Meena, R., Singh, A., & Rastogi, N. (2021). Effect of COVID-19 lockdown on the concentration and composition of NR-PM_{2.5} over Ahmedabad, a big city in western India. *Urban Climate*, 37, 100818.
- Gandu, B., Palanivel, S., Juntupally, S., Arelli, V., Begum, S., & Anupoju, G. R. (2021). Removal of NH₃ and H₂S from odor causing tannery emissions using biological filters: Impact of operational strategy on the performance of a pilot-scale bio-filter. *Journal of Environmental Science and Health, Part A*, 1–10.
- Garg, A., & Ghosh, C. (2021). Assessment of indoor air quality at various socio-economic zones. MAPAN, 1-9.
- Garg, S., Kumar, P., Mishra, V., Guijt, R., Singh, P., Dumée, L. F., & Sharma, R. S. (2020). A review on the sources, occurrence and health risks of per-/poly-fluoroalkyl substances (PFAS) arising from the manufacture and disposal of electric and electronic products. *Journal of Water Process Engineering*, 38, 101683.
- Garg, S., Kumar, P., Singh, S., Yadav, A., Dumée, L. F., Sharma, R. S., & Mishra, V. (2020). *Prosopis juliflora* peroxidases for phenol remediation from industrial wastewater—An innovative practice for environmental sustainability. *Environmental Technology & Innovation*, 19, 100865.
- Garg, S., Suyesh, R., Das, S., Bee, M. A., & Biju, S. D. (2021). An integrative approach to infer systematic relationships and define species groups in the shrub frog genus *Raorchestes*, with description of five new species from the Western Ghats, India. *PeerJ*, 9, e10791.
- Goyal, N., Krishna, S., Shah, K., Rashid, I., & Sharma, G. P. (2021). Integrating the biological invasion paradigm in the policy framework in India. *Tropical Ecology*, 62(1), 144–148.
- Kaushik, R., Pandit, M. K., Meyerson, L. A., Chaudhari, D. S., Sharma, M., Dhotre, D., & Shouche, Y. S. (2021). Contrasting composition, diversity and predictive metabolic potential of the Rhizobacterial microbiomes associated with native and invasive *Prosopis* congeners. *Current Microbiology*, 78(5), 2051–2060.
- Kaushik, R., Sharma, M., Gaurav, K., Jagadeeshwari, U., Shabbir, A., Ch Sasikala, Ch Raman, V., & Pandit, M. K. (2020). *Paludisphaera soli* sp. nov., a new member of the family *Isosphaeraceae* isolated from high altitude soil in the Western Himalaya. *Antonie van Leeuwenhoek*, 113(11), 1663–1674.
- Kumar, P., Maurya, A., Garg, S., Yadav, A., Mishra, V., & Sharma, R. S. (2020). Dead biomass of *Morganella morganii* acts as an efficient adsorbent to remove Pb (II) from aqueous solution in different aeration—agitation and pH conditions. *SN Applied Sciences*, 2(7), 1–10.
- Mahony, S., Kamei, R. G., Teeling, E. C., & Biju, S. D. (2020). Taxonomic review of the Asian Horned Frogs (Amphibia: *Megophrys* Kuhl & Van Hasselt) of Northeast India and Bangladesh previously misidentified as *M. parva* (Boulenger), with descriptions of three new species. *Journal of Natural History*, 54(1–4), 119–194.
- Mishra, V., Sharma, U., Rawat, D., Benson, D., Singh, M., & Sharma, R. S. (2020). Fast-changing life-styles and ecotoxicity of hair dyes drive the emergence of hidden toxicants threatening environmental sustainability in Asia. *Environmental Research*, 184, 109253.
- Pandit, M. K. (2020). The Himalaya should be a nature reserve. *Nature*, 583(7814), 9 (World review).

- Sarkar, N., Sharma, R. S., & Kaushik, M. (2020). Exploring the potential of DNA/RNA aptamers in National Security. *National Academy Science Letters*, 43(2), 187-190.
- Sarkar, N., Sharma, R. S., & Kaushik, M. (2021). Innovative application of facile single pot green synthesized CuO and CuO@ APTES nanoparticles in nanopriming of *Vigna radiata* seeds. *Environmental Science and Pollution Research*, 28(11), 13221–13228.
- Sharma, A. K., Saini, S., Chhabra, P., Chhabra, S. K., Ghosh, C., & Baliyan, P. (2020). Air pollution and weather as the determinants of acute attacks of asthma: Spatiotemporal approach. *Indian Journal of Public Health*, 64(2), 124–129.
- Sharma, P., Yadav, P., Ghosh, C., & Singh, B. (2020). Heavy metal capture from the suspended particulate matter by *Morus alba* and evidence of foliar uptake and translocation of PM associated zinc using radiotracer (⁶⁵Zn). *Chemosphere*, 254, 126863.
- Singh, A., Rastogi, N., Kumar, V., Slowik, J. G., Satish, R., Lalchandani, V., Thamban, N.M., Rai, P., Bhattu, D., Vats, P., Ganguly, D., Tripathi, S.N., & Prévôt, A. S. (2021). Sources and characteristics of light-absorbing fine particulates over Delhi through the synergy of real-time optical and chemical measurements. *Atmospheric Environment*, 252, 118338.
- Singh, C. K., Kumar, A., Shashtri, S., Kumar, A., Mallick, J., Singh, A., Avtar, R., Singh, R. P., Kuma, P. & Ranjan, S. (2021). Geochemical modeling to infer genetic origin of groundwater and associated health risks in desertic aquifers. *Groundwater for Sustainable Development*, 13, 100569.
- Slate, M. L., Tsombou, F. M., Callaway, R. M., Inderjit & El-Keblawy, A. A. (2020). Exotic *Prosopis juliflora* suppresses understory diversity and promotes agricultural weeds more than a native congener. *Plant Ecology*, 221, 659–669.
- Tomar, M., & Diwakar, S. (2020). Investigating host plant association, calling activity, and sexual dimorphism in Indian *Gryllacropsis* sp. (Orthoptera: Anostostomatidae). *Ecology and Evolution*, 10(21), 11850–11860.
- Tyagi, S., Mishra, B. K., Sharma, T., Tawar, N., Urfi, A. J., Banerjee, B. D., & Madhu, S. V. (2021). Level of organochlorine pesticide in prediabetic and newly diagnosed Diabetes mellitus patients with varying degree of glucose intolerance and insulin resistance among North Indian population. *Diabetes & Metabolism*, eISSN 2233–6087.
- Tyagi, S., Siddarth, M., Mishra, B. K., Banerjee, B. D., Urfi, A. J., & Madhu, S. V. (2021). High levels of organochlorine pesticides in drinking water as a risk factor for type 2 diabetes: A study in north India. *Environmental Pollution*, 271, 116287.
- Yadav, R. K., Chatrath, A., Tripathi, K., Gerard, M., Ahmad, A., Mishra, V., & Abraham, G. (2020). Salinity tolerance mechanism in the aquatic nitrogen fixing pteridophyte Azolla: a review. *Symbiosis*, 1–14.

Book Chapters

Gandu, B., Rao, A. G., & Cahan, R. (2021). Air pollution control by using different types of techniques and sorbents. *In* Sorbents Materials for Controlling Environmental Pollution (*Ed.*) Avelino Nunez-Delgado, 575–594. (ISBN: 9780128200421), Elsevier.

Journals

$Department\ teachers\ serving\ as\ Editor(s)/Member(s)\ of\ Editorial\ Board$

Prof. S.D. Biju

- Academic editor, Asian Herpetological Research
- Advisory Board, Hamadryad: Journal of the Centre for Herpetology

Prof. Inderjit: Associate/Handling Editor for

- Journal of Applied Ecology, Wiley
- Biological Invasions, Springer
- AoB Plants, Oxford Press
- Scientific Reports, Nature Publishing Group
- NeoBiota, Pensoft Publisher

Prof. Maharaj K. Pandit

Academic Editor: PLoS OneAcademic Editor: PLoS Water

• Topic Editor: Diversity

• Editorial Board Member: Research & Reports in Biology

Prof. P. Pardha Saradhi

• Academic Editor: PLoS One

Dr. Gyan Prakash Sharma

Academic Editor: PLoS OneAssociate Editor: Tropical Ecology

Dr. Swati Diwakar

• Associate Editor: Tropical Ecology

Dr. Atinderpal Singh

• Guest Associate Editor: Frontiers in Sustainable Cities

Research Projects

S1.	Project Title	Year /	Funding Agency	Amount
No.		Period		sanctioned
1	Western Ghats Network of Protected Areas	2009-	CEPF, USA	1,20,000 USD
	for Threatened Amphibians (WNPATA)	present	·	
	PI: Prof. S.D. Biju			
2	Ecological Study for EIA Study for Sileru	2020-	WAPCOS	Rs 5.16 lakh +
	Pump Storage project, Andhra Pradesh for	2021	Ltd.,	GST
	pre-monsoon season		Gurugram,	
	PI: Prof. Maharaj K. Pandit		Haryana	
3	Raising Awareness on Urban Air Quality,	2020-	Ministry of	Rs. 29 lakhs
	Climate Change, Health and e-resilience	2022	Science &	(two years)
	(50894) under "Science, Technology,		Technology,	
	Engineering, Mathematics, Medicine		Government	
	(STEMM) –India Initiative" (Bharat Vigyan		of India	
	Darshan)" program			
	PI: Prof. Chirashree Ghosh			
4	Local Workshop on Emerging Pollution	2019-	Ministry of Earth	Rs. 2.5 lakhs
	Challenges on Earth Ecosystem - Safar,	2021	Sciences (MoES)	
	India's Novel Initiative			
	PI: Prof. Chirashree Ghosh			
5	Advanced Training & Research in Plant	2015-	Ministry of	Rs 48 lakhs
	Biosystematics	2021	Environment, Forest	
	PI: Prof. Radhey Shyam Sharma		and Climate Change	
			(MoEFCC)	
6	Impact of city wastewater on native	2020-	IoE, University of	Rs 4.95 lakhs
	microbial community and health of Yamuna	2021	Delhi, FRP	
	River in Delhi			

	PI: Prof. Radhey Shyam Sharma			
7	Development of a novel single-stage azo dye and aromatic amine bioremediation system PI: Prof. Vandana Mishra	2019- 2021	DST, Technology Mission Division (Energy, Water & Others) sponsored R & D project under Optimal Water Use	Rs 41.03 lakhs
8	Microbial wealth and human health associated with a Himalayan hot spring PI: Prof. Vandana Mishra	2020- 2021	in Industrial Sector IoE, University of Delhi, FRP	Rs 4.88 lakhs
9	Functional traits of <i>Hyptis suaveolens</i> (L.) Poit across an altitudinal gradient PI: Dr. Gyan Prakash Sharma	2020- 2021	IoE, University of Delhi, FRP	Rs 2.5 lakhs
10	Impacts of invasive species on native arthropod abundance, and diversity across environmental and geographic gradients in India PI: Dr. Gyan Prakash Sharma, Co-PI: Dr. Swati Diwakar	2021- 2024	Core Research Grant - SERB	Rs 14 lakhs

Seminars Organized

Prof. Chirashree Ghosh: Organized International Webinar on "Environment, Gender and Climate Change" on 28 July 2020 with Shivaji College, University of Delhi.

Seminars/Conference presentations

Seminars

Ghosh, C. (2021) Invited speaker on "Impact of Environmental Pollution on Public Health", organized with MGICC, Govt. of Delhi, 9th February 2021.

Ghosh, C. (2020) Invited speaker, "Air Pollution: a statement of human wrongdoing" in online certificate course on "Ecology, Environment and Sustainability", IPCW, University of Delhi, 6th September 2020

Ghosh, C. (2020) Invited speaker on "Rediscovering nature based solution in post lockdown phase" in Distinguished Lecture Series by IQAC, Bharati College, University of Delhi, 5th August 2020.

Inderjit (2021) Invited lecture on "Exotic plant invasion and novel chemicals", UGC-STRIDE-IRCECCB-MKU 1st Skill Development Programme on "Biodiversity – from concept to conservation", School of Biological Sciences, Madurai Kamaraj University, Madurai, Tamil Nadu, 22nd - 31st March 2021

Pardha-Saradhi, P. (2020) Honorary speaker on "Modern Techniques in Rice Breeding (Part II): Progress and Prospects in Tissue Culture", organized by Central and West Asian Rice Center, Rasht, Iran, 2nd November 2020.

Conference presentations

International

• Barhadiya, G. and Ghosh, C. (2020), Snakes in the city: A Spatial and temporal assessment of snake encounters using citizen science in urban Delhi, India with 8 new geographical records, International Conference on Environment, Water, Agriculture, Sustainability and Health (EWASH-2020), Jointly Organized by (CSIR-NEERI, Royal Society of Chemistry-North India section, Hindu College, University of Delhi; Environment and Social Development Association, Delhi; 20th December 2020.

- Inderjit (2020) Plenary (online) lecture, "Weeds in agroecosystems", International Conference on "Agroecosystem sustainability: Links between Carbon sequestration in soils, food security and climate change" virtual conference, Lithuania, 2nd December 2020.
- Pardha-Saradhi, P. (2020), Keynote lecture on "Dynamics of phosphorus solubilizing microbial diversity in agriculture ecosystem", International Conference on Emerging Trends in Biotechnology (ICETB) organized by School of Biosciences and Technology, Vellore Institute of Technology in association with Association of Biotechnology and Pharmacy, 14th 16th December 2020.
- Pardha-Saradhi, P. (2020), "Eco-friendly soluble phosphate management strategies in rice agroecosystems for optimal productivity", presented at webinar on "Sustainable Rice Production (SRP) with an emphasis on organic rice production" organized by Central and West Asian Rice Center, Rasht, Iran, 8th 9th December 2020.
- Sahai, H., Sharma, G. & Ghosh, C. (2020), "Microplastic contamination in agroecosystems: concerns for food security and human health", International Conference on Environment, Water, Agriculture, Sustainability, and Health (EWASH-2020), Jointly Organized by CSIR, The Royal Society of Chemistry, ESDA, NABARD and IQAC-Hindu College, University of Delhi, 20th December 2020.
- Shah, K. and Sharma G.P. (2021), "Does resource acquisition-allotment strategy facilitate Hyptis suaveolens (L) Poit invasion success in dry deciduous forest?", National Symposium on Biological Invasions, organized by Rhodes University, South Africa, 5th-7th May 2021 (Online).
- Yadav, A.K. and Ghosh, C. (2020), Spatio-temporal variation of bioaerosols in different urban built up environment, International Conference on Environment, Water, Agriculture, Sustainability and Health (EWASH-2020), Jointly Organized by CSIR, The royal Society of Chemistry, ESDA, NABARD and IQAC-Hindu College, University of Delhi; 20th December 2020

Other Inter-Institutional Collaboration

Prof. S.D. Biju

- North Carolina Museum of Natural Sciences, Raleigh, NC, USA.
- School of Biology and Environmental Science, University College Dublin, Ireland
- Museum Zoologicum Bogoriense, Indonesian Institute of Sciences (LIPI), Java, Indonesia

Prof. Maharaj K. Pandit

- Ecological Surveys & River Basin Studies, WAPCOS Limited, Gurgaon.
- Biodiversity Studies, RS Envirolink Technologies, Gurgaon.

Prof. P. Pardha-Saradhi

- Dr. Abbas Shahdi Kumleh (Director General), Central and West Asian Rice Center, Rasht, Iran.
- Prof. Diwakar Tiwari, Department of Chemistry, Mizoram University (A Central University), Aizawl, Mizoram.
- Prof. Sandeep Arora, Govind Ballabh Pant University of Agriculture & Technology (Pantnagar, U.S. Nagar, Uttarakhand).

Prof. Inderjit

• Collaboration with NIPGR, Delhi on metabolomics.

Prof. Chirashree Ghosh

- Collaborative research "N1: Bioskynet, the global network of bioaerosols research" funded by NERC GPSF, in collaboration with University of Essex, UK, 2020.
- Collaborative project coordinator of System of Air Quality Forecasting and Research (Safar) programme of IITM, Pune; Ministry of Earth Sciences, Govt. of India, 2010 till date.
- Collaborative research with University College of Medical Sciences.

Dr. Ashwini Kumar Ray

- Prof. Rupesh Chaturvedi, Host Pathogen interaction/ Infection Biology lab, School of Biotechnology, JNU, New Delhi.
- Dr Ravi Tandon HIV immunology, Gut microbiology, Mucosal immunity, and inflammation lab School of Biotechnology, JNU, New Delhi.

Extension and Outreach Activities

Prof. P. Pardha-Saradhi

- Nature's green industry for curbing global climate change; Invited lecture as resource person for refresher course on "Environmental Studies" through webinar at S.V. University, Tirupati, on 24th December 2020.
- Green industry lecture delivered as a resource person for 10th refresher course on "Environmental Studies" [Multidisciplinary] organized through virtual mode by UGC-Human Resource Development Centre, Banaras Hindu University, Varanasi.

Prof. A. J. Urfi

• Lecture on "Bird watching in India-some recent trends", webinar Avifauna: Ecology & Diversity, organized by committee on Environment and related issues, Rajdhani College, University of Delhi, 6th August, 2020.

Prof. Chirashree Ghosh

• Collaborative Project (as a Mentor) with Centre for Earth Studies, Indraprastha college for women, University of Delhi, under the theme "Dust capturing capacity of the existing Green Cover and lessons for future: A Study of Indraprastha college for women, Delhi", 2020.

Dr. Ashwini Kumar Ray

- Resource person in the webinar "Recent advancement in Life science", organized by School of Biological Engineering and Science, Shobhit University, Gangoh, Saharanpur, U.P. India; 29th January 2021.
- Panelist in webinar with Water Ministry, Govt. of India and colleges of Delhi University on "CATCH THE RAIN", 24th February 2021.
- Speaker on "Research article writing and interaction with Biochemistry students" at Shaheed Rajguru College of Applied Sciences for Women, University of Delhi, 28th April 2021.
- Speaker on Earth Day, Bhaskaracharya College of Applied Sciences, University of Delhi on Environmental issues, and ethics, 5th June 2021
- Interactive session with students of Arunachal Pradesh, India organized by Arunachal Vikas Parishad, Arunachal Pradesh, 20th June 2021.
- Resource person in two-day Bioinformatics workshop for students of the Department of Biochemistry, Shaheed Rajguru College of Applied Sciences for Women, University of Delhi, 2nd 3rd July 2021.

Number of Ph.D. /M/Phil. Degrees Awarded

Ph.D.: 05

Faculty strength

16 (Regular)

Department of Geology

Major Activities and Achievements

Faculty members of the Department of Geology undertook studies to understand paleopedologic evolution in the Himalayan foreland basin including detailed description, analyses, and interpretation of the paleosols that formed during 31 Ma—13 Ma, Dharmshala Formation, 10 Ma-2 Ma, Siwaliks, and Holocene soil/paleosols, Ganga Basin.

Process based facies analysis of the Laisong Formation of Barail Group (Manipur) were carried out to understand depositional environment and its tidal signatures. An alternative model of correlation of Indian Proterozoic basins in the light of Precambrian 'Supercontinent' amalgamation and fragmentation were offered. Intensive studies carried out on the deep-sea core samples from various critical areas of the world oceans obtained through the International Ocean Drilling Programme enabled to evolve a robust Late Neogene –Quaternary time framework for the Western Pacific Warm Pool region. Experimental modelling was carried out on complex fault patterns developed in single-phase and polyphase orthogonal and/or oblique rift structures, on the deformation microstructures of serpentinite-antigorite from the Rakhabdev ultramafic suite, Rajasthan. Faculty was also associated with organizations viz., National Centre for Polar and Ocean Research and Indian National Science Committee on Antarctic Research and facilitated development of scientific research policies.

Honours/Distinctions

Dr. Ashutosh K Singh

• Elected Executive Council Member of the Paleontological Society of India, Lucknow.

Prof. Devesh K Sinha

- Appointed as Hon. Director, Delhi School of Climate Change and Sustainability (DSCCS), Institution of Eminence (IoE), University of Delhi.
- Member, SERB DST Committee on Start-up Grant and NPDF
- Member, Foreign Travel and Symposium Grant of CSIR (TGSM)

Prof. GVR Prasad

Awarded Sepkoski Grant 2020 by the Paleontological Society, McLean, USA

Prof. NC Pant

- Deputy Chief Officer, Geosciences Group of the Scientific Committee on Antarctic Research (SCAR) (2017-2020).
- Chairman, INSA Committee on SCAR.
- Member, Research Advisory Committee, National Centre for Polar and Ocean Research, Goa

Publications

- 1. Abdullah, S., Misra, S., Sarvesha, R., Ghosh, B. (2020). Resurfacing of deeply buried oceanic crust in Naga Hills Ophiolite, North-East India: Petrofabric, Microstructure and Seismic properties. *Journal of Structural Geology*, 139, 1-15. https://doi.org/10.1016/j.jsg.2020.104141
- 2. Arora, D., Pant, Naresh, Pandey, M., Chattopadhyay, A., Greenbaum, J., Siegert, M., Bo, Sun, Benkinship, D., Rao, C. and Bhandari, A. (2020) Insights into geological evolution of Princess Elizabeth Land, East Antarctica-clues for continental suturing and breakup since Rodinian time, *Gondwana Research*, 84, 260-283, doi.org/10.1016/j.gr.2020.05.002
- 3. Barkat, R., Chakraborty, P.P., Saha, S. and Das, K. (2020) Alluvial architecture, paleohydrology and provenance tracking from the Neoproterozoic Banganapalle formation, Kurnool Group, India: An example of continental sedimentation before land plants. *Precambrian Research* v. 350, 105930 (0123456789)
- 4. Chattopadhyay, A. (2020) Proterozoic Orogenesis and Crustal Evolution in the Central Indian Tectonic Zone: Current Understanding from Recent Works. *Proceedings of the Indian National Science Academy (PINSA)*, 86, 99-106. doi: 10.16943/ptinsa/2020/49780.
- 5. Chattopadhyay, A., Bhattacharjee, D., Srivastava, S. (2020) Neotectonic fault movement and intraplate seismicity in the central Indian shield: A review and reappraisal. *Journal of Mineralogical and Petrological Sciences*, 115, 138–151.
- 6. Chattopadhyay, A., Bhowmik, S. K., Roy, A. (2020) Tectonothermal evolution of the Central Indian Tectonic Zone and its implications for Proterozoic supercontinent assembly: the current status. *Episodes*, doi: https://doi.org/10.18814/epiiugs/2020/020008.

- 7. Devrani, R., Singh, V., Mehta, M., and Ramanathan, A.L. (2021). Assessing Sediment Pulse during an Extreme Hydrological Event in the Alaknanda Basin, Northwestern Himalaya, India. *Journal of the Geological Society of India*, v. 97; p.48-54.
- 8. Divyadarshini, A., Singh, V., Jaiswal, M.K, and Rawat, M. (2020). Exploring the roles of climate and tectonics in the geomorphic evolution of the Chitwan Intermontane valley, Central Himalaya. *Geomorphology*, v. 367; doi.org/10.1016/j.geomorph.2020.107298
- 9. Dutta, D., Maji, V., Abdullah, S., Misra, S. (2021). Application of Electron backscatter diffraction methods in Earth Sciences. *Directions*, Springer (In Press).
- 10. Fareeduddin, Pant, N.C., Gupta, S., Chakraborty, P.P., Sensarma, S., Jain, A.K., Prasad, G.V.R., Srivastava, P., Rajan, S. & Tiwari, V.M. (2020). The geodynamic evolution of the Indian subcontinent An introduction. *Episodes* 43(1), 7-18.
- 11. Ghosh, R. (2020). Authigenic precipitation of ferric oxyhydroxides and greenalite in Archean oceans. *Chemical Geology*, 119777. https://doi.org/10.1016/j.chemgeo.2020.119777
- 12. Gogoi B, Chauhan H, Saikia Ashima (2020) Understanding mafic-felsic magma interactions in a subvolcanic magma chamber using rapakivi feldspar: A case study from the Bathani volcano-sedimentary sequence, eastern India. *Geochemistry*. https://doi.org/10.1016/j.chemer.2020.125730.
- 13. Gogoi B, Chauhan H, Saikia Ashima (2020) Viscous dilation as a mechanism of magma mixing. *Periodico di Mineralogia* 89: 285-295.
- 14. Gogoi B, Saikia A., Ahmad M. (2020) Mafic-felsic magma interactions in the Bathani volcanic-plutonic complex of Chotanagpur Granite Gneiss Complex, eastern India: implications for assembly of the Greater Indian Landmass during the Proterozoic. *Episodes* 43:785-810.
- 15. Gupta, A., Gupta, M., Srivastava, P.K. et al. (2021) Subsurface nutrient modelling using finite element model under Boro rice cropping system. *Environ Dev Sustain*. https://doi.org/10.1007/s10668-020-01144-8
- 16. Hatui, K., Chattopadhyay, A. (2020) Modification of pre-existing folds in a shear zone: A case study from Kumbhalgarh–Ranakpur area, South Delhi Fold Belt, Rajasthan, India. *Journal of Earth System Science*, 129, 126: doi https://doi.org/10.1007/s12040-020-01395-z
- 17. Jain, A., Thakur, V., Joshi, M., Mukherjee, P., Patel, R., Bhattacharyya, Singhal, S., Agarwal, K.K., Dixit, R., Deshmukh, G. & Mohan, M. (2020). Tectonics of the Western, Sikkim and Arunachal Himalaya. *Proc Indian Natn Sci Acad* (Vol. 86, No. 1, pp. 189-212). DOI: 10.16943/ptinsa/2020/49781
- 18. Joshi K.B., Sorcar, N., Pant, N.C., Nandakumar, V., Ahmad, T., Tomson, J.K. (2021) Characterization of multiple episodes of melt generation from lower crust during Archaean using amphibole composition. *Episodes* 2021;0:-.https://doi.org/10.18814/epiiugs/2020/020092
- 19. Karmakar, S., Mukherjee, S., Dutta, U., (2020). Origin of corundum within anorthite megacrysts from anorthositic amphibolites, Granulite Terrane, Southern India. American Mineral. 105, 1161–1174. https://doi.org/10.2138/am-2020-7108
- 20. Kaushik, T., Singh, A.K., & Sinha, D.K. (2020). Late Neogene–Quaternary Planktic Foraminiferal Biostratigraphy and Biochronology from ODP Site 807A, Ontong Java Plateau, Western Equatorial Pacific. *Journal of Foraminiferal Research*, 50(2), 111–127. doi:10.2113/gsjfr.50.2.111
- 21. Kshetrimayum, D.S., Parmar, V., Lourembam, R.S. & Prasad, G.V.R. (2021). A diversified Ostracoda (Crustacea) assemblage from the Upper Cretaceous intertrappean beds of Gujri, Dhar District, Madhya Pradesh, India. *Cretaceous Research* 124: 104784

- 22. Ahmad, M., Qayoom, A., Paul, Negi, P., Akhtar, S., Gogoi, B., Saikia, A. (2021) Mafic rocks with back-arc E-MORB affinity from the Chotanagpur Granite Gneiss Complex of India: relicts of a Proterozoic Ophiolite suite. (Accepted In *Geological Magazine*, January)
- 23. Mondal, R., Ray, A., Ghosh, R. (2021) Petrogenesis of the gabbronorite sill hosted Fe-Ti oxide ore bodies from the eastern part of Chotanagpur granite Gneissic Complex, India. *Ore Geology Reviews*. 104076. https://doi.org/10.1016/j.oregeorev.2021.104076
- 24. Moudioh, C., Tamehe, L.S., Ganno, S., Tankwa, M.N., Soares, M.B., Ghosh, R., Kankeu, B. and Nzenti, J.P. (2020). Tectonic setting of the bipindi greenstone belt, northwest Congo craton, Cameroon: Implications on BIF deposition. *Journal of African Earth Sciences*, 103971. https://doi.org/10.1016/j.jafrearsci.2020.103971
- 25. Pant, N.C. and Singh, P. (2020) A review of tectonometamorphic evolution of Himalayas, *Indian Journal of Geosciences*, 74 (3), 205-215.
- 26. Parmar, V. & Prasad, G.V.R. (2020). Vertebrate evolution on the Indian raft Biogeographic conundrums. *Episodes* 43 (1), 461-475.
- 27. Paul, Pritam, P., Chakraborty, P.P., Shiraishi, F., Das, K., Kamei, K., and Bhattacharya, S. (2020) Clue on ocean redox condition from trace element and rare earth element (REE) composition of iron formation and carbonate rocks from the late Paleoproterozoic Morar Formation, Gwalior Group, central India. *Journal of Mineralogical and Petrological Sciences*, Volume 115, page 175–191.
- 28. Priyadarshini, R.K. & Prasad, G.V.R. (2020) New chondrichthyan fauna from the Palaeogene deposits of Barmer district, Rajasthan, western India: Age, palaeoenvironment and intercontinental affinities. *Geobios* 58: 55-72.
- 29. Quick, L., Sinclair, H.D., Attal, M., and Singh, V. (2020). Conglomerate recycling in the Himalayan foreland basin: Implications for grain size and provenance. *Bulletin of Geological Society of America*, v. 132; 1639-1656.
- 30. Rasik Ravindra, Devsamridhi Arora, N. C. Pant and S.K. Roy (2020) Sub-ice geology of east Antarctica- the supercontinent connection and its context to the east Antarctic ice sheet, *Indian Journal of Geosciences*, 74 (3): 315-326.
- 31. Roy, D.B., Tandon, S.K., and Singh, V. (2021). Drainage evolution in a Holocene landscape that hosted a 'lost river'system in the Punjab-Haryana plains, NW India *Quaternary International*, v. 585; p.99-110.
- 32. Akhtar, S., Saikia, A., Negi, P., and Kalita, B.J. (2021) Back-arc basin origin for the basalts of the South Andaman Island Ophiolite (India). *Episodes*, https://doi.org/10.18814/epiiugs/2021/021001.
- 33. Akhtar, S., Negi, P., and Saikia, A. (2021) Cumulate gabbros in the South Andaman Island Ophiolite Suite (India): their bearing on the tectonic setting. *Canadian Journal of Earth Sciences. Just-IN* https://doi.org/10.1139/cjes-2020-0182
- 34. Sarkar, A., Chattopadhyay, A. (2020) Microstructure and geochemistry of pseudotachylyte veins from Sarwar-Junia Fault Zone, India: Implications for frictional melting process in a seismic fault zone. *Geological Journal*; doi: 10.1002/gj.3900.
- 35. Sarkar, D.P., Ando, J., Das, K., Chattopadhyay, A., Ghosh, G., Shimizu, K., Ohfuji, H. (2020) Serpentinite enigma of the Rakhabdev lineament in western India: Origin, deformation characterization and tectonic implications. *Journal of Mineralogical and Petrological Sciences*, 115, 216-226.
- 36. Srivastava, P.K., Gupta, M., Singh, U., and Prasad, R. (2020) Sensitivity analysis of artificial neural network for chlorophyll prediction using hyperspectral data, *Environment, Development and Sustainability*, https://doi.org/10.1007/s10668-020-00827-6

- 37. Sharma JJ, Naik A, Pant N, Arora D, Pandey M, Singh P. (2021) Estimation of effective bulk composition—critical appraisal and a scanning electron microscope based approach. *Geological Journal* 2021;1–13. https://doi.org/10.1002/gj.4077
- 38. Singh, A. K., & Sinha, D. K. (2021) Northward Migration of Antarctic Polar Front during the Quaternary: Planktic Foraminiferal Record from Southeast Indian Ocean. *Journal of Climate Change*, (*The Netherlands*) vol. 7, no. 1, pp. 13-24
- 39. Srivastava, P.K., Pradhan, R.K., Petropoulos, G.P., Pandey, V., Gupta, M., Yaduvanshi, A., Wan Zurina Wan Jaafar, Mall, R.K. Sahai, A.K. (2021) Long-Term Trend Analysis of Precipitation and Extreme Events over Kosi River Basin in India. *Water* 2021, 13, 1695. https://doi.org/10.3390/w13121695
- 40. Upreti, N., Srivastava, P. (2020). Role of latitudinal shift and climate change in evolution of red and yellow paleosols of NW Himalaya: Implications for Early-Oligocene seasonality and Mid-Miocene enhanced precipitation. *Sedimentology* 67: 2189-2221

Book Chapters

- Chakraborty, P.P., Tandon, S.K., Basu Roy, S., Saha, S. and Paul. Pritam P. (2020) Proterozoic sedimentary basins of India. *In Gupta*, N. and Tandon S.K (eds) *Geodynamics of Indian plate*. Springer, P.145-177.
- De Lapparent de Broin, F. & Prasad, G.V.R. (2020. Chelonian Pelomedusoides remains from the Late Cretaceous of Upparhatti (southwestern India): Systematics and paleobiogeographical implications. *In* G.V.R. Prasad & R. Patnaik (Eds.), *Biological consequences of plate tectonics: New perspectives on post-Gondwanaland break-up* (pp. 123-180). Cham: Springer.
- Gupta, M, Garg, N.K. and Srivastava, P.K. (2020). Soil water content influence on pesticide persistence and mobility, *Agricultural Water Management*, 307-327, Academic Press
- Halliday, T.J.D., Holroyd, P.A., Gheerbrant, E., Prasad, G.V.R., Scanferla, A., Beck, R.M.D., Krause, D.W. & Goswami, A. (2020). Leaving Gondwana: The changing position of the Indian subcontinent in the global faunal network. *In G.V.R. Prasad & R. Patnaik (Eds.)*, *Biological consequences of plate tectonics: New perspectives on post-Gondwanaland break-up* (pp. 227-249). Cham: Springer.
- Prasad, G.V.R. & Parmar, V. (2020) Phanerozoic mass extinctions and Indian stratigraphic records. *In*: Gupta, N. & Tandon, S.K. (eds.), *Geodynamics of the Indian Plate*, (pp. 291-362), Springer Geology, https://doi.org/10.1007/978-3-030-15989-4 9.
- Prasad, G.V.R. & Parmar, V. (2020). First ornithischian and theropod dinosaur teeth from the Middle Jurassic Kota Formation of India: Paleobiogeographic relationships. *In* G.V.R. Prasad & R. Patnaik (Eds.), *Biological consequences of plate tectonics: New perspectives on post-Gondwanaland break-up* (pp. 1-30). Cham: Springer.
- Rage, J.C., Prasad, G.V.R., Verma, O., Parmar, V. & Khosla, A. (2020). Anuran lissamphibian and squamate reptiles from the Upper Cretaceous (Maastrichtian) Deccan intertrappean sites in Central India, with a review of lissamphibian and squamate diversity in the northward drifting Indian plate. *In G.V.R.* Prasad & R. Patnaik (Eds.), *Biological consequences of plate tectonics: New perspectives on post-Gondwanaland break-up* (pp. 99-121). Cham: Springer.
- Srivastava, P.K., Singh, P., Pandey, V., and **Gupta, M. 2020**. Development of android application for visualization of soil water demand, Agricultural Water Management, 375-389, Academic Press

Books (Edited)

- "Biological Consequences of Plate Tectonics New Perspectives on Post-Gondwanaland Break-up", Editors: Guntupalli V. R. Prasad & Rajeev Patnaik; Publisher: Springer under its *Vertebrate Paleobiology & Paleoanthropology Series* (In Press).
- Agricultural Water Management: Theories and Practices. Editors: Prashant Srivastava, Manika Gupta, George Tsakiris and Nevil Quinn, Paperback ISBN: 9780128123621, eBook ISBN: 9780128123638, Imprint: Academic Press, Published Date: 18th November 2020

Journals

Number of Department teachers serving as Editor(s)/Member(s) of Editorial Board

• Dr. Vimal Singh, Associate Editor, Himalayan Geology, Wadia Institute of Himalayan Geology, Dehradun, India.

Research Projects

S.	Project Title	Year/	Funding	Sanctioned
No.		Period	Agency	Amount
1	Thermo-tectonic evolution of a suite of metapelitic rocks from north-eastern Madurai Province, Southern Granulite Terrain, Tamilnadu, India PI –Dr. Anindita Dey	2021	Faculty Research Program Grant-IOE, Delhi University	Rs 2.5 lakhs
2	Probing a mantle source for Proterozoic Massif type Anorthosites of Chotanagpur Granite Gneiss Complex of Eastern India. PI Investigator –Dr. Ashima Saikia, Co-PI Dr. Mansoor Ahmad	2021-2024	GSI	Rs. 5 lakhs
3	Late Neogene-Quaternary Multi-Proxy Records of El Niño variability: Implications on Tropical Indian Ocean Paleoclimate and Paleoceanography. PI - Dr. Ashutosh K Singh, Co-PI Prof. Devesh K Sinha	2020-2023	Ministry of Earth Sciences (MoES), Government of India	Rs. 31 Lakhs
4	Investigating the role of interoceanic exchange on Indian Ocean surface head redistribution and its impact on Indian Monsoon during Quaternary: A multiproxy approach. PI- Dr. Anksuh Shrivastava, Co-PI Dr. Ashutosh K Singh	2020-2023	RUSA, Ministry of Education, Govt of India	Rs. 41 Lakhs
5	Synergestic utilization of Earth observations with modification of geospatial model to improve estimation of snowmelt contribution to discharge, PI – Dr. Manika Gupta	2018 – 2021	NCPOR, Goa, MoES, Govt. of India	Rs. 30 lakhs
6	Paleopedological, sedimentological and thermochronological records of climate change and tectonics during the evolution of Siwalik successions, Punjab re-entrant PI Prof. P. Srivastava	2018-2021	Ministry of Earth Sciences (MoES), Government of India	Rs. 34 lakhs
7	Quaternary paleoclimate and paleoecology via multiproxy analysis of paleosol	2019-2021	DST-RFBR joint	Rs. 25.4 lakhs

	sequences across the Russian Plain and		research	
	Himalaya"			
	PI - Prof. P. Srivastava			
8	Tracking closure of passive margin sag-	2015-2018	DST	Rs. 18.2 lakhs
	basin in western Kutch, India: Signature	(Completed,		
	from Terminal Cenozoic succession	January		
	(Sandhan Formation) through Sequence	2021)		
	Stratigraphic Analysis.			
	PI - Dr. Pramod Kumar			
9	Zircon and monazite as proxies for the	2020-2025	DST-	Rs 35 lakhs
	crustal evolution: applications to parts of		INSPIRE	
	the Proterozoic mobile belts of India			
	PI - Dr. Subham Mukherjee			

Seminar/Conference Presentations (National / International)

International

- Abdullah, S., Misra, S., Sarvesha, R., Ghosh, B., (2020) Petrofabric and Seismic properties of exhumed subducted oceanic crust from Naga Hills Ophiolite, North-East India. AGU 2020 Fall Meeting, 01-17 December 2020. https://doi.org/10.1002/essoar.10505638.1
- Invited lecture by Prof. Devesh K Sinha on "Application of Microfossils in understanding Earth's climatic history" in the International Workshop on Advanced Micropaleontology, Department of Geology and Environmental Science, Christ College, Kerala, 26 August, 2020

National

- Dixit, R., Deshmukh, G., Srivastava, D.C., and Jain, A.K. (2020). The main central thrust zone (mctz) an enigma in himalayan tectonics: a brief study from uttarakhand himalaya. Online International Conference on "Recent Developments and Challenges in Earth & Environmental Sciences, Natural Resources Management, & Climate Change, with special focus on Eastern Himalayas", Department of Geology, Sikkim University, Gangtok.
- Deshmukh, G., Dixit, R., Jain, A. K. and Srivastava, D. C. (2020). South tibetan detachment system (stds) an extensional tectonic boundary: the insights from dhauli ganga valley, uttarakhand himalaya. Online International Conference on "Recent Developments and Challenges in Earth & Environmental Sciences, Natural Resources Management, & Climate Change, with special focus on Eastern Himalayas", Department of Geology, Sikkim University, Gangtok.
- Pant, N.C. (2020) Global warming, CO₂ Emission and Antarctic Icesheet connections and need for urgent action to tackle climate change, Indraprastha University, Delhi
- Pant, N.C. (2021) Lecture on "Need of zero carbon emission a story from ice-cores" 6th Graduate Seminar on Natural Resource Management, Banaras Hindu University, Varanasi, India

Other Inter-Institutional Collaboration

Prof. PP Chakraborty:

IIT, Kharagpur; IIT, Mumbai; Hiroshima University, Japan for Project Titled Analysis of (i) Organic geochemical compounds and (ii) Silicate rocks and minerals (zircon, Monazite)

Prof. Devesh K Sinha:

- National Institute of Oceanography, Goa (Under NIO's GEOTRACES Programme)
- Mohan Lal Sukadiya University, Udaipur (Interoceanic exchange on Indian Ocean surface and its impact on Indian Monsoon during Quaternary

Extension and Outreach Activities

Prof. Anupam Chattopadhyaya

- National mentor for IASc-INSA-NASI summer research fellowship
- Ph.D. co-supervisor of a Japanese student at Hiroshima University, Japan.
- Coordinator of Theme 27: Rock Deformation and Rheology for IGC 2020 (Later cancelled due to pandemic).

Prof. Devesh K Sinha:

- Delivered Popular Lecture at Palaeontological Society of India (Odisha Chapter) on Application of microfossils in understanding earth's History, 21st Oct, 2020
- Appeared in various TV programmes related to climate change, cyclones, earthquake, etc.
- Delivered Colloquium at the Physical Research Laboratory on "Paleobiogeographic and biostratigraphic evidences for role of Ocean gateways in changing ocean circulation and global climate during Cenozoic", 24th March, 2021
- Delivered Key Note address on "World's Ocean's tolerance to environmental degradation", World Environment Day, 5th June, 2021 at Vigyan Bharti
- Delivered Invited lecture on "Application of Microfossils in understanding Earth's climatic history" at International Workshop on Advanced Micropaleontology, Department of Geology and Environmental Science, Christ College, Kerala, 26 August, 2020

Prof. GVR Prasad

 Delivered invited talk on "Biological Consequences of Northward Journey of the Indian Plate" at Birbal Sahni Institute of Palaeosciences, Lucknow, on the foundation day of the institute, 13th November, 2020

Dr. Manika Gupta

- Successfully completed Orientation program, Organized by Guru Angad Dev Teaching Learning Centre, University of Delhi, Dec3 –Dec 30, 2020
- Co-Convener, CL2.16 Impact of climate change on agriculture, 2021, Vienna, Austria (Online mode)
- Resource person, Online Workshop on Species Distribution Modelling Using R, Institute of Environment & Sustainable Development, Banaras Hindu University, Varanasi. 15th March 16th March 2021.

Prof. N.C. Pant

- Visitor's nominee to the University Court of Nagaland University (2019-2022)
- Member (Earth Sciences), DST Expert Committee on INSPIRE Fellowship
- Member of Exploration Research Advisory Committee (ERAC) of Northern Region, Atomic Mineral Directorate, Department of Atomic Energy
- Expert for earth science program selection for Indian Antarctic Scientific Expedition (2015, 2016, 2017, 2018, 2019, 2021)
- Pant, N.C. (2020) Refresher Course on Environmental Studies: Water, Earth and Environment (IDC) on the theme "Towards Sustainable Environment - Global warming, ice-cores and CO₂ emission," October 27 – November 10, 2020
- Pant, N.C. (2021), Invited lecture on "CO₂ emission and human life a geological perspective", in Refresher Course entitled "Life sciences challenges and opportunities" organized by the Department of Botany and CPDHE, University of Delhi, 2nd February 2021.

Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.: 03

Faculty Strength:

Total: 18

Other significant information

Dr. Ashutosh Kumar Singh established Deep Sea Core Processing Wet Lab (Room No. 107) with funding from the University of Delhi and Ministry of Earth Science in the Department of Geology. The Lab is equipped with all facilities for storing deep-sea core samples at low temperature, processing facilities as per IODP protocols including Ovens, very sensitive microbalance with high precision, ultrasonic bath, wet sieving facility. In addition, the lab hosts reference slides of the Microfossils from the world ocean including, the Atlantic, Pacific, and Indian Oceans.

98thANNUAL REPORT

Department of Physics and Astrophysics Faculty of Science

1. Major Activities and Achievements

The Department of Physics and Astrophysics has maintained its position as the topmost QS ranked university physics department in India. It is also one of the largest physics departments in the country, with nearly 730 MSc students, 180 PhD students, and a current strength of 37 regular faculty members. It has sustained its high quality in research with nearly 300 research publications by faculty members, apart from those by students, in international refereed journals during the year. The faculty received several national and international grants and participated in collaborative projects across the globe. The department hosted various eminent researchers who gave inspiring lectures to motivate students. Alumni from the department occupy key positions in academics, administration, policy making and public life, in both the national and international zones. The M.Sc. curriculum of the department provides a wide choice of electives, including inter-disciplinary subjects, to its students. The department also offers a plethora of cutting-edge research topics under a vibrant Ph.D. program. An exclusive departmental portal http://physics.du.ac.in/, displaying regular updates on its academic and other activities, has successfully run online during the year.

2. Honours/Distinctions

Prof. Brajesh Chandra Choudhary

- Spokesperson, India-CMS Collaboration (August 2017 August 2021).
- Spokesperson, Indian Institutions: Fermilab Collaboration in Neutrino Physics
- Member, CMS Finance Board (August 2019 August 2021).
- Co-Chair, CMS Diversity Office (2020 2022).
- Member, Expert Committee, Department of Science and Technology (DST), Govt. of India, for reviewing research projects for award of scientific grants (2020-2021).
- Member, Mega Science Vision 2035: Committee constituted by the Office of Principal Scientific Adviser, Govt. of India (2020-2021).
- Member, Mega Sciences (Blue Sky) Committee to formulate Science, Technology and Innovation Policy 2020 (STIP-2020): Nominated by the office of the Principal Scientific Adviser, and Secretary, Department of Science and Technology, Government of India (continuing from 2020).
- Co-convener, SNOWMASS 2022 (USA) Topical Group for Public Policy and Government Engagement (continuing from 2020).
- Member, Board of Research Studies in Physics, Aligarh Muslim University (2020-2021).

Prof. Debajyoti Choudhury

- Member, PAC of Department of Science and Technology (DST), Govt. of India, for High Energy Physics, Nuclear Physics, Astrophysics, Plasma Physics and Nonlinear Dynamics (continuing in 2021)
- Member, Expert Committee of Department of Science and Technology (DST), Govt. of India, for SERC School in THEP (2020-2021).
- Member, Selection Committee for INSPIRE Faculty Awards (2020-2021).

• Member, Selection Committee for UGC-FRP (2020-21).

Prof. Patrick Das Gupta

- President, Indian association of General Relativity and Gravitation (IAGRG) (continuing from 2020).
- Member, Departmental Research Committee, Department of Physics, Indira Gandhi National Tribal University, Amarkantak, Chhattishgarh (continuing from 2020).
- Member, Under-Graduate Board of Studies in Physics, Pondicherry University, Puducherry (continuing from 2020).

Prof. Vinay Gupta

- Coordinator, Centre for Advanced Studies (CAS-I), Department of Physics and Astrophysics, University of Delhi (2018 2023).
- Member, Technical Review and Advisory committee (TRAC), for DeitY project "Nanoelectronics Network for research & Applications" implemented by IISc, IITs (Bombay, Madras, Delhi, Kharagpur) in area of Energy and (2018 2022).
- Member, Expert committee, Post Graduate board of Studies and Research in Physics, Ch. Devilal University, Sirsa, Haryana (June 2019 June 2021).
- Member, School Board, School of Physical and Mathematical Sciences, Central University of Haryana (2018 – 2021).

Prof. Samit Kr. Mandal

- Member, Board of Studies (BOS), Amity Institute of Nuclear Science and Technology, Amity University, Noida (2020-2021).
- Member, Committee for updating equivalent discipline for recruitment, Defence Research & Development Organization (DRDO) (2018 onwards).
- Member, Planning Committee, SERB School on Nuclear Physics (2018 onwards).
- Member (with voting right), NUSTAR Council, FAIR-NUSTAR project, GSI, Darmstadt, Germany (2018 onwards).
- Co-convenor, FAIR-NUSTAR-INDIA Collaboration (2017 onwards).
- Member, Expert committee, SERB High Risk High Reward Research (HRHR) (2017 onwards).
- Member, Special committee, Special Centre for Nanoscience (SCNS), Jawaharlal Nehru University (2020-2021).
- Member, Selection committees for JRF/Research Associate/Scientist, Inter-University Accelerator Center (2008 onwards).
- Member, Evaluation Committee for JRF to SRF, Inter-University Accelerator Center, (2008 onwards).

Prof. Shyama Rath

- Member, PAC of Department of Science and Technology (DST), Govt. of India, for High Energy Physics, Nuclear Physics, Astrophysics, Plasma Physics and Nonlinear Dynamics (2020-2021).
- Member, Post-Graduate Board of Studies in Physics, Pondicherry University, Puducherry -- continuing in 2020-21.
- Member, Departmental Research Committee, Delhi Technological University (2020-2021).
- Member, Selection Committee, KVPY (2020-2021).
- Member, Selection Committee, CSIR-SRF and RA (2020-2021).
- Member, Evaluation Committee, DST PhD Inspire Awards (2020-2021).

Prof. H.P. Singh

- Member, DST-JSPS, Indo-Japan Science Council (2016 onwards).
- Dean, International Relations, University of Delhi (2016 onwards).
- Chair, Time Allocation Committee, Indian Institute of Astrophysics (2018 onwards).

Prof. Annapoorni Subramaniam

- Member, Academic council, Jawaharlal Nehru University, Pondicherry University and Amity Institute of Nanotechnology (2020-2021).
- Local coordinator, GIAN (2020-2021).

Prof. Amita Chandra

• Member, University Research Council, Manay Rachna University (April 2019 - April 2021).

- Member, Board of Studies, School of Vocational Studies and Applied Sciences, Gautam Buddha University (2020-2021).
- Research Ambassador, DAAD (2014 onwards).

Prof. Nivedita Deo

• Member, Complex Systems Society (CCS), International (2020-2021).

Prof. Supriya K. Kar

 Recipient, Outstanding Reviewer Award 2020, Classical and Quantum Gravity, Institute of Physics Publishing, Bristol, United Kingdom.

Prof. Awadhesh Prasad

 Member, PAC of Department of Science and Technology (DST), Govt. of India, for High Energy Physics, Nuclear Physics, Astrophysics, Plasma Physics and Nonlinear Dynamics (2020-2021).

Dr. Devki Nandan Gupta

- Member, Subject Expert Committee, Union Public Service Commission (UPSC) (2020).
- Member, Selection Committee, Board of Research in Nuclear Sciences, DAE, Govt. of India (2020).
- Member, Student Research Committee, Department of Applied Physics, Delhi Technological University, Delhi (2020-2021).
- External Member, Departmental Research Committee (DRC), Manav Rachna University, Faridabad (2018-2021).
- Recipient, Outstanding Reviewer Award 2020, Atomic and Molecular Physics, Institute of Physics Publishing, Bristol, United Kingdom.
- Council Member, Plasma Science Society of India (PSSI) (2018-2021).

Dr. Sourav Sur

- Member, Indian association of General Relativity and Gravitation (IAGRG)-since 2001 (Lifetime membership).
- Recipient, Outstanding Reviewer Award 2019, Classical and Quantum Gravity, Institute of Physics Publishing, Bristol, United Kingdom (Award received in April 2020).

Dr. Ajit Kumar Mahapatro

• Joint Secretary, Executive Council, Electron Microscopy Society of India (EMSI) (2020-2021)

3. Publications

Publication in	Publication in	Books /	Books /	Books /	Total number of
Peer-reviewed	Peer-reviewed	Chapters of	Chapters of	Chapters of	Publications
Journals	Journals	Books	Books	Books	
(International)	(National)	(International	(National	(Local	
		Publisher)	Publisher)	Publisher)	
261	4	3			268
					+ 26 (Conf. Proc.)
					= 294

SCI Journals (Total: 265)

Aad, G., Abbott, B., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Combination of the W boson polarization measurements in top quark decays using ATLAS and CMS data at $\sqrt{s} = 8$ TeV, Journal of High Energy Physics, 2020(8), pp. 51.

<u>Abazov, V.M., Abbott, B., Acharya, B.S.,</u> ..., Choudhary, B.C., ..., <u>Zieminska, D., Zivkovic, L.</u> (2021). <u>Study of the normalized transverse momentum distribution of W bosons produced in pp⁻ collisions at s =1.96 TeV, Physical Review D, 103(1), pp. 012003.</u>

- Abazov, V.M., Abbott, B., Acharya, B.S., ..., Choudhary, B.C., ..., Zieminska, D., Zivkovic, L. (2020). Studies of X (3872) and ψ (2S) production in p p collisions at 1.96 TeV studies of X (3872) and ψ (2S) production, Physical Review D, 102(7), pp. 072005.
- Acero, M.A., Adamson, P., Aliaga, L., ..., Choudhary, B.C., ..., Zhang, Y., Zwaska, R. (2021). Search for slow magnetic monopoles with the NOvA detector on the surface, Physical Review D, 103(1), pp. 012007.
- Acero, M.A., Adamson, P., Agam, G., ..., Choudhary, B.C., ..., Zhang, Y., Zwaska, R. (2020). Adjusting neutrino interaction models and evaluating uncertainties using NOvA near detector data, European Physical Journal C, 80(12), pp. 1119.
- Acero, M.A., Adamson, P., Agam, G., ..., Choudhary, B.C., ..., Zhang, Y., Zwaska, R. (2020). Supernova neutrino detection in NOvA, Journal of Cosmology and Astroparticle Physics, 2020(10), pp. 014.
- Acero, M.A., Adamson, P., Aliaga, L., ..., Choudhary, B.C., ..., Zamorano, B., Zwaska, R. (2020). Measurement of neutrino-induced neutral-current coherent π0 production in the NOvA near detector, Physical Review D, 102(1), pp. 012004.
- Acero, M.A., Adamson, P., Aliaga, L., ..., Choudhary, B.C., ..., Zhang, Y., Zwaska, R. (2020). Search for multimessenger signals in NOvA coincident with LIGO/Virgo detections, Physical Review D, 101(11), pp. 112006.
- Ahmad, T., Jindal, K., Tomar, M., Jha, P.K., Gupta, V. (2021). Role of charge states and dopant site in governing electronic properties of Cr doped BiFeO₃, Materials Chemistry and Physics, 263, pp. 124438.
- Ameer, S., Jindal, K., Tomar, M., Jha, P.K., Gupta, V. (2020). <u>Tunable electronic and magnetic properties</u> of 3d transition metal doped Bi₂Fe₄O₉, Journal of Magnetism and Magnetic Materials, 509, pp. 166893.
- Ameer, S., Jindal, K., Tomar, M., Jha, P.K., Gupta, V. (2020). <u>The role of an unintentional carbon dopant in resolving the controversial conductivity aspects in BiFeO₃, Physical Chemistry Chemical Physics, 22(18), pp. 10010.</u>
- Amrit, P., Jain, S., Tomar, M., Gupta, V., Joshi, B. (2020). <u>Synthesis and characterization of sol gel derived nontoxic CZTS thin films without sulfurization</u>, International Journal of Applied Ceramic Technology, 17(3), pp. 1194.
- Asapur, P., Banerjee, I., Sahare, P.D., Mahapatra, S. (2021). <u>Spectroscopic analysis of Muga silk nanoparticles synthesized by microwave method</u>, Biotechnology and Applied Biochemistry, 68(2), pp. 345.
- Bala, M., Masarrat, A., Kumar, V., ..., Asokan, K., Annapoorni, S. (2020). Effect of thermal annealing on thermoelectric properties of BixSb2-xTe3 thin films grown by sputtering, Journal of Applied Physics, 127(24), pp. 0002576.
- Bala, N., Singh, H.K., Verma, S., Rath, S. (2020). <u>Magnetic-order induced effects in nanocrystalline NiO probed by Raman spectroscopy</u>, Physical Review B, 102(2), pp. 024423.
- Banday, A., Shahid, R., Meena, S.S., Yusuf, S.M., Murugavel, S. (2020). Effect of crystallite size on the phase transition behavior of Heterosite FePO4, *Physical Chemistry Chemical Physics*, 22, pp. 15478.

- Batra, K., Sinha, N., Kumar, B. (2020). Lead-free 0.95 (K0.6 Na0.4) NbO3 0.05 (Bi0.5 Na0.5) ZrO3 ceramic for high temperature dielectric, ferroelectric and piezoelectric applications, *Journal of Alloys and Compounds*, 818, pp. 152874.
- Batra, K., Sinha, N., Kumar, B. (2020). <u>Tb-doped ZnO:PDMS based flexible nanogenerator with enhanced piezoelectric output performance by optimizing nanofiller concentration</u>, Ceramics International, 46(15), pp. 24120.
- Bhardwaj, A., Rejkuba, M., de Grijs, R., Herczeg, G.J., Singh, H.P., Kanbur, S., Ngeow, C.-C. (2020). Near-infrared Census of RR Lyrae Variables in the Messier 3 Globular Cluster and the Period-Luminosity Relations, Astronomical Journal, 160(5), pp. 220.
- Bhardwaj, A., Rejkuba, M., de Grijs, R., Yang, S.-C., Herczeg, G.J., Marconi, M., Singh, H.P., Kanbur, S., Ngeow, C.-C. (2021). RR Lyrae Variables in Messier 53: Near-infrared Period-Luminosity Relations and the Calibration Using Gaia Early Data Release 3, Astrophysical Journal, 909(2), pp. 200.
- Bhat, M.Y., Yadav, N., Hashmi, S.A. (2020). <u>A high performance flexible gel polymer electrolyte incorporated with suberonitrile as additive for quasi-solid carbon supercapacitor</u>, Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 262, pp. 114721.
- Bhattacharjee, P., Choudhury, D., Das, K., Ghosh, D.K., Majumdar, P. (2021). Gamma Ray and Synchrotron Radiation from Dark Matter annihilations in Ultra-faint Dwarf Galaxies, *Journal of Cosmology and Astroparticle Physics (JCAP)*, 06, pp. 041.
- Bhukkal, S., Kumar, B. (2020). Modified CZ technique for the growth of organic crystals having low melting point and high vapour pressure, *Journal of Crystal Growth*, 535, pp. 125534.
- Bhushan, R., Pandey, A., Vaid, G., Singh, R.P., Kabiraj, D., Mehta, D., Kapil, A., Chamoli, S.K. (2021). Fabrication of 128Te thin target for nuclear levels lifetime measurements, Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 983, pp. 164586.
- Boazbou Newmai, M., Pathak, N.K., Senthil Kumar, P. (2020). Molecular aspects of oligomer-coupled ultra-small Au nanoparticles, Journal of Physics and Chemistry of Solids, 140, pp. 109378.
- Chakraborty, S., Sharma, H.P., Tiwary, S.S., Majumder, C., Banerjee, P., Ganguly, S., Kumar, S., Kumar, A., Kumar, A., Singh, R.P., Muralithar, S. (2020). Indication of gamma-vibration in 123,125,127I, *Journal of Physics G: Nuclear and Particle Physics*, 47, pp. 095104.
- Chakraborty, S., Sharma, H.P., Tiwary, S.S., Majumder, C., Banerjee, P., Ganguly, S., Rai, S., Pragati, Mayank, Kumar, S., Kumar, A., Palit, R., Bhattacharjee, S.S., Singh, R.P., Muralithar, S. (2020). Gamma-vibration in 126Xe-revisit, *Nuclear Physics A*, 996, pp. 121687.
- Chakraborty, S., Sharma, H.P., Tiwary, S.S., Majumder, C., Banerjee, P., Ganguly, S., Rai, S., Pragati, Modi, S., Arumugam, P., Mayank, Kumar, S., Kumar, A., Bhattacharjee, S.S., Singh, R.P., Muralithar, S. (2020). Signature splitting in the positive parity bands of 127Xe, *European Physical Journal A*, 56, pp. 50.
- Chakraborty, S., Sharma, H.P., Tiwary, S.S., Majumder, C., Gupta, A.K., Kumar, A., Banerjee, P., Ganguly, S., Kumar, S., Kumar, A., Singh, R.P., Muralithar, S., Octupole correlations in 127I. (2021). *International Journal of Modern Physics E*, 50, pp. 2150030.

Chakraborty, S., Sharma, H.P., Tiwary, S.S., Majumder, C., Gupta, A.K., Banerjee, P., Ganguly, S., Rai, S., Pragati, Mayank, Kumar, S., Kumar, A., Palit, R., Bhattacharjee, S.S., Singh, R.P., Muralithar, S. (2020). Multiphonon longitudinal wobbling in 127Xe, *Physics Letters B*, 811, pp. 135854.

Channey, K.S., Kumar, S. (2021). Breaking $\mu - \tau$ symmetry of tri-bimaximal mixing, Journal of Physics G: Nuclear and Particle Physics, 48(3), pp. 035003.

Chaudhari, R., Garg, A., Singh, K., ..., Gupta, V., RaviKant, C. (2021). <u>Bismuth tri-iodide-polystyrene composite for X-rays switching applications at room temperature</u>, Radiation Physics and Chemistry, 186, pp. 109538.

Chauhan, L., Kumar, S., Sreenivas, K., Shukla, A.K. (2021). Variable range hopping and modulus relaxation in NiFe2O4 ceramics, *Materials Chemistry and Physics*, 259, pp. 124135.

Choudhary, S., Annapoorni, S., Malik, R. (2021). Facile strategy to synthesize donut-shaped α -Fe2O3 nanoparticles for enhanced LPG detection, Sensors and Actuators, B: Chemical, 334, pp. 129668.

Choudhary, S., Kumar, V., Malik, V., ..., Annapoorni, S., Malik, R. (2020). Synthesis of ZnO@Ag dumbbells for highly efficient visible-light photocatalysts, Journal of Physics Condensed Matter, 32(40), pp. 405202.

Choudhary, S., Vashisht, G., Malik, R., ..., Kandasami, A., Annapoorni, S. (2021). Photo generated charge transport studies of defects-induced shuttlecock-shaped ZnO/Ag hybrid nanostructures, Nanotechnology, 32(30), pp. 305708.

Choudhury, D., Deka, K., Mandal, T., Sadhukhan, S. (2020). Neutrino and Z' phenomenology in an anomaly-free U(1) extension: role of higher-dimensional operators, *Journal of High Energy Physics*, 06, pp. 111.

Choudhury, D., Maharana, S., Sachdeva, D., Sahdev, V. (2021). Dark matter, muon anomalous magnetic moment, and the XENON1T excess, *Physical Review D*, 103, no. 1, pp. 015006.

Dahiya, A., Singh, S.S. (2020). Equation of State of PNJL model under the influence of thermal mass and magnetic field, *Pramana Journal of Physics*, 94(1), pp. 121.

Das Gupta, P. (2020). <u>F J Dyson: The Man Who Would Make Patterns and Disturb the Universe</u>, Resonance, 25(10), pp. 1319.

Das, P., Dattaf, U., Chakraborty, S., ..., Mandal, S.K., ..., Stora, T., Wadsworth, R. (2020). <u>Study of exotic decay of Cs isotope close to the proton drip line</u>, Journal of Physics: Conference Series, 1643(1), pp. 012127.

Das, S., Kanbur, S.M., Bellinger, E.P., Bhardwaj, A., Singh, H.P., Meerdink, B., Proietti, N., Chalmers, A., Jordan, R. (2020). The stellar photosphere-hydrogen ionization front interaction in classical pulsators: a theoretical explanation for observed period-colour relations, Monthly Notices of the Royal Astronomical Society, 493(1), pp. 29.

Das, S., Kanbur, S.M., Smolec, R., Bhardwaj, A., Singh, H.P., Rejkuba, M. (2021). A theoretical framework for BL Her stars - I. Effect of metallicity and convection parameters on period-luminosity and period-radius relations, Monthly Notices of the Royal Astronomical Society, 501(1), pp. 875.

- Dewan, S., Tomar, M., Tandon, R.P., Gupta, V. (2020). <u>Room temperature electroluminescence from Laser MBE grown Gallium nitride LEDs</u>, Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 260, pp. 114655.
- Dixit, S., Chowdhury, S.N., Prasad, A., Ghosh D., Shrimali, M.D. (2021). Emergent rhythms in coupled nonlinear oscillators due to dynamic interactions, *Chaos*, 31, pp. 011105.
- Dubey, M., Kumar, A., Murugavel, S., Vijaya Prakash, G., Amilan Jose, D. and Mariappan, C. R. (2020). Structural and ion transport properties of sodium ion conducting Na2MTeO6 (M= MgNi and MgZn) solid electrolytes, *Ceramic International*, 46, no. 1, pp. 663.
- Dutt, M., Kaushik, A., Tomar, M., Gupta, V., Singh, V. (2020). Synthesis of mesoporous α -Fe₂O₃ nanostructures via nanocasting using MCM-41 and KIT-6 as hard templates for sensing volatile organic compounds (VOCs), Journal of Porous Materials, 27(1), pp. 285.
- Dutt, M., Ratan, A., Tomar, M., Gupta, V., Singh, V. (2020). <u>Mesoporous metal oxide- α -Fe₂O₃ nanocomposites for sensing formaldehyde and ethanol at room temperature</u>, Journal of Physics and Chemistry of Solids, 145, pp. 109536.
- Fernández-Trincado, J.G., Beers, T.C., Minniti, D., Carigi, L., Placco, V.M., Chun, S.-H., Lane, R.R., Geisler, D., Villanova, S., Souza, S. O., Barbuy, B., Pérez-Villegas, A., Chiappini, C., Queiroz, A.B.A., Tang, B., Alonso-García, J., Piatti, A.E., Palma, T., Alves-Brito, A., Moni Bidin, C., Roman-Lopes, A., Muñoz, R.R., Singh, H.P., Kundu, R., Chaves-Velasquez, L., Romero-Colmenares, M., Longa-Peña, P., Soto, M., Vieira, K. (2021). APOGEE discovery of a chemically atypical star disrupted from NGC 6723 and captured by the Milky Way bulge, Astronomy and Astrophysics, 647, pp. A64.
- Gandhi, S., Issar, S., Mahapatro, A.K., Roy, I. (2020). Cobalt ferrite nanoparticles for bimodal hyperthermia and their mechanistic interactions with Lysozyme, *Journal of Molecular Liquids*, 310, pp. 113194.
- Gill, N., Gupta, V., Tomar, M., ..., Pandey, O.P., Singh, D.P. (2020). <u>Improved electromagnetic shielding behaviour of graphene encapsulated polypyrrole-graphene nanocomposite in X-band</u>, Composites Science and Technology, 192, pp. 108113.
- Goel, S., Kumar, B. (2020). A review on piezo-/ferro-electric properties of morphologically diverse ZnO nanostructures, *Journal of Alloys and Compounds*, 816, pp. 152491.
- Gopal, K., Gupta, D.N., Jain, A., Hur, M.S., Suk, H. (2021). Investigation of electron beam parameters in laser wakefield acceleration using skewed laser pulse and external magnetic field, *Current Applied Physics*, 25, pp. 82.
- Gopal, K., Gupta, D.N., Suk, H. (2021). Pulse-Length Effect on Laser Wakefield Acceleration of Electrons by Skewed Laser Pulses, *IEEE Transactions on Plasma Science*, 49 (3), pp. 1152.
- Gupta, D.N., (2021). Optical Second-Harmonic Generation of Terahertz Field from n-type InSb Semiconductors, *Plasmonics* (Springer), 16 (2), pp. 419.
- Gupta, D.N., Jain, A. (2021). Terahertz radiation generation by a super-Gaussian laser pulse in a magnetized plasma, *Optik*, 227, pp. 165824.
- Gupta, G., Sharma, R., Seshadri, T.R. (2020). <u>Scalar spectral index in the presence of Primordial Black</u> Holes, International Journal of Modern Physics D, 29(3), pp. 2050029.

- Gupta, G., Verma, S., Nagarajan, R., Rath, S. (2021). <u>Microstructural and bandgap investigations of wurtzite-phase ZnMgO nanopowders synthesized by ball-milling</u>, Physica B: Condensed Matter, 604, pp. 412735.
- Gupta, K.K., Jha, A.K., Singh, S.S. (2020). Quark-Gluon Plasma evolution under loop correction, *International Journal of Science Research and Applied Physics*, 8, pp. 13.
- Gupta, R., Gupta, V., Tomar, M. (2020). <u>Ferroelectric PZT thin films for photovoltaic application</u>, Materials Science in Semiconductor Processing, 105, pp. 104723.
- Gupta, R.K., Kar, S., Nitish, R. (2020). Aspects of Gravitational Wave/Particle Duality: Bulk Torsion/Boundary Gravity Correspondence, *International Journal of Modern Physics D*, 29 (2), pp. 2050019.
- Gupta, S., Gupta, V., Tomar, M. (2020). <u>Texture evolution in PLD grown ferroelectric Strontium Barium Niobate (SBN) thin films with processing parameters</u>, Superlattices and Microstructures, 148, pp. 106732.
- Gupta, S., Pal, M., Tomar, M., ..., Bhalla, A., Gupta, V. (2021). <u>Ferroelectric and magnetic domain mapping of magneto-dielectric Ce doped BiFeO₃ thin films, Journal of Alloys and Compounds, 882, pp. 160698.</u>
- Gupta, S., Paliwal, A., Gupta, V., Tomar, M. (2020). Ferroelectric $Sr_{0.6}Ba_{0.4}Nb_2O_6$ thin film based broadband waveguide coupled surface plasmon electro-optic modulator, Optics and Laser Technology, 122, pp. 105880.
- Gupta, S., Paliwal, A., Gupta, V., Tomar, M. (2020). <u>Surface Plasmon Resonance assisted optical analysis</u> of Strontium Barium Niobate thin films, Applied Surface Science, 501, pp. 144178.
- Gupta, S., Paliwal, A., Gupta, V., Tomar, M. (2020). <u>Thermo-optic Aided Tunability of Sr_{0.6} Ba_{0.4} Nb₂ O₆ Thin Film-based Electro-optic Modulator Using Waveguide Coupled SPR Modes, Plasmonics, 15(3), pp. 661.</u>
- Gupta, S., Paliwal, A., Gupta, V., Tomar, M. (2021). <u>High figure of merit observed in SBN thin film</u> based EO modulator employing WCSPR technique, Optics and Laser Technology, 137, pp. 106816.
- Gupta, S., Sharma, S., Ahmad, T., ..., Gupta, V., Tomar, M. (2021). <u>Demonstration of efficient SBN thin film based miniaturized Mach Zehnder EO modulator</u>, Materials Chemistry and Physics, 262, pp. 124300.
- Gurjar, M.C., Gopal, K., Gupta, D.N., Kulagin, V.V. (2021). Terahertz radiation generation from short-pulse laser interaction with electron-hole plasmas, *Europhysics Letters*, 133 (1), pp. 14001.
- Gurjar, M.C., Gopal, K., Gupta, D.N., Kulagin, V.V., Suk, H. (2020). High-Field Coherent Terahertz Radiation Generation from Chirped Laser Pulse Interaction with Plasmas, *IEEE Transactions on Plasma Science*, 48 (10), pp. 3727.
- Hashmi, S.A., Yasir Bhat, Md., Yadav, N. (2020). <u>Gel polymer electrolyte composition incorporating adiponitrile as a solvent for high-performance electrical double-layer capacitor</u>, ACS Applied Energy Materials, 3(11), pp. 10642.

- Hor, A.A., Hashmi, S.A. (2020). Optimization of hierarchical porous carbon derived from a biomass pollen-cone as high-performance electrodes for supercapacitors, Electrochimica Acta, 356, pp. 136826.
- Issar, S., Mahapatro, A.K. (2020). Floating metal layer as top electrode over vertically grown nanorod arrays using angle deposition technique, *Nanotechnology*, 31(1), pp. 465301.
- Jagannathan, S., Malik, S., Jain, D., Seshadri, T.R. (2021). <u>Impact of magnetic field on the gas mass fraction of galaxy clusters</u>, New Astronomy, 84, pp. 101531.
- Jagannathan, S., Sharma, R., Seshadri, T.R. (2021). <u>Imprints of the post-recombination dissipation of helical magnetic field on the Cosmic Microwave Background Radiation</u>, International Journal of Modern Physics D, 30(1), pp. 2050122.
- Jain, A., Gupta, D. N. (2021). Improvement of electron beam quality in laser wakefield acceleration by a circularly-polarized laser pulse, *Plasma Physics and Controlled Fusion*, 63 (7), pp. 075007.
- Jain, P., Goel, A., Mandal, S.K. (2020). Moments of Inertia of SDIBs in A= 190 Mass Region using VMI Model, *Journal of Scientific Research*, 12, pp. 209.
- Jain, S., Paliwal, A., Gupta, V., Tomar, M. (2020). <u>Long Range Surface Plasmons assisted highly sensitive and room temperature operated NO₂ gas sensor, Sensors and Actuators, B: Chemical, 311, pp. 127897.</u>
- Jain, S., Paliwal, A., Gupta, V., Tomar, M. (2020). <u>Plasmon-Assisted Crystalline Silicon Solar Cell with TiO₂ as Anti-Reflective Coating</u>, Plasmonics, 15(4), pp. 1091.
- Jain, S., Paliwal, A., Gupta, V., Tomar, M. (2020). <u>Refractive index tuning of SiO₂ for Long Range Surface Plasmon Resonance based biosensor</u>, Biosensors and Bioelectronics, 168, pp. 112508.
- Jamdegni, M., Kaur, A. (2020). <u>Highly efficient dark to transparent electrochromic electrode with charge storing ability based on polyaniline and functionalized nickel oxide composite linked through a binding agent, Electrochimica Acta, 331, pp. 135359.</u>
- Jamdegni, M., Kaur, A. (2020). <u>Role of polarity of surfactants on the morphology of electrochemically synthesized polyaniline nanostructures: Towards faster and efficient electrochromic response</u>, Thin Solid Films, 714, pp. 138373.
- Jarwal, B., Singh, S.S. (2020). Effect of chemical potential on rotation of boson star, *Indian Journal of Physics*, 94(9), pp. 1483.
- Jarwal, B., Singh, S.S. (2020). Effect of cosmological constant on amplitude variation of boson star, *International Journal of Science Research and Applied Physics*, 8, pp. 26.
- Joseph, A.J., Sinha, N., Goel, S., Hussain, A., Kumar, B.. (2020). <u>True-remanent, resistive-leakage and mechanical studies of flux grown 0.64PMN-0.36PT single crystals</u>, Arabian Journal of Chemistry, 13(1), pp. 2596.
- Joshi, A., Pandey, J.C., Raj, A., Singh, K.P., Anupama, G.C., Singh, H.P. (2020). Optical and X-ray studies of three polars: RX J0859.1+0537, RX J0749.1-0549, and RX J0649.8-0737, Monthly Notices of the Royal Astronomical Society, 491(1), pp. 201.
- Joshi, H., Annapoorni, S. (2020). Tuning Optical Properties in Nanocomposites, International Journal of Nanoscience, 19(4), pp. 1950026.

- Kameswara Rao, N., Lambert, D.L., Reddy, A.B.S., Gupta, R., Muneer, S., Varghese, B., Singh, H.P. (2020). Unveiling Vela variability of interstellar lines in the direction of the Vela supernova remnant III. Na D and Ca II K, Monthly Notices of the Royal Astronomical Society, 493(1), pp. 497.
- Kharangarh, P.R., Gupta, V., Singh, A., Bhardwaj, P., Grace, A.N. (2020). <u>An efficient pseudocapacitor electrode material with co-doping of iron (II) and sulfur in luminescent graphene quantum dots</u>, Diamond and Related Materials, 107, pp. 107913.
- Kharangarh, P.R., Ravindra, N.M., Rawal, R., Singh, A., Gupta, V. (2021). <u>Graphene quantum dots decorated on spinel nickel cobaltite nanocomposites for boosting supercapacitor electrode material performance</u>, Journal of Alloys and Compounds, 876, pp. 159990.
- Khurana, S., Negi, S., Chandra, A. (2021). <u>Effect of surface modification of dispersoid on hybrid polymer electrolyte</u>, Polymer Testing, 96, pp. 107118.
- Kulagin, V.V., Kornienko, V.N., Cherepenin, V.A., Gupta, D.N., Suk, H. (2021). Generation of intense coherent electromagnetic radiation during the interaction of a multi-terawatt laser pulse with a nanowire target, *Quantum Electronics*, 51 (4), pp. 323.
- Kumar, A., Sudipta, Murugavel, S. (2020). Influence of textural characteristics on biomineralization behavior of mesoporous SiO2-P2O5-CaO bioactive glass and glass-ceramics, *Materials Chemistry and Physics*, 242, pp. 122511.
- Kumar, D., Jain, D., Mahajan, S., Mukherjee, A., Rani, N. (2021). <u>Constraining cosmological and galaxy</u> parameters using strong gravitational lensing systems, Physical Review D, 103(6), pp. 063511.
- Kumar, J., Singh, H., Bhasker Raj, V., ..., Gupta, V., Singh, V.K. (2020). <u>Trace detection of nerve agent simulant in the fuel vapour environment using metal oxide/surface acoustic wave e-nose</u>, Defence Science Journal, 70(5), pp. 520.
- Kumar, L., Chauhan, M., Boruah, P.K., ..., Hashmi, S.A., Deka, S. (2020). <u>Coral-Shaped Bifunctional NiCo₂O₄Nanostructure</u>: A Material for Highly Efficient Electrochemical Charge Storage and <u>Electrocatalytic Oxygen Evolution Reaction</u>, ACS Applied Energy Materials, 3(7), pp. 6793.
- Kumar, N., Verma, S., Mohsina, S., Sadhukhan, J., Rojeeta Devi, K., Banerjee, A., Saneesh, N., Kumar, M., Mahajan, R., Thakur, M., Kaur, G., Rani, A., Neelam, Yadav, A., Kavita, Kumar, R., Unnati, Mandal, S., Kumar, S., Behera, B.R., Golda, K.S., Jhingan, A., Sugathan, P. (2021). Probing entrance channel effects in fusion-fission dynamics through neutron multiplicity measurement of 208Rn, *Physics Letter B*, 814, pp. 136062.
- Kumar, N., Verma, S., Mohsina, S., ..., Mandal, S.K., ..., Jhingan, A., Sugathan, P. (2021). <u>Probing entrance channel effects in fusion-fission dynamics through neutron multiplicity measurement of ²⁰⁸Rn, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 814, pp. 136062.</u>
- Kumar, P., Vedeshwar, A.G. (2020). Cavity-assisted enhanced and dephasing-immune squeezing in the resonance fluorescence of a single quantum dot, *Physical Review A*, 102, pp. 043715.
- Kumar, P., Saxena, N., Gupta, V. (2020). <u>Vital role of Ar ambient pressure in controlled properties of nanocrystalline CdS thin films</u>, Journal of Materials Science: Materials in Electronics, 31(9), pp. 6755.
- Kumar, R., Kaur, A. (2020). <u>Chemiresistive gas sensors based on thermally reduced graphene oxide for sensing sulphur dioxide at room temperature</u>, Diamond and Related Materials, 109, pp. 108039.

- Kumar, R., Sinha, N., Kumar, B. (2021). Influence of Xylenol Orange dye on Structural, Vibrational, Thermal and Luminescence properties of TGS crystals, *Journal of Materials Science: Materials in Electronics*, 32(2), pp. 2486.
- Kumar, S., Gupta, D.N. (2020). Optimization of laser parameters for proton acceleration using double laser pulses in TNSA mechanism, *Laser and Particle Beams*, 38 (2), pp. 73.
- Kumar, S., Gupta, D.N., Malik, H.K., Singh, D., Lee, J., Yoon, M. (2020). Effect of a tightly focused chirped Gaussian laser pulse on electron acceleration in helical undulator, *Physics of Plasmas*, 27 (4), pp. 043105.
- Kumar, S., Mahapatro, A.K., Mishra, P. (2020). 2 MeV Argon (Ar+) ion induced nano-fabrication in GaSb epi-layers on GaAs substrates, *Vacuum*, 179, pp. 109523.
- Kumar, S., Sharma, A., Ho, Y.T., ..., Chang, E.Y., Gupta, V. (2020). <u>High performance UV photodetector based on MoS_2 layers grown by pulsed laser deposition technique</u>, Journal of Alloys and Compounds, 835, pp. 155222.
- Kumar, S., Sharma, A., Tomar, M., Gupta, V.. (2021). <u>Realization of low-power and high mobility thin film transistors based on MoS₂ layers grown by PLD technique, Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 266, pp. 115047.</u>
- Kumar, S., Sinha, N., Goel, S., Kumar, B. (2020). Effect of xylenol orange dye on morphological, optical, piezo-/di-electric and mechanical properties of potassium hydrogen phthalate single crystals, *Vacuum*, 175, pp. 109240.
- Kumar, S., Sinha, N., Goel, S., Kumar, B. (2021). Trypan blue stained KAP crystal: A comparative study on morphological, structural, optical, di-/piezo-electric and mechanical properties, *Chinese Journal of Physics*, 72, pp. 655.
- Kumar, S., Sreenivas, K. (2021). Effects of DL-alanine fuel and annealing on auto combustion derived MgFe2O4 powder with low carbon content and improved magnetic properties, Applied Physics A: Materials Science and Processing, 127(3), pp. 165.
- Kumar, V., Bhogra, A., Bala, M., ..., Asokan, K., Annapoorni, S. (2021). Origin of intense blue-green emission in thin films with implanted nitrogen ions: An investigation by synchrotron-based experimental techniques, Physical Review B, 103(2), pp. 024104.
- Kumar, Y., Sethy, P. K., Singh, S.S. (2021). <u>A Simple Model Approach to Dilepton Production Rate in Relativistic Heavy Ion Collisions</u>, *Physics of Particles and Nuclei Letters*, 18(2), pp. 160.
- Kundu, R., Navarrete, C., Fernández-Trincado, J. G., Minniti, D., Singh, H.P., Sbordone, L., Piatti, A.E., Reylé, C. (2021). The search for extratidal star candidates around Galactic globular clusters NGC 2808, NGC 6266, and NGC 6397 with Gaia DR2 astrometry, Astronomy and Astrophysics, 645, pp. A116.
- Lamichhane, S., Sharma, S., Tomar, M., Gupta, V. (2020). <u>Effect of laser fluence on multiferroic BiFeO₃ ferroelectric photovoltaic cells</u>, *Journal of Physics and Chemistry of Solids*, 146, pp. 109602.
- Lamichhane, S., Sharma, S., Tomar, M., Kumar, A., Gupta, V.. (2020). <u>Influence of laser fluence in modifying energy storage property of BiFeO₃ thin film capacitor</u>, Journal of Energy Storage, 32, pp. 101769.

Lochab, A., Saxena, M., Jindal, K., ..., Gupta, V., Saxena, R. (2021). <u>Thiol-functionalized multiwall carbon nanotubes for electrochemical sensing of thallium</u>, Materials Chemistry and Physics, 259, pp. 124068.

Malik, S., Chand, H., Seshadri, T.R. (2020). <u>Role of Intervening Mg II Absorbers on the Rotation Measure and Fractional Polarization of the Background Quasars</u>, Astrophysical Journal, 890(2), pp. 132.

Mandlik, N.T., Rondiya, S.R., Dzade, N.Y., ..., Sahare, P.D., ..., Bhatt, B.C., Dhole, S.D. (2020). Thermoluminescence, photoluminescence and optically stimulated luminescence characteristics of CaSO₄:Eu phosphor: Experimental and density functional theory (DFT) investigations, Journal of Luminescence, 221, 117051.

Mandlik, N.T., Sahare, P.D., Dhole, S.D. (2020). <u>Effect of size variation and gamma irradiation on thermoluminescence and photoluminescence characteristics of CaSO₄:Eu micro- and nanophosphors, Applied Radiation and Isotopes, 159, pp. 109080.</u>

Mandlik, N.T., Sahare, P.D., Dhole, S.D., Balraj, A. (2020). Effect of annealing temperature and phase change on thermoluminescence and photoluminescence of K₂Ca₂(SO₄)₃:Eu nanophosphor, Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms, 480, pp. 105.

Mandlik, N.T., Sahare, P.D., Kulkarni, M.S., ..., Gaikwad, N.P., Dhole, S.D. (2021). <u>Study of optically stimulated luminescence and calculation of trapping parameters of $K_2Ca_2(SO_4)_3$:Eu nanophosphor, Applied Radiation and Isotopes, 167, pp. 109388.</u>

Mandlik, N.T., Sahare, P.D., Rondiya, S.R., ..., Dahiwale, S. S., Dhole, S. D. (2020). Characteristics of $\underline{K_2Ca_2(SO_4)_3}$:Eu TLD nanophosphor for its applications in electron and gamma rays dosimetry, Optical Materials, 109, pp. 110272.

Mandlik, N.T., Varma, V.B., Kulkarni, M.S., ..., Sahare, P.D., ..., Bhoraskar, S. V., Dhole, S. D. (2020). <u>Luminescence and dosimetric characteristics of nanocrystalline Al₂O₃:C synthesized by thermal plasma reactor, Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms, 466, pp. 90.</u>

Mangla, O., Roy, S., Annapoorni, S., Asokan, K. (2020). A study on defect annealing in GaAs nanostructures by ion beam irradiation, Bulletin of Materials Science, 43(1), pp. 78.

Mishra, K., Yadav, N., Hashmi, S.A. (2020). <u>Recent progress in electrode and electrolyte materials for flexible sodium-ion batteries</u>, Journal of Materials Chemistry A, 8(43), pp. 22507.

Moditma, Singh, P., Sharma, R., Verma, A.K., Annapoorni, S. (2021). FeCo nanoparticles as antibacterial agents with improved response in magnetic field: an insight into the associated toxicity mechanism, Nanotechnology, 32(33), pp. 335101.

Moditma,, Choudhary, S., Vashisht, G., Reddy, V.R., Annapoorni, S. (2020). <u>Facile Synthesis of Highly Magnetic Long-term Stable FeCo Nanoparticles</u>, Journal of Superconductivity and Novel Magnetism, 33(6), pp. 1653.

Neelam, Kumar, S., Devi, K.R., ..., Kumar, A., Srivastava. (2020). P.C. Intermediate structure and dipole bands in the transitional 134Ba nucleus, *Physical Review C*, 101(1), pp. 014312.

- Negi, S., Chandra, A. (2020). <u>Aqueous electrolytes' transport through nanopores of polymeric membrane</u>, Radiation Effects and Defects in Solids, 175(3-4), pp. 257.
- Nitish, R., Gupta, R.K., Kar, S. (2020). Perspective of Perihelion precession in Torsion Modified Gravity, *International Journal of Modern Physics D*, 29(10), pp. 2050074.
- Nitish, R., Kar, S. (2021). Geometric torsion, four-form, Riemann duals and Quintessence, *International Journal of Modern Physics D*, 30 (2), pp. 2150011.
- Pandey, A., Bhushan, R., Rohilla, A., Majumder, C., Chakraborty S., Singh, R. P., Kapil, A., Chamoli, S.K. (2021). Fabrication of thin Nb target for lifetime measurements of short lived excited nuclear states, Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 985, pp. 164667.
- Pandey, A.K., Malik, S., Seshadri, T.R. (2021). <u>Implications of baryon–dark matter interaction on IGM temperature and tSZ effect with magnetic field</u>, Monthly Notices of the Royal Astronomical Society, 500(1), pp. 643.
- Pandey, I., Chandra, A. (2021). <u>Temperature-induced changes in polymer-based fractal patterns due to Ag metal aggregation</u>, Applied Physics A: Materials Science and Processing, 127(5), pp. 369.
- Pandey, P.P., Singh, H., Jain, S. (2020). Exponential trajectories, cell size fluctuations and the adder property in bacteria follow from simple chemical dynamics and division control, *Phys. Rev. E*, 101, pp. 062406.
- Pandey, R.K., Mishra, P., Kaushik, J.K., ..., Devi, K.D., Rath, S. (2020). <u>Higher electrical activation of ion-implanted Si over S in GaSb epitaxial layers</u>, Materials Science in Semiconductor Processing, 115, pp. 105107.
- Pandey, R.K., Mishra, P., Pandey, A., ..., Arora, A., Rath, S. (2021). <u>Silicon-ion implantation induced doping and nano porosity in molecular beam epitaxy grown GaSb epitaxial films</u>, Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 39(4), pp. 043413.
- Paul, A.M., Prasad, A., Kuznetsov, N.V., Shrimali, M.D. (2021). Chimera states in a class of hidden oscillatory networks, *Nonlinear Dynamics*, 104, pp. 1645.
- Prasad, J., Singh, A.K., Tomar, M., Gupta, V., Singh, K. (2020). <u>High-efficiency microwave absorption and electromagnetic interference shielding of Cobalt-doped MoS₂ nanosheet anchored on the surface reduced graphene oxide nanosheet, Journal of Materials Science: Materials in Electronics, 31(22), pp. 19895.</u>
- Prasad, J., Singh, A.K., Tomar, M., Gupta, V., Singh, K. (2021). Hydrothermal synthesis of micro-flower like morphology aluminum-doped MoS₂/rGO nanohybrids for high efficient electromagnetic wave shielding materials, Ceramics International, 47(11), pp. 15648.
- Prasad, J., Singh, A.K., Yadav, A.N., ..., Gupta, V., Singh, K. (2020). <u>Molybdenum Disulfide-Wrapped Carbon Nanotube-Reduced Graphene Oxide (CNT/MoS₂-rGO) Nanohybrids for Excellent and Fast Removal of Electromagnetic Interference Pollution</u>, ACS Applied Materials and Interfaces, 12(36), pp. 40828.

- Rajput, J., Kumar, H., Bhatt, P., Safvan, C.P. (2020). <u>A new technique for measurement of subrotational lifetime of molecular ions</u>, Scientific Reports, 10(1), pp. 20301.
- Raval, B., Sahare, P.D., Mahapatra, S.K., Banerjee, I. (2021). Enhanced capacitive behaviour of graphene nanoplatelets embedded epoxy nanocomposite, Journal of Materials Science: Materials in Electronics, 32(4), pp. 4034.
- Rawal, R., Kharangarh, P.R., Dawra, S., ..., Gupta, V., Pundir, C.S. (2020). <u>A comprehensive review of bilirubin determination methods with special emphasis on biosensors</u>, Process Biochemistry, 89, pp. 165.
- Saini, R., Kumar, A., Bhatt, G., ..., Tomar, M., Gupta, V. (2020). <u>Lossy Mode Resonance-Based Refractive Index Sensor for Sucrose Concentration Measurement</u>, IEEE Sensors Journal, 20(3), pp. 1217.
- Saran, M., Sahare, P.D., Chauhan, V., Kumar, R., Mandlik, N.T. (2021). <u>Thermoluminescence in Eu doped NaLi₂PO₄TLD nanophosphor: Effect of particle size on TL characteristics</u>, Journal of Luminescence, 238, pp. 118207.
- Saxena, S., Bagchi, S., Tayyab, M., Rao, B.S., Kumar, S., Gupta, D.N., Chakera, J.A. (2020). Scaling up and parametric characterization of two-color air plasma terahertz source, *Laser Physics*, 30 (3), pp. 036002.
- Sen, P., Indumathi, D., Choudhury, D. (2020). Infrared finiteness of a complete theory of charged scalars and fermions at finite temperature, *European Physical Journal C*, 80, no. 10, pp. 972.
- Sethy, P., Kumar, Y. Singh, S.S. (2020). Effect of magnetic field on dilepton production rate in RHIC, *Journal of Science Research*, 12(2), pp. 215.
- Sethy, P., Kumar, Y. Singh, S.S. (2020). Photon Emission as a promising probe for QGP in heavy-ion collision, *International Journal of Science Research and Applied Physics*, 8, pp. 22.
- Sethy, P., Kumar, Y., Singh, S.S. (2020). Dilepton production rate calculation using magnetized effective quark mass in heavy-ion collision, *International Journal of Modern Physics A*, 35(21), pp. 2050115.
- Shandilya, A., Yadav, R.S., Gupta, A.K., Sreenivas, K. (2021). Temperature-dependent light up-conversion and thermometric properties of Er3+/Yb3+ co-doped SrMoO4 sintered ceramics, *Journal of Materials Science*, 56(22), pp. 12716.
- Shandilya, A., Yadav, R.S., Gupta, A.K., Sreenivas, K. (2021). Effects of Yb3+ ion doping on lattice distortion, optical absorption and light up-conversion in Er3+/Yb3+ co-doped SrMoO4 ceramics, *Materials Chemistry and Physics*, 264, pp. 124441.
- Sharma, A., Yadav, K., Shrimali, M.D., Prasad, A., Kuznetsov, N.V. (2020). Time varying feedback control on multi-stability in hidden attractor, European Physical Journal: Special Topics, 229(6-7), pp. 1245.
- Sharma, K., Singh, H.P., Gupta, R., Kembhavi, A., Vaghmare, K., Shi, J., Zhao, Y., Zhang, J., Wu, Y. (2020). Stellar spectral interpolation using machine learning, Monthly Notices of the Royal Astronomical Society, 496(4), pp. 5002.

- Sharma, P., Sharma, R., Jain, C., Dutta, A. (2020). <u>Broad-band spectral analysis of LMXB XTE J1710-281 with Suzaku</u>, Monthly Notices of the Royal Astronomical Society, 496(1), pp. 197.
- Sharma, R., Beri, A., Sanna, A., Dutta, A. (2020). <u>A broad-band look of the accreting millisecond X-ray pulsar SAX J1748.9-2021 using AstroSat and XMM-Newton</u>, Monthly Notices of the Royal Astronomical Society, (3), pp. 4361.
- Sharma, R., Subramanian, K., Seshadri, T.R. (2020). <u>Gravitational wave generation in a viable scenario of inflationary magnetogenesis</u>, Physical Review D, 101(10), pp. 103526.
- Sharma, S., Murugavel, S., Kaghazchi, P. (2020). Polaron transport mechanism in maricite NaFePO4: A combined experimental and simulation study, *Journal of Power Sources*, 469, pp. 228348.
- Sharma, S., Gupta, R., Kumar, A., Gupta, V., Tomar, M. (2021). <u>Investigation of optical non-linearity of lead-free ferroelectric potassium sodium niobate ($K_{0.35}Na_{0.65}NbO_3$) thin films via two-wave mixing phenomenon, Optics and Laser Technology, 141, pp. 107148.</u>
- Sharma, S., Sharma, A., Gupta, V., Puri, N.K., Tomar, M. (2021). <u>Comparison of Ferroelectric Photovoltaic Performance in BFO/BTO Multilayer Thin Film Structure Fabricated Using CSD & PLD Techniques</u>, Journal of Electronic Materials, 50(4), pp. 1835.
- Sharma, S., Tomar, M., Gupta, V., Kapoor, A. (2021). <u>Investigation of cadmium-incorporated ZnO thin films for photodetector applications</u>, Superlattices and Microstructures, 151, pp. 106812.
- Sharma, Y., Murugavel, S. (2021). Direct evidence for the behaviour of single and bipolarons in chalcogenide glasses, *Journal of Non-Crystalline Solids*, 559, pp. 120650.
- Singh, A., Chatterjee, R., Gupta, V. (2021). Effect of stoichiometric addition of La on $Bi_{0.5}$ $Na_{0.5}$ TiO₃ and large strain in thus modified ($Bi_{1-x}La_x$)_{0.5} $Na_{0.5}$ TiO₃ at room temperature and above, Materials Chemistry and Physics, 265, pp. 124483.
- Singh, A., Chatterjee, R., Gupta, V. (2021). <u>Proposing a phase diagram for BNT-BKT-KNN and finding a new MPB and large strain region in the system</u>, Ferroelectrics, 577(1), pp. 161.
- Singh, A., Gupta, V.. (2021). <u>Study of AC conductivity and conduction mechanism in BNT-BKT-KNN</u> ternary system, Ferroelectrics, 573(1), pp. 195.
- Singh, P., Ram, J., Chauhan, V., ..., Sahare, P.D., Kumar, R. (2020). <u>High dose gamma radiation exposure upon Kapton-H polymer for modifications of optical, free volume, structural and chemical properties</u>, Optik, 205, pp. 164244.
- Singh, V., Late, D.J., Goyal, A., Rath, S. (2021). Raman spectroscopic investigations of the selenization of MoO_3 in the chemical vapor deposition process to form two-dimensional $MoSe_2$, Applied Surface Science, 538, pp. 147946.
- Singh, V., Late, D.J., Rath, S. (2020). <u>Tunable light emission from chemical vapor deposited two-dimensional MoSe₂ by layer variation and S incorporation</u>, Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38(2), 023402.
- Singh, V., Rath, S. (2021). <u>Improved morphology and excitonic emission of 2D MoS₂ by incorporating mechanical grinding in the liquid phase exfoliation synthesis process</u>, Physica E: Low-Dimensional Systems and Nanostructures, 128, pp. 114617.

- Sinha, N., Batra, K., Bhukkal, S., Kumar, R., Kumar, S., Goel, S., Kumar, B. (2020). Effect of sunset yellow dye on morphological, optical, dielectric, thermal and mechanical properties of KDP crystal, *Arabian Journal of Chemistry*, 13(6), pp. 5750.
- Sinha, S., Kumar, S., Arora, S.K., ..., Gupta, V., Tomar, M. (2021). <u>Study of band alignment at MoS₂/SiO₂interfaces grown by pulsed laser deposition method</u>, Journal of Applied Physics, 129(11), pp. 115303.
- Sinha, S., Kumar, S., Arora, S.K., ..., Wu, H.-C., Gupta, V. (2021). <u>Enhanced interlayer coupling and efficient photodetection response of in-situ grown MoS₂-WS₂ van der Waals heterostructures, Journal of Applied Physics, 129(15), pp. 155304.</u>
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Measurement of differential t t $^-$ production cross sections using top quarks at large transverse momenta in pp collisions at s=13 TeV, Physical Review D, 103(5), pp. 052008.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Search for nonresonant Higgs boson pair production in final states with two bottom quarks and two photons in proton-proton collisions at $\sqrt{s} = 13$ TeV, *Journal of High Energy Physics*, 2021(3), pp. 257.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Measurement of the inclusive and differential Higgs boson production cross sections in the leptonic WW decay mode at $\sqrt{s} = 13$ TeV, *Journal of High Energy Physics*, 2021(3), pp. 3.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Search for new physics in top quark production with additional leptons in proton-proton collisions at $\sqrt{s} = 13$ TeV using effective field theory, *Journal of High Energy Physics*, 2021(3), pp. 95.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Search for dark photons in Higgs boson production via vector boson fusion in proton-proton collisions at $\sqrt{s} = 13$ TeV, *Journal of High Energy Physics*, 2021(3), pp. 11.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Studies of charm and beauty hadron long-range correlations in pp and pPb collisions at LHC energies, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 813, pp. 136036.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Evidence for electroweak production of four charged leptons and two jets in proton-proton collisions at s=13TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 812, pp. 135992.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Measurements of production cross sections of polarized same-sign W boson pairs in association with two jets in proton-proton collisions at s=13 TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 812, pp. 136018.

- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Evidence for Higgs boson decay to a pair of muons, *Journal of High Energy Physics*, 2021(1), pp. 148.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Search for the lepton flavor violating decay $\tau \to 3\mu$ in proton-proton collisions at $\sqrt{s} = 13$ TeV, *Journal of High Energy Physics*, 2021(1), pp. 163.
- Sirunyan, A.M., Tumasyan, A., ..., Smith, W.H., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Correlations of azimuthal anisotropy Fourier harmonics with subevent cumulants in pPb collisions at sNN =8.16 TeV, Physical Review C, 103(1), pp. 014902.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Search for dark matter produced in association with a leptonically decaying Z boson in proton–proton collisions at \sqrt{s} =13Te, European Physical Journal C, 81(1), pp. 13.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2021). Search for top squark pair production using dilepton final states in pp collision data collected at $\sqrt{s}=13$ TeV, European Physical Journal C, 81(1), pp. 3.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). <u>Observation of electroweak production of Wγ with two jets in proton-proton collisions at s=13 TeV</u>, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 811, pp. 135988.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for bottom-type, vectorlike quark pair production in a fully hadronic final state in proton-proton collisions at s =13 TeV, Physical Review D, 102(11), pp. 112004.
- Sirunyan, A.M., Tumasyan, A., ..., Zich, J., Zielinski, K. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of single-diffractive dijet production in proton–proton collisions at \sqrt{s} =8Te with the CMS and TOTEM experiments, European Physical Journal C, 80(12), pp. 1164.
- Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). A Deep Neural Network for Simultaneous Estimation of b Jet Energy and Resolution, Computing and Software for Big Science, 4(1), pp. 10.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Dependence of inclusive jet production on the anti- k_T distance parameter in pp collisions at $\sqrt{s} = 13$ TeV, *Journal of High Energy Physics*, 2020(12), pp. 82.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Inclusive search for highly boosted Higgs bosons decaying to bottom quark-antiquark pairs in proton-proton collisions at $\sqrt{s} = 13$ TeV, *Journal of High Energy Physics*, 2020(12), pp. 85.
- Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurements of the W boson rapidity, helicity, double-differential cross sections, and charge asymmetry in pp collisions at $s=13~{\rm TeV}$, Physical Review D, 102(9), pp. 092012.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of the top quark Yukawa coupling from tt⁻ kinematic distributions in the dilepton final state in proton-proton collisions at s=13 TeV, Physical Review D, 102(9), pp. 092013.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Evidence for Top Quark Production in Nucleus-Nucleus Collisions, Physical Review Letters, 125(22), pp. 222001.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of Bc (2S)+ and Bc* (2S)+ cross section ratios in proton-proton collisions at s=13 TeV, Physical Review D, 102(9), pp. 092007.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Investigation into the event-activity dependence of $\Upsilon(nS)$ relative production in proton-proton collisions at $\sqrt{s}=7$ TeV, *Journal of High Energy Physics*, 2020(11), pp. 1.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for decays of the 125 GeV Higgs boson into a Z boson and a ρ or ϕ meson, *Journal of High Energy Physics*, 2020(11), pp. 39.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurements of production cross sections of WZ and same-sign WW boson pairs in association with two jets in proton-proton collisions at s=13TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 809, pp. 135710.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Observation of the Bs0 \rightarrow x (3872) ϕ Decay, Physical Review Letters, 125(15), pp. 152001.

Sirunyan, A.M., Tumasyan, A., ..., Rusinov, V., Matveev, V. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for a light charged Higgs boson in the $H^{\pm} \rightarrow cs$ channel in proton-proton collisions at s=13 TeV search for a light charged Higgs Boson in the ..., Physical Review D, 102(7), pp. 072001.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Observation of the Production of Three Massive Gauge Bosons at s = 13 TeV, Physical Review Letters, 125(15), pp. 151802.

Sirunyan, A.M., Tumasyan, A., ..., Smith, W.H., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Reconstruction of signal amplitudes in the CMS electromagnetic calorimeter in the presence of overlapping proton-proton interactions, *Journal of Instrumentation*, 15(10), pp. P10002.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Performance of the CMS Level-1 trigger in proton-proton collisions at $\sqrt{s} = 13$ TeV, *Journal of Instrumentation*, 15(10), pp. P10017.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of CKM matrix elements in single top quark t-channel production in proton-proton collisions at s=13 TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 808, pp. 135609.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of the Y(1S) pair production cross section and search for resonances decaying to $Y(1S)\mu^+\mu^-$ in proton-proton collisions at s=13TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 808, pp. 135578.

Sirunyan, A.M., Tumasyan, A., ..., Smith, W.H., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Studies of Charm Quark Diffusion inside Jets Using Pb-Pb and pp Collisions at sNN =5.02 TeV, Physical Review Letters, 125(10), pp. 102001.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Pileup mitigation at CMS in 13 TeV data, *Journal of Instrumentation*, 15(9), pp. P09018.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for supersymmetry in proton-proton collisions at $\sqrt{s} = 13$ TeV in events with high-momentum Z bosons and missing transverse momentum, *Journal of High Energy Physics*, 2020(9), pp. 149.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurements of t t ⁻ H Production and the CP Structure of the Yukawa Interaction between the Higgs Boson and Top Quark in the Diphoton Decay Channel, Physical Review Letters, 125(6), pp. 061801.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for resonant pair production of Higgs bosons in the bbZZ channel in proton-proton collisions at s=13 TeV, Physical Review D, 102(3), pp. 032003.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of the associated production of a Z boson with charm or bottom quark jets in proton-proton collisions at s =13 TeV, Physical Review D, 102(3), pp. 032007.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for a light pseudoscalar Higgs boson in the boosted $\mu\mu\tau\tau$ final state in proton-proton collisions at $\sqrt{s}=13$ TeV, Journal of High Energy Physics, 2020(8), pp. 139.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for physics beyond the standard model in events with jets and two same-sign or at least three charged leptons in proton-proton collisions at $\sqrt{s}=13$ TeV, European Physical Journal C, 80(8), pp. 752.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Study of central exclusive production in proton-proton collisions at \sqrt{s} =5.02 and 13TeV, European Physical Journal C, 80(8), pp. 718.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Vetens, W. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for disappearing tracks in proton-proton collisions at s=13TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 806, pp. 135502.

Sirunyan, A.M., Tumasyan, A., ..., Smith, W.H., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of t t⁻ normalised multi-differential cross sections in pp collisions at √s=13TeV, and simultaneous determination of the strong coupling strength, top quark pole mass, and parton distribution functions, European Physical Journal C, 80(7), pp. 658.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of quark- and gluon-like jet fractions using jet charge in PbPb and pp collisions at 5.02 TeV, Journal of High Energy Physics, 2020(7), pp. 115.

Sirunyan, A.M., Tumasyan, A., ..., Smith, W.H., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for charged Higgs bosons decaying into a top and a bottom quark in the all-jet final state of pp collisions at \sqrt{s} =13TeV, Journal of High Energy Physics, 2020(7), pp. 126.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of the cross section for t t $^-$ production with additional jets and b jets in pp collisions at \sqrt{s} =13TeV, Journal of High Energy Physics, 2020(7), pp. 125.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). The production of isolated photons in PbPb and pp collisions at $\sqrt{\text{sNN}} = 5.02 \text{ TeV}$, Journal of High Energy Physics, 2020(7), pp. 116.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for dijet resonances using events with three jets in proton-proton collisions at s=13TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 805, pp. 135448.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). A measurement of the Higgs boson mass in the diphoton decay channel, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 805, pp. 135425.

Sirunyan, A.M., Tumasyan, A., ..., Smith, W.H., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Strange hadron production in pp and pPb collisions at sNN =5.02 TeV, Physical Review C, 101(6), pp. 064906.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurements with silicon photomultipliers of doserate effects in the radiation damage of plastic scintillator tiles in the CMS hadron endcap calorimeter, *Journal of Instrumentation*, 15(6), pp. P06009.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Identification of heavy, energetic, hadronically decaying particles using machine-learning techniques, *Journal of Instrumentation*, 15(6), pp. P06005.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of the top quark forward-backward production asymmetry and the anomalous chromoelectric and chromomagnetic moments in pp collisions at $\sqrt{s} = 13$ TeV, Journal of High Energy Physics, 2020(6), pp. 146.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of the cross section for electroweak production of a Z boson, a photon and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV and constraints on anomalous quartic couplings, Journal of High Energy Physics, 2020(6), pp. 76.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Determination of the strong coupling constant $\alpha_S(m_Z)$ from measurements of inclusive W[±] and Z boson production cross sections in proton-proton collisions at $\sqrt{s} = 7$ and 8 TeV, Journal of High Energy Physics, 2020(6), pp. 18.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of the jet mass distribution and top quark mass in hadronic decays of boosted top quarks in pp collisions at $\sqrt{s} = 13$ TeV, Physical Review Letters, 124(20), pp. 202001.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Study of J/ψ meson production inside jets in pp collisions at s=8TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 804, pp. 135409.

Sirunyan, A.M., Tumasyan, A., ..., Taylor, D., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Erratum to: Study of dijet events with a large rapidity gap between the two leading jets in pp collisions at s = 7 Te (The European Physical Journal C, (2018), 78, 3, (242), 10.1140/epjc/s10052-018-5691-6), European Physical Journal C, 80(5), pp. 441.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Calibration of the CMS hadron calorimeters using proton-proton collision data at s=13 TeV, *Journal of Instrumentation*, 15(5), pp. P05002.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of differential cross sections and charge ratios for t-channel single top quark production in proton–proton collisions at \sqrt{s} =13Te, European Physical Journal C, 80(5), pp. 370.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for an excited lepton that decays via a contact interaction to a lepton and two jets in proton-proton collisions at $\sqrt{s} = 13$ TeV, Journal of High Energy Physics, 2020(5), pp. 52.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for direct top squark pair production in events with one lepton, jets, and missing transverse momentum at 13 TeV with the CMS experiment, Journal of High Energy Physics, 2020(5), pp. 32.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for high mass dijet resonances with a new background prediction method in proton-proton collisions at $\sqrt{s} = 13$ TeV, Journal of High Energy Physics, 2020(5), pp. 33.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Constraints on the χ c1 versus χ c2 Polarizations in Proton-Proton Collisions at s =8 TeV, Physical Review Letters, 124(16), pp. 162002.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Study of excited $\Lambda_b^{\ 0}$ states decaying to $\Lambda_b^{\ 0}\pi^+\pi^-$ in proton-proton collisions at s=13TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 803, pp. 135345.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of the tt¯bb¯ production cross section in the all-jet final state in pp collisions at s=13 TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 803, pp. 135285.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Production of Λ_c^+ baryons in proton-proton and lead-lead collisions at s_{NN} =5.02TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 803, pp. 135328.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Running of the top quark mass from proton-proton collisions at s=13TeV, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 803, pp. 135263.

Sirunyan, A.M., Tumasyan, A., ..., Teague, D., Trembath-Reichert, S. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for a Narrow Resonance Lighter than 200 GeV Decaying to a Pair of Muons in Proton-Proton Collisions at s =13 TeV, Physical Review Letters, 124(13), pp. 131802.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Search for heavy Higgs bosons decaying to a top quark pair in proton-proton collisions at $\sqrt{s} = 13$ TeV, Journal of High Energy Physics, 2020(4), pp. 171.

Sirunyan, A.M., Tumasyan, A., ..., Trembath-Reichert, S., Woods, N. [including Choudhary, B.C., Bhardwaj, A., Ranjan, K., Naimuddin, M.]. (2020). Measurement of properties of $Bs0 \to \mu^+\mu^-$ decays and search for $B^0 \to \mu^+\mu^-$ with the CMS experiment, Journal of High Energy Physics, 2020(4), pp. 188.

Sonker, R.K., Yadav, B.C., Gupta, V., Tomar, M. (2020). <u>Synthesis of CdS nanoparticle by sol-gel method as low temperature NO₂ sensor, Materials Chemistry and Physics, 239, pp. 121975.</u>

Suleman, M., Deraman, M., Hashmi, S.A., ..., Rajouria, S.K., Jasni, M.R.M. (2020). <u>Accommodating succinonitrile rotators in micro-pores of 3D nano-structured cactus carbon for assisting micro-crystallite organization, ion transport and surplus pseudo-capacitance: An extreme temperature supercapacitor behavior, Electrochimica Acta, 333, pp. 135547.</u>

Sundari, S.S., Kumar, B., Dhanasekaran, R. (2020). Dielectric and Conductivity Properties of Flux Grown Ce doped NBT-BT Single Crystals, *Physica B: Condensed matter*, 582, pp. 411978.

Sur, S., Dutta, A., Chothe, H.R. (2021). <u>Mimetic-metric-torsion with induced axial mode and phantom barrier crossing</u>, European Physical Journal C, 81(4), pp. 306.

Swami, R., Bokolia, R., Sreenivas, K. (2020). Effects of sintering temperature on structural, electrical and ferroelectric properties of La2Ti2O7 ceramics, Ceramics International, 46(17), pp. 26790.

Tiwary, S.S., Sharma, H.P., Chakraborty, S., Majumder, C., Gupta, A., Modi, S., Arumugam, P., Banerjee, P., Ganguly, S., Rojeeta Devi, K., Neelam, Kumar, S., Chamoli, S.K., Sharma, A., Jyothi, V.V., Mayank, Kumar, A., Bhattacharjee, S., Bala, I., Muralithar, S., Singh, R.P. (2020). Structure of positive parity states in 139Pm, *Physica Scripta*, 95, pp. 095304.

Tripathi, K., Murugavel, S., Singh, R.K. (2021). Dead Ashoka (Saraca asoca) leaves derived porous activated carbons and flexible ion gel polymer electrolyte for high energy-density electric double-layer capacitors, *Materials Today Sustainability*, 11-12, pp. 100062.

Tyagi, N., Yadav, H., Hussain, A., Kumar, B. (2021). Development of new L- Serine Squarate single crystal: Growth, structure, Hirshfeld surface analysis with enrichment ratio of atomic contacts, *Journal of Molecular Structure*, 1224, pp. 129190.

Valiente-Dobón, J.J., Gottardo, A., Benzoni, G., ..., Mandal, S.K., ..., Wollersheim, H.-J., Van Isacker, P. (2021). <u>Manifestation of the Berry phase in the atomic nucleus</u> ²¹³Pb, Physics Letters, Section B: Nuclear, Elementary Particle and High-Energy Physics, 816, pp. 136183.

Vandana, Gupta, R., Tomar, M., Tandon, R.P., Gupta, V. (2021). <u>Impact of TiO₂ buffer layer on the ferroelectric photovoltaic response of CSD grown PZT thick films</u>, Applied Physics A: Materials Science and Processing, 127(6), pp. 427.

Varshney, V., Kumarasamy, S., Biswal, B., Prasad, A. (2020). Bifurcation delay, travelling waves and chimera-like states in a network of coupled oscillators, European Physical Journal: Special Topics, 229(12-13), pp. 2307.

Vashisht, G., Hussain, Z., Sulania, I., Ojha, S., Reddy, V.R., Annapoorni, S. (2021). Domain state modulation by interfacial diffusion in FePt/FeCo thin films: Experimental approach with micromagnetic modelling, *Journal of Physics: Condensed Matter*, 33, pp. 335805.

Vashisht, G., Shashank, U., Gupta, S., ..., Fukuma, Y., Annapoorni, S. (2021). Pinning-assisted out-of-plane anisotropy in reverse stack FeCo/FePt intermetallic bilayers for controlled switching in spintronics, *Journal of Alloys and Compounds*, 877, pp. 160249.

Vishnu Kumar, A.S., Bhogra, A., Bala, M., ..., Annapoorni, S. (2021). Bandgap engineering in SrTiO3 thin films by electronic excitations: A synchrotron-based spectroscopic study, *Scripta Materialia*, 195, pp. 113725.

Vyas, M.K., Chandra, A. (2021). <u>Magneto-dielectric and magneto-conducting fillers based polymer composites:</u> Effect of functionalization, coating and dispersion process on electromagnetic shielding <u>properties</u>, Journal of Applied Polymer Science, 138(25), pp. 50602.

Yadav, M., Gupta, D.N., Sharma, S.C. (2020). Electron plasma wave excitation by a q-Gaussian laser beam and subsequent electron acceleration, *Physics of Plasmas*, 27 (9), pp. 093106.

Yadav, M., Gupta, D.N., Sharma, S.C., Suk, H. (2020). Plasma bubble evolution in laser wakefield acceleration in a petawatt regime, *Laser Physics Letters*, 17 (7), pp. 076001.

Yadav, N., Hashmi, S.A. (2020). <u>Energy enhancement of quasi-solid-state supercapacitors based on a non-aqueous gel polymer electrolyte via a synergistic effect of dual redox additives diphenylamine and potassium iodide, Journal of Materials Chemistry A, 8(35), pp. 18266.</u>

Yadav, N., Mishra, K., Hashmi, S.A. (2020). <u>Nanozirconia polymer composite porous membrane prepared by sustainable immersion precipitation method for use as electrolyte in flexible supercapacitors, Materials Today Communications, 25, pp. 101506.</u>

Yadav, N., Ritu, Promila, Hashmi, S.A. (2020). <u>Hierarchical porous carbon derived from eucalyptus-bark as a sustainable electrode for high-performance solid-state supercapacitors</u>, Sustainable Energy and Fuels, 4(4), pp. 1730.

Yadav, N., Yadav, N., Hashmi, S.A. (2020). <u>Ionic liquid incorporated, redox-active blend polymer electrolyte for high energy density quasi-solid-state carbon supercapacitor</u>, Journal of Power Sources, 451, pp. 227771.

Conference proceedings/Book(s)/Chapter(s)

<u>Abbas, M., Abbrescia, M., Abdalla, H., ..., Naimuddin, M., ..., Yu, I., Zaleski, S.</u> (2020). <u>Two years' test of a temperature sensing system based on fibre Bragg grating technology for the CMS GE1/1 detectors"</u>, <u>Journal of Physics: Conference Series</u>, vol. 1561(1), pp. 012006.

Bala, N., Rath, S. (2020). Effect of Oxygen annealing on the Growth and Magnetic behavior of Sol-Gel Synthesized NiO Nanoparticles, *Materials Today Proceedings*, 28(1), pp. 353.

Bala, N., Rath, S. (2020). Optical spectroscopic investigation of Sol-Gel synthesized nickel oxide nanoparticles, AIP Conference Proceedings, 2265, pp. 030077.

Bhadola, P., Saichaemchan, S., Deo, N. (2020). Spectral analysis of financial threshold networks, *Indian Academy of Sciences Conference Series*, 3, art. 0018.

Bharathi, M.S.S., Byram, C., Nehra, K., Senthil Kumar, P., Rao, S.V. (2020). Filter paper loaded with gold nanoparticles as flexible SERS substrates for sensing applications, AIP Conference Proceedings, 2265, pp. 030252.

Dahiya, A., Senthil Kumar, P. (2020). Plasmonic gold-copper alloy as 'Nanorulers', AIP Conference Proceedings, 2265, pp. 030078.

Das, P., Dattaf, U., Chakraborty, S., ..., Mandal, S.K., ..., Stora, T., Wadsworth, R. (2020). Study of exotic decay of Cs isotope close to the proton drip line, Journal of Physics: Conference Series, 1643(1), pp. 012127.

Das, S., Sharma, M.K., Sur, S. (2021). On the quantum origin of a dark universe, *Physical Sciences Forum*, 2(1), art. 21.

Gill, N., Kaur, N., Sharma, A.L., ..., Gupta, V., ..., Pandey, O.P., Singh, D.P. (2020) <u>Microwave Absorption and Reflection Behaviour of Polypyrrole-PMMA-Co_{0.5}Ni_{0.5}Fe₂O₄ Nanocomposite in X-band, AIP Conference Proceedings, 2265, pp. 030159.</u>

Gupta, D.N., Jain, A. (2021). Short-pulse laser propagation in a tunnel ionizing plasma and subsequent electron acceleration, AIP Conference Proceedings, 2319, pp. 030009.

Hashmi, S.A., Yadav, N. and Singh, M.K. (2020). Polymer Electrolytes for Supercapacitor and Challenges, contributed as a Chapter of 'Polymer Electrolytes: Characterization Techniques and Energy Applications', Edited by Winie, T., Arof, A.K., Thomas, S., *John Wiley & Sons Ltd.*, pp. 231.

Jain, A., Gupta, D.N. (2021). Terahertz field excitation by a higher-order Gaussian laser pulse propagating in a magnetized plasma, Proceedings of SPIE - The International Society for Optical Engineering, 11778, pp. 117780C.

- Kar, S.K. (2020). Non-commutative Geometry: A Perspective on String and Field Theories, *World Scientific, Singapore*, ISBN-13: 978-9812380524, ISBN-10: 9812380523.
- Kaur, D., Kumar, S., Naimuddin, M. (2021). The Measurement of the Difference Between v and v^- Mass-Squared Splittings in Atmospheric and Long-Baseline Neutrino Experiments, *Springer Proceedings of Physics*, 261, pp. 957.
- Kulagin, V.V., Cherepenin, V.A., Kornienko, V.N., Gupta, D.N. (2021). Subrelativistic infrared and terahertz pulses from petawatt class laser interaction with complex nanodimensional targets, Proceedings of SPIE The International Society for Optical Engineering, 11778, pp. 117780E.
- Kumar, H., Ahmed, A., Gola, M., Ahmed, R., Kumar, A., Naimuddin, M. (2021). Design and Development of Gas Mixing Unit for Gas Electron Multiplier (GEM) Chamber, *Springer Proceedings of Physics*, 261, pp. 1165.
- Mandlik, N.T., Jitkar, N.R., Bagul, P.P., ..., Sahare, P.D., ..., Kachere, A.R., Kakade, P.M. (2021). <u>Study of luminescence characteristics of K₂Ca₂(SO₄)₃:Eu microphosphor by electron and gamma irradiation, AIP Conference Proceedings, 2335, pp. 080014.</u>
- Mishra, D., Srivastava, M. (2020). Low-dimensional nanomaterials for the photocatalytic degradation of organic pollutants, contributed as the Chapter 2 of 'Nano-Materials as Photocatalysts for Degradation of Environmental Pollutants' Edited by Singh, P., Borthakur, A., Mishra, P.K., Tiwary, D. (Eds.), *Elsevier*, pp. 15.
- Phogat, A., Rafik, M., Kumar, A., Naimuddin, M. (2021). HARDROC2B: A Readout ASIC for INO-ICAL RPCs, *Springer Proceedings of Physics*, 261, pp. 719.
- Prasad, J., Singh, A.K., Tomar, M., Gupta, V., Singh, K. (2020). <u>Chromium-doped MoS₂ grown on rGO nanosheet for enhanced microwave shielding performance</u>, AIP Conference Proceedings, 2265, pp. 030594.
- Sen, P., Indumathi, D., Choudhury, D. (2021). IR Finiteness of Theories with Bino-Like Dark Matter at Finite Temperature, *Springer Proceedings in Physics*, 261, pp. 375.
- Sen, P., Indumathi, D., Choudhury, D. (2021). Infrared Finiteness of Theories with Bino-Like Dark Matter at T = 0, *Springer Proceedings in Physics*, 261, pp. 351.
- Sharma, M.K., Sur, S. (2021). Growth of Matter Perturbations in an Interacting Dark Energy scenario emerging from Metric-Scalar-Torsion couplings, *Physical Sciences Forum*, 2(1), art. 24.
- Shandilya, A., Sreenivas, K. (2020). <u>Effect of Yb³⁺ ion on light upconversion emission in Er³⁺ doped SrMoO₄ ceramics prepared by solid state reaction, AIP Conference Proceedings, 2265, pp. 030161.</u>
- Singh, V., Late, D.J., Rath, S. (2020). <u>Spectroscopic probe of atomically thin domains of CVD-grown MoSe₂</u>, AIP Conference Proceedings, 2265, pp. 030687.
- Swami, R., Arora, A., Sreenivas, K. (2020). <u>X-ray diffraction analysis and up-conversion luminescence</u> properties of Er³⁺- Doped La₂Ti₂O₇ powders, AIP Conference Proceedings, 2265, pp. 030124.
- Thakur, M., Behera, B.R., Mahajan, R., ..., Mandal, S.K., Saxena, A., Kailas, S., Pal, S. (2020). Neutron Multiplicity Measurements for the Near Super-heavy Nucleus 260Rf, *Japan Physics Society Conference Proceedings*, 21, pp. 010005.

Varsha, Silotia, P., Prasad, V. (2020). Study of optical properties of Wannier-Mott exciton in spherical quantum dot in Kratzer potential, *AIP Conference Proceedings*, 2220(1), pp. 020154.

Yoffe, S.R., Ersfeld, B., Gupta, D.N., Jain, A., Tooley, M.P., Holt, G.K., Jaroszynski, D.A. (2021). Controlling the group velocity of an intense laser pulse using a pre-pulse, Proceedings of SPIE - The International Society for Optical Engineering, 11778, pp. 1177809.

4. Journals

Prof. Sanjay Jain

• Editorial Board Member: Journal of Artificial Life (MIT Press).

Prof. Debajyoti Choudhury

• Associate Editor: Pramana, Journal of Physics (Indian Academy of Sciences).

Prof. Patrick Das Gupta

 Editorial Board Member: Resonance - Journal of Science Education (Indian Academy of Sciences).

Prof. Shyama Rath

• Guest Editor: Special Issue on Structure-property Relationships in Emerging Two-dimensional Materials, Journal of Materials Research (Springer).

Prof. Awadhesh Prasad

- Editor: Chaos, Solitons and Fractals (Elsevier Science).
- Associate Editor: Pramana, Journal of Physics (Indian Academy of Sciences).

Prof. Supriya K. Kar

• Editor: Journal of Astrophysics & Aerospace Technology, LA, USA.

Prof. S. Somorendra Singh

• Editorial Board Member: International Journal of Scientific Research in Physics and Applied Physics, ISROSET, Indore, India.

Dr. Devki Nandan Gupta

 Academic Editor, Laser and Particle Beams, Jointly published by Hindawi and Cambridge Press (UK).

5. Research Projects

S.	Project Title	Year/	Funding	Sanctioned
No.		Period	Agency	Amount
01	Indian Institutions – Fermilab Collaboration in neutrino physics	2019-24	DST	Rs. 280.71 Lakhs
02	Pre-evolutionary processes in autocatalytic RNA networks	2018- 2021	CEFIPRA (Indo-French)	Rs. 17.73 Lakhs
03	Centre of Excellence in Genome Sciences and Predictive Medicine (Phase II)	2015-20	DBT	Rs. 32.85 Lakhs
04	Probing New Physics Interactions	2019-22	SERB – DST	Rs. 75 Lakhs
05	Magneto-Optic and Plasmonic Response in magnetic core-shell structures and magnetic multilayers	2017-21	SERB – DST	Rs. 67.41 Lakhs
06	The role of spacer layer in exchange- coupled bi-phased magnetic multilayers	2020-21	SERB – DST	Rs. 20.81 Lakhs

	and nano-composites			
07	Galactic & Extragalactic Archeology	2019-22	CSIR	Rs 20 Lakhs
08	Using Variable Stars Theoretical Analyses of Variable Star Data in the era of Large Surveys	2018-21	DST (Indo-US joint network)	Rs. 60 Lakhs
09	Fabrication of Lamb Wave Devices on SiO2/Si	2019-24	ER & IPR	Rs. 428.03 Lakhs
10	Optimization of TiOx film and patterning of the polymer (PI-2610) as sacrificial layer for pixel fabrication	2018-21	DRDO	Rs. 22.19 Lakhs
11	Magnetic Fields as Probes for Astrophysical Phenomena	2017-20	SERB – DST	Rs. 25 Lakhs
12	Generation and Assessment of Optically Addressable Point Defects in Silicon Carbide for new quantum Technologies	2021-24	SERB – DST	Rs. 42.6 Lakhs
13	Fingerprinting of point defects in silicon carbide created by energetic particles for their relevance in quantum technologies	2021-23	DST (Indo-Japan)	Rs. 9.64 Lakhs
14	Fabrication and Assessment of the electrical and optical quality of ZnMgO films for visible-blind UV photodetectors	2021-22	Institute of Eminence, Delhi University	Rs. 5 Lakhs
15	Fabrication and characterization of piezoelectric nanocrystals-organic hybrid sheet for energy harvesting and pressure sensor	2016-20	SERB – DST	RS. 72 Lakhs
16	Functional Domains and Site Correlation Networks in Evolving Protein Families	2017-20	SERB – DST	Rs. 23.83 Lakhs
17	Low Cost Energy Saving Electrochromic Devices Based on Nanostructured Conducting Polymers for Energy Storing Smart Windows	2017-20	SERB – DST	Rs.39.5 Lakhs
18	Compact Muon Solenoid (CMS) Upgrade, Operation and Utilization	2014-20	DST	Rs. 1173 Lakhs
19	Updating and Operation of Regional WLCG Grid System	2014-20	DST	Rs. 25.3 Lakhs
20	Polymer composites for energy devices: Structure-property relationship	2017-20	Alexander von Humboldt Foundation, Germany	Rs. 45.42 Lakhs
21	Multi-nucleon transfer reaction dynamics and its effect on fusion near the Coulomb barrier for medium mass nuclei	2019-22	SERB – DST	Rs. 41.75 Lakhs
22	Development of Flexible-Solid-State Capacitors based on Sodium Ion Conducting Gel Polymer Electrolytes 2017 – 2020 (completed)	2017-20	SERB – DST	Rs. 57.95 Lakhs
23	Development of solid-state carbon supercapacitors based on redox-active gel polymer electrolytes	2020-21	Institute of Eminence, Delhi University	Rs. 2.5 Lakhs

	1			
24	Understanding the perpetual points in nonlinear dynamical systems	2017-20	SERB – DST	Rs. 23 Lakhs
25	Search for large Octupole collectivity and high-spin near N=126 shell closure	2019-29	UGC-DAE-CRS Kolkata, India	Rs. 13 Lakhs
26	Investigation of the high spin states in the A=85 mass region using Ion-beam gamma-ray spectroscopy	2017-21	IUAC – UGC	Rs 6 Lakhs
27	Lifetime measurement study of octupole deformation in neutron deficient nuclei in Xe-Cs-Ba region	2018-21	IUAC – UGC	Rs. 10.11 Lakhs
28	Search for Quadrupole and Octupole collectivity in nuclei of mass A~150 region	2019-22	SERB – DST	Rs. 23.14 Lakhs
29	Exploring molecular growth of hydrocarbons in slow (energy 1 keV or less) Ion-molecule collisions	2019-20	SERB – DST	Rs. 33.11 Lakhs
30	Simulation studies and tests to develop radiation tolerant silicon detectors for High luminosity colliders	2017-20	SERB – DST	Rs. 10.8 Lakhs
31	Application of neutron damage model for reliable performance of silicon sensors in present and future high energy physics experiments	2020-21	Institute of Eminence, Delhi University	Rs. 5 Lakhs
32	Electron and ion acceleration from laser-plasma interactions	2020-21	DST – DAAD	Rs. 9.64 Lakhs
33	Tunable radiation source from laser- plasma based nonlinearities	2015- 2020	DST & Russian Foundation of Basic Research	Rs. 15.98 Lakhs
34	Compact "Table-top" powerful terahertz source by laser-matter interactions and some applications	2020-22	DST & Russian Foundation of Basic Research	Rs. 26 Lakhs
35	Plasmonic Dimer Nanostructures	2020-21	Institute of Eminence, Delhi University	Rs. 2.5 Lakhs
36	To Design and Develop a novel spin controlled chiral quantum dot DNA biosensor	2019-22	SERB – DST	Rs. 17.71 Lakhs
37	Development of spin dependent smart electrode for DNA bio-sensor	2019-22	IMPRINT 2, MHRD – DST + Industry	Rs. 32.45 Lakhs
38	Development of electrochemical bent shaped DNA	2020-21	Institute of Eminence, Delhi University	Rs. 2.5 Lakhs
39	Depth resolved investigations of microstructures of metal/topological insulator interfaces	2020-23	UGC-DAE CSR and RRCAT, Indore, India	Rs. 1.35 Lakhs
40	Growth of periodic multi-bi-layer structures of high Z metals on the surface of three dimensional topological insulators	2019-20	SERB – DST	Rs. 29.15 Lakhs

6. Seminars Organized

Total Number: 49

- Dr. Suprit Singh, University of New Brunswick, Canada and IIT Delhi, India, About Processes-Natural & Artificial, 27 April 2020.
- Dr. Pranjal Trivedi, Hamburg University, Germany, Primordial Magnetic Fields and the Early Universe Dynamo, 25 May 2020.
- Dr. Buddhachandra Khundrakpam McGill University, Canada, Understanding brain development: Implications for neuro developmental disorders, 29 June 2020.

7. Seminar/Conference Presentations (National/International)

International

- Deo, N., Invited Webinar entitled "Quantum Inspired Tensor Networks for Financial Systems", International Conference on Artificial Intelligence in Complex Socio-Economic Systems and Public Policy, Centre for Complexity Economics, Applied Spirituality and Public Policy (CEASP), Jindal Global University, 21 January 2021.
- Gupta, D. N., Invited Webinar entitled "Laser wakefield acceleration of electrons by a circularly polarized laser pulse", The Asian Forum for Accelerators and Detectors (AFAD), organized by Budker Institute of Nuclear Physics (BINP), Novosibirsk, Russia, 16 March 2021.
- Gupta, D. N., Invited Webinar entitled "Control and optimization of electron beam characteristics in laser wakefield acceleration in plasmas", 4th Asia-Pacific Conference on Plasma Physics (AAPPSDPP2020), 26 October 2020.
- Kumar, Suresh, Invited Webinar entitled "Interplay of nucleon orbitals in nuclear structure: coupling schemes and band-crossing of dipole bands", International conference on Theoretical Aspects of Nuclear Physics, Department of Physics and Astronomical Sciences, Central University of Himachal Pradesh, Dharamshala, 15 February 2021.
- Kumar, Binay, Invited Webinar entitled "Growth of Functional Bulk- and Nano-Crystals for Energy Harvesting", 3rd International Workshop on Characterization and Analysis of Nanomaterials, University of Aveiro, Portugal, 3 February 2021.
- Kumar, Binay, Invited Webinar entitled "Nanoparticles and Single Crystals for Piezoelectric Green Energy", International Webinar on Quantum Materials and Nanoparticles for Advanced Applications, Kamraj College, Tamil Nadu, India, 6 August 2020.
- Kumar, Binay, Invited Webinar entitled "Piezoelectric Crystals and Nanoparticles for Energy Harvesting Applications", International Webinar on Materials Synthesis and Characterization (IWMAC), organized Jointly by Avadh University, Ayodhya, India and Florida Polytechnic University, USA, 11 July 2020.
- Kumar, Binay, Plenary Webinar entitled "Piezoelectric Nanoparticles Based Flexible Nanogenerators", 3rd International Conference on Nanomaterials Science and Mechanical Engineering, University of Aveiro, Portugal, 7 July 2020.
- Mahapatro, A. K., Invited Webinar entitled "Graphene Derivatives as Test Bed for Bio-entity Detection", International virtual conference on Strategies of self-dependency in Covid-19 and application of Exotic materials in the field of Physics, Chemistry, Biology, Medicine and Engineering, Veer Kunwar Singh University, Ara and SVP College in association with the Society for Technologically Advanced Materials of India (STAMI), 29 May 2020.
- Mahapatro, A. K., Invited Webinar entitled "Implementation of Graphene Derivatives in Engineering and Technology", International web conference on Science, Engineering and Technology (IWCSET-2020), organized by the Society for Technologically Advanced Materials of India (STAMI), 15 May 2020
- Mandal, S., Invited Webinar entitled "Femto Physics: It's Applications & Challenges", International webinar on Physics, organized by the Department of Physics, Pabna University of Science & Technology, Pabna, Bangladesh, 13 Nov 2020.
- Rath, S., Invited Webinar entitled "1.2D Nanomat-2021", International Conference on Recent Trends in 2D Nanomaterials, Amity University, Mumbai, India, 24 February 2021.

National

- Annapoorni, S., Invited Webinar on "Solid State Physics", National Academy of Sciences (NASI) Learning Physics – Delhi Chapter, India, 8 October 2020.
- Choudhary, B. C., Invited Webinar entitled "LHC an Overview & India's Contributions (How to unravel the mystery of the Universe with Accelerators, Detectors & Physics?)", National Academy of Sciences (NASI) Learning Physics Delhi Chapter, India, 25 August 2020.
- Gupta, P. D., Invited Webinar Series on "Quantum Mechanics", National Academy of Sciences (NASI) Learning Physics Delhi Chapter, India, 2 6 September 2020.
- Hashmi, S. A., Invited Webinar Series on "Atomic Physics", National Academy of Sciences (NASI) Learning Physics Delhi Chapter, India, 27 29 September 2020.
- Kar, S., Invited Webinar entitled "Nobel Prize 2020 in Physics: Massive Black Hole Formation", delivered at Feynmania 2021 Annual Fest, ARSD College, University of Delhi, India, 23 March 2021.
- Kumar, Binay, Invited Webinar entitled "Growth of Single Crystals by Various Techniques for Optical, Piezoelectric and Communication Applications" 29th DAE-BRNS National Laser Symposium, RRCAT Indore, India, 12 February 2021.
- Kumar, Binay, Invited Webinar entitled "Technologically Important Crystals for Research & Applications", Central University of South Bihar, Gaya, Bihar, India, 27 June 2020.
- Kumar, Binay, Invited Webinar entitled "Single Crystals for Multifunctional Applications", Virtual Symposium on Multi-Functional Materials, SRM Institute of Science & Technology, Ramapuram, Chennai, India, 17 June 2020.
- Kumar, Binay, Invited Webinar Series on "Understanding Crystals for Society, Science and Devices", Indian Summer School on Crystal Growth (ISSCG-2020), organized by SSN Institutions, Chennai, India, 14-23 May 2020.
- Kumar, P.S., Invited Webinar Series on "Solid State Physics", National Academy of Sciences (NASI) Learning Physics Delhi Chapter, India, on 21 26 September 2020.
- Mahapatro, A. K., Invited Webinar entitled "Utilization of Graphene Oxide in Nanoelectronics and Bio-sensors", Conference on Advanced Nanomaterials and their Applications V, National Institute of Technology, Manipur, India, 23 November 2020.
- Mandal, S., Invited Webinar Series on "Nuclear Physics", National Academy of Sciences (NASI) Learning Physics Delhi Chapter, India, on 16 19, 23, 24 and 28 August 2020.
- Naimuddin, M., Invited Webinar entitled "The Elusive Neutrinos: How elusive it can be?", CMHEP conference, ECC, Allahabad, India, 5 March 2021.
- Naimuddin, M., Invited Webinar on "GEM Detectors Development, Application and Current Status of Indian Efforts", DAE HEP symposium, NISER, Bhubaneshwar, India, 14 December 2020.
- Naimuddin, M., Invited Webinar on "The Elusive Neutrinos", delivered as a part of the National Webinar Lecture Series on Advancement and Innovations in Modern Physics, 8 August, 2020.
- Roy, S. Invited Webinar Series on "Solid State Physics", National Academy of Sciences (NASI) Learning Physics Delhi Chapter, India, on 21, 22, 24 and 25 September 2020.
- Seshadri. T. R., Invited Webinar Series on "Classical Mechanics", National Academy of Sciences (NASI) Learning Physics Delhi Chapter, India, on 20 23, 25 and 27 August 2020.
- Sur, S., Invited Webinar Series on "Electromagnetic Theory", National Academy of Sciences (NASI) Learning Physics Delhi Chapter, India, on 5, 7 10 October 2020.

8. Other Inter-Institutional Collaboration

International

B. C. Choudhary

- India-CMS Collaboration at CERN, Geneva, Switzerland, Fundamental Research
- NOvA Collaboration, Fermilab, USA, Fundamental Research.

Kirti Ranjan

- Indo-Italy Collaboration on Detectors, High Energy Physics Research,
- India-CMS Collaboration at CERN, Geneva, Switzerland, Fundamental Research

Nivedita Deo

• Research Collaboration on Research on Protein Networks, Institute of Fundamental Studies, Naresuan University, Thailand

Shyama Rath

- Collaborative Research, Departamento de Física Atómica, Molecular, Nuclear, Facultad de Física, University of Sevilla, Spain
- Collaborative Research, Physics Department, University of Torino and INFN, Torino, Italy,
- Collaborative Research, Department of Physics, University of Surrey, Guildford, Surrey, United Kingdom
- Collaborative Research, Center for Accelerator Science, ANSTO, Australia
- Collaborative Research, Sandia National Laboratories, Radiation-Solid Interactions, Albuquerque, NM, USA
- Collaborative Research, Intl. Atomic Energy Agency, Vienna, Austria

Vinay Gupta

 Collaborative Research with Prof. A. P. Freundorfer and Prof. M. Sayer, Queens Univ., Kingston, Canada.

H. P. Singh

• Indo-US Collaboration with Nodal Institute: Delhi University, India, Theoretical Astrophysics Research,

Smait Kr. Mandal

- FAIR Collaboration, GSI, Germany, Nuclear Physics Research
- AGATA Collaboration, European Union, Nuclear Physics Research.
- PRESPEC Collaboration, GSI, Germany, Nuclear Physics Research.

D. N. Gupta

- Experimental Research using GPU based high-speed computing and petawatt laser facilities, Strathclyde University, Glasgow
- Collaborative Research on Laser-plasma interaction, Gwangju University of Science and Technology (GIST), Gwangju, South Korea.
- Collaborative Research on Terahertz radiation generation, Sternberg Astronomical Institute of Moscow State University.

Ajit Kr. Mahapatro

• Collaborative Research with Prof. Y-R Ma and Prof. Y-K Cuo, Department of Physics, National Dong Hwa University, Hualien, Taiwan

Ashutosh Bhardwaj

• CMS Experiment RD50 Collaboration, High-energy Physics research

Ashok Kumar

• CMS Experiment RD50 Collaboration, High-energy Physics research

M. Naimuddin

CMS Experiment RD50 Collaboration, High-energy Physics research

S. Sur

 Quantum Gravity and Cosmology Research with Prof. Saurya Das, Department of Physics and Astronomy, University of Lethbridge, Alberta, Canada

National

Shyama Rath

- Collaborative academic works as a panelist in hosting foreign students at Delhi University, **Indian Council for Cultural Relations (ICCR), India.**
- Collaborative Research, Solid State Physics Lab, DRDO, New Delhi, India.
- Collaborative Research, NPL, New Delhi, India.
- Collaborative Research, Inter-University Accelerator Centre (IUAC), New Delhi, India.
- Collaborative Research, National Chemical Laboratory, Pune, India.
- Collaborative Research, Institute of Physics, Bhubaneswar, India.

Vinay Gupta

• Collaborative Research with Dr. A. Kapoor, Solid State Physics Lab, DRDO, New Delhi, India.

• Collaborative Research with Dr. G. Gupta and Dr. A. Kumar, NPL, New Delhi, India.

Samit Kr. Mandal

- INO Collaboration, India, High Energy Physics Research.
- INGA Collaboration, India, High Energy Physics Research.

Jyoti Rajput

Joint Research Project, Inter-University Accelerator Centre (IUAC), New Delhi, India.

Ajit Kr. Mahapatro

- Collaborative Research with Dr. S. P. Singh, NPL, New Delhi, India.
- Collaborative Research with Prof. S. Ghosh, JNU, New Delhi, India
- Collaborative Research with Prof. T. Basu, AMITY, Noida, India
- Collaborative Research with Dr. P. Poddar, NCL, Pune, India.

S. Roy

• Experimental Research using central facilities and large equipments, UGC-DAE CSR, Indore, India.

9. Number of M.Phil./Ph.D. Degrees Awarded

Ph.D.: 28

10. Faculty Strength

Permanent: 38 UGC-FRP: 02

11. Other Significant Information

Annual Raman Ramkumar memorial award in computational physics for meritorious MSc students.

Head/Director's Signature Seal of Department/Centre/Institution

Department of Zoology

1. Major activities and achievements

Department of Zoology is one of the premier research-intensive Departments in the country. Research is conducted in diverse areas ranging from microbes to human. Faculty members in the last one year, have published approximately 87 research papers in peer reviewed journals of high impact. They have also presented their findings in various National and International conferences. Many of them received substantial funding from various National and International funding agencies. The Department of Zoology has been recognized for DST-FIST, UGC-SAP/CAS schemes. The Department imparts M.Sc. teaching and training in advanced areas of Zoology to approximately 225 students. In addition, 15 Ph.D. degrees were awarded to students in last one year.

2. Honours/Distinctions:

Prof. Madan Mohan Chaturvedi

- Chancellor Nominee to the University Court of Cluster University, Jammu (J & K) 2021.
- Member, Indo-Australia Biotechnology Forum Review Board, Department of Biotechnology, Govt. of India (2021)
- External Member of School Board, School of Life Sciences, Mizoram University, Aizawl (2020)
- External member, DRC, AIMMSCR, Amity University, Noida (2020 onwards)
- External member, BOS, AIMMSCR, Amity University, Noida (2020 onwards)
- Member of CPCSEA, Min. of Environment & Forest and Climate Change, Govt. of India (2018-21).

- Member of Animal Science Committee, Department of Science and Technology, Govt. of India (2018-21).
- Expert member, BioCARe, Department of Biotechnology, Govt. of India.
- Expert Member, DBT National RA committee, Department of Biotechnology, Govt. of India.
- Member, Board of Governors (BoG), and Board of Management (BoM), GSFC University, Vadodara, Gujarat.
- President, Association of Teachers in Biological Sciences, Mumbai, India.

Prof. Rina Chakrabarti

- Member, Research Advisory Committee, Central Institute of Fisheries Education, ICAR, Mumbai (2020-2022).
- Member, Quinquennial Review Team, Central Institute of Brackish Water Aquaculture, ICAR, Chennai (2020 onwards).
- Outstanding Reviewers Certificates from Elsevier's Journals: "Certificates of Outstanding Contribution in Reviewing" for Aquaculture, Fish & Shellfish Immunology and Food Chemistry.
- Member, Technical Expert Committee on "Aquaculture and Marine Biotechnology", Department of Biotechnology, Government of India, New Delhi (October 2018 onwards).
- Member, Task Force Committee on "Aquaculture and Marine Biotechnology", Department of Biotechnology (October 2017 onwards).
- Reviewer of research projects of Government of India funding agencies: Department of Science and Technology (DST), Department of Biotechnology (DBT), Indian Council of Agricultural Research (ICAR), Council of Scientific and Industrial Research (CSIR)

Prof. D.K. Singh

- President, Association of Microbiologists of India (2021)
- Member, Training, Research and Academic Council (TRAC) of Wildlife Institute of India (10.5.2018 onwards for three years).

Prof. Rita Singh

- LE STUDIUM Visiting Researcher award, from LE STUDIUM Scientific Council, LE STUDIUM Loire Valley Institute for Advanced Studies 1, rue Dupanloup-45000 Orléans, France (2020-2021).
- Chairperson, DBT- INDO-UK Newton Bhabha Fund for research collaborations (2018-2021).
- Expert Member, Board of Studies (BOS), University of Kashmir, Srinagar (J &K) (2021 onwards).
- Expert Member, Board of Studies (BOS), Indira Gandhi National Tribal University, Amarkantak (M.P.), (2019 onwards).
- Convener, Societal science initiative on reproductive health and hygiene in villages adopted by University
 of Delhi under Unnat Bharat Abhiyan in collaboration with Department of Social work, University of
 Delhi (2019 onwards).
- Expert Member, Committee for recruitments and promotions in Ministry of Environment, Forest and Climate Change, New Delhi (2018-2021).

Prof. R. K. Seth

- Advisor, Ministry of Environment and Forests, Govt. of India (2018 onwards)
- UGC Nominee for CAS/SAP program in Zoology Department, Panjab University, Chandigarh (2018-2021)

Prof. Mallikarjun Shakarad

• Chairman (Officiating), Vidyalaya Management Committee, Kendriya Vidyalaya (Under Ministry of HRD, Govt. of India), INA Colony, New Delhi-110023, India (October 2019-present).

Prof. Alok Chandra Bharti

- Member, Homeopathic Pharmacopoeia Committee, Pharmacopoeia Commission of Indian Medicine and Homeopathy, Ghaziabad, Uttar Pradesh, India
- Observer, National Testing Agency (2020)
- Member Institutional Ethics Review Board, Jawaharlal Nehru University (Dec 2020 onwards)
- Reviewer of research projects of various Government funding agencies: Department of Biotechnology, Department of Science and Technology, Indian Council of Medical Research, Council of Scientific and Industrial Research, Central Council of Research in Homeopathy (AYUSH), Technology Development Board, Kerala State Council for Science, Technology & Environment.

3. Editor/Member, Editorial Board of Scientific Journals

- Prof. Y. Singh, Editor, Indian Journal of Microbiology, Springer Press.
- Prof. M. M. Chaturvedi, Member, Editorial Board:
 - Journal of Oncolytic Virology
 - o Indian J. of Experimental Biology (IJEB).
- Prof. Rina Chakrabarti, Member, Editorial Board:
 - Reviews in Aquaculture (Blackwell)
 - o Israeli Journal of Aquaculture–Bamidgeh (Society of Israeli Aquaculture and Marine Biotechnology, Israel)
 - o Mediterranean Aquaculture Journal (Mediterranean Aquaculture and Environment Society)
 - o International Journal of Pure and Applied Zoology (Allied Academics, USA)
 - o International Journal of Fisheries and Aquaculture (Academic Journals)
 - o Frontiers in Nutrition (Frontiers Open Access Journal)
 - Madridge Journal of Aquaculture Research & Development (MJARD)
 - o Journal of the Inland Fisheries Society of India (Inland Fisheries Society of India, India)
 - o Journal of Immune Research (Austin Publishing Group, USA)
 - Journal of Cold Water Fisheries (Cold Water Fisheries Society of India, Directorate of Cold Water Fisheries Bhimtal, Indian Council of Agricultural Research, India)
- Prof. Vinod Kumar, Member, Editorial Board, Current Science.
- Prof. Yogendra Singh
 - o Member, Editorial Board, Journal of Biological Chemistry (JBC).
 - Editorial Advisory Board Member, Recent Patents on Anti-infective Drug Discovery (Bentham Science Publishers)
- Prof. Alok C Bharti, Member, Editorial Board:
 - Biomarker (Elsevier)
 - BMC Cancer
 - o BMC Complementary and Alternate Medicine
 - Current Traditional Medicine (Bentham Science)
 - o J. Biomarkers (Hindawi)
- Prof. R. Seth, Editorial Advisory Board Member
 - o Indian Journal of Entomology
 - o J. Nuclear Agric. Biol.

4. Publications

Articles

- Aggarwal, N., Yadav, J., Chhakara, S., Janjua, D., Tripathi, T., Chaudhary, A., ... & Bharti, A. C. (2021).
 Phytochemicals as Potential Chemopreventive and Chemotherapeutic Agents for Emerging Human Papillomavirus—Driven Head and Neck Cancer: Current Evidence and Future Prospects. Frontiers in Pharmacology, https://doi.org/10.3389/fphar.2021.699044
- Aggarwal, N., Yadav, J., Thakur, K., Bibban, R., Chhokar, A., Tripathi, T., ... & Bharti, A. C. (2020).
 Human papillomavirus infection in head and neck squamous cell carcinomas: transcriptional triggers and changed disease patterns. Frontiers in Cellular and Infection Microbiology, 10, 746.
- Bakshi, A., Rai, U. (2021) Seasonality, sex-specificity and transcriptional regulation of hepatic leptin system in spotted snakehead *Channa punctatus*. *General and Comparative Endocrinology* 310, 113821. Doi: https://doi.org/10.1016/j.ygcen.2021.113821
- Bakshi, A., Rai, U. (2020) Reproductive phase-dependent variation, sexually dimorphic expression and sex steroids-mediated transcriptional regulation of *lep* and *lepr* in lymphoid organs of *Channa punctata*. *Scientific Reports* 10, 1-11. Doi: https://doi.org/10.1038/s41598-020-57922-x
- Batra, T., Malik, I., Prabhat, A., Bhardwaj, S.K., & Kumar, V. (2020). Sleep in unnatural times: illuminated night negatively affects sleep and associated hypothalamic gene expressions in diurnal zebra finches. *Proceedings of the Royal Society B*, 287(1928), 20192952. doi.org/10.1098/rspb.2019.2952
- Bhat, A., Yadav, J., Thakur, K., Aggarwal, N., Tripathi T., Chhokar A., Singh T., Jadli, M., Sharma A., & Bharti, A.C. (2021). Exosomes from cervical cancer cells facilitate pro-angiogenic endothelial reconditioning through transfer of Hh signalling components, *Cancer Cell International*. 21(1):319. PMID: 34167524.
- Buniyaadi, A., Taufique, S.T., & Kumar, V. (2020). Self-recognition in corvids: evidence from the mirror-mark test in Indian house crows (*Corvus splendens*). *Journal of Ornithology*, *161*(2), 341-350.
- Chahal, N., Geethadevi, A., Kaur, S., Lakra, R., Nagendra, A., Shrivastav, T. G., ... & Singh, R. (2021). Direct impact of gonadotropins on glucose uptake and storage in preovulatory granulosa cells: Implications in the pathogenesis of polycystic ovary syndrome. *Metabolism*, 115, 154458.
- Chatterjee, M., Steffan, J.S., Lukacsovich, T., Marsh, J.L., Agrawal, N. (2020) Serine residues 13 and 16 are key modulators of mutant huntingtin induced toxicity in Drosophila. *Experimental Neurology*. Sep 14:113463. doi:10.1016/j.expneurol.2020.113463.
- Chauhan, N., Shrivastava, N.K., Agrawal, N., & Shakarad, M.N. (2020). Wing patterning in faster developing Drosophila is associated with high ecdysone titer and wingless expression. *Mechanisms of Development*, 103626. Doi:10.1016/j.mod.2020.103626.
- Chongtham, A., Bornemann, D.J., Barbaro, B.A., Lukacsovich, T., Agrawal, N., Syed, A., ... & Marsh, J. L. (2020). Effects of flanking sequences and cellular context on subcellular behavior and pathology of mutant HTT. *Human molecular genetics*, 29(4), 674-688. doi: 10.1093/hmg/ddaa001.
- Chuphal, B., Rai. U., Kumar. R., Roy, B. (2021) Molecular and functional characterization of spotted snakehead NOD1 with an emphasis on structural insights into iE-DAP binding motifs employing advanced bioinformatic tools. *Journal of Biomolecular Structure and Dynamics*, 1-13. Doi: https://doi.org/10.1080/07391102.2021.1898472
- Dhankar, Jyoti, Agrawal, N., & Shrivastava, A. (2020). An interplay between immune responses and neurodegenerative diseases progression: An assessment using Drosophila as a model. *Journal of Neuroimmunology*, 577302.
- Dhasmana, N., Kumar, N., Gangwal, A., Keshavam, C. C., Singh, L. K., Sangwan, N., ... & Gupta, M. (2021). Bacillus anthracis chain length, a virulence determinant, is regulated by membrane localized

- serine/threonine protein kinase PrkC. *Journal of Bacteriology*. 203: Issue 11, 203:e00582-20.https://doi.org/10.1128/JB.
- Dhaulaniya, A.S., Balan, B., Yadav, A., Jamwal, R., Kelly, S., Cannavan, A., & Singh, D. K. (2020). Development of an FTIR based chemometric model for the qualitative and quantitative evaluation of cane sugar as an added sugar adulterant in apple fruit juices. *Food Additives & Contaminants: Part A*, 37(4), 539-551.
- Dotania, K., Tripathy, M., and Rai, U. (2021) A comparative account of nesfatin-1 in vertebrates. *General and Comparative Endocrinology* (Accepted). Article Reference Number- YGCEN_113874
- Dubey, N., Khan, M. Z., Kumar, S., Sharma, A., Das, L., Bhaduri, A., ... & Nandicoori, V. K. (2021). Mycobacterium tuberculosis PPiA interacts with host integrin receptor to exacerbate disease progression. *The Journal of Infectious Diseases*. PMID: 33580239 DOI: 10.1093/infdis/jiab081
- Goel, H., Singhal, S., Mathur, R., Syeda, S., Gupta, R.K., Kumar, A. Shrivastava, ... & Jha, A.K. (2020).
 Promoter Hypermethylation of LATS2 Gene in Oral Squamous Cell Carcinoma (OSCC) Among North Indian Population. *Asian Pacific Journal of Cancer Prevention*, 21(5), 1283-1287.
- Goswami, R.K., Shrivastav, A.K., Sharma, J.G., Tocher, D.R., & Chakrabarti, R. (2020). Growth and digestive enzyme activities of rohu *Labeo rohita* fed diets containing macrophytes and almond oil-cake. *Animal feed science and technology*, 263, 114456. https://doi.org/10.1016/j.anifeedsci.2020.114456
- Gupta, V., Haider, S., Verma, M., Singhvi, N., Ponnusamy, K., Malik, M. Z., ... & Lal, R. (2021).
 Comparative Genomics and Integrated Network Approach Unveiled Undirected Phylogeny Patterns, Comutational Hot Spots, Functional Cross Talk, and Regulatory Interactions in SARS-CoV-2. Msystems, 6(1), e00030-21. https://doi.org/10.1128/mSyst.
- Himanshi, Rai, U., Singh, R. (2021) Radiofrequency radiation: a possible threat to male fertility. *Reproductive Toxicology* 100, 90-100. Doi:https://doi.org/10.1016/j.reprotox.2021.01.007T
- Jamwal, R., Amit, Kumari, S., Kelly, S., Cannavan, A., Singh, D.K. (2021) Non-targeted fingerprinting approach for rapid quantification of mustard oil adulteration with linseed oil: An economically motivated adulteration. *Vibrational Spectroscopy* 113 (2021),103226
- Jamwal, R., Amit, Kumari, S., Sharma, S., Kelly, S., Cannavan, A., Singh, D.K. (2021) Recent trends in the use of FTIR spectroscopy integrated with chemometrics for the detection of edible oil adulteration. *Vibrational Spectroscopy* 113 (2021),103222
- Jamwal, R., Kumari, S., Balan, B., Dhaulaniya, A.S., Kelly, S., Cannavan, A., & Singh, D.K. (2020). Attenuated Total Reflectance–Fourier Transform Infrared (ATR–FTIR) spectroscopy coupled with chemometrics for rapid detection of argemone oil adulteration in mustard oil. *LWT*, *120*, 108945.
- Jamwal, R., Kumari, S., Dhaulaniya, A.S., Balan, B., Kelly, S., Cannavan, A., & Singh, D.K. (2020). Utilizing ATR-FTIR spectroscopy combined with multivariate chemometric modelling for the swift detection of mustard oil adulteration in virgin coconut oil. *Vibrational Spectroscopy*, 103066.
- Jamwal, R., Kumari, S., Kelly, S., Cannavan, A., & Singh, D.K. (2020). Rapid detection of pure coconut oil adulteration with fried coconut oil using ATR-FTIR spectroscopy coupled with multivariate regression modelling. *LWT*, 109250.
- Jyoti, Agrawal, N., & Shrivastava, A. (2020). An interplay between immune responses and neurodegenerative diseases progression: An assessment using Drosophila as a model. *Journal of Neuroimmunology*, 577302. Doi:10.1016/j.jneuroim.2020.577302

- Kaur, H., Warren, A., Negi, R.K., & Kamra, K. (2020). Taxonomic resolution of *Stylonychia notophora* (Alveolata, Ciliophora, Hypotricha) sensu Sapra and Dass 1970 using an integrative approach. *International Journal of Systematic and Evolutionary Microbiology*, ijsem004207.
- Khan, N.A., Ninawe, A.S., Sharma, J., & Chakrabarti, R. (2020). Effect of light intensity on survival, growth and physiology of rohu, *Labeo rohita* (Cyprinidae) fry. *International Journal of Radiation Biology*, 96(4), 552-559.
- Khanna, A., Indracanti, N., Chakrabarti, R., & Indraganti, P.K. (2020). Short-term ex-vivo exposure to hydrogen sulfide enhances murine hematopoietic stem and progenitor cell migration, homing, and proliferation. *Cell Adhesion & Migration*, 14(1), 214-226. https://doi.org/10.1080/19336918.2020.1842131
- Khurana, H., Sharma, M., Verma, H., Lopes, B.S., Lal, R., & Negi, R.K. (2020). Genomic insights into the phylogeny of Bacillus strains and elucidation of their secondary metabolic potential. *Genomics*.112: 1391-3200. ISSN: 0888-7543.
- Khurana, H., Singh, D.N., Singh, A., Singh, Y., Lal, R., & Negi, R.K. (2020). Gut microbiome of endangered *Tor putitora* (Ham.) as a reservoir of antibiotic resistance genes and pathogens associated with fish health. *BMC microbiology*, 20(1), 1-18.
- Khyati, Malik, I., Agrawal, N., & Kumar, V. (2021). Melatonin and curcumin reestablish disturbed circadian gene expressions and restore locomotion ability and eclosion behavior in Drosophila model of Huntington's disease. *Chronobiology international*, 38(1), 61-78. https://doi.org/10.1080/07420528.2020.1842752
- Kumar, M., Sodhi, K.K., & Singh, D.K. (2021). Addressing the potential role of curcumin in the prevention of COVID-19 by targeting the Nsp9 replicase protein through molecular docking. *Archives of Microbiology*, 1-6.
- Kumar, R., Verma, H., Singhvi, N., Sood, U., Gupta, V., Singh, M., ... & Lal, R. (2020). Comparative genomic analysis of rapidly evolving SARS-CoV-2 reveals mosaic pattern of phylogeographical distribution. *Msystems*, *5*(4), e00505-20. doi.org/ 10.1128/mSystems.00505-20
- Kumari, P., Kumar, M., Sehgal, N., & Aggarwal, N. (2020). In silico analysis of kiss2, expression studies and protein–protein interaction with gonadotropin-releasing hormone 2 (GnRH2) and luteinizing hormone beta (LHβ) in *Heteropneustes fossilis*. *Journal of Biomolecular Structure and Dynamics*, 1-15. https://doi.org/10.1080/07391102.2020.1860820
- Kumari, P., Sehgal, N., Goswami, S. V., & Aggarwal, N. (2021). Multifactorial control of gonadotropin release for induction of oocyte maturation: Influence of gonadotropin-releasing hormone, gonadotropin release-inhibiting factor and dopamine receptors in the catfish, Heteropneustes fossilis. *Journal of Applied and Natural Science*, 13(2), 686-699.
- Kumari, S., Jamwal, R., Mishra, N., & Singh, D.K. (2020). Recent developments in environmental mercury bioremediation and its toxicity: A review. *Environmental Nanotechnology, Monitoring & Management*, 13, 100283.
- Lochab, S., Singh, Y., Sengupta, S., & Nandicoori, V.K. (2020). *Mycobacterium tuberculosis* exploits host ATM kinase for survival advantage through SecA2 secretome. *Elife*, 9, e51466. doi: 10.7554/eLife.51466
- Majumdar, G., Yadav, G., Malik, S., Rani, S., Balthazart, J., & Kumar, V. (2021). Hypothalamic plasticity in response to changes in photoperiod and food quality: An adaptation to support pre-migratory fattening in songbirds?. *European Journal of Neuroscience*, 53(2), 430-448.

- Minhas, V., Kumar, R., Moitra, T., Singh, R., Panda, A.K., & Gupta, S.K. (2020). Immunogenicity and contraceptive efficacy of recombinant fusion protein encompassing Sp17 spermatozoa-specific protein and GnRH: Relevance of adjuvants and microparticles based delivery to minimize number of injections. *American Journal of Reproductive Immunology*, 83(4), e13218.
- Mishra, I., Agarwal, N., Prabhat, A., Batra, T., Bhardwaj, S. K., & Kumar, V. (2020). Changes in brain peptides associated with reproduction and energy homeostasis: Putative roles of gonadotrophin releasing hormone II and tyrosine hydroxylase in determining reproductive performance in response to daily food availability times in diurnal zebra finches. *Journal of neuroendocrinology*, 32(2), e12825. doi: 10.1111/jne.12825.
- Mishra, I., Batra, T., Prabhat, A., Agarwal, N., Bhardwaj, S.K., & Kumar, V. (2020). Developmental effects of daily food availability times on song behaviour and neuronal plasticity of song-control system in male zebra finches. *Behavioral Brain Research*, 382, 112497.
- Mishra, I., Sharma, A., Prabhat, A., Batra, T., Malik, I., & Kumar, V. (2020). Changes in DNA methylation and histone modification gene expression in response to daily food times in zebra finches: epigenetic implications. *Journal of Experimental Biology*. doi: 10.1242/jeb.217422.
- Naz, S., Dabral, S., Nagarajan, S. N., Arora, D., Singh, L. V., Kumar, P., ... & Nandicoori, V. K. (2021).
 Compromised base excision repair pathway in Mycobacterium tuberculosis imparts superior adaptability in the host. *PLoS pathogens*, 17(3), e1009452.
- Naz, S., Singh, Y., & Nandicoori, V. K. (2021). Deletion of serine/threonine-protein kinase pknL from Mycobacterium tuberculosis reduces the efficacy of isoniazid and ethambutol. *Tuberculosis*, 128, 102066. doi: https://doi.org/10.1016/j.tube.2021.102066
- Puri, A., Bajaj, A., Verma, H., Kumar, R., Singh, Y., & Lal, R. (2020). Complete genome sequence of Paracoccus sp. strain AK26: Insights into multipartite genome architecture and methylotropy. *Genomics*.112, 2572-2582.
- Rana, V.S., Popli, S., Saurav, G. K., Yadav, K., Kumar, A., Sunil, S., ... & Rajagopal, R. (2020). *Aedes aegypti* lachesin protein binds to the domain III of envelop protein of Dengue virus-2 and inhibits viral replication. *Cellular microbiology*, 22(7), e13200. https://doi.org/10.1111/cmi.13200
- Rawat, K., Syeda, S., & Shrivastava, A. (2021). Neutrophil-derived granule cargoes: paving the way for tumor growth and progression. *Cancer and Metastasis Reviews*, 1-24.
- Sarkar, R.K., Sharma, S.S., Mandal, K., Wadhwa, N., Kunj, N., Gupta, A., Pal, R., Rai, U., Majumdar, S.S. (2020) Homeobox transcription factor *Meis1* is crucial to Sertoli cell mediated regulation of male fertility. *Andrology* 9(2), 689-699. Doi: https://doi.org/10.1111/andr.12941
- Seth, R.K., Patil, B.V., Khan, Z., Zarin, M., Hanchinal, S.G., Haveri, R.V., & Gopalkrishna, A. (2020). Radiation biology of a serious tropical pigeon pea pest, *Maruca vitrata* (Fabricius)(Lepidoptera: Crambidae) and potential of radiation mediated 'inherited (F1) sterility technique' for the pest suppression. *International Journal of Radiation Biology*, 96(4), 532-544.
- Seth, R.K., Patil, B.V., Zarin, M., Khan, Z., Hanchinal, S.G., Haveri, R.V., Gopalkrishna, A., and Seth, R. (2020) Studies on the ontogenic radio-sensitivity in *Callosobruchus* species complex to establish a generic dose of phytosanitary irradiation as a post harvest quarantine treatment for disinfestation of pulses. *Radiation Physics and Chemistry 171*: DOI:10.1016/j.radphyschem.2020.108686
- Sharma, A., Das, S., Komal, R., Malik, S., Rani, S., & Kumar, V. (2020). Seasonal reproductive state
 determines gene expression in the hypothalamus of a latitudinal migratory songbird during the spring and
 autumn migration. *Molecular and cellular endocrinology*, 508, 110794.
 doi.org/10.1016/j.mce.2020.110794.

- Sharma, A., Das, S., Sur, S., Tiwari, J., Chaturvedi, K., Agarwal, N., ... & Kumar, V. (2021). Photoperiodically driven transcriptome-wide changes in the hypothalamus reveal transcriptional differences between physiologically contrasting seasonal life-history states in migratory songbirds. *Scientific Reports*, 11(1), 1-13.
- Sharma, A., Singh, D., Gupta, P., Bhardwaj, S. K., Kaur, I., & Kumar, V. (2021). Molecular changes associated with migratory departure from wintering areas in obligate songbird migrants. *Journal of Experimental Biology*, 224(11), jeb242153.
- Sharma, K., Mishra, N., & Shakarad, M.N. (2020). Evolution of reduced minimum critical size as a response to selection for rapid pre-adult development in *Drosophila melanogaster*. *Royal Society Open Science*, 7(6), 191910.
- Sharma, M., Khurana, H., Singh, D.N., & Negi, R.K. (2020). The genus *Sphingopyxis*: Systematics, ecology, and bioremediation potential A review. *Journal of Environmental Management*, 111744.
- Sharma, N., Sodhi, K. K., Kumar, M., & Singh, D. K. (2021). Heavy metal pollution: Insights into chromium eco-toxicity and recent advancement in its remediation. *Environmental Nanotechnology, Monitoring & Management*, 15, 100388.
- Singh, A. & Agrawal, N. (2021). Deciphering the key mechanisms leading to alteration of lipid metabolism in Drosophila model of Huntington's disease. *BBA molecular basis of disease*. doi: 10.1016/j.bbadis.2021.166127. PMID: 33722743.
- Singh, A., Chakrabarti, R., & Sharma, J. (2020). Assessment of Immunostimulatory Characteristics of Achyranthes aspera Seeds and Leaves Supplemented Diets in *Labeo rohita* Fingerlings. *Turk. J. Fish. & Aquat. Sci*, 20(11), 795-805. http://doi.org/10.4194/1303-2712-v20 11 03
- Singh, A., Gaur, M., Sharma, V., Khanna, P., Bothra, A., Bhaduri, A., ... & Misra, R. (2021). Comparative genomic analysis of mycobacteriaceae reveals horizontal gene transfer-mediated evolution of the CRISPR-Cas System in the *Mycobacterium tuberculosis* complex. *Msystems*, 6(1), e00934-20. doi:10.1128/mSystems.00934-20.
- Singh, A., Raj, A., Padmanabhan, A., Shah, P., Agrawal, N. (2020) Combating silver nanoparticle-mediated toxicity in *Drosophila melanogaster* with curcumin. *Journal of Applied Toxicology*. 2020 doi: 10.1002/jat.4103. Epub ahead of print. PMID: 33146454.
- Singh, A., Sharma, J., Paichha, M., & Chakrabarti, R. (2020). Achyranthes aspera (Prickly chaff flower) leaves-and seeds-supplemented diets regulate growth, innate immunity, and oxidative stress in *Aeromonas hydrophila*-challenged *Labeo rohita*. *Journal of Applied Aquaculture*, 32(3), 250-267.
- Singh, N., Jha, N. A., Rani, S., & Kumar, V. (2021). The Association of Internet Overuse with Sleep and Mood in Indian Female University Students. *Sleep and Vigilance*, 1-13.
- Singh, R., Mehul, D., Singh, G., Kumar, R., Bhatia, S. (2021) Gender-based differences in coronavirus disease 2019: Hormonal influencers of severe acute respiratory syndrome coronavirus receptors and immune responses. *J Reproduction Healthcare Medicine* 2:17-23, 2021. http://dx.doi.org/10.25259/JRHM 10 2021.
- Singh, S.P., Ahmad, T., Sharma, J., & Chakrabarti, R. (2021). Effect of temperature on food consumption, immune system, antioxidant enzymes, and heat shock protein 70 of *Channa punctata* (Bloch, 1793). *Fish Physiology and Biochemistry*, 47(1), 79-91. https://doi.org/10.1007/s10695-020-00896-4

- Singhal, A., Virmani, R., Naz, S., Arora, G., Gaur, M., Kundu, P., ... & Singh, Y. (2020). Methylation of two-component response regulator MtrA in mycobacteria negatively modulates its DNA binding and transcriptional activation. *Biochemical Journal*, 477(23), 4473-4489. doi.org/10.1042/BCJ20200455
- Singhvi, N., Singh, P., Prakash, O., Gupta, V., Lal, S., Bechthold, A., ... & Lal, R. (2021). Differential mass spectrometry-based proteome analyses unveil major regulatory hubs in rifamycin B production in *Amycolatopsis mediterranei*. *Journal of Proteomics*, 239, 104168. doi.org/10.1016/j.jprot.2021.104168
- Sodhi, K.K., Kumar, M., & Singh, D.K. (2020). Potential application in amoxicillin removal of *Alcaligenes* sp. MMA and enzymatic studies through molecular docking. *Archives of Microbiology*, 1-7.
- Sodhi, K.K., Kumar, M., & Singh, D.K. (2021). Assessing the bacterial diversity and functional profiles of the River Yamuna using Illumina MiSeq sequencing. *Archives of Microbiology*, 203(1), 367-375.
- Sodhi, K.K., Kumar, M., & Singh, D.K. (2021). Insight into the amoxicillin resistance, ecotoxicity, and remediation strategies. *Journal of Water Process Engineering*, 39, 101858.
- Sodhi, K.K., Kumar, M., Balan, B., Dhaulaniya, A.S., Shree, P., Sharma, N., & Singh, D.K. (2021). Perspectives on the antibiotic contamination, resistance, metabolomics, and systemic remediation. *SN Applied Sciences*, 3(2), 1-25.
- Sodhi, K.K., Kumar, M., Dhaulaniya, A.S., Balan, B., & Singh, D.K. (2021). Enhanced ciprofloxacin removal by plant growth-promoting *Microbacterium* sp. WHC1 in presence of *Eichhornia crassipes* root exudates. *Environmental Sustainability*, 1-11.
- Sood, U., Singh, D.N., Hira, P., Lee, J.K., Kalia, V.C., Lal, R., & Shakarad, M. (2020). Rapid and solitary production of mono-rhamnolipid biosurfactant and biofilm inhibiting pyocyanin by a taxonomic outlier *Pseudomonas aeruginosa* strain CR1. *Journal of biotechnology*, 307, 98-106.
- Talwar, C., Nagar, S., Kumar, R., Scaria, J., Lal, R., & Negi, R.K. (2020). Defining the environmental adaptations of genus Devosia: Insights into its expansive short peptide transport system and positively selected genes. *Scientific Reports*, 10(1), 1-18.
- Talwar, C., Singh, A.K., Choksket, S., Korpole, S., Lal, R., & Negi, R.K. (2020). *Salinicoccus cyprini* sp. nov., isolated from the gut of mirror carp, *Cyprinus carpio* var. specularis. *International Journal of Systematic and Evolutionary Microbiology*, 70(7), 4111-4118.
- Venkateswaran, K., Shrivastava, A., Prasad, A.K., Parmar, V.S., & Dwarakanath, B.S. (2020). Developing polyphenolic acetates as radiation countermeasure agents: current status and future perspectives. *Drug discovery today*, 25(4), 781-786.
- Verma, H., Dhingra, G.G., Sharma, M., Gupta, V., Negi, R.K., Singh, Y., & Lal, R. (2020). Comparative genomics of *Sphingopyxis* spp. unravelled functional attributes. *Genomics*, 112(2), 1956-1969.
- Verma, H., Nagar, S., Vohra, S., Pandey, S., Lal, D., Negi, R.K., ... & Rawat, C.D. (2021). Genome analyses of 174 strains of *Mycobacterium tuberculosis* provide insight into the evolution of drug resistance and reveal potential drug targets. *Microbial genomics*, 7(3). *DOI 10.1099/mgen.0.000542*.
- Verma, V.K., Kumar, K.B., Sagar, K., Majumdar, S., Pal, S., Mehta, A., ... & Prakash, O. (2021). Amelioration of immune and digestive system through weed supplemented feed against *Aeromonas hydrophila* in *Clarias gariepinus*. Fish & Shellfish Immunology Vol. 115: 124-133.
- Vijay, P., & Sehgal, N. (2020). Structural analysis and characterization of egg-envelope in the Indian freshwater murrel, *Channa punctatus*. *Fish Physiology and Biochemistry*, 46(5), 1847-1856.

Books/Chapters

- Agrawal, N. & Shah, P. (2020) (Eds). Toxicology of Nanoparticles: Insights from Drosophila. Springer Nature. ISBN- 978-981-15-5221-3, 978-981-15-5522-0 (ebook).
- Negi. R.K, Khurana, H., Sharma, M., Bharti, M., and Modeel, S. (2021) Challenges of Multidrug Resistance microbes on public health. *Molecular Biochemistry*. Publisher Elsevier (In Press).
- Purohit, J.S., Singh, N., Hussain, S.S. and Chaturvedi, M.M. (2021) Attaining Epigenetic Rejuvenation: Challenges Ahead. *In*: Models, Molecules and Mechanisms in Biogerontology pp 159-179. Springer, Singapore https://link.springer.com/book/10.1007/978-981-32-9005-1
- Sharma, M., Sharma, S., Mazumdar, S. and Negi, R.K. (2020). Bioremediation challenges and advancements. Bentham Science publisher (In Press).
- Sharma, P., Jain, P., Shrivastava, A., & Saran, S. (2020). Can Autophagy Stop the Clock: Unravelling the Mystery in *Dictyostelium discoideum*. *In Models, Molecules and Mechanisms in Biogerontology* (pp. 235-258). Springer, Singapore.

5. Research Projects (Funding Agency, Year/period, Title, Amount Sanctioned)

S.	Project Title	Year/	Funding	Sanctioned
No.		Period	Agency	Amount
1	The Pranmati Basin, Himalayan Critical Zone Observatory (PBHCZO) Prof. Neeta Sehgal & Prof. D.K.Singh	2021-2024	Ministry of Earth Sciences	Rs. 61,39,392/-
2	Polycystic ovary syndrome: Impact of gonadotropin hormone imbalance: its consequences for maternal and the infant health PI – Prof. Rita Singh	2021-2024	ICMR	Rs. 84 lakhs
3	Unravelling possible role of asprosin in male reproduction: hormonal correlation with asprosin and its receptor in mice PI – Prof. Umesh Rai	2021-2024	ICMR	Rs. 1,36,17,720/-
4	Evaluation of Age-linked Chromatin Modifications in Mice Sperm: an approach to study sperm quality and fertility PI – Dr J.S. Purohit, CoPI – Prof. M. M. Chaturvedi	2020-2023	ICMR	Rs. 65 Lakhs
5	Role and Characterisation of Neutrophil in Host-Tumor Interaction and Possible intervention by Immunomodulatory Rasayanas PI- Prof. Anju Shrivastava	2020-2021	FRP, IoE Grant, University of Delhi	Rs.2.5 Lakhs
6	Deciphering the mechanisms leading to altered lipid metabolism in Huntington's Disease PI- Prof. Namita Agrawal	2020-2021	FRP, IoE Grant, University of Delhi	Rs.2.5 Lakhs
7	Exploring the gut microbiome of exotic and indigenous carps PI Prof. Negi	2020-2021	FRP, IoE Grant, University of Delhi	Rs.2.5 Lakhs
8	Comparative analysis of Leydig cell functions induced by electromagnetic sources	2019-2022	ICMR	Rs. 85,44,860/-

	PI- Dr. Rajiv Singh, Co. PI- Prof. U. Rai			
9	Targeting of the Spliceosome in Esophgaeal Squamous Cell Carcinoma Dr. Manoj Kashyap, Prof. Alok C. Bharti (PI)	2019-2022	DST-SERB (DST-TARE)	Rs. 30,00,000/-
10	Investigation of the role of exosomes in cervical cancer angiogenesis and endothelial cell conditioning PI - Prof. Alok C. Bharti	2019-2021	DST-SERB	Rs. ~30 Lakhs
11	Identification of Homoeopathic Formulations with Anti-Cervical Cancer and Anti-HPV Activity PI - Prof. Alok Chandra Bharti	2020-2023	AYUSH	Rs. 40.7 Lakhs
12	Remediation and Reclamation of Hexachlorocyclohexane (HCH) Dumpsite by using Microbial Bioremediation Technology PI - Prof. R.K. Negi	2019-2020	DBT	Rs. 190.5 lakhs
13	Integrated farming of <i>Lates calcarifer</i> and <i>Macrobrachium rosenbergii</i> in aquaponic system: a sustainable water utilization approach PI - Prof. Rina Chakrabarti	2020-2023	DST	Rs. 58 lakhs
14	Dissemination and Demonstration of Fish Culture Technology among Women Self Help Groups in NCR Region of Delhi as a Self Employment Activity PI - Prof. Rina Chakrabarti	2018-2021	DBT	Rs. 58 lakhs
15	Characterization of the H3 specific protease (H3ase) activity of the chicken liver glutamate dehydrogenase (GDH) PI– Dr J.S. Purohit, Co. PI – Prof. M.M. Chaturvedi	2018-2021	DST-SERB	Rs. 65 lakhs
16	Understanding the mechanism of onset of reproductive activity in seasonally breeding reptile <i>Hemidactylus flaviviridis</i> : an emphasis on the role of the kisspeptin. PI – Dr. Sunil Kumar, Co-PI – Prof. Umesh Rai	2018-2021	EMR-SERB	Rs. 33.05 lakhs
17	Investigation of molecular mechanism(s) of STAT3-mediated regulation of HPV infection and cervical carcinogenesis PI - Prof. Alok C. Bharti	2018-2021	ICMR	Rs. 39.6 Lakhs
18	Bioremediation of chemical contaminants and their complexes present in drainage waste water with high dynamic flux used for irrigation in urban and <i>peri</i> -urban agriculture PI - Prof. D.K. Singh	2018-2021	NASF-ICAR	Rs. 95.46 lakhs
19	Field-Deployable Analytical Methods to Assess the Authenticity, Safety and Quality of Food in India PI - Prof. D.K. Singh	2017-2021	IAEA/FAO	€ 30,000
20	Quality improvement of mass reared moths and assessment of competitiveness of radio-sterilized lepidopteran pest,	2016-2021	International Atomic Energy	€ 40,000

Spodopteralitura and its F_1 progeny in field	Agency
simulated cages for pest suppression	(IAEA),
through 'Inherited sterility technique'	Vienna
PI - Prof. R. K. Seth	

6. Conference/workshop organized (conference title, Dates, Funding agencies)

International Colloquium on "Regulatory Mechanism underlying Behavior, Physiology and Development" in March 24-26, 2021 sponsored by University Grants Commission – Special Assistance Programme – Centre of Advanced Study (UGC-SAP-CAS)

7. Seminar/conference presentations:

International

- Agrawal, N. (2021) Chaired Session: International Colloquium on Regulatory Mechanisms Underlying Behaviour, Physiology and Development sponsored by UGC-SAP-CAS-VIII organized by Department of Zoology University of Delhi from March 24-26 2021.
- Angma, N., Vimal, N. and Seth, R.K. (2021). Influence of Radiation on Sex Peptide Receptor (SPR) to assess the Frequency and Quality of insemination in a Tropical Pest, Spodoptera litura (Fabr.) [Lepidoptera: Noctuidae]. In: International Colloquium on "Regulatory Mechanisms underlying Behaviour, Physiology and Development", University of Delhi, Delhi, India (March 24-26, 2021).
- Arora, S., Yadav, P., Seth, R., Singh, Y. and Seth, R.K. (2021). Role of host irradiation on the viability of entomopathogenic nematode, Steinernema thermophilum and their potential as an adjuvant to F1 sterility technique against ayphagous pest, *Spodoptera litura* (Fabr.). In: International Colloquium on "Regulatory Mechanisms underlying Behaviour, Physiology and Development", University of Delhi, Delhi, India (March 24-26, 2021).
- Bakshi, A and Rai, U. (2021) "Molecular Characterization of Leptin and Leptin Receptor of Spotted Snakehead Channa punctata: Structural, Functional and Evolutionary Analyses" in International Colloquium on Regulatory Mechanism underlying Behavior, Physiology and Development (RMBPD), Department of Zoology, University of Delhi, Delhi, India, March 24-26, 2021.
- Banerjee, A., Tripathy, M., and Rai, U. (2021) "Asprosin in Wall Lizard: A Preliminary Study" in International Colloquium on Regulatory Mechanism underlying Behavior, Physiology and Development (RMBPD), Department of Zoology, University of Delhi, Delhi, India, March 24-26, 2021.
- Basak, R. and Rai, U. (2021) "Testis-specific Estrogen Receptor Subtypes in Spotted Snakehead Channa punctata: Reproductive Phase-dependent Expression and Gonadotropic Regulation" in International Colloquium on Regulatory Mechanism underlying Behavior, Physiology and Development (RMBPD), Department of Zoology, University of Delhi, Delhi, India, March 24-26, 2021.
- Basu-Modak, S. (2021) Chaired Session: International Colloquium on Regulatory Mechanisms Underlying Behaviour, Physiology and Development sponsored by UGC-SAP-CAS-VIII organized by Department of Zoology University of Delhi from March 24-26 2021.
- Bharti, A.C. (2021) Chaired Session: International Colloquium on Regulatory Mechanisms Underlying Behaviour, Physiology and Development sponsored by UGC-SAP-CAS-VIII organized by Department of Zoology University of Delhi from March 24-26 2021.
- Chakrabarti, R. (2021) Chaired Session: International Colloquium on Regulatory Mechanisms Underlying Behaviour, Physiology and Development sponsored by UGC-SAP-CAS-VIII organized by Department of Zoology University of Delhi from March 24-26 2021.

- Chauhan, V., Kumar, S., and Rai, U. (2021) "Hypothalamic Neuropeptide Y in Wall Lizard" in International Colloquium on Regulatory Mechanism underlying Behavior, Physiology and Development (RMBPD), Department of Zoology, University of Delhi, India, March 24-26, 2021.
- Chuphal, B., Roy, B., and Rai, U. (2021). "In Silico Analysis of NOD1 and its Differential Expression during Bacterial Infection in Spotted Snakehead Channa punctata" in International Colloquium on Regulatory Mechanism underlying Behavior, Physiology and Development (RMBPD), Department of Zoology, University of Delhi, Delhi, India, March 24-26, 2021.
- Dhankhar, J., Agrawal, N. and Shrivastava, A. (2021), 'Non-cell-autonomous effects of mutant Huntingtin on Immune cells in transgenic Drosophila model of Huntington's disease' at International Colloquium on Regulatory Mechanism Underlying Behaviour, Physiology and Development' Department of Zoology, University of Delhi from 24th -26th March, 2021.
- Dotania, K., Tripathy, M., and Rai, U. (2021) "Phylogenetic Analysis of Nesfatin-1, a Novel Peptide" in International Colloquium on Regulatory Mechanism underlying Behavior, Physiology and Development (RMBPD), Department of Zoology, University of Delhi, India, March 24-26, 2021.
- Kumari, R. and Shrivastava, A. (2021), Therapeutic potential of *Tinospora cordifolia*: Multiple effects of Lymphoma induced neovascularization at International Colloquium on Regulatory Mechanism Underlying Behavior, Physiology and Development' Department of Zoology, University of Delhi from 24th -26th March, 2021.
- Negi, R.K. (2021) Chaired Session: International Colloquium on Regulatory Mechanisms Underlying Behaviour, Physiology and Development sponsored by UGC-SAP-CAS-VIII organized by Department of Zoology University of Delhi from March 24-26 2021.
- Priyanka, Roy, B., and Rai, U. (2021) "Exploring Fibrillin 1 Gene and its Product Asprosin in Spotted Snakehead Channa punctata" in International Colloquium on Regulatory Mechanism underlying Behavior, Physiology and Development (RMBPD), Department of Zoology, University of Delhi, Delhi, India, March 24-26, 2021.
- Rawat, K. and Shrivastava, A. (2021), Increase in neutrophil number and function contributes to gradual
 systemic deterioration during tumor progression at International Colloquium on Regulatory Mechanism
 Underlying Behavior, Physiology and Development" Department of Zoology, University of Delhi from
 24th -26th March, 2021.
- Sehgal, N (2021) Chaired Session: International Colloquium on Regulatory Mechanisms Underlying Behaviour, Physiology and Development sponsored by UGC-SAP-CAS-VIII organized by Department of Zoology University of Delhi from March 24-26 2021.
- Sengupta, M., Angmo, N. Seth, R. K. (2021). Irradiation impact on sexual behaviour of female moth, Spodoptera litura (Fabricius) and its potential role in operating "Inherited Sterility Technique" for pest suppression. In: International Colloquium on "Regulatory Mechanisms underlying Behaviour, Physiology and Development", University of Delhi, Delhi, India (March 24-26, 2021).
- Seth, R.K. (2021) Chaired Session: International Colloquium on Regulatory Mechanisms Underlying Behaviour, Physiology and Development sponsored by UGC-SAP-CAS-VIII organized by Department of Zoology University of Delhi from March 24-26 2021.
- Seth, R.K. (2021). Reconnaissance of Nuclear Energy in Plant Protection with special reference to Insect Pest Management. In: International Colloquium on "Regulatory Mechanisms underlying Behaviour, Physiology and Development", University of Delhi, Delhi, India (March 24-26, 2021)

- Seth, R.K., Angmo, N., Vimal, N., Sengupta, M., Yadav, P. Singh, K., Singh, C.K. Arora, S., Kaur, J.J. and Seth, Ranjana. (2021). Evaluation of certain vital bio-parameters in correlation with adult behaviour and reproductive fitness of moths to be employed in radio-genetic F1 Sterility technique for suppression of a noctuid pest, Spodoptera litura (Fabr.). In: IV FAO/IAEA Research Co-ordination Meeting on CRP (D41026), Improved Field Performance of Sterile Male Lepidoptera to Ensure Success in SIT Programmes', Virtual meeting, IAEA Vienna, Austria (18-21 May, 2021).
- Shakarad M. (2021) Invited Lecture, Ecdysone and Wingless the Arundhati and Vashisht of phenotype constancy in faster developing *Drosophila melanogaster*. International colloquium on regulatory mechanisms underlying behaviour, physiology and development. Department of Zoology, University of Delhi, Delhi, India. 24-26 February 2021.
- Shakarad, M (2021) Chaired Session: International Colloquium on Regulatory Mechanisms Underlying Behaviour, Physiology and Development sponsored by UGC-SAP-CAS-VIII organized by Department of Zoology University of Delhi from March 24-26 2021.
- Shrivastava N.K., Chauhan N., Agrawal N., Shrivastava A. and Shakarad M.N. (2021). Deciphering immune system of faster developing *Drosophila melanogaster*. International colloquium on regulatory mechanisms underlying behaviour, physiology and development. Department of Zoology, University of Delhi, Delhi, India. 24-26 February 2021.
- Singh, Y. (2021) Chaired Session: International Colloquium on Regulatory Mechanisms Underlying Behaviour, Physiology and Development sponsored by UGC-SAP-CAS-VIII organized by Department of Zoology University of Delhi from March 24-26 2021.
- Shukla, A.S. and Shrivastava, A. (2021), Cardifoliside- A novel inhibitor of Crystathionine-y-Lyase, an H2S synthesizing enzyme: an *in-silico* study in phytochemicals from *Tinospora cordifolia* for exploring anti-tumor mechanism at International Colloquium on Regulatory Mechanism Underlying Behaviour, Physiology and Development" Department of Zoology, University of Delhi from 24th -26th March, 2021.
- Singh, C. K. and Seth, R.K. (2021). Effect of Irradiation on Gut Bacterial Microbiota in a Serious Noctuid Polyphagous Pest, *Spodoptera litura* (Fabricius). In: International Colloquium on "Regulatory Mechanisms underlying Behaviour, Physiology and Development", University of Delhi, Delhi, India (March 24-26, 2021).
- Singh, R. (2021) Chaired Session: International Colloquium on Regulatory Mechanisms Underlying Behaviour, Physiology and Development sponsored by UGC-SAP-CAS-VIII organized by Department of Zoology University of Delhi from March 24-26 2021.
- Singh, R. (2021) Invited lecture on "Sex differences in the incidence and severity of Covid-19" in International conference on challenges and strategies in reproductive and environmental health with special reference to Covid-19 pandemic, Organized by ISSRF and University of Delhi in a online mode. Feb. 19-21, 2021
- Syeda, S. and Shrivastava, A. (2021), Tumor-derived Exosomes as a salient protagonist in mediating protumoral activation of macrophages at International Colloquium on Regulatory Mechanism Underlying Behavior, Physiology and Development' Department of Zoology, University of Delhi from 24th -26th March, 2021, (Awarded first prize in poster presentation).
- Tripathy, M., and Rai, U. (2021) "Ovarian Progesterone Receptor in Hemidactylus flaviviridis: Reproductive Phase-Dependent Expression Pattern, Gonadotropic Regulation and Correlation with Plasma Progesterone Level" in International Colloquium on Regulatory Mechanism underlying Behavior, Physiology and Development (RMBPD), Department of Zoology, University of Delhi, India, March 24-26, 2021.

- Vimal, N., Sengupta, M., Seth, Ranjana and Seth, R. K. (2021). Radiation Hormesis as an Augmentative Approach to Improve Radio-genetic F1 Sterility Technique towards Suppression of a Polyphagous Pest, Spodoptera litura (Fabr.) [Lepidoptera: Noctuidae]. In: International Colloquium on "Regulatory Mechanisms underlying Behaviour, Physiology and Development", University of Delhi, Delhi, India (March 24-26, 2021).
- Yadav, P., Kaur, J.J. and Seth, R.K. (2021). Targeting Sperm Activating Proteins To Devise Biorational Modalities To Couple with Inherited Sterility (IS) Technique for Controlling A Serious Polyphagous Pest Spodoptera Litura (Fabr.) [Lepidoptera: Noctuidae]. In: International Colloquium on "Regulatory Mechanisms underlying Behaviour, Physiology and Development", University of Delhi, Delhi, India (March 24-26, 2021).

National

- Bharti, A.C. (2021) Guest faculty lecture (Online) on "Antibodies Structure and Type, Nature of Antigens, Antigen-Antibody based Applications Basic and Advanced" at School of Biotechnology, Banaras Hindu University, Varanasi. May 5-8, 2021.
- Bharti, A.C. (2021) Invited lecture on "Host virus interactions during cervical cancer development: mechanisms, challenges and opportunities" at CPDHE, University of Delhi, Delhi on Jan 21, 2021.
- Bharti, A.C. (2021) Invited lecture on "Host virus interactions during cervical cancer development: mechanisms, challenges and opportunities" at Department of Zoology, Deshbandhu College (University of Delhi), Kalkaji, New Delhi on Jan 18, 2021.
- Chakrabarti, R. (2020) Invited lecture on "Achyranthes aspera: A Potential Herb for Fish Growth and Immunostimulation" in the Webinar Seminar Series 8, "Global Women in Aquaculture: Synergy experiences and lessons for African young women aquaculture" organized by the West Africa Region of World Aquaculture Society African Chapter on July 11, 2020.
- Chaturvedi, M.M. (2020) Invited lecture in National Webinar entitled "Current Strategies and Challenges of Diagnosis, Treatment and Control of COVID-19" organized by School of Studies in Biochemistry and Biotechnology, Jiwaji University, Gwalior, 15th July 2020.
- Negi, R.K. (2021) Invited talk in Workshop on "Fish and Avian diversity: Identification and conservation" at Faculty Developmental Centre Pandit Madan Mohan Malaviya Nationa Mission on Teachers and Teaching, Department of Zoology, Kurukshtra University Kurukshetra, March 04, 2021.
- Negi, R.K. (2021) Invited talk on 'Life Sciences and Biotechnology: Recent Trends, Advances and Challenges' at Centre for Professional Development in Higher Education, University of Delhi, February 04, 2021.
- Seth, R.K. 2020. Invited lecture, Exploring Nuclear Technology in Integrated Insect Pest Management: Boon for Indian Plant Protection. National Conference on "Recent Scientific Advances in Agricultural and Environmental Sciences", Chennai, December 5, 2020
- Singh, R. (2020) Invited Speaker in Webinar on How Corona Virus hacks human physiology? One day National Webinar on Emerging Respiratory Viruses-Covid-19 and Influenza, Organized by University of Kashmir and Academy of Ecoscience, Kashmir on Oct 5, 2020.
- Singh, R. (2020) Invited Speaker in Webinar on COVID-19 Virus and Human Biology, One day National Webinar on Adolescent Health During COVID-19 Pandemic, organised by Indian Society for the Study of Reproduction and Fertility (ISSRF), Sept 19. 2020.

8. Other Institutional collaborations

International collaboration

• Prof. R. K. Seth – Collaboration with International Atomic Energy Agency (IAEA), Vienna, 2016-2021, "Quality improvement of mass reared moths and assessment of competitiveness of radio-sterilized lepidopteran pest, *Spodopteralitura* and its F₁ progeny in field simulated cages for pest suppression through 'Inherited sterility technique" under FAO/IAEA CRP (D41026) on "*Improved Field Performance of Sterile Male Lepidoptera to Ensure Success in SIT Programmes*" (IAEA Contract No. 20565/RB) € 40,000.

National Collaboration

- Prof. Rina Chakrabarti Collaboration with Department of Biotechnology, Delhi Technological University. Department of Biotechnology (DBT), 2018-2021. Dissemination and Demonstration of Fish Culture Technology among Women Self Help Groups in NCR Region of Delhi as a Self-Employment Activity. Rs. 58.0 lakhs.
- Prof. D. K. Singh Collaboration with Water Technology Centre, IARI, NASF(ICAR), 2018-2021, "Bioremediation of chemical contaminants and their complexes present in drainage waste water with high dynamic flux used for irrigation in urban and *peri*-urban agriculture", Delhi University, Delhi (Lead Centre). Total Budget: Rs. 170.84 (Lakhs), DU Budget: Rs. 95.46 (Lakhs).

9. Extension and outreach activities:

- Undergrad internship program on "Assessment of Deteriorating Reproductive health in Indian female population in the age group of 15-40 years", with 2 interns selected from Delhi College of Engineering, Delhi and University of Delhi, Ongoing 2021 [Prof. Rita Singh]
- Webinar on "Implantation failure in PCOS women", organized by Indian Fertility Society (IFS), July 17, 2021. Webinar on Reproductive health in the New Era: Challenges of the Modern World, organized by Sri Venkateswara College, University of Delhi, Delhi, June 26, 2021 [Prof. Rita Singh]
- Webinar on "Environmental contributions to subfertility/infertility in women with PCOS", organized by Indian Fertility Society (IFS), March 15, 2021. [Prof. Rita Singh]
- Lecture on "How Corona Virus hacks human physiology?" in One-day National Webinar on "Emerging Respiratory Viruses-Covid-19 and Influenza", Organized by University of Kashmir and Academy of Ecoscience, Kashmir on Oct 5, 2020. [Prof. Rita Singh]
- One day National Webinar on "Adolescent Health During COVID-19 Pandemic", organised by Indian Society for the Study of Reproduction and Fertility (ISSRF), Sept 19. 2020. [Prof. Rita Singh]

10. M.Phil. / Ph.D. Awarded

M.Phil. – Nil Ph.D. – 15

11. Faculty Strength

Permanent – 15

FACULTY OF SOCIAL SCIENCES

DEPARTMENT OF ADULT, CONTINUING EDUCATION & EXTENSION

Major Activities and Achievements

The Department as part of Major activities organized a series of webinars during the period. The facilities served as the National and international Experts. The Department worked on National Level Transgender with the help and collaborations of NISD Ministry of Social Justice and empowerment Government of India. The Department has planned undergraduate level course on Lifelong Learning and Extension under New Education policy 2020. It has worked with District institute of Education and training under SCERT. Professor P.C. Josh, Vice-Chancellor, Prof. Balram Pani, Dean of Colleges and Dr. Vikas Gupta, Registrar participated as the Chief Guests in various webinars.

The Department is part of the Faculty of Social Sciences since 1985. It has its beginning in 1978 as a Cell. The Department offers M.A. in Lifelong Learning & Extension, M. Phil Programme and Ph.D. The Department entered into an agreement with the University of Wurzburg, Germany for faculty and students exchange programme. Under this agreement the first batch of 6 students, second batch of 11 students, third batch 10 students, fourth batch 4 students and fifth batch 06 students with a faculty attended on each occasion in 2015, 2016, 2017 2018, 2019 and 2020. The Students of Wurzburg University also visited Department of Adult Continuing Education & Extension University of Delhi in Autumn School, September, 2018 and September 2019. Department has developed a unique programme of short-term courses for students and community people to pursue their personal interest promotion and skill training. Some of the popular courses are Travel & Tourism and Counseling and Guidance. The Department is in process of changing nomenclature as Lifelong Learning & Extension and starting new journal of the Department.

Honours/Distinctions

1. Four teachers are member of the Editorial Board.

Journals

- Journal of Lifelong Learning and Extension proposed by the Department
- Four teachers are member of the Editorial Board.
- Raiesh, Chief Editor of Indian Journal of Lifelong Learning & Educational Guidance

Research Projects

• Funding Agency, Year/Period, Title, Amount sanctioned

S. No.	Funding Agency	Name of Projects	Year	Grant Received
1	Institute of Eminences, University of Delhi	Transgender intervention in Higher Education	2020-2021	3,50,000/-
1	UGC (Indo-German Partnership in Higher Education at German Academic Exchange Service (DAAD) and University Grants Commission (UGC)	Adult and Life Long Education: India and German Insights	2016-2020	€ 118140/- (Rupees 88,00,000/-)

Seminars/Conferences Organized:

International Winter School February, 2020 organized University of Wurzburg, Germany. 6 students of the Department have participated in the programme.

Students under Exchange Programme

Yes, sixstudents to visit University of Wurzburg, Germany on February, 2020

with JM University, Wurzburg, Germany. Four students were from M.A., one student from M.Phil. and one from PhD.

Extension and Outreach Activities

The importance of building up an understanding with respect to the 'context of content' is reflected in the field work practicum of the Department of Adult Continuing Education &Extension. Paying attention to its extension activities the Department believe in working in close relationship with the community and the organizations working in these communities. Over the past many years, the Department has built up the understanding of mutual concerns with NGOs and civil society organizations to facilitate its students. Practical experience along with academic knowledge is well reflected in its intervention programs. Students are visiting the following civil society organizations for internship and concurrent field work programme.

Faculty Strength

• Permanent Faculty - 06

Other Significant Information

The Department is in Process of developing MoU with Hungary and joined RISHI project of the University of Delhi Internationalization of curriculum.

DEPARTMENT OF AFRICAN STUDIES

Major activities and achievements

The Department of African Studies, University of Delhi founded on 6th August, 1955 by the First Prime Minister of India (Late) Pandit Jawaharlal Nehru, specializes in Geography, History, Politics, Sociology, Economy, and Literature on African affairs.

The Department is actively engaged in teaching and training the M.Phil.and Ph.D. research scholars who are trained to do research on the relevant issues and topics on Africa and produce quality research paper. Till date the Department has awarded M.Phil. Degree to 436 scholars and awarded Ph.D. degree to 120 scholars. Besides, the Department also teaches Swahili, one of the major African languages spoken in Eastern Africa. Till today more than 210 students have been awarded Diploma and Certificate in Swahili Language. Many of them are engaged in the work of translation and interpretation for those who are doing their business in Africa.

The Department conducts in-depth study and research on selected issues, through the various study groups, it has set up. The prominent study groups are, study group on India Africa Relations, study group on South Africa and Traditional Medicine, Human Rights, Refugees and Diaspora Study Units.

Publications:

Kapoor, S. &Kapoor, R. (2021). Statistical analysis of socio-cultural adaptation of foreign students in India. In *Shodh Sanchar*, 11(4), pp 139-144. ISSN-2229-3620, UGC Care listed journal. Co-authored with Sudhir Kapoor. Kapoor, R. (2021). Contextualizing global peace in Indian and African cultures. In D. Singh (Ed.). *Indian Culture:*

An Overview. Delhi: Akhand Publishing House. pp. 63-72. ISBN 978-81-948850-6-1.

Singh, G. S.(2020). Gender Equality and Women empowerment: A case study of South Africa, IJRAR, 2020, Vol-7, ISSN: E-2348-1269. Gender Equality and Women empowerment: A case study of South Africa, *IJRAR*, 2020, *Vol-7*, ISSN: E-2348-1269.

Uma & Kapoor, R. (2020). Doubly unorganized: A comparative study of women in India and South Africa engaged in informal sector. In *Aspirare: An International Journal of Commerce and Management*, 7. ISSN: 2394-0484 (Print); 2394-6601 (Online).

Uma &Kapoor, R. (2021). Female labour force participation in India and South Africa: An analysis. In *Shodh Sanchar*, 11(4). ISSN-2229-3620, UGC Care listed journal.

Research Projects

S. No.	Funding Agency	Name of Projects	Name of the Faculty	Year	Grant Received
1.	Funded by SPARC, MHRD, and Government of India.	"Traditional Medicine in India and South Africa: A Comparative Study"	Prof. Tribhuwan Prasad	2019-2021	Major project
2.	Porto University, Brazil	UNESCO Research Group on African and Brazilian knowledge, practices, education and histories in a Southern Perspective	Prof. Suresh Kumar	2012 - continued	NA
3.	Funded by ICSSR, Government of India.	"The importance of Africa in India's Quest for Energy Resources and Emerging Challenges: Examining China Factor"	Prof. A.S. Yaruingam	2019- 2021	Major Research Project

Conferences/Seminars Organized (National/International)

S.	Title	Day and Date	Speaker
No.			
1.	Relevance of Gandhian Philosophy in	NA	NA
	Covid-19 Crisis		
2.	Indian Traditional Medicine and Indian	NA	NA
2.	Diaspora outside India	1471	11/1
	Diaspora outside maia		
3.	Traditional Medicine in India & South	NA	NA

	Africa: A Comparative study		
4.	Africans in India: Challenges and prospects in Covid-19 Pandemic	NA	NA
5.	Indian Diaspora in Africa & the Caribbean: Historical roots and Cultural Linkages	NA	NA
6.	Traditional Medicine & Healing System in India and South Africa	NA	NA
7.	International Conference on Transforming Africa: Potentials & Challenges. Department of African Studies, University of Delhi & ICSSR. Satyakam Bhawan	06-08 February 2019.	

Seminar / Conference Presentations:

Kapoor, Rashmi

Paper presented/Lectures Delivered at National/International Seminar/Conference

- "The Post Covid 19 economic scenario in South Africa and India: Where are female labourforce?" in the International webinar on the topic 'Managing the Post Covid 19 Pandemic: Global and Local Challenges and Opportunities for India'. Conducted on line on 25 May 2020, organized jointly by Society for Social Empowerment, New Delhi & Chaudhary Bansi Lal University, Bhiwani, Haryana. Co-presented.
- "Cultural Belief Systems and Resilience in India and Africa: Commonalities and Convergences". Paper presented at the two day International E-Conference on 'Human Resilience in the Times of Crisis', held on 27-28 May 2020, organized by Department of English & Psychology, St. John's College, Agra.
- "Cultural Dimensions of Global Peace: Understanding in the Context of Indian and the African Cultures" Paper presented at the two-day International Webinar entitled 'Indian Culture: An Evergreen Relevance for Global Peace'. Conducted on-line, Held on 12-13 June 2020, organized by Modern College of Professional Studies, Mohan Nagar, Ghaziabad jointly with Amrit Manthan Welfare Society, Ghaziabad, UP, India.
- "Doubly unorganized: A comparative study of working women in unorganized sector in India and South Africa". Paper presented at the National Conference on 'working women in unorganized sector: Issues and challenges in contemporary India' organized by the Department of Commerce, Aligarh Muslim University, held on 27 February 2021. Paper ID NC 232. Co-presented.

Courses Attended:

- i. Participated in 2 days online course on Financial Management for Managers organised by Department of Management Studies of Nandha College of Technology. Erode held on 24-25 April 2020.
- ii. Attended 10 days Faculty Development Programme on "Effective ways to develop e-Content for Teaching-Learning" conducted by *MaratheVidyaPrasarakSamaj*'s K.R.T. Arts, B.H. Commerce and A.M. Science (KTHM) College, Nashik in association with Human Resource Development Centre(UGC-HRDC), SavitribaiPhule Pune University, Pune from 21st May 2020 to 30th May 2020. (online).
- iii. One-week online FDP on "E-Content Development" conducted by Sanatan Dharma College in collaboration withGADTLCcentre of MHRD Pandit Madam Mohan Malaviya National Mission on Teaching (PMMNMTT) SGTB Khalsa College, University of Delhi held from 27th 31st July 2020.

Kumar, Suresh

Paper presented/Lectures Delivered at National/International Seminar/Conference

- "Relevance of Gandhi in Present Scenario" lecture delivered in national webinar organized by *NanajiDeshmukshPreshikshanevamSoodhSansthan*, Jabalpur, M.P., Oct. 24, 2020.
- "Gandhiji in South Africa" Lecture delivered under lecture series organized by Department of History, Satyawati College, University of Delhi, Oct.01, 2020.
- Invited Lecture in Faculty Development Program on Ethics and Research in Social Sciences, Sri Guru Nanak Dev Khalsa College, University of Delhi, 1st May 2018.

National / International MoUs Signed:

5 Under Process (Addis Ababa University, Ethiopia, Wachemo University, Ethiopia, Hawassa University, Ethiopia, Wolkite University, Ethiopia)

Other Inter-Institutional Collaboration:

School of Education, Johannesburg, University of Witwatersrand, South Africa and Africa Institute of South Africa, Pretoria, South Africa

Number of M.Phil / Ph.D Degree Awarded

Ph.D.: 8

M.Phil.: 20

Faculty Strength

06 (4 Professor, 2 Assistant Professor)

Other Significant Information

- Swachh Bharat Abhiyan
- Yoga Divas

DEPARTMENT OF EAST ASIAN STUDIES

Major activities and achievements:

The Department offers post graduate courses in M.A. in East Asian Studies, M.A. in Japanese and Ph.D. in East Asian Studies. The Post-graduate courses in the Department focus on an inter-disciplinary approach to the study of the region. Language is a compulsory component of this program and students learn one of the three East Asian languages viz. Chinese, Japanese or Korean. This program enables students to have comprehensive and integrated knowledge of the subject and the language concerned. It aims to create experts on East Asia who cold work in Think tanks, NGOs, government agencies, International Organizations, Newspaper Agencies etc. Further, the Department offers two years of Post Graduate Diploma and Advance Diploma Courses in Chinese, Japanese and Korean languages. Students who complete these courses get absorbed in companies in and outside India. The highlight of this year has been signing of MoUs. Prof. Ikeda Isamu andMs. Geng Yanxia, Visiting Faculty from Taiwan was sent to the department under the MoU signed. Renowned speakers were invited for Monday seminars and conferences. Many faculty members presented research papers in National and International Conferences.

Meritorious students got scholarships to go to China, Taiwan and Japan for higher studies. A large number of students got placement through the Placement Cell of the Department.

Outstanding Honours/Distinctions:

- Korea Cultural Centre and Embassy of Korea awarded appreciation of Certificate to Prof. Unita Sachidanand to promote Korea- India Cultural relations in India.
- Prof, Shreeparna Roy has been appointed 'external expert and principal editor' for developing Massive Online Open Courses (MOOCs) in Mandarin Chinese language under SWAYAM (an initiative by Government of India) conducted through the Indira Gandhi National Open University (IGNOU) w.e.f. 23 December 2020

Publications

Number of publications-2

- Sachidanand, U. (2021). Japanese Literature Studies in India: A Comprehensive Survey (With Special Reference to Translation and Research). In P.A. George, (Eds.), *Japanese Studies in South Asia: New Horizons*. Northern Book Centre, (pp. 196-216).
- Thakur, R. (Forthcoming) Chinese Studies in India: An Historical Overview. *Academica Serica Journal. Vol.* info Missing

Seminars Organized

List of Seminars organized:

S.	Title	Day and Date	Speaker
No.			
4.	Classical Korean Writings & Early Indo-	14.9.2020	Dr. Afzal Ahmad Khan
	Korean Relations		
5.	"South Korean Public Diplomacy in India:	21.9. 2020	Mr. Nawnit Kumar
	Hallyu as a tool"		
6.	"Historicizing India's Stance in The	25. 9. 2020	Krishan Kant Jha
	Korean War: With Special Reference to		
	The Role of K.P.S.Menon"	4.5.0.000	
7.	Special dialogue of Indian Embassy in	15.9.2020	Japan: Future Forum
	Japan and with scholars and Professor		
0	Ikegami Akira	26.0.2020	M A . 1 C1 1
8.	"Post-war literature of Japan and Literary World of Inoue Yasushi"	26.9.2020	Mr. Avinash Chand
	world of Inoue Yasushi		Rahi (PhD Research Scholar
9.	"How Vorcen Den Culture come to be	28.9.2020	
9.	"How Korean Pop Culture came to be known as Hallyu: History of the Korean	28.9.2020	Ms. Nemneilhing Kipgen (PhD Scholar,
	Wave"		DEAS
11.	"Global Circulation of Japanese literature:	16.10.2020	G.C. Pradhan
11.	Reading Hōjōki as world literature"	10.10.2020	G.C. I fadrian
12.	Workshop conducted by the Department in	17 & 18 October,	NINJAL LECTURES ON
	association with	2020	JAPANESE LECTURES
	NINJALNihongogaku koushuukai		
13.	"The Japanese Modernity: Literature	26.10.2020	Dr. Md.
	during the Democratic Movement of the		Moinuddin, (Assistant
	Taisho Era"		Professor, Graduate School
			of Letters, Osaka
			University, Osaka (Japan),
14.	"Evolution of Quad and Why is China	4.11.2020	Ms. Mallika

against Quad?"	Devi (Rasearch Scholar of DEAS)
17. トピック: 集中講義 (Special Lecture on Japanese literature in Translation)	Dr. Moinuddin (Assistant Professor at Osaka Universty)
18. "Case Study of Sino-Myanmar Energy Cooperation"	Chirmi Kharay, (Research Scholar, DEAS)
19. "Reassessing the Gender-Power Dynamics in Imperial China and Korea"	Divya Pokhriyal (PhD) Research Scholar, DEAS, DU)
20. "Understanding Prime Minister Suga's Policies and the Way Ahead"	8 and 29 NINJAL LECTURES ON JAPANESE LECTURES
Workshop conducted by the Department in association with	

Film Screenings and Discussion Forums:

- Japanese Films Online: Interview with Azuma Makoto, Flower Artist
- Film on Japan online: Japanese Films Online: Castle Quest The Last Walls Standing
- Japanese Films Online: Home Sweet Tokyo 3 Ep4
- Japanese Films Online: Quest for the Ultimate Wasabi by Anisha Richkshawali
- Short movie from "MOOSIC KAB x Japanese Film Festival" was shown to the students sponsored by Embassy of Japan from 11th Sep~ 14th September,
- HOD participated in India –Japan: Future Forum (Special dialogue of Indian Embassy in Japan and with scholars and Professor Ikegami Akira 15.9.2020 11:30 ~12: 30 & 1pm ~ 2: 30pm (online)
- Students and faculty of the department shown the movie recommended by Embassy of Japan: "Tami Hiyama Chirashi-Zushi, Home-party Sushi", through the link: https://www.facebook.com/EmbassyofJapaninIndia/posts/2031440590322818

Seminar/Conference Presentations

- Prof. Shreeparna Roy, presented a paper on "Buddhism and China's Cultural Identity: Formation, Continuity and Change", in international online conference on "Cultural Identity, Tradition and Belief System: From Discourse to Practice", 24-26 March 2021, organized by the Central Institute of Himalayan Culture Studies (CIHCS), Dahung, West Kameng District, Arunachal Pradesh, India.
- Prof. Janardan Sahu presented a paper on "Conficianism and Chinese Political Culture" in online webinar Seminar organised by the Punjab University, Chandigargh on 24th December 2020.
- Prof. Unita Sachidanand delivered a lecture in JALTAI lecture series to commemorate the 25 years of JALTAI On topic" One word many worlds: Understanding Japanese Literature" on 29.10.2020
- Prof. Shreeparna Roy, "COVID-19 and Future of Chinese Language Studies in India" paper presented at the international webinar on the theme "Importance of China Studies in the Contemporary World", organized by the UGC-China Studies Programme, MMAJ Academy of International Studies, Jamia Millia Islamia, New Delhi, 13-14 October 2020.
- Lalpekhlui, Nemneilhing Kipgen presented a paper titled, "Walking the Talk: Historicising South
 Korea's Cultural Diplomacy and its Importance to New Southern Policy, in the 14th RASK International
 Webinar, 2020, Challenges and Future Prospects under Act East Policy in India and New Southern
 Policy in South Korea" Organized By Researcher's Association For The Study Of Korea (Rask) In
 Collaboration With Jamia Millia Islamia University and Central University of Jharkhand, on 6th and 7th
 November, 2020,

- Chirmi Kharay, presenteded her paper on "India and South Korea's New Southern Policy: In the Realms of Cultural and Institutional Exchange" in the 14th RASK International Webinar, 2020, Challenges and Future Prospects under Act East Policy in India and New Southern Policy in South Korea" Organized by Researcher's Association For The Study Of Korea (Rask), in Collaboration With Jamia Millia Islamia University and Central University of Jharkhand on 6th and 7th November, 2020.
- Divya Pokhriyal presented her paper titled "Colonial Experiences of Women in Korea and India"; in the 14th RASK International Webinar, 2020, Challenges and Future Prospects under Act East Policy in India and New Southern Policy in South Korea" Organized by Researcher's Association For The Study Of Korea (Rask), in Collaboration With Jamia Millia Islamia University and Central University of Jharkhand on 6th and 7th November, 2020.
- H. Roopa, presented her paper on "A Study of transforming cultural aspects in the Korean society"; in the 14th RASK International Webinar, 2020, Challenges and Future Prospects under Act East Policy in India and New Southern Policy in South Korea" Organized by Researcher's Association For The Study Of Korea (Rask), in Collaboration With Jamia Millia Islamia University and Central University of Jharkhand on 6th and 7th November, 2020.
- Prof. Abanti Bhattacharya, presented a paperon China-Pakistan Relations and the CPEC: Returning to the Shadows, in the ICWA webinar 10thNovember, 2020, 3.30PM to 5.00 PM (IST), 12.30 PM to 2.00 PM (Berlin Time).
- Prof.Abanti Bhattacharya, presented a paper "Human Rights Violation in Tibet and Xinjiang," HRDI International Conference, China in Tibet and Xinjiang: Striking hard Against Human Rights, Human Rights Defense International, September 25, 2020

National/International MoUs Signed

- MoU between University of Delhi and Taipei Economic and Cultural Centre, India
- MoU beteen University of Delhi and National Chung Cheng University, Taiwan, R.O.C.

Other Inter-Institutional Collaboration

- Centre for Policy Research, New Delhi
- Institute of Chinese Studies, New Delhi
- Institute of Peace and Conflict Studies, New Delhi

Placement Details (Number and precentage of students placed)

- Five Companies visited for campus recruitment
- 100% students got placements in Companies, Think Tanks, Government Organizations or got admission in higher studies in India as well as in abroad.

Number of Ph.D awarded

Ph.d - 5

Faculty Strength

Permanent- 10Guest- 11

Any other significant information

- 1) On 26 September 2020 (Sat Day) Prof. Shreeparna Roy, Chinese Faculty of our Department has participated in online meeting of the Academic Advisory Committee of Department of Chinese Studies, Doon University (a member since July 2020).
- 2) One of our students Nishtha Ahuja won 1st prize in All India Essay Contest in Senior Category
- 3). Nishtha Ahuja student of our Department got 1st Prize , SENIOR CATEGORY in Essay Contest-2019 organized by JALTAI
- 4) Three of our students have been selected for different Japanese Government scholarships this year

DEPARTMENT OF ECONOMICS

Major Activities and Achievements

During the period April 2020 to March 2021, members of the department continued to contribute to the field of economics in significant ways. Several faculty members published their research works in leading national and international professional journals. They also participated in policy debates through writings in popular journals and produced two well-regarded economic forecasts. The department remains a UGC Centre of Advanced Study and for the sixth successive year it was ranked the highest amongst university economics departments in India by of Repec, global electronic archive working papers and publications **Economics** (http://ideas.repec.org/top/top.india.html). Faculty members also participated in several national and international conferences. During the year, the department organized one major international conference and a weekly seminar series that brought in distinguished speakers from India and abroad to present their research.

The Department supports M.A., M.Phil. and Ph.D. programmes. In 2020-21, 329 students were admitted in MA programme. The Department also continues to attract research students for its M.Phil. and Ph.D. programmes. In 2020-21, 3 and 13 students enrolled in Mphil and PhD programme respectively. A regular colloquium was organized for M.Phil. and Ph.D. students, at which research students presented their work in progress and faculty members lectured on research methods and ethics. Research students presented their work at professional conferences too. The Department has been very successful in placing its Masters graduates in corporate jobs as well as in Ph.D. programmes in the top-grade universities abroad.

Honours and Distinction

Dua, Pami

- *Member*, Monetary Policy Committee, Reserve Bank of India, 2016 to 2020
- Distinguished Alumni Award (Honorary, Category: Friend of DEI), Dayalbagh Educational Institute, 2021

Publications

Banerji, A., & Rampal, J. (2020). Reverse Endowment Effect for a New Product. *American Journal of Agricultural Economics*, 102(3), 786-805.

Pathania, K., & Bhattacharjea, A. (2020). Inverted Duty Structures and the Paradox of Negative Effective Protection in India, 2000–2014. *Foreign Trade Review*, 55(2), 139-167.

Bhattacharjea, A. (2020). Labour market flexibility in Indian industry: a critical survey of the literature. *International Labour Review* (forthcoming)

Ganesh-Kumar, A. & Das, V. K. (2020). Storage and structural factors determining the commercialization of Indian agriculture. In A. K. Mishra, A. Kumar, and P. K. Joshi (Ed.) *Transforming Agriculture in South Asia: The Role of Value Chains and Contract Farming*, 291-316, Routledge Press, London.

Datta, S. (2020). Political competition and public healthcare expenditure: Evidence from Indian states. *Social Science & Medicine*, 244, 112429.

Dua, P., & Goel, D. (2021). Determinants of Inflation in India. The Journal of Developing Areas, 55(2).

Dua, P. (2020). Monetary policy framework in India. Indian Economic Review, 55(1), 117-154.

Chakraborty, A., Ghosh, P., & Roy, J. (2020). Expert-captured democracies. *American Economic Review*, 110(6), 1713-51.

Ray, D., Salvatore, M., Bhattacharyya, R., Wang, L., Du, J., Mohammed, S., Purkayastha S., Halder A, Ghosh, P. ... & Mukherjee, B. (2020). Predictions, role of interventions and effects of a historic national lockdown in India's response to the COVID-19 pandemic: data science call to arms. *Harvard data science review*, 2020(Suppl 1).

Gupta, A. (2020). Globalising Agrarian Markets and Changing Production Relations: Village-Level Evidence from India. *Land and Livelihoods in Neoliberal India* (pp. 103-121). Palgrave Macmillan, Singapore.

Gupta, A. and Jadhav Uma (2020). UNHCR's Populations of Concern: Where does India Stand? *Social Welfare in India and China- A Comparative Perspective (pp.339-355)*. Palgrave Macmillan, Beijing, China.

Kumar, S., & Dua, P. (2021). Environmental Management Practices and Financial Performance: Evidence from Large Listed Indian enterprises. *Journal of Environmental Planning and Management*, 1-27.

Kumar, S., & Jain, R. K. (2020). Cost of CO 2 Emission Mitigation and its Decomposition: Evidence from coal-fired thermal power sector in India. *Empirical Economics*, 1-25.

Kumar, S., & Managi, S. (2020). Does stringency of lockdown affect air quality? Evidence from Indian cities. *Economics of Disasters and Climate Change*, 4(3), 481-502.

Maiti, D. and Kumar, S., "Editors' Introduction to Productivity Growth in India: Issues and measurement" *Indian Growth and Development Review*, vol. 13, pp. 1-9, 2020.

Kumar, S., Managi, S., & Jain, R. K. (2020). CO2 mitigation policy for Indian thermal power sector: Potential gains from emission trading. *Energy Economics*, 86, 104653.

Kumar, S. (2021). Modelling Production of Bad Outputs: Theory and Empirics. Sustainable Development Insights from India: Selected Essays in Honour of Ramprasad Sengupta, 479.

Kumar, M. (2021). The Government's Retreat from Agricultural Policy: Experiences from Bihar. *Economic and Political Weekly*, 56(4), 17-19.

Jha, P., & Kumar, M. (2021). Labour in India and the COVID-19 Pandemic. *The Indian Economic Journal*, 68(3), 417–437.

Hossain, J., Kumar, M., & Karatepe, I. (2021). Upgrading in the Value Chains of a Staple, a Stimulant, and a Perishable Crop. In Karatepe, I., & Scherrer, C. (Eds.), *The Phantom of Upgrading in Agricultural Supply Chains: A Cross-Country, Cross-Crop Comparison of Smallholders* (pp. 25-90). Baden-Baden, Germany: Nomos Verlagsgesellschaft.

Maiti, D. (2021), 'Economic System, Viral Outbreaks, and the Crisis', *Breakthrough - A Journal on Science and Society*, 22(1).

Maiti, D., & Awasthi, A. (2020). ICT exposure and the level of wellbeing and progress: A cross country analysis. *Social Indicators Research*, 147(1), 311-343.

Maiti, D., & Bhattacharyya, C. (2020). Informality, Enforcement and Growth. Economic Modelling, 84, 259-274.

Maiti, D and Singh, P. (2021), Does FDI favour Net Exportability? in De, P. and Raychoudhuri, A. (Eds.), 25 Years of the WTO and India: A Retrospective, Sage, New Delhi.

Maiti, D., & Singh, P. (2020). Finance and Innovation: Country-level Evidence on Role of Firm Size and Competition. Institute of Economic Growth, University Enclave, University of Delhi.

Parida, Y., Saini, S., Goel, P. A., & Sahoo, P. K. (2020). Role of economic development and the government on flood impact in India. *International Journal of Emergency Management*, *16*(3), 213-230. Sarkar, S. & Shukla, S. (2020) Predatory Pricing and the Notion of Multi-Market Dominance: A Case of the Indian Telecom Industry, in *Business, Economics and Sustainable Development: The Emerging Horizons*, edited by Manipadma Datta et al., Bloomsbury, New Delhi

Cao, J., Mukherjee, A., & Sinha, U. B. (2020). The implications of labour unions in the presence of a merger. *The Manchester School*, 88(4), 575-583.

Afridi, F., Barooah, B., & Somanathan, R. (2020). Improving learning outcomes through information provision: Experimental evidence from Indian villages. *Journal of Development Economics*, *146*, 102276.

Baland, J. M., Demont, T., & Somanathan, R. (2020). Child Labor and Schooling Decisions among Self-Help Group Members in Rural India. *Economic Development and Cultural Change*, 69(1), 73-105.

Sethi, R., Siddarth, D., Holland, A. C., Archibong, B., Annan, F., Somanathan, R., & Cárdenas, J. C. (2020). Towards Global Pandemic Resilience. *COVID-19 Rapid Response Impact Initiative. White Paper*, 11.

Dua, P. (forthcoming). Macro econometric Applications of the Indian Economy, Oxford University Press,

Allen, D., & Somanathan, R. (Eds.). (2020). *Difference without Domination: Pursuing Justice in Diverse Democracies*. University of Chicago Press.

Number and names of Department Teachers serving as Editor(s)/Member(s) of Editorial Board

Banerji, Abhijit

- Associate Editor, Agricultural Economics.
- Associate Editor, Indian Economic Review.

Bhattacharjea, Aditya

- Member, Board of Studies, Economics Division, Indian Institute of Foreign Trade (Deemed University)
- Member, Board of Studies, Faculty of Economics, South Asian University
- Editorial advisory board, Indian Journal of Labour Economics.
- Editorial board, Indian Economic Review.

Dua, Pami

Editorial Board

- Indian Economic Review
- Journal of Quantitative Economics
- Journal of Developing Areas

- Reserve Bank of India Occasional Papers
- Journal of Social and Economic Development

Other

- Member, UGC Expert Group on Research, Innovation and Rankings
- Member, Governing Council, Centre for Advanced Financial Research and Learning (CAFRAL)
- Member, Governing Council, Madras Institute of Development Studies
- Member, Governing Body (Board of Management), Dayalbagh Educational Institute

Gupta, Shreekant

• Associate Editor, *Indian Economic Review*.

Kanwar, Sunil

• Editorial board, *Indian Economic Review*.

Kar, Anirban

• Editorial board, Indian Economic Review.

Kumar, Surender

- Associate Editor, Frontiers in Climate Climate and Economics.
- Associate Editor, Ecology, Economy and Society—the INSEE Journal.
- Guest Editor, Special Issue on 'Productivity Growth in India', Indian Growth and Development Review.
- Member, Editorial Board, Economics of Disasters and Climate Change (A Springer Journal)
- Member, Editorial Board, Indian Economic Review
- Member, Board of Governors, Institute of Economic Growth

Maiti, Dibyendu

- Associate Editor, *Progress in Development Studies*.
- Editorial board, Indian Economic Review.

Meenakshi, J.V

• Associate Editor, Indian Economic Review.

Param Jit

• Editorial board, Indian Economic Review.

Shah, Sudhir

• Editorial board, Indian Economic Review.

Singh, Ram

• Editorial board, Indian Economic Review.

Sinha, Uday Bhanu

• Editor-in-Chief, Indian Economic Review.

Somanathan, Rohini

- Member, Research Panel, *India Policy Forum*.
- Member, Board of Trustees, Srijan.
- Member, Editorial Board, Journal of Demographic Economics.
- Member, Advisory Board, Centre for Development Economics and Sustainability .(CDES) at Monash Business School

- Member, Research Advisory Committee, Presidency University.
- Member, Board of Governors, Institute for Economic Growth (IEG)
- Member, Research Committee, Environment for Development Initiative (EfD), University of Gothenburg.
- Editorial Board, Investigación Económica.
- Editorial board, *Indian Economic Review*.

Research Projects

- Varun Kumar Das Food and Agriculture Research Discussion Forum, "Storage and Structural Factors Determining the Commercialization of Indian Agriculture", February 6, 2021 (online)
- Parikshit Ghosh, "Clean Air Transitions in Indian Cities" (with Rohini Somanathan), funded by Environment for Development Initiative, University of Gothenburg, Sweden, Project ID: MS-545.
- AnishGupta,ICSSR-IMPRESS funded Major Research Project (25 lakh) titled "Industrialization and social unrest: A case study of Tamil Nadu". Co-Directors; Mousumi Biswas and Amulya Sahoo.

Seminars Organized

Total Number-25

Date	Name	University	Topic
		Indira Gandhi	-
		Institute of	
		Development	Post Covid-19: Recovering and
30th July, 2020	Ashima Goyal	Research	Sustaining India's Growth
			Fiscal Dominance: A Theory of
6th August, 2020	Viral V. Acharya	NYU-Stern	Everything in India
			Plagues and Panics: Social
		University of	organization, information
13th August, 2020	Sumit Guha	Texas, Austin	systems, and disease outbreaks
	Abhiroop	Indian Statistical	Trust thy Neighbour?: Evidence
20th August, 2020	Mukhopadhyay	Institute, Delhi	from Partition of India
			Which Indian Children are Short
			and Why? The Indian Enigma,
			Social Identity, and Childhood
27th August, 2020	Ashwini Deshpande	Ashoka University	Malnutrition
			Motivated Information Agents
			and Technology Adoption in
17th September, 2020	Kyle Emerick	Tufts University	Agriculture
		Indira Gandhi	
		Institute of	Household Earnings and Regional
		Development	Disparities: Insights from PLFS
1st, October, 2020	S Chandrasekhar	Research	2018-19
			Honesty or Talent? Project
		National University	Implementation with Possibility
8th October, 2020	Parimal Bag	of Singapore	of Backstabbing
		Binghamton	Public Pressure and
		University, New	Heterogeneous Effects of
15th October, 2020	Neha Khanna	York	Voluntary Pollution Regulation
			On Her Own Account: How
			Strengthening Women's Financial
			Control Impacts Labor Supply
19th October, 2020	Rohini Pande	Yale University	and Gender Norms
		King's College,	Information Aggregation with
5th November, 2020	Amrita Dhillon	London	Delegation of Votes Date

			Consumption and Income Dynamics of the Rural Poor: Evidence for Behavioral
			Consumption Theories using
		Cornell University,	High-Frequency Household- Level Income-Diary Data in
12th November, 2020	David Just	New York	Rural Uganda
,		Director of the	
		Institute of World	Income Inequality and Domestic
10.1 N 1 2020	C 1 W	Economy, Fudan	Consumption in China: A Puzzle
19th November, 2020	Guanghua Wan	University, China	and an Explanation Virtue of Simplicity in
26th November, 2020	Swagata Bhattacharjee	Ashoka University	Asymmetric Auctions
		Indian Institute of	
		Management	Import Competition and
3rd December, 2020	Vidhya Soundararajan	Bangalore	Formalization of the Workforce
		University of	Which women Own Land in
11th December, 2020	Bina Agarwal	Manchester, and IEG	India? Inter-gender and intragender gaps
Trui December, 2020	Dilia Agai wai	illo	Political Clientelism in West
			Bengal: Evidence and Budgetary
8th January, 2021	Dilip Mookherjee	Boston University	Implications
			Understanding the Digital
		Institute for Social	Platform Economy: Effect of
14th January, 2021	K S Sridhar	and Economic Change, Bangalore	Airbnb on Housing in Indian cities.
1 m sanda y, 2021	It b bridia	Change, Bangarore	
4th February, 2021	Rohit Prasad	MDI (Gurgaon)	Redesigning the Market for Distressed Debt in India
401 February, 2021	Roint Flasau	WiDi (Guigaoli)	
114 F.L 2021	C. Parts Communication	Window To the HC	Inheritance and Evolution of
11th February, 2021	Sudipta Sarangi	Virgina Tech, US	Networks across Generations Job Displacement,
			Unemployment Benefits, and
18th February, 2021	Soniya Bhalotra	University of Essex	Domestic Violence
·			On the Origins of Gender-
		TT :	Unequal Social Norms: Unilateral
25th February 2021	Stefan Klonner	University of	Descent and the Efficient Household
25th February, 2021	Sterail Kioliller	Hedielberg	Women's Access to Family
			Planning: Experimental Evidence
			on the Role of Peers and
4th March, 2021	S Anukriti	World Bank	Vouchers
			The unintended consequences of
			a ban on sex-selection on the
18th March, 2021	Anisha Sharma	Ashoka University	educational attainment of women
			Irrigation and Path Dependence:
25th March, 2021	Aaditya Dar	ISB	Evidence from India

Conferences Organized

Total Number - 5

Winter School 2020

The Annual Winter School was held from December 14-17, 2020 at the Department of Economics in collaboration with The Econometric Society with financial support from EXIM Bank and others. Due to the unusual circumstance under the COVID19 pandemic, the conference was conducted in virtual mode.

Each year the Winter School combines invited lectures by distinguished economists with parallel sessions where early career researchers present their work. Invited speakers at Winter School 2020 are listed below. In addition, 168 junior faculty and doctoral students presented their research in 48 parallel sessions. The parallel session covered a wide spectrum of areas in economics. The following lectures were given by the invited speakers:

Pol Antràs (Department of Economics, Harvard University): International Economics and Applied Theory

- Lecture 1 Global Value Chains: The Economics of Spiders and Snakes I
- Lecture 2 Global Value Chains: The Economics of Spiders and Snakes II
- Lecture 3 Global Value Chains: The Economics of Spiders and Snakes III

Pascaline Dupas (Department of Economics, Stanford University): Development Economics

- Lecture 1 Health and Development
- Lecture 2 Households' investments in health in low and middle-income countries
- Lecture 3 Health Care Provision in Low and Middle-Income Countries

Vijay Krishna(Department of Economics, Penn State University): Economic Theory, Auction

- Lecture 1 Communication Design
- Lecture 2 Communication and Cooperation
- Lecture 3 Innovation and Information

Martin Uribe (Department of Economics, Columbia University, USA): International Macroeconomics, Macroeconomics, Monetary Economics

- Lecture 1 Nominal Rigidity, Exchange Rates, and Unemployment
- Lecture 2 The Neo-Fisher Effect
- Lecture 3 The Commodity Price Super Cycle

Seminar/Conferences Presentation (National/International)

Bhattacharjee, Aditya

"Anti-cartel Enforcement in India", Academic Society for Competition Law (ASCOLA)-India chapter, July 2020.

"Policy Transitions in the Industrial Sector in India"; II: "Indian Industry: Pre- and Post-Covid Challenges"; III: "Detecting and Deterring Bid-rigging in Public Procurement". Technical Management Course, Naval War College, Goa, July 2020.

"Economic Consequences of Procedural Delays in Competition Law Enforcement" (panelist), Confederation of Indian Industry, November 2020.

"The Future of Mobile Ecosystems: Enabling a Choice for Market Players & Consumers in India" (panel moderator), Competition Policy International, December 2020.

"Neither Crime nor (much) Punishment: Cartel Penalties and Leniency under India's Competition Act" (with Oindrila De), International Economic Association Workshop on Law and Economic Development, January 2021.

"India's Cartel Penalty Practices, Optimal Restitution and Deterrence" (with Oindrila De), Cartel Working Group under Network of Indian Competition Experts (NICE), Competition Commission of India, March 2021.

Dua, Pami

"Monetary Policy Framework in India," – University of Delhi Colleges – Hansraj College, September 2020; Daulat Ram College, June 2020; Janki Devi Memorial College, June 2020; Delhi College of Arts and Commerce, June 2020.

"Monetary Policy Framework in India," Socratic Lecture, Bennett University, July 2020.

"Monetary Policy Framework in India," Invited Lecture, Seminar on Current Issues and Policy Options in Financial Markets, National Institute of Securities Markets and The Indian Econometric Society, August 2020.

Ghosh, Parikshit

"Next Challenges for Social and Economic Policy in the Context of Covid-19." Webinar organized by Universidad de Piura and Vrije University, Peru.

"Economic Challenges of Covid-19." American Association of Physicians of Indian Origin (AAPI) webinar series.

"Need A Marshall Plan to Meet the Economic Challenges of Covid-19." GCRF-PDF University of Kent webinar on Covid-19.

"Optimal Taxation In A Pandemic." ThRED meetings, Boston University.

Kumar, Surender

COVID-19 and Indian Economy: Impact and Response, Special Lecture, National Webinar Series on COVID-19: Lockdown and Post Lockdown Concerns, Mata Sundari College (University of Delhi), May 22, 2020.

Policy Instruments for mitigating plastic pollution, National Policy Workshop Webinar Series on Countermeasures for Riverine and Marine Plastic Litter in India, 12 -22 May 2020, National Productivity Council, New Delhi

Econometrics of Program Evaluation, Resource Person for 2 Weeks Refresher Course on "Data Analysis with Statistical methods" during 21 December, 2020 to 3 January 2021, and Faculty Development Programme on 'Data Analysis for Research in Social Sciences' June 17-30, 2020, Teaching Learning Centre Ramanujan College (University of Delhi)

Guest of Honour, Valedictory Session of 2 Weeks Refresher Course on "Data Analysis with Statistical methods" on 3rd January, 2021, Teaching Learning Centre Ramanujan College (University of Delhi)

Modelling Bad Outputs: theory and empirics, ISID Capacity Building Programme on "Industrialization, Corporate Sector and Development", February 18, 2021

'Climate and Economics' Refresher Course in Geography, Kurukshetra University, Kurukshetra, March 14, 2021.

'Modelling Bad Outputs: theory and empirics' and 'Economics of Climate Change' Refresher Course in Economics, Jawaharlal Nehru University, New Delhi, 17 March 2021

Guest of Honour, Inaugural Session, National Conference on "Changing Contours of Economy, Society, Business, Media and World Relations in the 21st century with special reference to Sustainable Development" Vivekananda School of Economics, Vivekananda Institute of Professional Studies, 26 March 2021

Maiti, Dibyendu

"Pandemic, Crisis and Economic Revival: Some Issues", Webinar Lecture, Saheed Anurup Chandra Mahavidyalaya (Calcutta University), Burul, South 24 pgs., West Bengal, 30th June, 2020

"COVID Crisis and Indian Economy", Webinar Lecture, Prabhu Jagatbandhu College, Howrah & Bengal Economic Association, Kolkata, West Bengal, 28th July, 2020

"Pandemic, Crisis and Economic Revival: Some Issues", Webinar Lecture, Sukanta Mahavidyalaya, Jalpaiguri, West Bengal, 30th August, 2020

"Trade, Strategic Competition and Labor Share", International Conference on Trade and Development, IGIDR, Mumbai, 17-18th December 2020

"Endogeneity Corrected Stochastic Frontier with Market Imperfections", Econclave'20, IISER Bhopal, 21-22nd December 2020

'ICT, Growth and Wellbeing", International Conference on Artificial Intelligence, in Complex System and Public Policy", O P Jindal Global University, 22nd Jan 2021

International Conference on Artificial Intelligence, In Complex Socio-Economic Systems and Public Policy, O P Jindal University, 21-22nd January 2021

Sarkar, Soumendu

Seminar on "Redistributing Teachers among Schools" at Faculty of Economics, South Asian University, New Delhi, October 2020

Sinha, Uday Bhanu

"Tips for writing the journal articles to get published in SCOPUS, Web of Science, UGC CARE list journals" in One Week National Level Online Workshop On Improving Scientific Research Writing and Publication Skill jointly organised by Research and Publication Cell, IQAC, S. S. College, Hailakandi, Assam and Indian Council of Social Science Research (ICSSR), North-Eastern Regional Centre, Shillong. 17 th October 2020.

Other Inter- Institutional Collaboration

Maiti, Dibyendu

- Core Group Member on Policy and EoDB for Ministry of Small and Medium Enterprises under the CII National MSME Council (2019 -)
- Board of Studies Member, Department of Humanities & Social Sciences at the LNM Institute of Information Technology, Jaipur (2021 Jan - contd.)
- BRICS Network University Initiative

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Placement Details (Number and percentage of students placed)

• Number and percentage of students placed : 131 (81.87%)

• Number of Companies visited for campus recruitment : 44

Number of M.Phil./Ph.D. Degrees Awarded:

Ph.D. : 08 M.Phil. : 01

Faculty Strength: 30

DEPARTMENT OF GEOGRAPHY

Major Activities and Achievements

The Department leads in strengthening the discipline of Geography in India through its emphasis on Interdisciplinarity, Innovation and Inclusiveness. The Department of Geography through its teaching and research activities aims for bridging the gap between the physical sciences and social sciences. Faculty members of the department have published research articles in impact factor and peer reviewed journals in this year, viz. Water, Sustainability, Remote Sensing, Journal of Hydrology, Arabian Journal of Geosciences, Annals of the National Association of Geographers, India, and Environmental Challenges, etc. The department is known for its expertise in the areas of Environmental Studies, Groundwater Hydrology, Remote Sensing/GIS, and Feminist Geography. The Department is also received Special Assistance under UGC Research Support Programme DRS III (2013-18). Our Department is among the top 150-200 ranked Department in QS World Rankings 2021.

Honors / Distinctions

- Prof. Suresh Chand Rai, received "Award of International Medals-2020" for the personal merits and the development of relations with the Republic of Moldova and Romania on 7/12/2020.
- Prof. Suresh Chand Rai, Member, Scientific Advisory Committee (SAC), G.B. Pant Institute of Himalayan Environment and Sustainable Development (An Autonomous Institute of Ministry of Environment, Forest & Climate Change, Government of India) from August 2017- June, 2021.
- Prof. Suresh Chand Rai, Member, Board of Management, Arunachal University of Studies, Namsai, Arunachal Pradesh, from August, 2018 to August 2021.
- Prof. Anindita Datta, elected Chairperson, Commission for Gender and Geography, International Geographical Union, 2020-2024.
- Prof. Subhash Anand, appointed Vice Chairman, Commission on Geoheritage, International Geographical Union, 2020-2024.
- Prof. Subhash Anand, appointed Vice President, Indian Geographical Society, 2020-2021.
- Dr. Pankaj Kumar, appointed Assistant Secretary General, International Geographical Union (IGU) for the period 2020 to 2022.
- Dr. Pankaj Kumar, appointed Secretary General, Commission on Mountain Studies (CMS), International Geographical Union (IGU) for the period, 2020 to 2024.
- Dr. NetranandaSahu, awarded JSPS Postdoctoral Certificate from Kyoto university, Japan, 2018-2020.

Publications

Avtar, R., Kouser, A., Kumar, A., Singh, D., Misra, P., Gupta, A., Yunus, A.P., Kumar, P., Johnson, B.A., Dasgupta, R., Sahu, N., & BesseRimba, A. (2021). Remote Sensing for International Peace and Security: Its Role and Implications. *Remote Sens.*, 13, 439. https://doi.org/10.3390/rs13030439

Avtar, R., Kumar, P., Supe, H., Jie, D., Sahu, N., Mishra, B.K., & Yunus, A.P. (2020). Did the COVID-19 Lockdown-Induced Hydrological Residence Time Intensify the Primary Productivity in Lakes? Observational Results Based on Satellite Remote Sensing. *Water*, *12*, 2573.https://www.mdpi.com/2073-4441/12/9/2573#.

Basumatary, M. G., & Anand, S. (2020). MATRIX Model to Analyze Feasibility of Smart City in Guwahati. *Journal of Global Resources*, 06(02), 56-63. doi:10.46587/jgr.2020.v06i02.009

Bhatia, S., Anand, S., Nagarale, V., & Ranjan, O. J. (2020). Mapping the Management Practices of Domestic E-Waste: A Case Study of West Delhi. *The Indian Geographical Journal*, 95(1), 123-135.

Chandna, V., Anand, S., Sharma, V., & Sagar, S. K. (2021). Health Scenario in Delhi- Status and Recent Trends of Vector Borne and Water Borne Diseases in NCT of Delhi. *The Horizon: Journal of Social Sciences, XII* (1), January, 25-42.

Choudhary, A.S., Singh, P., Verma, P., &Rai, S.C. (2021) Computation of groundwater recharge prospect in urban environment for sustainable water security. Arabian *Journal of Geosciences 14: 606* (2021). https://doi.org/10.1007/s12517-021-06904-y. Springer (Switzerland), (ISSN: 1866-7511).

Das, S. & Saha, A.K. (2020) Identification of Landslide-prone Zones of Mandakini Valley (Central Himalaya) Post-Kedarnath Tragedy (2013). *Annals of the National Association of Geographers, India*, 40(2):304-329 [ISSN: 0970-972X (Print)] [https://doi.org/10.32381/ATNAGI.2020.40.02.8]

Ghadge, A., Werf, S. v d, Kara, M. E., Goswami, M., Kumar, P., & Bourlakis, M. (2020) Modelling the impact of climate change risk on bioethanol supply chains. *Technological Forecasting and Social Change, Volume 160, 120227*, ISSN 0040-1625, https://doi.org/10.1016/j.techfore.2020.120227

- Heena, & Rai, S.C. (2021) Evaluating geologic and anthropogenic impact on groundwater level dynamics in Chhotanagpur Plateau, India. *Arabian Journal of Geosciences*, *14:1043* (2021), https://doi.org/10.1007/s12517-021-07298-7. Springer (Switzerland), (ISSN: 1866-7511).
- Huang, W., Duan, W., Nover, D., Sahu, N., Chen, Y. (2020) An integrated assessment of surface water dynamics in the Irtysh River Basin during 1990-2019 and exploratory factor analyses. *Journal of Hydrology (accepted)* 2020.
- Jamal, S., Hazarika, R. and Sen, A. (2020) Household Morphology of Varanasi Weavers. *International Journal of Scientific & Technology Research, Volume 9, Issue 2*, Pages 3783-3787. ISSN: 2277-8616.
- Jamal, S., Upadhyay, A. and Sen, A. (2021) Ganges, Pollution and Culture: An Assessment of Pollution on Ganga River in Banaras City, Uttar Pradesh. *Indian Journal of Spatial Science, Volume 12, Number 1 (Spring Issue)*, Pages 47-59. ISSN (Print): 2249-3921, eISSN / ISSN (Online): 2249-4316
- Kumar, A., Suresh, V. M., Vinodh, K., Anand, S., & Srinagesh, B. (2020). Assessment of Water Quality Analysis in Kanchipuram Block, Tamil Nadu Using Geographic Information System. *Journal of Interdisciplinary Cycle Research, XII (VII)*, 1137-1152.
- Mishra, S., & Anand, S. (2020). Migration and Dietary diversity changes among the students: Case study of the University of Delhi in India. *Space and Culture, India, 8(3), 58-70.* doi:10.20896/saci.vi0.906
- Molekoa, M.D., Avtar, R., Kumar, P., Thu Minh, H.V., Dasgupta, R., Johnson, B.A., Sahu, N., Verma, R.L., & Yunus, A.P. (2021) Spatio-Temporal Analysis of Surface Water Quality in Mokopane Area, Limpopo, South Africa. *Water*, *13*, 220. https://doi.org/10.3390/w13020220
- Nishit, Pandey, B.W., Anand, S. & Kumar, H. (2021) Demographic Transformation, Land use Change and its Environmental Implications in Kotla -Mubarakpur, New Delhi. *Indian Journal of Spatial Science*, EISSN: 2249 4316, ISSN: 2249 3921, *Spring Issue 2021*, (1) Pp. 29-38.
- Pandey, B.W., Ganesh, P., Maurya, R., Pathak Usha, K., Kumar, R., Ghosh, M. & Singh, Y. (2020) Spatial Distribution of outbreak of Locust Swarms: A Geographical Analysis of Vulnerability and Preventions in India, in *Sustainability*. *Agri, Food and Environmental Research*, (ISSN: 0719-3726), 8(X), 2020 http://dx.doi.org/10.7770/safer-V0N0-art2262
- Pawan, K. and Rai, S.C. (2021) An overview of existing contours for promoting different strategies for livelihood security in Sikkim Himalaya. *Current Research in EnvironmentalSustainability 3*, (2021) 100034. https://dx.doi.org/10.1016/j.crsust.2021.100034. Elsevier, (ISSN: 2666-0490).
- Rahaman, S., Jahangir, S., Haque, M. S., Chen, R., & Kumar, P. (2021). Spatio-temporal changes of green spaces and their impact on urban environment of Mumbai, India. *Environment, Development and Sustainability*, 23(4), 6481-6501.
- Rahaman, S., Kumar, P., Chen, R., Meadows, M.E. & Singh, R.B. (2020) Remote Sensing Assessment of the Impact of Land Use and Land Cover Change on the Environment of Barddhaman District, West Bengal, India. Front. Environ. Sci. 8:127. https://doi.org/10.3389/fenvs.2020.00127
- Rahman, M.D., Avtar, R², Yunus, A.P., Dou, J., Misra, P., Takeuchi, W., Sahu, N., Kumar, P., Johnson, B.A., Dasgupta, R., Kharrazi, A., Chakraborty, S. &Kurniawan, T.A. (2020) Monitoring Effect of Spatial Growth on Land Surface Temperature in Dhaka. *Remote Sens*. 2020, 12(7), 1191; https://doi.org/10.3390/rs12071191.

- Rai, S.C., & Mukherjee, N.R. (2021) Spatio-temporal change delineation and forecasting of snow/ice covered area of Sikkim Himalaya using Multispectral and Thermal band combinations of Landsat Imagery. *Environmental Challenges*, https://doi.org/10.1016/j.envc.2021.100163. Elsevier (The Netherlands), (ISSN: 2667-0100).
- Raman, E., Anand, S., Suresh, V. M., Sharma, P., Singh, A., & Kumar, S. (2021). Traffic Congestion in Azadpur Mandi: A Study on the Largest Vegetables and Fruits Market of Asia. *Geography, Environment, Sustainability, 14(1)*, 122-131. doi:10.24057/2071-9388-2020-209
- Rani, U., Pandey, B.W. & Anand, S. (2020) Research Frontiers in Urban Solid Waste Management. *The Horizon A Journal of Social Sciences No.-2/2020, Volume-XI*, July 2020, pp. 1-10 ISSN-0975-5535 (Peer Reviewed).
- Sagolsem, S. & Bhairannavar, K. (2021). Women and Alcohol in India: A Study of Women's Access to Drinking in Delhi. *Electronic Research Journal of Social Sciences and Humanities*, 3, 75-87
- Sahu, N., Panda, A., Nayak, S., Saini, A., Mishra, M., Sayama, T., Sahu, L., Duan, W., Avtar, R., & Behera, S.K. (2020) Impact of Indo-Pacific Climate Variability on High Streamflow Events in Mahanadi River Basin, India. *Water*, 12(7), 1952; https://doi.org/10.3390/w12071952.
- Sahu, N., Saini, A., Behera, S.K., Sayama, T., Sahu, L., Van- Thanh- Van Nguyen, & Kaoru T. (2020) Why Apple Orchards are shifting to the Higher Altitudes of the Himalayas? *PLoS ONE*, 15(7):e0235041, doi.org/10.1371/journal.pone.0235041.
- Sahu, N., Saini, A., Behera, S., Sayama, T., Nayak, S., Sahu, L., Duan, W., Avtar, R., Yamada, M., Singh, R.B., & Takara, K. (2020) Impact of Indo-Pacific Climate Variability on Rice Productivity in Bihar, India. *Sustainability*, 12, 7023.
- Sahu, N., Sayama, T., Saini, A., Panda, A., & Takara, K. (2020). Understanding the Hydropower and Potential Climate Change Impact on the Himalayan River Regimes-A Study of Local Perceptions and Responses from Himachal Pradesh, India. *Water* 2020, 12, 2739.https://www.mdpi.com/2073-4441/12/10/2739#.
- Saini, A., Sahu, N., Kumar, P., Nayak, S., Duan, W., Avtar, R., & Behera, S. (2020) Advanced Rainfall Trend Analysis of 117 Years over West Coast Plain and Hill Agro-ClimaticRegion of India. *Atmosphere*, 11, 1225. https://doi.org/10.3390/atmos11111225
- Saluja, V., Anand, S., & Dubey, R.N. (2021). Evaluating the Potentiality of Shivalik Fossil Park as Emerging Indian National Geopark. *National Geographical Journal of India*, 67(1), 1-19. doi:10.48008/ngii.1756.
- Sen, A. & Punit, N. (2021). Integrating Natural and Human Factors for Sustainable Development in Himachal Pradesh. In Tanika Chakraborty, Deep Mukherjee and Sarani Saha (Eds.), *Contemporary Issues in Sustainable Development-The Case of India*, Routledge, Oxon and New York, Chapter 9, Pages 173-185. ISBN: 978-1-138-22710-1 (hbk), ISBN: 978-1-003-14102-0 (ebk).
- Sen, A. & Sengupta, S. (2021). Digital Revolution and Information Age: Emergence of Economies of Attention. Open Access *International Journal of Science and Engineering, Volume 6, Issue 3*, Pages 89-95. ISSN 2456-3293. https://doi.org/10.51397/OAIJSE03.2021.00016
- Singh, B.V.R., Sen, A., Verma, L.M., Mishra, R. & Kumar, V. (2021). Assessment of Potential and Limitation of Jhamarkotra Area: A Perspective of Geoheritage, Geopark and Geotourism. *International Journal of Geoheritage and Parks, Volume 9, Issue 2* (June 2021), Pages 0-0. ISSN: 2577-4441.https://doi.org/10.1016/j.ijgeop.2021.04.001

Srivastava, S., Sharma, R.R., Pandey, B.W., Negi, V.S. & Singh, J. (2020). Prospect of Wood Ash in Land and Soil Reclamation for Livelihood Security in Dewal Block, Uttarakhand. *The Indian Geographical Journal, Volume 95* (2) June - 2020, ISSN 0019-4824.Pp. 241-254.

Vladimirov, L.N., Machakhtyrov, G.N., Machakhtyrova, V.A., Louw, A.S., Sahu, N., Yunus, A.P., & Avtar, R. (2021). Quantifying the Northward Spread of Ticks (Ixodida) as Climate Warms in Northern Russia. *Atmosphere 2021*, *12*, *233*. https://doi.org/10.3390/atmos12020233

Wu, F., Guo, N., Kumar, P., & Niu, L. (2021) Scenario-based extreme flood risk analysis of Xiong'an New Area in northern China. *J Flood Risk Management*, 14:e12707. https://doi.org/10.1111/jfr3.1270710

Yadav, A. and Sen, A. (2021) Rebranding Post-Industrial City Faridabad: Promoting Secular & Sacred Cultural Heritage Sites. *Gedrag & Organisatie Review, Volume 34, Issue 01* (Jan – Mar 2021), Pages 50-66. ISSN (Print): 0921-5077, ISSN (Online): 1875-7235.https://doi.org/10.37896/GOR34.01/006

Yadav, G., Singh, R. B., Anand, S., & Pandey, B. W. (2020). Growth Engines of Delhi-NCR: The Changing Nature and Pattern of Industrial Complexes. *Journal of Urban and Regional Studies on Contemporary India*, 7(1), 11-23.

Yadav, G., Singh, R. B., Pandey, B. W., Aakriti, G. (2020) Developing Composite Urban Respiratory Health Index for Lucknow Municipal Corporation. *Environ anal Eco stud.* 7(4). EAES. 000667. 2020. DOI: 10.31031/EAES.2020.07.000667

Bandyopadhyay, N. & Saha, A.K. (2021). Watercentric roles and women's spaces: narratives from drought-prone villages of Gujarat. In A. Datta (Eds.), *Gender, Space and Agency in India: Exploring Regional Genderscapes*, Routledge, London & New York, 120-132 (ISBN 978-1-003-01347-1). [https://doi.org/10.4324/9781003013471-9]

De, A. (2020). Beyond Cinemas: Scripting the Indian Heroine in Bollywood and Popular Film Magazines. InA. Chatterjee (Eds.) *Historicizing Gendered Modernities in India*, Primus Books: Delhi.

De, A. (2020). Whats (up) with Hinduism? Digital culture and religion among Bengali Hindus. In X. Zeiler (Eds.) *Digital Hinduism*, Routledge: London and New York.

Datta, A. (2020). Patriarchal bargains and a triple bind: On writing geographies of gender in India. InShirleA, Huang & Ruwanpura, K. (Eds.), *Handbook on Gender in Asia*. Edward Elgar Publishing, Cheltenham UK and Northampton, MA, USA, ISBN 978-178811 2901.

Singh R.B., Srinagesh, B., & Anand, Subhash (Eds.).(2020). *Urban Health Risk Vulnerability in Asian Cities*, Springer, Singapore, 2020, ISBN 978-981-15-1205-6

Singh R.B., Wei, Dongying, & Anand, Subhash (Eds.).(2020). *Global Geographical Heritage, Geoparks and Geotourism: Geoconservation and Development*, Springer, 2020, ISBN: 978-981-15-4955-7

Datta, A. (Eds.).(2020). Gender, Space and Agency in India: Exploring Regional Genderscapes. Routledge, Oxon, New York, ISBN 978-0-367-82080-02.

Datta, A., Hopkins, P., Johnston, L., Olson, E., & Silva, J. M. (Eds.). (2020). *Handbook of Gender and Feminist Geographies*. Routledge, London and New York, ISBN 978-1-138-05768-5.

Journals: Serving as Editor(s) / Member(s) of Editorial Board(s)

Prof. Suresh Chand Rai, Associate Editor, *Political Economy Journal of India* (Bi-annual), Chandigarh (*ISSN:* 0971-2097) since 2017.

Prof. Suresh Chand Rai, Member Editorial Board, *Indian Cartographer: A Journal of the National Cartographic Association*, Survey of India, Uppal, Hyderabad-500039, Telengana (ISSN:0972-8392), Since 2020.

Prof. Anindita Datta, Member, International Editorial Board, Geojournal Library, Springer, since 2020.

Prof. Anindita Datta, Member, International Editorial Board, *Social & Cultural Geography*, Taylor and Francis, since 2020.

Prof. Anindita Datta, Member, International Editorial Board, *Spaces and Practices of Justice*, Bristol University Press, UK, since 2018 till date.

Prof. Subhash Anand, appointed Associate Co-Chief Editor, International Journal of Geoheritage and Parks (Elsevier) since 2020-2024.

Dr. Pankaj Kumar, Guest Editor, Special Issue on 'Social-economic Costs of and Environmental Management Contributions to Carbon Emission Reductions' in the Journal of Technological Forecasting and Social Change, Elsevier, ISSN: 0040-1625, Impact Factor 5.846

Dr. Pankaj Kumar, Guest Editor, Special Issue on the topic 'Sustaining Himalayan Environment and Future Earth' in the International Journal of Ecology and Environmental Sciences, ISSN: 0377-015X (Print); 2320-5199 (Online).

- Dr. Netrananda Sahu, Review Editor, Frontiers in Climate
- Dr. Netrananda Sahu, Review Editor, Frontiers in Water
- Dr. Netrananda Sahu, Associate Editor, Geografia
- Dr. Netrananda Sahu, Research-Member Editorial Board, Journal of Atmospheric Science

Research Projects

- Prof. Suresh Chand Rai, Principal Investigator, "Climate Variability and its Impact on Agrobiodiversity and Livelihood Security in Traditional Farming of the Sikkim Himalaya". This Project is funded by G.B. Pant Institute of Himalayan Environment and Sustainable Development, Kosi-Katarmal, Almora-263643, Uttarakhand, (April, 2018-2021).
- Prof. Anindita Datta, GENURB, Urbanization, Gender, and the Global South: a transformative knowledge network, Social Sciences and the Humanities Research Council (SSHRC) funded comparative research and public education project led by Prof Linda Peake, Director of the City Institute and Professor in the Urban Studies Program in the Department of Social Sciences, Faculty of Liberal Arts and Professional Studies, York University and hosted at York University, Toronto, ON, Canada, 2020-2023, Value of Project CAD 30,000 annually. Project funds managed by and housed at York University with no financial liability to University of Delhi
- Prof. Anindita Datta, Principal Investigator, Mapping Violence, Hunger, Care Networks and Feminist Solidarities: Narratives of Precarious Women from Metro and Non-Metro Locations, Institute of Eminence, University of Delhi, 2020.
- Prof. Bindhy Wasini Pandey, Principal Investigator, Cryosphere Dynamics and Human Adaptations: Implications of Food and Livelihood Linkages in Uttarkashi District, Uttarakhand, India, Institution of Eminence, University of Delhi, Faculty Research Programme Research Project 2020-21.
- Prof. Bindhy Wasini Pandey, Principal Investigator, British Council International Collaboration: UGC-UKIERI-III Project 2018-2020 on "(Hi Flo-DAT): Indian Himalayan Flood Database, for Disaster Risk Reduction" between University of Delhi, India and University of Bath Spa, UK.
- Prof. Bindhy Wasini Pandey, Project Director: Impactful Policy Research in Social Sciences (IMPRESS) Indian Council of Social Science Research (ICSSR) Ministry of Human Resource

- Development (MHRD) Major Research Project (April 2019-March 2021). "Assessing Human Adaptability for Building Policy Framework against Climate Variability in High Altitude Basins of Leh. India"
- Prof. Anjan Sen, Principal Investigator, Re-imaging a Religious-Historic Site: The Place Marketing and City Branding of Ayodhya (Institute of Eminence, University of Delhi 2020-21.
- Dr. Pankaj Kumar, Co- Principal Investigator, Joint validation of multi-source remote sensing information and sharing in BRICS countries (JVRIS), DST/ICT/BRICS, 2020-2023.

Conference(s) organized

Prof. Subhash Anand, CO-Convener, IGU-India E-Conference jointly organized by Usmania University in collaboration with IGU -Commissions on Local and Regional Development and Commission on Geo-Heritage "on COVID-19 and Local and Regional Sustainable Development: A Glocal Perspective (27-28 JUNE, 2020).

Seminar / Conference Presentations

- Prof. Suresh Chand Rai, National Webinar on "Save Earth-Think Globally-Act Locally", organized by Department of Geography, D.A.V. College, Kanpur, on 5th June 2020, World Environment Day. Keynote Speaker.
- Prof. Suresh Chand Rai, One Day National Webinar organized by Department of Geography, Himachal Pradesh University, Shimla, H.P. on 18th June, 2020. Delivered Lecture.
- Prof. Suresh Chand Rai, Online Capacity Building Training Programme in Geoinformatics, Organized by Department of Geography in Association with IQAC Cell, Chaudhary Ranbir Singh University, Jind, Haryana from 29th July to 4th August 2020. Delivered Keynote Speech.
- Prof. Suresh Chand Rai, Online Round Table Conference on "Geographical Perspectives of Water Resources: Issues and Challenges", Jointly Organized by the Russian Geographical Society (RGS) and National Association of Geographers, India (NAGI) on 16th July 2020. Delivered Lecture.
- Prof. Suresh Chand Rai, Two Weeks Online Faculty Development Programme on "Earth Environment and Space Technology for Mankind" organized by Department of Geography, Chaudhary Bansi Lal University, Bhiwani" from 21-30th May 2020. Invited Speaker.
- Prof. Anindita Datta, "Oh you brave Indian woman"- Periscoping to Locate Resistance and Agency
 within Feminist Counterspaces and Indigenous Feminisms presented at the Sexual Politics of
 Freedom Conference, 17-18 Sept 2020, organized by Irish Centre for Human Rights, National
 University of Ireland, Galway.
- Prof. Subhash Anand, Speaker, IGU-India International E- Conference on Implication of Covid-19 on Local & Regional Sustainable Development: A Glocal Perspective, 27-28 June, 2020.
- Prof. Subhash Anand, IGU- India International Conference (Virtual) Glocal to Local Sustainability & Future Earth, MLS University Udaipur, Rajasthan, 18-20 December, 2020. As a Panalist.
- Prof. Subhash Anand, National Online Meet on Development of Geographical organised by the Indian Geographical Society, Institutions in India Chennai with support of Departments of Geography in University of Madras (Chennai), Bharathidasan University (Tiruchirappalli) and Central University of Tamil Nadu (Thiruvarur) during, 4-7, September 2020. Delivered Lecture.
- Prof. Subhash Anand, Online Inservice Programme for PGT Geography, DIET, State Council of Educational Research and Training (SCERT), Govt of Delhi, 19-29 October, 2020. Delivered Lecture
- Prof. Subhash Anand, Research Methodology E- Certificate Course for Social Science and Management Studies, IPE, Hyderabad 3-9 August, 2020. Delivered Lecture.
- Prof. Subhash Anand, Two Days International Workshop On COVID-19 Mass Disaster & Possible Management: Challenges for Immediate Future (Online) From New Delhi, India International Intellectual Society (IIIS) in association with Central University, Pondicherry and DeenbandhuChhotu Ram University (DCRUST), Murthal, Haryana, 5-6 May, 2020. Delivered Lecture
- Prof. Bindhy Wasini Pandey, As an Invited Speaker/Eminent Speaker delivered a Lecture on "Opportunity and Challenges Post COVID-19." Vasanta College For Women, Varanasi, Banaras Hindu University. One Day National Webinar June 17, 2020.

- Prof. Bindhy Wasini Pandey, Invited /Resource person/ speaker in a National Webinar on "Post Covid 19: Issues and Challenges in Disaster Management" on 8th August, 2020, organised by Siddhant Raj Mahavidhyalaya affiliated to Dr. B R Ambedkar University, Agra, U. P.
- Prof. Bindhy Wasini Pandey, delivered a Lecture on COVID-19 and Himalaya Issues and Challenges in National Webinar on Covid-19 Pandemic: It impact on environment, Economy and society, organised by Kanpur University Geographers Academic Association {KUGAA} on May 31, 2020.
- Prof. Bindhy Wasini Pandey, delivered a Lecture on Geographical Characteristics of India: An Asset for Socio-Economic Development of the Country. In International Webinar on Incredible India: A Melting pot of Diversity. One day National Webinar under Ek Bharat Shreshth Bharat Programme by KumariMayawati Government Girls PG College, Badalpur, Gautambudh Nagar UP. June 16, 2020.
- Prof. Bindhy Wasini Pandey, delivered a Lecture on Mountain Society, Environment and Sustainable Development: A Case Study of Indian Himalayan Region. In One Day International e Conference on Multidisciplinary Perspective on Health, Society, Environment and Sustainable Development. Organized by Shree Mallikarjun and Shri Chetan Manju Desai College, Department of Geography, and Internal Quality Assurance Cell. December 20, 2020.
- Prof. Bindhy Wasini Pandey, Invited Speaker/Key note Speaker delivered a Lecture on "Climate Change adaptation for Sustainable Livelihood in Indian Himalayan Region" in International Webinar on Climate Change Geohazards and Sustainable Development. Organized by IQAC Department of Geography, Karnatak Science College, Dharwad, Karnatak University 26 and 7 November 2020.
- Prof. Bindhy Wasini Pandey, Key Note Speaker delivered a Lecture on "Socio-Economic and Environmental Challenges in Context to COVID-19." National Webinar organised by KKPG College, Itawa, U.P. June 22, 2020.
- Prof. Bindhy Wasini Pandey, Panelist of Plenary Session-I Delivered a lecture on Climate Change and Ecological Crisis in Himalaya in the National E- Seminar on 'Ecological Crisis and Climate Change in the Himalayan Region" Organized by SHERPA and EFCS, Lucknow, December 17, 2020.
- Prof. Aparajita De, "Convivial Spaces: Negotiating Divisive Spatialities and Religious Identities in the Walled City of Ahmedabad", online keynote address at 10th Annual Academic Conference on Spatiality, Department of Humanities and Social Sciences, Indian Institute of Technology, Chennai, 11 April, 2021.
- Prof. Aparajita De, "Geography in the post-COVID world: Digital Geographies and its Practices, Possibilities and Challenges", International Webinar on Contemporary Issues in Geography, Challenges and Management, Department of Geography, Bidhannagar College, University of Calcutta, 10-11 September, 2020.
- Prof. Anjan Sen, Post Covid-19 New World Order for World Environment Day online / virtual seminar on "Post COVID19: New World Order, Environment, and Development", Jagannath University, Dhaka, Bangladesh on 05th June 2020.
- Prof. Ashis Kumar Saha, Geography as Spatial Science: Future with GIS Online Workshop on "Careers in Geography," Organized by GeoGroup, Department of Geography, Kalindi College, University of Delhi, Delhi (17.02.2021)
- Prof. Ashis Kumar Saha, Geospatial Techniques for Drought Analysis: An Overview Online Refresher Course on "Environmental Challenges: Natural Resources and Livelihood Sustainability," HRDC, Kurukshetra University, Haryana (03.03.2021)
- Prof. Ashis Kumar Saha, Geospatial Technologies for Landslide Hazard Zonation and Mapping -National Webinar on "Advances in Geospatial Science & Technology," Amity Institute of Geoinformatics and Remote Sensing, Amity University Uttar Pradesh, Noida (30.06.2020)
- Prof. Ashis Kumar Saha, Integration of Remote Sensing and GIS with a case study on Landslide Hazard Zonation - Online Refresher Course in Geography on "Remote Sensing and Relief Feature," HRDC, Rani DurgavatiVishwavidyalaya, Jabalpur, MP (19.10.2020)

- Prof. Ashis Kumar Saha, Integration of Remote Sensing and GIS with a case study on Landslide Hazard Zonation - Online Refresher Course in Geography on "Environmental Education and Disaster Management," HRDC, Rani DurgavatiVishwavidyalaya, Jabalpur, MP (22.01.2021)
- Prof. Ashis Kumar Saha, Landuse / Landcover mapping using Digital Image Processing Techniques
 Online Refresher Course in Geography on "Remote Sensing and Relief Feature," HRDC, Rani DurgavatiVishwavidyalaya, Jabalpur, MP (20.10.2020)
- Prof. Ashis Kumar Saha, Landuse / Landcover mapping using Digital Image Processing Techniques
 Online Refresher Course in Geography on "Environmental Education and Disaster Management,"
 HRDC, Rani DurgavatiVishwavidyalaya, Jabalpur, MP (22.01.2021)
- Dr. Kiran Bhairannavar, 'Lock-Down geographies: Unpacking Everyday Spaces in Times of Corona' at the Changing Geographies: Living with the Pandemic Lecture organised by St Xavier's College, Burdwan West Bengal, 8 June, 2020.
- Dr. Kiran Bhairannavar, 'Social Media and Geographical Research' [Key note address] at The National Youth Conclave: Use of Social Media as a Research Tool in Geography organised by Department of Geography, Shaheed Bhagat Singh College, University of Delhi, New Delhi, 28 Jan, 2021.
- Dr. Kiran Bhairannavar, 'Unpacking Landscapes: Geographers' Engagements with Culture' at the Contemporary Discourses on Geography: International Webinar Series, Organised by GangadharMehr University, Odhisha, 6 Sept, 2020.

Other Inter-Institutional Collaborations

- Prof. Anindita Datta, with SSV College Hapur, Dept of Geography: Through Faculty Research Grant of Institute of Eminence, Dept of Geography.
- Prof. Bindhy Wasini Pandey, with Department of Geography, Bath Spa University.
- Prof. Bindhy Wasini Pandey, with G B Pant Institute of Himalayan Environment and Development.
- Prof. Bindhy Wasini Pandey, with Department of Geography, H. P. University Shimla.

Extension & Outreach Activities

- Dr. Pankaj Kumar, appointed Member Expert, LOCF based M.Sc Geography Syllabus revision committee of Department of Geography, Central University of Haryana, Haryana, India
- Dr. Netrananda Sahu, nominated Secretary, Hydrological Science for Asia Oceania Geoscience Society, 2020-2024
- Dr. Netrananda Sahu, appointed Regional Coordinator, Avoidable Death Network, Leicester University

Research DegreesAwarded: 21 Ph.D.

Faculty Strength: 11

Any other significant academic contribution

- Dr. Pankaj Kumar, completed online training on 'Hydrological Modeling using SWAT' organized September 21st to 25th, 2020 by Water Resources System Division, National Institute of Hydrology (NIH), Roorkee, India
- Dr. Pankaj Kumar, completed online training on 'Satellite Remote Sensing for Agricultural Applications' conducted on April 14th, 21st, 24th and May 5th 2020 by NASA's Applied Remote Sensing Training Programme (ARSET), Earth Science Division of the NASA, USA.
- Dr. Pankaj Kumar, completed online training on 'Using Earth Observations to Monitor Water Budgets for River Basin Management II' conducted on July 21st to August 4th 2020 by NASA's Applied Remote Sensing Training Programme (ARSET), Earth Science Division of the NASA, USA.

DEPARTMENT OF HISTORY

Major Activities and Achievements:

One of the founding departments of the University, History Department is currently a Centre of Advanced Studies with17 Professors, 3 Associate Professors, 9 Assistant Professors and 4 Guest Faculty members. The faculty members are renowned as contributors to the global discipline of History and as specialists in their respective domains of research. The Department has a Computer Centre, Department Library and Department Museum with a rare collection of miniatures, manuscripts and artefacts. Our MA and MPhil programmes are one of the most rigorous in India and three-five students annually secure full fellowships to top ranked international Universities. In spite ofthe tough Covid times, in 2020-21 our faculty gave online keynote addresses in National and International fora; and presented papers in many national-international Seminars. Our teaching, supervision and research commitments have met all the deadlines.

Honours/Distinctions:

Aquil, Raziuddin. 24 December 2020. 'Love for God and Service to Humanity: Islam and Ambiguity in Sufi Traditions of Medieval and Early Modern India', 7th Shah Waliullah Memorial Lecture, Centre of Arabic and African Studies, SLL & CS, JNU, New Delhi.

Gupta, Charu. 8 March 2021. 'Vernacular Registers of Gender and Sexuality in Colonial India'. 5th Annual Lecture in the History of Women, Gender and Sexuality, University of St Andrews, Scotland (online).

Singh, Vijaya Laxmi. 2020. 'Kalam keSipahi', Prashashti Patra by Grihaswamini.

Publications:

Alavi, S. (2020). Little Men Between Big Empires: Muslim Cosmopolitanism in the Age of Empire. In Sugata Bose & Ayesha Jalal (Eds.), *Oceanic Islam. Muslim Universalism and European Imperialism*, India: Bloomsbury.

Alavi, S. (2020). The 1852 Centaur Shipwreck: Law, Politics and Society in the Persian Gulf, *Journal of Colonialism and Colonial History*, 21 (3), Winter.

Arafath, Y. (2021). Monsoon Malabar: Religion, Language, Memory and Materiality, *Economic and Political Weekly*, Vol. (4), pp.31-37.

Arafath, Y. (2021). Southern Hindutva: Rhetoric, Parivar Kinship and Performative Politics in Kerala, 1925–2015, *Economic and Political Weekly*, Vol. (2), pp. 51-60.

Arafath, Y. (2020). Polyglossic Malabar: *Arabi-Malayalam* and the *Muhiyuddinmala* in the Age of Transition (c.1600s-1750s), *Journal of the Royal Asiatic Society*, pp. 517-539.

Arafath, Y. (2020). Arabi-Malayalam Texts: Vernacular Treasures at the British Library, *Ishal Paithrkam Journal* (Bilingual), 2 (1), pp.36-42.

Aguil, R. (2020). Days in the Life of a Sufi: 101 Enchanting Stories of Wisdom, New Delhi: Pan Macmillan.

Aquil, R. (2020). Conversion to Islam in South Asia as Transformation of the Heart. In Hazrat Khwaja Nizam al-Din Awliya and Amir Hasan 'Ala Sijzi', in Nimrod Hurvitz, Christian C. Sahner, U. and Luke Yarbrough (Eds.), *Conversion to Islam in the Premodern Age: A Sourcebook*, Oakland: University of California Press.

Aquil, R. (2021). 'Introduction', in *The Gulistan of Shaikh Sa'di Shirazi*. Spink and Co., Calcutta in 1861, New Delhi: Manohar.

Choudhary, M. (2020). The Eternal Dastur Craft, Delhi: Primus.

Choudhary, M. (2020). Tracking the Mers: An insight in their History and Culture, *Sodh Sadhana*, 31, pp. 44-54.

Deshpande, A. (2020). Investigating Marathi Primary Sources: The Struggle Between Survival and Death in the Turbulent 18thCentury, *Hakara*, Fall. https://www.hakara.in/anirudh-deshpande/

Deshpande, A. (2020). The Practice of History in India: Essays in Search of a New Past, Delhi: Aakar Books.

Dhar, P. (2020). Art in Translation: Icons and Narratives across the Indian Ocean, *ASEAN-India*. *Partners of Integration in Asia*. *Proceedings of the 5th AINTT-Jakarta*, 2018, New Delhi: AIC-RIS, pp. 97-110.

Gupta, C. (2020). Sentiments in the Vernacular: Gender and Genre in Modern South Asia South Asia: Journal of South Asian Studies. Special Issue on 'Literary', 43 (5).

Kumar, S. (2020). (with Jagdish Parsad and Mahender Singh). 2020. *Proceeding of the Haryana History Congress*, Vol. 4 (4th Session), HHC, New Delhi.

Govind, R. (2021). On the Deity as Juristic Personality: The Religious, The Secular and the Nation in the Ayodhya Dispute and the Ayodhya Judgments (2010 and 2019), *National Law School of India Review*, 33 (1).

Gupta, Charu (with Laura Brueck, Hans Harder & Shobna Nijhawan). 2020. 'Introduction: Literary Sentiments in the Vernacular: Gender and Genre in Modern South Asia', *South Asia: Journal of South Asian Studies*, 43 (5), pp. 803-16.https://doi.org/10.1080/00856401.2020.1786788

Gupta, C. (2020). Masculine Vernacular Histories of Travel in Colonial India: The Writings of SatyadevParivrajak, *South Asia: Journal of South Asian Studies*, 43 (5), pp. 836-59. https://doi.org/10.1080/00856401.2020.1789314

Gupta, C. (2020). Women, Gender and Sexuality: Changing Historiographies of Colonial India – A Bibliographical Essay, *Studies in People's History*, 7 (2), pp. 192-204. https://journals.sagepub.com/doi/pdf/10.1177/2348448920951548

Gupta, C. (2020). Gendering Religious Conversions in Colonial India: Christianity, Clothing and Cartoons. In Hillary Kaell (Ed.), *American Religion (Supplement I), Forum on 'American Religion, Askew: An Experiment in Global Interpretation*. https://www.american-religion.org/askew/gupta

Gupta, C. (2020). PaavanPidita: Hindi Print, SavarnaSudhaarvaadi aur Dalit Stri . 'Holy' Victim: Hindi Print, Upper-Caste Reformers and Dalit Woman, *Tadbhav*, 42, 9 (1), November, pp. 106-29.

Gupta, C. (2020). Dalit Virangana aur 1857 ka VaikalpikItihaas: Bhartiya SamajshastrameinekUpekshitTathya. Dalit Heroic Woman and Alternative History of 1857: A Neglect Fact of Indian Sociology. *BharateeyaSamajshastraSameeksha*, 7 (2), December, pp. 278-95.

Gupta, Charu. (2020). 'Introduction: Historicizing Gendered Modernities in India', in Amitava Chatterjee (Eds.), *Historicizing Gendered Modernities in India*, pp. 1-21, Delhi: Primus Books.

Gupta. C., Satyanarayana, K. & Shankar, S. (2020). The Dangers of Social Distancing: Lessons from the History of Caste in India. *British Comparative Literature Association, Blog on 'Reflections on Culture in the Age of Confinement'*. http://doi.org/bcla.org/culture-and-confinement/

Gupta, Charu. (2021). Indentured Women and Hindi Print-Public Sphere in Early Twentieth Century India. In Farzana Gounder, Kalpana Hiralal, Amba Pande and Maurits S. Hassankhan (Eds.), *Women, Gender and the Legacy of Slavery and Indenture*. pp. 101-20, London: Routledge & Delhi: Manohar.

Gupta, V. (2020). Homogeneity, Inequality and Alienation in Education Before and After the Pandemic: Some Socio historical and Pedagogic Concerns', *The JMC Review, Vol. IV*, pp. 257-282.

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Gupta, V. (2020). शिक्षाकाअधिकारक़ानून, वर्तमानचुनौतियां, ऐतिहासिकसन्दर्भऔरविकल्प. संजयगुरुरानी, रिवकुमारजोशीऔरभैरवदत्तपांडेय (सम्पादित), मंथन(सार्वजिनकिशिक्षा), जिलाशिक्षाएवंपरिक्षणसंस्थान, बागेश्वर, पृष्टस.: १५-५२.

Kumar, S. (2020). पूर्वमध्यकालीनहरियाणामें वृषभऔरअश्वारोहीप्रकारकेसिक्के: अन्वेषणकेदौरानप्राप्तचारसिक्कोंकेसन्दर्भमें. In *Proceeding of the Haryana History Congress*, Vol. 4 (4th Session), HHC, New Delhi, pp. 82-89.

Kumar, S. (2020). Society, Knowledge and Space in India during 19th and 20th Century: A Historical Analysis of Gulamgiri, Kisan Ka Koda, Karma Yoga and Annihilation of Caste'. *International Journal of Research in Social Sciences*, 10 (5), May.

Kumar, S. (2020). African Diaspora in Medieval Deccan: A Historical Analysis from 14th to 17th Century. *International Journal of Research in Social Sciences*, 10 (10), October.

Misra, S. (2021). Peasants, Colonialism, and Sovereignty: The Garo Rebellions in Eastern India. *Modern Asian Studies*, pp. 1-37.

Singh, V. (2020). Premchand ki Kahaniyon ka AitihasikParipekshya. Grihaswamini, July.

Singh, V. (2020). Gender Environment and Sustainable Development: Historical Perspective. In *Hand Book: Environment Gender and Culture Change*. Shivaji College, University of Delhi.

Singh, V. (2021). Governing Fluvial Commons: Alluvion and Diluvion Regulation and Decommonisation. In Prateep Kumar Nayak (Eds.), *Making Commons Dynamic*. London and New York: Routledge.

Singh, V. (2020). Water and the Anthropocene. Current Research Journal of Social Sciences, 3 (1), pp. 3-5.

Research Projects:

Gupta, Charu. 2021. Minor Research Grant under Faculty Research Programme of the IoE Scheme, University of Delhi. Topic: Gendering Ayurveda: Yashoda Devi in Early Twentieth Century India. Grant of INR 1,75,000.

Seminar Organized:

Jaya Tyagi & Charu Gupta on 'Gender Awareness: Challenging Stereotypes' & 'Sexual Harassment and Academia in India', lectures organized by Gender Sensitization Committee and Seminar Committee, Department of History, 27 January 2021, 3.30 pm

Seminar/Conference Presentations: International

Bawa, Seema. 2020. Chaired Session in International Conference on 'North-East India: A CrossRoad of Asian Civilization', Heritage Society, 21-22 November.

Deshpande, Anirudh. 2020. 'Locating Gandhi in the Context of Modern Education', International Webinar on Colonial Ideology and Nationalism: Revisiting Gandhi and the Nationalistic Discourse in India, organised by Department of History, Sidho-Kanho-Birsha University, Purulia, West Bengal, 6-7 October, 2020.

Dhar, Parul Pandya. 2020. 'Landscape and Monuments of Interconnectivity in the Lalmai-Mainamati Area, Bangladesh', Presented a paper as an international expert invited by the Department of Archaeology, Bangladesh, for the UNESCO nomination dossier of Lalmai-Mainamati complex, Bangladesh, 11 July.

Dhar, Parul Pandya. 2020. 'Vision of Act East & 20 Years of Mekong-Ganga Cooperation (MGC)', International seminar organised by the SPRMF, New Delhi, 20 July.

Dhar, Parul Pandya. 2020. 'Past Forward: Culture and Connectivity between India and the Mekong Heartland', Paper presented at an international seminar to mark 20 years of the MGC Cooperation, Indian Council of World Affairs and ASEAN-India Centre-RIS, Delhi, 5-6 November.

Dhar, Parul Pandya. 2020. 'The Uses of the Past to Foster Closer Ties: Culture and Soft Power Diplomacy', Session Chair and Participant, 10th Biennial Conference of the Indian Association for Asian and Pacific Studies (IAAPS) in collaboration with Asia Centre, Bangkok and University of Calcutta, 30-31 October.

Gupta, Charu. 2020. 'Colonialism, Sex, Disease', International Webinar Series on 'Theory and Practice: Transnational Conversations on Gender and Sexuality', organised by CSGS, Ashoka University and New York University, 2 December.

Gupta, Charu. 2021. 'Race, Caste and Inequality: A Conversation with Isabel Wilkerson', Webinar Series on 'Toward A Just Society: Global Perspectives', organised by Indiana University Bloomington, USA, 17 February.

Gupta, Charu. 2021. 'A Vernacular Archive of Sex and Sexuality: Personal Annotations', Plenary Address in International Conference on 'Language Ideologies and the Vernacular in South Asian Colonial and Post-Colonial Literature(s) and Public Spheres', organised by Department of English, Jamia Millia Islamia & South Asia Institute, Heidelberg University. 15 (15-17) March.

Gupta, Charu. 2021. 'A Vernacular Archive of Sex and Sexuality', NTU History Seminar (online) on 'Sexuality and South Asian Histories, Panel II', organised by Nanyang Technological University, Singapore, 19 March.

National

Ahmad, Saifuddin. 2020. 'Assimilation and Co-existence: A Perspective from Urdu Literary Tradition in Eighteenth-Century North India', National Conference/Webinar organised by Institute of Objective Studies, New Delhi on Religious Interactions and Cultural Encounters in Medieval India, 27 October.

Ahmad, Saifuddin. 2020. 'Maulvi Muhammad Barqar and his Delhi Urdu Akhbar in the revolt of 1857: Some Considerations', National Webinar/conference organised by Institute of Objective Studies, New Delhi on Maulvi Muhammad Baqar: A Cultural and Journalistic Icon in Delhi and the Revolt of 1857 in Historical Perspective, 21 November.

Alavi, Seema. 2020. Book Discussion Webinar, 'Print and Urdu Public: Muslims, Newspapers and Urban Life in colonial India', by Megan Robb, organised by AIRS, Hyderabad, December.

Bawa. Seema. 2020. 'Visual Histories: Sources and Methods', Sri Aurobindo College (Eve), 12 May.

Bawa, Seema. 2020. 'Literary and Visual Cultures: Perspectives and Paradigms', Ramlal Anand College, 18 May.

Bawa, Seema. 2020. 'Classicism-Hellenism, Renaissance, Neo Classicism: Idioms and Ideas', and 'Idea of Beauty in Indian Art', Special Lectures at NIFT Kangra, 7, 10 and 14 August.

Bawa, Seema. 2020. 'Gandhi in Textbooks and Posters', Seminar on Ideas, Philosophies and Practices of Gandhi, S D Public School, Pitampura, 3 October.

Bawa, Seema. 2020. 'Significance of Style and Nomenclature in Art History', Daulat Ram College, 21 October.

Bawa, Seema. 2020. 'Feminist Art Movement in India and Reading Gender in Early Indian Art', The Swaddle.

Bawa, Seema. 2020. 'Reading Indian Visual Histories: Some Methodological Issues', Resource Person for ARPIT-MOOCS-History, 28 December.

Choudhary, Manisha. 2020. 'Emotional Well-being in Challenges', Webinar at Kids Vatik School, Sikar, Rajasthan, 11 July.

Deshpande, Anirudh. 2020. 'Globalization and the Crisis of Labour', Webinar organised by NOIDA International University, 26 May.

Deshpande, Anirudh. 2020. 'The Philosophy and Methods of History in India Today' and 'The Possible meaning of Patriotism in Pre-colonial India', Faculty Induction Programme, organised at the UGC-Human Resource Development Centre, Kumaun University, Nainital, 14 December.

Deshpande, Anirudh. 2021. 'Understanding the World in the 20th Century', Special Lecture organised by the History Department, Kalindi College, University of Delhi, 3 February.

Dhar, Parul Pandya. 2020. 'Temple Architecture and Imagery: North India, 400 - 600 CE', Lecture in Karwaan LIVE Series, in Karwaan: The Heritage Exploration Initiative, Delhi, 7 May.

Dhar, Parul Pandya. 2020. 'Art in Translation: Icons and Narratives across the Indian Ocean', Lecture in Voyages into the Past: AtitaPravaha, Presidency University Calcutta Students' Initiative, 11 September.

Gupta, Charu. 2020. 'Gender and Modern Indian Historiography', Invited Web Talk, Lecture Series Programme, Qafila Foundation. 22 July.

Gupta. Charu. 2020. 'NayeStrot aur Swar: Stri aur Hindi Print Sanskriti' [New Sources and Voices: Women and Hindi Print Culture] [in Hindi], Invited Web Talk, Gender and Literature Series, Hindi Kavita Facebook Page, 25 August.

Gupta, Charu. 2020. 'Gender, Sexuality and Print Culture in 19th Century India', Podcast: Conversation with Shrishti Malhotra on my Work, *The Swaddle*, 19 November.

Gupta, Charu. 2021. 'Sexual Harassment and Academia in India', Lecture, Gender Sensitization Committee and Seminar Committee, Department of History, University of Delhi, 27 January.

Gupta, Charu. 2021. 'Hindu Communism: Satyabhakta, Apocalypses and Utopian Ram Rajya', Talk at Ashoka History Spring Webinar Series, 17 March.

Gupta, Vikas. 2020. 'Labour, Education and History of Pandemics', lecture delivered in the National Webinar Series on 'COVID-19: Lockdown and Post Lockdown Concerns', organized by Mata Sundari College, University of Delhi, 25 May.

Gupta, Vikas. 2020. 'शैक्षिकज्ञानऔरवर्चस्वकीराजनीतिः क्यापढ़ायाजाएऔरकैसे?', शिक्षणप्रबोधनसमिति (महाराष्ट्र) दवाराआयोजितऑनलाइनव्याख्यान, 29 June.

Gupta, Vikas. 2020. 'Public Education: Challenges and Possibilities', lecture organized by Let's Talk Education, Delhi, 4July.

Gupta, Vikas. 2020. 'Formulation of current national education policy and future in historical context', online lecture organized by Calcutta history student's association, 26 August.

Gupta, Vikas. 2020. 'Examining the Prospects of Linguistic and Epistemological Diversity in the DNEP 2020: Historical and Contemporary Perspectives on the Paradox of The Local and the Central', lecture delivered in a One week Faculty Development Programme/Course for Teachers of Higher Education Institutions on 'National Education Policy-2020 and Discourse on Indian Languages', Organized by Mata Sundri College for Women, University of Delhi and Teaching Learning Centre for Social Science, Dr HarisinghGour Vishwavidyalaya, Sagar, Madhya Pradesh, 5-11 September.

Gupta, Vikas. 2021. Chaired a session on 'the Challenges of School Education for Disabled Children', in the webinar on 'Disability Rights and the Indian Education System', Organized by Govt. JH College, Betul, MP, 19th-20th January.

Jain, Shalin. 2020. 'City of Commerce: Medieval Delhi', organised by the Department of History, Deshbandhu College, University of Delhi, 31 August.

Jain, Shalin. 2020. Resource Person in 'Virtual Workshop on Collating History Resources for Teachers in Higher Education', organised by National Resource Centre for Education (NRCE National Institute for Educational Planning and Administration (NIEPA), New Delhi, 8-9 October.

Jain, Shalin. 2020. 'Ardhakathanak: The Life and Times of a Seventeenth Century Jain Merchant', organised by All India Digamber Jain Heritage Preservation Organization, New Delhi, 22 November.

Jain, Shalin. 2021. 'Some Facets of Medieval Indian Culture and Architecture', Lecture as Resource Person in the Foundational Training Programme of ITS (Indian Telecommunication Service) and P&T & BWS Group 'A' Govt. of India, Haryana Institute of Public Administration (HIPA) Gurgaon, 19 January.

Kumar, Sajjan. 2020. 'Any Aspect Related to the History & Culture of Haryana', Convener of Fifth Annual Online Conference organized by HHC, 25–26 December.

Kumar, Sajjan. 2020. 'Harappan site Rakhigarhi: New Perspective'; 'Scope of History for Completion of Graduation or Post Graduation', Lectures as Resource Person, organized by Department of History, Ch. Bansi Lal Govt. College, Loharu (Haryana), 7 March.

Kumar, Sajjan. 2020. 'Haryana Archaeology in Retrospect: Protohistory-Archaeology of the Harappan Civilisation', National Webinar/Conference organized by Department of History & Archaeology, Chaudhary Devi Lal University (CDLU), Sirsa (Haryana), 29 April.

Kumar, Sajjan. 2021. 'Introduction of Archaeology & Prospects in Archaeology', Lecture as Resource Person, organized by Department of History, Kanya MahadyalayaKharkhoda, Sonipat (Haryana), 2 February.

Kumar, Surendra. 2020. 'Movements Against Discriminations: Autobiography of Dalits, Adivasis and African Slaves', National Webinar organised by Dialogue for Academic Justice. 20 June.

Kumar, Surendra. 2020. 'Gender Identity, Language and Technical Terminology: Challenges and Opportunities', Two Day National Webinar in Collaboration with University of Rajasthan and CSTT, MHRD, GOI, 27-28 July.

Kumar, Surendra. 2020. 'Role of Literature in Empowerment of Marginalised Section with Reference to Text Annihilation of Caste', Felicitation of Meritorious Students, AJAK, Churu, Rajasthan, 4 November.

Misra, Sanghamitra. 2020. 'The "tribe" as State Effect: The Genealogy of a Category', Invited Lecture at the Faculty Development Programme on New Perspectives in the History of North East India, Rajiv Gandhi University, *Itanagar*, Arunachal Pradesh, 4 August.

Misra, Sanghamitra. 2020. 'Primitivism, Ethnogenesis and the Ecology of British Imperialism: Writing Histories of North East India', Invited Lecture at the Refresher Course in History, HRDC, Gauhati University, 7 October.

Rai, Santosh Kumar. 2020. 'History in Changing Political Environment', in online One Week Faculty Development Programme (13th to 19th July, 2020) on 'Emerging Trends of Pedagogy in Language, Literature and Social Sciences', Shyama Prasad Mukherji College, University of Delhi,18 July.

Rai, Santosh Kumar. 2020. 'Gandhi: The Man and His Times,' Organized by History Society, Hansraj College, University of Delhi, 5 October.

Rai, Santosh Kumar. 2021. 'Mahatma Gandhi and Vision of India as a Nation', Lecture as Resource Person in the Foundational Training Programme of ITS (Indian Telecommunication Service) and P&T & BWS Group 'A' Govt. of India, Haryana Institute of Public Administration (HIPA) Gurgaon, 14 January.

Rai, Santosh Kumar. 2021. 'Gandhi: The Mahatma in Historiography', Lecture as Resource Person in the Faculty Development Programme 'Gyan Ganga' organized by the Department of History, Samrat Prithvi Raj Chauhan Govt. College, Ajmer and Education Commissionerate, Jaipur, 21 January.

Sahu, Bhairabi Prasad. 2020. 'The Making of Regions in Indian History', Distinguished Lectures in Karvaan online series, 5 September.

Sahu, Bhairabi Prasad. 2020. 'Appreciating Caste Society in the Regional Context of Odisha: Perspectives from the *Lakshmi Purana*', Textual Live of Caste, seminar organised by CSDS, Delhi, 14 (7-18) December.

Shah, Shalini. 2020. 'Women in Indian Mythology', Webinar at Indraprastha College, Delhi University, 12 October.

Singh, Vijaya Laxmi. 2020. 'Religiosity in Mathura: Ethno-Archaeological Historical Perspectives', Webinar by Intangible Cultural Heritage Department, Heritage Society, Patna, 11 July.

Singh, Vijaya Laxmi. 2020. 'Environment, Gender and Climate Change', International Webinar organised by Shivaji College, University of Delhi, 28 July.

Singh, Vipul. 2020. 'Historicizing Global Epidemics and the Vulnerability of the Weak', National Webinar / conference organised by Sophia College, Ajmer on Lessons from the Past: Studying Trends and Response to Epidemics, 10 July.

Singh, Vipul. 2020. 'Epidemics, Exchanges and Hunger', National Webinar / conference organised by Shyamlal College, University of Delhi on Diseases, Epidemics and Pandemics in Indian History: Lessons for Present, 20 May.

Singh, Vipul. 2020. 'Global Epidemics and Climate Change', National Webinar / conference organised by Govt Hamidia Arts and Commerce College, Bhopal on The Impact of Global Epidemics Recorded in History on World Politics, Economy and Culture, 5 August.

Number of M.Phil./Ph.D. Degrees Awarded:

PhD Viva Voce Successfully Defended: 12 MPhil Viva Voce Successfully Defended: 1

DEPARTMENT OF POLITICAL SCIENCE

Major Activities and Achievements

The Department was established in 1952, with about 40 postgraduate students. Since then, the combined strength of students has exceeded to around 1000. The teaching and research program of the Department is based on a comprehensive social science approach that integrates and interrogates sociological, economic, philosophical and cultural dimensions. It encourages a comprehensive study of the field of politics, keeping in view the Indian realities. The current thrust area of theDepartment, are that of democracy, norms and institutions in the context of Indian politics. The critical investigations that the Department conduct in Indian Politics andthese thrust areas, benefits from and help us reveal both new and old forms of (among other things) inequality, justice, discrimination and institutional processes in the larger context of the global.

Our general focus has been supplemented by a growing emphasis on the need to combine theory with ethnographic

and archival work. We believe that it is necessary to acquaint ourselves with both Western Political Theory and

Indian Political Thought in order to address and open out new empirical material to fresh questions. We are

convinced that this will illuminate the unfolding reality of India and other countries\regions and also open out new

research agendas for other institutions outside in and India. The Department is extremely rich in academic

potential, comprising a faculty known widely for their research and teaching abilities. It has entered into a number

of collaborations with international institutions and its reputation is being rapidly consolidated within and outside

the country.

Major Activities

The Department hosted three webinars.

Faculty members have received honours and awards at national level and have undertaken international

assignments and conferred with professional positions at international associations/bodies in their area of

specializations.

Number of PhD Degree's Awarded in 2020-2021:

Total Number: 14

Number of M. Phil. Degree Awarded in 2020-2021:

Total Number: 13

Number of Department teachers serving as Member(s)/Editor(s) of Editorial Board and Member of

Committees

Dr. Nasreen Chowdhary

Vice President (2016-2018) and (2018-2021) International Association for the Study of Forced Migration.

Vice President (2018-2021) Mahanirban Calcutta Research Group, Kolkata.

Editorial Board Member (2016-Continuing), Refugee Watch -A South Asian Journal on Forced

Migration.

Prof. Navnita C. Behera

Pitt Global Visiting Scholar (Offered in 2020; On hold due to the pandemic), 2020.

Member, Academic Advisory Council, European Review of International Studies.

Member, Editorial Board, Global Society: Journal of Interdisciplinary International Relations (Routledge).

Regional Editor, European Journal of International Security, 2019 onwards.

Editorial Board member, Asian Survey, 2019 onwards

Co-editor, Exeter Series in World Order Studies, University of Exeter Press.

Prof. N. Sukumar

• Indian Institute of Dalit Studies (ICSSR Affiliated Institute) Delhi. 2017 till date

Administrative/Academic Bodies Membership

University of Delhi: Annual Report 2020-21

- VC Nominee to Department Research Council, Department of East Asian Studies, University of Delhi, Delhi from 26-10-2018 to 25-10-2020.
- Member- Governing Body and Academic Advisory Committee, Indian Social Institute, New Delhi, 2014-2020

Prof. Shri Prakash Singh

- UGC Nominee for Academic Advisory Committee in Human Resource Development Centre. Pandit Ravi Shankar Shukla University, Raipur, Chhattisgarh, 2020 -2023
- UGC Nominee for Academic Advisory Committee in Human Resource Development Centre. Aligarh Muslim University, Date of appointment Nov. 2019 2022
- Member, UGC constituted Appraisal Committee to evaluate Epoch Making Social Thinkers of India, April -2020 till date.
- Member, Governing Body, Satyawati College, University of Delhi (University representative) Delhi 110007 (2020-2021)
- Member, Advisory Board, Department of Public Administration, Mizo Central University, Mizoram(2019-2021)
- Member, Executive Council, UGC Chairman nominee, Dr. Hari Singh Gaur Central University, Sagar, M.P. (2019-2021)
- Member, Anomalies Committee on UGC regulations on Minimum Qualifications for Appointment of Teachers
 and other Academic staff in Universities and Colleges and Measures for the Maintenance of Standard in Higher
 Education, University Grants Commission, Ministry of Human Resource Development, Government of India,
 New Delhi.
- Chancellor's Nominee, Member Executive Council, Rabindranath Tagore University, Hojal (Assam) 20 Nov.2019- 19 Nov. 2022
- Visitor's Nominee on the Selection Committee for appointment of Faculties and Statutory posts in Central University of Jammu, Government of India, Ministry of Human Resource Development, New Delhi
- Member, Vice- Chancellor's Nominee on 'Special Centre for National Security Studies' JNU, New Delhi, (15/12/2018 15/12/2021)
- UGC Nominee for Academic Advisory Committee in Human Resource Development Centre. Aligarh Muslim University, Date of appointment Nov. 2019
- Member, Content Review Committee, Museum of Prime Ministers of India, Nehru Memorial Museum & Library, Ministry of Culture, Government of India, New Delhi.
- Member, Editorial Board, *Lok Prashasan*, Half Yearly Journal, Published by Indian Institute of Public Administration, New Delhi (March 2018 till date)
- Member, Committee, UGC regulations on Minimum Qualifications for Appointment of Teachers and other Academic staff in Universities and Colleges and Measures for the Maintenance of Standard in Higher Education, University Grants Commission, Ministry of Human Resource Development, Government of India, New Delhi (Report Submitted)
- Member, Academic Council, Jawaharlal Nehru University (VC Nominee) New Delhi, (May 2018-May 2020)
- Member, Experts Committee / Selection Committee, Indian Council for Cultural Relations, Azad Bhawan I P Estate, New Delhi
- Member, Department Advisory Board, Department of Education in Social Sciences, NCERT, New Delhi (Nov. 2017-Nov. 2020)

Prof. Ashok Acharya

Country Expert, Varieties of Democracy (V-Dem) Project, University of Gothenburg, 2019-20.

Professional / Outreach Service

- Chairman, Managing Committee, Jubilee Hall, University of Delhi
- Member, Board of Studies, School of Liberal Studies, Ambedkar University
- Member, Board of Studies, School of Gender and Development Studies, IGNOU
- Member, Board of Studies, Department of Political Science, Central University of Haryana
- Honorary Member, Advisory Board, Department of Political Science, Sharda University

Seminars/Conferences at the National/International Level Held by Your Department during the Year

- Webinar on "Legal Responses to COVID 19: Insights from Different Countries" By: Khimlal Devkota, Senior Advocate and Member, Central Committee of Nepal Communist Party. Chaired by Prof. Ujjwal Kumar Singh n 25 July 2020, 11:00 AM onwards via Google Meet.
- Talk on "Black Marxism Today" A Conversationwith Robin D G Kelley (UCLA)25 November 2020 10:00 AM via Zoom.
- Talk on "The Multiculturalism of The Far right in The United States" by Daniel Martinez Hosang, Yale University25 November 2020 6:00 PM via Zoom.

Participation of Faculty: Paper Presentation & Lectures Delivered

Dr. Nasreen Chowdhary

- Chowdhory Nasreen 2021. The global refugee protection regime, belonging and *sanctuary* in South Asia. *Keynote Lecture* delivered (on 6 May 2021) during the Digital Spring conference (International Conference) on "Revisiting Migration with a Special Focus on the Global South" of the Developmental Sociology/Social Anthropology Section (ESSA) of the German Sociological Association (DGS) cohosted by the Center for Intercultural and European Studies (CINTEUS), Organised by Ulrike Schultz (Adventist University Friedensau) and Eva Gerharz (Fulda University of Applied Sciences) during 6-7 May 2021.
- Chowdhory Nasreen 2021. Participated in the International Conference, "No place to go? Perspectives on displacement, belonging and non-belonging", organised by the Department of Germanic and Romance Studies, University of Delhi, from 18 20 March 2021 and presented the paper "The anxious integration of former enclave and 'new' citizens in north Bengal".
- Chowdhory Nasreen 2021. Delivered the lecture entitled "The idea of 'belonging' and citizenship among refugees" in the Winter School: "Understanding Displacement", organised by the Department of Germanic and Romance Studies, University of Delhi, from 22 26 February 2021.
- Chowdhory Nasreen and Shamna T P. 2020. Biometrics and the Notion of Governmentality in Rohingya Refugee Camps. Europe-Asia Research Platform: Forced Migration: Initiating a new research focus at the IWM. Workshop held on ZOOM platform organized by IWM in collaboration with Mahanirban Calcutta Research Group.

Prof. Navnita C. Behera

- Panelist for a webinar on "Kashmir Dialogue," Organized by Observer Research Foundation, New Delhi, 26 May 2020.
- Panelist for a webinar on "Re-envisioning Regionalism in South Asia in the Post-COVID Era,"
 Organized by Observer Research Foundation, Kolkatta, 17 July 2020.
- Panelist for the "Chao Track: India-Pakistan Track II Dialogue," at New Delhi, 3 October 2020.
- Delivered a lecture on "Foreign Policy in the Times of Covid-19," at Miranda House, 5 November 2020.
- Presented a paper on "Worlding the World: Some Interventions from India," as part of a webinar on 'Eurocentrism in International Relations and Interventions from India', at the Kamla Nehru college, University of Delhi, 6 November 2020.
- Delivered a (web) lecture on "Postcolonialism in IR" at the Ryukoku University, 26th November 2020.
- Panelist for a Roundtable on 'Deglobalization?' at the Annual convention of the International Studies Association on 'Globalization, Regionalism and Natioalism: Contending forces in World Politics,' 6 April 2021.

Prof. N. Sukumar

- Privatization and the Question of Social Justice, Youth for Inclusive and Sustainable Society, University of Hyderabad, 16th March 2021
- Interpreting Ambedkar for the Social Sciences: "Dialogue with Dr. B.R. Ambedkar: Critical Reflection for Social Science Discourse" on lineshort term course sponsored by UGC and organized by UGC-Human Resource Development Centre, Doctor Harisingh Gour Vishwavidyalaya, Sagar 20th January 2021.
- Educational Caste(ing) Universities: How to make universities a safe space for Bahujan students? Lecture on the theme of Institutional Casteism, organized by the Savitri Phule Ambedkar Caravan 2020-21, National Law School of India University, Bangalore, 17th January 2021
- 'Speaking Themselves into Existence': Experiences of Dalit Christian Women in Indian Academia, (Copresented) International Workshop, Existing Intellectual Paradigms of Higher Education and Social Mobility of Women and Minorities, AHRC and Coventry University, Britain, December 10th 2020
- 5th Dr. Ambedkar Memorial Lecture: The Indian Constitution: A Roadmap to Prabuddha Bharat, Dr. Ambedkar Chair, Tezpur University, Assam, 26th November 2020.
- Moderator for Book Discussion, Dynamics of Caste and Law: Dalits, Oppression and Constitutional Democracy in India by Dag-Erik Berg organized by Dalit Intellectual Collective, 15th November 2020
- Dalit Lives Matter, Panel Discussant, Red Rope Movement and Youth for Inclusive and Sustainable Society, University of Hyderabad, 17th October, 2020
- Envisioning Dalit Bahujan Utopias: Revisiting Indian Political Thought, Resource Person, Online Refresher Course at Political Science & Public Administration, UGC–HRDC, Osmania University, Hyderabad 10th October 2020
- Public Lecture- The Dalit Citizen: In Search of a Homeland, Calcutta Research Group in collaboration with Rosa Luxemburg Stiftung, Institute of Sciences Vienna, Department of Political Science, Delhi University, 18th September 2020
- Dalits: Higher Education in Current Scenario, Ayyankali Memorial Lecture, organized JAANUDI Centre for Literature and Arts, Ongole Andhra Pradesh, 28th August 2020
- Dalits and the Pandemic, National Webinar on Covid 19 and Human Relations, Dept of Political Science, DNR Government Degree College for Women, Palakollu, West Godaveri District, Andhra Pradesh, 12th August 2020
- NEP 2020 and Bahujan Perspective, Bahujan Sashaktikaran Sangh, Lucknow, 9th August 2020
- Creative Social Research, Faculty Development Programme, Commissionerate of Collegiate Education AP, Vijayawada, 7th August 2020
- Democratic Governance and Human Rights, National Webinar, Dept of Public Administration, Mizoram University, July 9th 2020
- Ambedkar on the Labour Question, Webinar on Dr. Bhimrao Ambedkar, ARSD College, University of Delhi, 21st April, 2020

Prof. Ujjwal Kumar Singh

- Keynote Speaker in Webinar on 'Pandemic, Laws and State Responses in India: A Citizen's Perspective' organised by Political Science Department, Gargi College, University of Delhi on May 22, 2020.
- Chaired a webinar session on 'Legal Responses to Covid 19: Insights from Different Countries' lecture delivered by Khimlal Devkota, Senior Advocate, Nepal, organised by the Department of Political Science, University of Delhi on July 25, 2020.

Prof. Madhulika Banerjee

- 27th June, 2020: Transforming Education Systems for Sustainable Development, paper presentation at the Opening Workshop for Transforming Education Systems for Sustainable Development (TES4SD) Network Plus Project, New Delhi and Bangalore.
- 28th June, 2020: Lecture on Ayurveda and the COVID 19 Pandemic: Perspectives from the Politics of Knowledge at the Acharya Prafulla Chandra College, New Barrackpore, Kolkata
- 24th August, 2020: Was a discussant on the book launch of Malika Basu Ghosh's A Social History of Pharmacy, Kolkata University.

- 28th August, 2020: The role and Relevance of Ayurveda and Alternative Medicine in the Context of Contemporary times Lecture delivered at a Webinar, Organised by the Environment Society of Miranda House, Delhi University.
- 5th September, 2020: Organised a panel entitled, Collective Action for a Knowledge Democracy: Civil Society and the politics of Knowledge as part of the Critical Theory Colloquium on Reclaiming Republican Democracy in the 21st Century.
- 5th September, 2020: Presented a paper entitled, The struggle for Knowledge Democracy as a cornerstone for reclaiming Republican Democracy: A Conceptual Frame" in the above panel and colloquium.
- 29th January, 2021: Lecture titled,"Searching for 'Swa' in the Hind Swaraj', at the Faculty Development programme on the book Hind Swaraj with reference to 'Making of a Hindu Patriot' edited by Shri J. K. Bajaj and Shri M. D. Srinivas, Gandhi Bhawan, University of Delhi.
- 26th March, 2021: Chaired an EXPERT PANEL that I proposed and organised: Discourse Analysis of Public Policy on Knowledge in Development at the Indian Public Policy Network Conference, held online, coordinated from the Indian School of Business, Mohali, Chandigarh.
- 26th March, 2021: Proposed and chaired a session on "Dialogue between Academics and Activists" at the Indian Public Policy Network Conference, held online, coordinated from the Indian School of Business, Mohali, Chandigarh.
- 11th March, 2021: 'Science and other knowledge systems in India: Relationships now and for the future' in a lecture series on "Science and the Local", organised by IISER, Bhopal.

9. Publications

Dr. Nasreen Chowdhary

Peer Reviewed Journals

- Chowdhory, N.and Shamna, T. P.(2020). Biometrics, Notion of Governmentality and Gender Relations in Rohingya Refugee Camps. Policies and Practices, Mahanirban Calcutta Research Group, Kolkata, Issue No. 114, 25 pp. (ISSN: 2348-0297) (http://www.mcrg.ac.in/PP114.pdf)
- Chowdhory, N.2020. Pandemic, Protection and Politics of Mobility. *Refugee Watch -A South Asia Journal on Forced Migration*, Mahanirban Calcutta Research Group, Kolkata, Volume 56, Pages: 33-47 (ISSN 2347405X)

Books Authored/Edited

- Chowdhory, N., and Mohanty, B.(2020). Citizenship, Nationalism and Refugeehood of Rohingyas in Southern Asia. Springer Nature Singapore Pte Ltd, [ISBN 978-981-15-2167-6 & 978-981-15-2168-3 (eBook)], https://doi.org/10.1007/978-981-15-2168-3
- Chowdhory, N. and Shamna T. P. (2021). Mobile Population, 'Pandemic Citizenship'. *In* Migration, Workers, and Fundamental Freedoms Pandemic Vulnerabilities and States of Exception in India (*Eds.*: Asha Hans, Kalpana Kannabiran, Manoranjan Mohanty, and Pushpendra). Routledge- the Taylor & Francis Group, London and New York (ISBN: 978-0-367-64155-9 (hbk) ISBN: 978-1-003-14550-9 (ebk)).

Prof. Navnita C. Behera

- Behera, N.C. (2021) "One World, Many Worlds: Globalization, De-globalization and Knowledge Production," *International Affairs*, September.
- Behera, N.C. (2021). "From a Uni-verse to a Pluri-verse: IR's Pasts and Futures," *Indian Journal of Politics and International Relations*, vol. 12-13, forthcoming.
- Behera, N.C. (2021). "Making Amends: Towards an Anti-Racist Critical Security Studies and International Relations," co-authored in *Security Dialogue*, forthcoming as part of special issue on 'Race and Racism in Critical Security Studies.

- Behera, N.C. (2021). "Teaching a More 'Rooted IR", as part of a forum on "Differing About Difference: Relational IR from Around the World," *International Studies Perspectives*, vol. 24, 49-52.
- Behera, N.C. 2021 "Teaching International Relations in India," as part of a forum on "The Introductory Course in International Relations: Regional Variations," *International Studies Perspectives* vol. 22, 150-153.

Prof. N. Sukumar Chapters in Books

- Sukumar, N. (2020). The Republic of Reservations and the Roster Struggle, Reservation, Representation and Social Justice, (ed) Ashok Naidu and Rajesh Kota, Kalpaz Publications, Delhi 2020, ISBN 9789353242763.
- Sukumar, N. (2020). Embodied Memories: A Journey with Ambedkar, Social Scientist in South Asia: Personal Narratives, Social Forces and Negotiations, (ed) Rashi Bhargava, Achala Tandon and Gopi Tripathi Routledge Publishers, India, 2020, ISBN 9781138369771
- Sukumar, N. (2020). Constructing a New Female Subjectivity: Ambedkar's Perspective, B.R. Ambedkar: Quest for Social Justice, (ed) Vol 4, co-authored, *Oxford University Publications*.
- Sukumar, N. (2020). The Manufactured Mandate and the Collective Shame of 2014, (co-authored), Gujaratri, Reflections on Moditva, *The Shared Mirror Publications*, 2020, pp 82-88, ISBN 978-1-64606-034-4.

Prof. Ujjwal Kumar Singh

- Singh, U. K.(2020). 'The Democratic Dilemma: Conducting Elections in Covid-19 Times', *Dialogue*, Vol. 21, No. 3, January-March 2020. (ISSN:0973-0095, UGC List, India)
- Singh, U. K.(2020)(Co-authored), 'Elections in a Pandemic: Role of the Election Commission of India,' Economic and Political Weekly, Vol No.56, Issue No.21, 21 May 2021.

Prof. Sanjeev Kumar H. M

- H.M. S.K. (2020)."Traversing the Romance of Liberal International а Order: The Democratic Peace Thesis Regional Security and the Asia", Problematique 57(4):344-360. in South International Studies,
- K.(2020). "The Political H.M. S. Colonial Genealogies of Decay and Legitimation Crisis: An Enquiry into the Predicament of State-Asia", construction Post-colonial South India Quarterly, Vol. 76 Issue 2, 15 June, pp. 276-293.

Prof. Madhulika Banerjee

- Banerjee, M.. (2020) *Ayurveda Deserves Better* in https://indianexpress.com/article/opinion/columns/ayurveda-culture-in-india-coronavirus-healthcare-patanjali-baba-ramdev-6485710/28th July.
- Banerjee, M. (2020). *Ayurveda and COVID-19: The Politics of Knowledge Systems, Yet Again* in Cultural Anthropology Hot Spots, *Fieldsights*, June 23. https://culanth.org/fieldsights/ayurveda-and-covid-19-the-politics-of-knowledge-systems-yet-again

Prof. Veena Kukreja

- Kukreja, V. (2020). "India in the emergent Multipolar World order: Dynamics and Strategic Challenges", *India Quarterly*, 76 (1): 8-23.
- Kukreja, V. (2020). "Ethnic Diversity, Political Aspirations and State Response: A Case study of Pakistan", *Indian Journal of Public Administration*, 66 (1): 28-42.
- Kukreja, V.. (2020). "India's Nuclear Policy: Strategic Imperatives and Transformation", *Dialogue Quarterly*, Vol. 21, No. 3, January-Ma

DEPARTMENT OF SOCIOLOGY

Major activities and achievements

The Department effectively shifted all academic activities to the online mode to provide support to students during the Covid-19 pandemic and the lockdown in this period. All classes, tutorials, discussions, Sociological Research Colloquium, Research Scholars Workshop and exams were conducted regularly in the online mode. Faculty and research scholars continued their research work resulting in many refereed publications, academic presentations and public lectures as detailed in this report.

Publications:

Abraham, J. (2021). Obituary II: Gestures of generosity—Remembering Professor A.M. Shah. *Contributions to Indian Sociology*, 55 (1), 121-122.

Abraham, J. (2021). Urban transformation for whom? Notes from the margins of a town in North India. In I. Pardo, & G. B. Prato (Eds.), *Urban Inequalities: Ethnographically Informed Reflections*. Palgrave Macmillan.

Agrawal, A. (2020). Arya Samaj marriages in Indian Courts. Indian Law Review, 1-20.

Chatterji, R. (2020). Poetry as a form of life. Comment on Andrew Brandel, "The Prosody of Social Ties. Poetry and Fleeting Moments in Global Berlin". *Current Anthropology*, *61* (4), 531-32.

Chopra, R. (Ed.). (2000). Ways of Worship. New Delhi: Penguin Random House.

Rahman, S. Y. (2021). Koloniala sår rivs upp i Indien [Colonial wounds are torn up in India]. *MANA—Antirasistisk Tidskrift: Homonationalism*, 2020 (4), 10-13.

Rai, S. (2020). Aesthetics and politics: Two leading Bhojpuri artists, Mumbai: Become Shakespeare. Com. ISBN: 978-93-90543-50-2.

Sundar, N. (2020). Sliding from majoritarianism toward fascism: Educating India under the Modi regime. *International Sociology*, *35*(6), 632–650. https://doi.org/10.1177/0268580920937226_(co-authored with_Bhatty, K.)

Sundar, N. (2020). India's Unofficial Emergency. In B. Vormann and M.D. Weinman (Eds.). *The Emergence of Illiberalism: Understanding the Global Phenomenon*. New York: Routledge.

Vasan, S. (2021). Cutting the Gordian knot: Environmentalism, capitalism and the metabolic rift. In M. Rao (Eds.), *Reframing the Environment: Resources, Risk and Resistance in Neoliberal India*. New Delhi, India: Routledge.

Vasan, S. (2021). The importance of being Ladakhi: Negotiating cultural citizenship. In S. Hussain (Ed.), *Society and politics of Jammu and Kashmir*. Palgrave Macmillan.

Vasan, S. (2020). Particular universalities: Imagining the nation at its borders. In V. Sujatha (Ed.), *Global Capitalism and Social Difference*. New Delhi, India: Routledge.

Vasan, S. (2020). Biodiversity-focused development ways to sustain human well-being. *Economic and Political Weekly*, 55 (49), 27-28. (co-authored with Nawn, N. & Bawa, K.)

Journals (published by the Department)

Faculty are serving in editorial boards of major national and international journals:

Nandini Sundar, Member, Editorial Board, Sociology, 2021-2023

Nandini Sundar, Member, Editorial Board, HAU Journal of Ethnographic Theory, 2019 onwards

Nandini Sundar, Member, Editorial Board, Cambridge Journal of Anthropology January 2018 onwards

Nandini Sundar, Member, Editorial Board, INSEE, 2017 onwards

Nandini Sundar, Member, Editorial Board, Sociological Bulletin, 2016-20

Nandini Sundar, Member, Editorial Board, Anthropological Theory, ongoing

Nandini Sundar, Member, Editorial Board, Contributions to Indian Sociology, 2012 onwards

Sudha Vasan, Member, Editorial Board, Ecology, Economy, Society, INSEE Journal, 2020 onwards

Sudha Vasan, Book Reviews Editor, Conservation and Society, 2007-2020.

Sudha Vasan, Co-editor, Review of Environment and Development, Economic and Political Weekly. Ongoing.

Research Projects

Radhika Chopra was working on a Project titled *From the Margins: Low Income Migrants and their Access to Basic Services* ESRC-ICSSR collaborative project between University of Edinburgh and University of Delhi, Department of Sociology.

Roma Chatterji is in the process of writing a book on commercial comic books in India. The fieldwork for the project is complete. Two chapters have been completed and one research article is to be published in 2021. Two of the book chapters are under review.

Seminars Organised

A lectureentitled, 'Logics of Dispossession: Historical Methods and Slum Clearance before the World Class City' by Liza Weinstein was organized as a part of the Urban Sociology Course (Master's Program) on 22nd September 2020, 5:00-7:00PM IST. (Online)

A paper entitled 'Aesthetics, Politics, and Culture in 'Bidesia' was presented by Sandeep Rai, Guest Faculty, Department of Sociology, University of Delhi at the Sociological Research Colloquium. (Online) on 5th February, 2021.

A paper entitled 'The Kabulis in Delhi City: Gender and Cultural Practices of Afghan Sikh Refugees' was presented by Shelly Pandey, Guest Faculty, Department of Sociology, University of Delhi at the Sociological Research Colloquium. (Online) on 12th February, 2021

A paper entitled 'Demons and Demonisation: Othering in the Bhagavad Gita' was presented by Sanjay Palshikar Political Science Department, University of Hyderabad at the Sociological Research Colloquium. (Online) on 19th February, 2021.

A paper entitled 'First Information Report & Media: The Informational Universe of Crime and Violence" was presented by Twinkle Siwach, Guest Faculty, Department of Sociology, University of Delhi at the Sociological

Research Colloquium. (Online) on 26th February, 2021

A paper entitled 'First A Demographic Analysis of Covid-19 Mortality across the World'was presented by Christophe Guilmoto (senior fellow in demography at the French Institut de recherche pour le développement (IRD) based at CEPED in Paris, ana Université de Paris) at the Sociological Research Colloquium. (Online) on 5th March, 2021

A paper entitled 'Castes to Nationalist Hindus: The Making of Hinduism as a Civil Religion' was presented by Suryakant Waghmore, Associate Professor, IIT, Bombay at the Sociological Research Colloquium. (Online) on 12th March, 2021.

Aniket Aga, Associate Professor, Ashoka University, presented a paper titled, 'Farm Reforms As If The Agrarian Crisis Mattered' at the Sociological Research Colloquium. (Online) on 19th March, 2021

Conferences Organised

An Online Research Scholars Workshop (RSW) was organized in the Department of Sociology on 10th September, 2020. Five M.Phil and Ph.D. Scholars presented papers at the workshop in which a number of faculty members and other research scholars took an active part.

Seminar/Conference Presentations (National/International)

Anuja Agrawal was a discussant at the Nomad Inc 5, an online conference organized by Praxis, NAGDNT in partnership with Durham University, UK, on 19th July, 2020.

Anuja Agrawal was a participant in a panel titled, 'Intersections of caste identity and sex work' on 22nd July at an online workshop on 'Precarious Pasts, Emancipatory Futures: Interdisciplinary Conversations on Sex Work in India', organized by the Dickson Poon School of Law, King's College London, on July 22-24, 2020.

Roma Chatterji was a panelist at a discussion on TexturesoftheOrdinary by Veena Das, on 22nd January, 2021

Roma Chatterji gave an online pre-recorded video lecture on 'Words and Images: Graphic Narratives and Folk Performance' for a Talk BD India/ Annee Internationale De La Bande Dessinee - Graphic Narratives, March, 2021.

Sabina Yasmin Rahman presented a paper titled, 'Digital Sisterhoods: What promise does online activism hold for Gender Justice in India's Northeast?' at the Access to Justice to end Violence – UNODC- TISS international Academic Conference, on 8th -9th December, 2020. (online).

Satish Deshpande was a Panelist in Dialogics 4: 'The Problem of Caste Among Brahmins' (with Suraj Yengde, Anupama Rao & S. Anand), at the symposium organized by Harvard University, Kennedy School of Government, on 7th June, 2020 (online, available at: https://www.youtube.com/watch?v=7JabmA7LQlo&t=54s)

Sudha Vasan gave a Plenary Lecture (online) on 'Refraction to Dialectics: Perspectives on Society/Ecology' at the National Seminar on *Social Ecology, Environment and Sustainable Development*, Department of Sociology, Lucknow University, Lucknow, on 22nd March, 2021.

Sudha Vasan presented a Paper titled 'Recognizing Himalayan rurality: Implications of multi-local households and non-resident communities for development and climate change policies' at an Online Himalayan Studies Workshop organized by Department of International Relations & Governance Studies, Shiv Nadar University (IRGS) with support from the Konrad-Adenauer-Stiftung, India (KAS) on 8th November, 2020

Sudha Vasan gave a lecture titled 'Feminism in our times: Identity, Individual Resistance and Revolutionary Movement' at Stree Mukti Sangathan Annual Workshop (Online), Delhi on 2 October, 2020.

Extension and outreach activities

- A Lecture titled, 'Denotified and Nomadic Communities in India and women's issues' organised for Maitri Network
- Lecture titled, 'Prostitution/Sex work: Asking the Right Questions' was organised at the Department of Sociology, Janaki Devi Memorial College
- Participated in an online Public Event 'Reality Bites: Colorism, Gender, and Class in "Indian Matchmaking" hosted by the University Library at the University of Illinois at Urbana-Champaign, Center for South Asian & Middle Eastern Studies and International and Area Studies Library at Illinois.
- Attended as a panelist in a webinar titled, 'Seedbeds for Change: Reconceptualizing the Family as a
 Space for Fostering the Equality of the Sexes' organized by the Office of the Public Affairs of the Baha'is
 of India.
- A lecture titled 'Denotified Tribes and Sexual Minorities' in an online Refresher Course in Development Studies organized by the Burdwan University, Burdwan, West Bengal
- A unit titled, 'What is Structuralism' was authored for the MA course in Sociology in the Distance Mode for Jamia Millia Islamia.
- Interaction and discussion on 'Distancing the Social: Sociology in the time of Corona' at the Distinguished Speaker Series Webinar, Janaki Devi Memorial College, University of Delhi,
- An online public lecture on 'Gender ke nazariya se lockdown' organized by Stree Mukti Sanghatan, Delhi
- An online lecture on 'Understanding Covid-19 and the lockdown from a gender perspective' at the Terre
 des hommes India North Zone Partners Meet.
- An online public lecture on 'Resisting Rape Culture' Stree Mukti Sanghatan, Delhi,

Number of M.Phil/Ph.D. Degrees Awarded

One M.Phil. Degree and Eleven Ph.D. Degrees were awarded during the period.

Faculty Strength

- 3 Professors
- 3 Associate Professor
- 5 Assistant Professors

Vacant Positions as on 31 March 2021: 4 Professorships, 7 Associate Professorships, 4 Assistant Professorships and 3 Research Associates.

DEPARTMENT OF SOCIAL WORK

Major Activities and Achievements

The Department of Social Work, University of Delhi continued its role, in the current academic year as a prominent flagbearer of Social Work education and practice in India. The Department of Social Work is a pioneering institute in Social Work Education imparting professional training since 1946. The Department offers education at three levels namely Ph.D., M. Phil. and M.A. in Social Work.

The Department has been a UGC Centre for Advanced Study, and the teaching, research and practice within the discipline of Social Work is carried out keeping the social realities of India. The department has a diverse set of faculty members, who enrich the academic and corporate life in numerous ways. The Department of Social Work was acknowledged as one of the departments showing best practice in the innovative social outreach programmes of the University, in the NAAC report of the University of Delhi, 2019-20. The department aims to strengthen the

discipline and profession of Social Work in India, through its emphasis on eclecticism, innovation in best practices and inclusiveness.

Honours/Distinctions

 Ranked number three institution of Social Work in India, by India Today-Survey of Professional Colleges in India. 2019-20.

Publications-

Adusumalli, M. and Dutta, S. (2020). Preserving and Protecting Forests and Forest Dependent Communities in India by Implementing the Forest Rights Act of 2006. In M. Rinkel and M. Powers (Eds.), *Social work promoting community and environmental sustainability: A Workbook for Social Work Practitioners and Educators* (Vol. 3). Rheinfelden, Switzerland: International Federation of Social Work (IFSW). (pp.315-341). ISBN 978-3-906820-20-0

Adusumalli, M.(2020). Understanding and Locating Mental Health in a Cross-cultural Context: Indigenous Community Perspectives. In Meenu Anand (Eds.) *Gender and Mental Health: Combining Theory and Practice* (pp.63-76) Springer. Singapore: ISBN 978-981-15-5393-6

Agnimitra, N. & Sharma, S. (2020). An Articulation and Integration of Gandhian Values in Contemporary Social Work Discourse. *Journal of Social Work & Social Development (UGC CARE Journal)*, Volume 11, Number 01. p. 1-18. ISSN 2229-6468.

Sharma, S. & Agnimitra, N. (2020). Migrant Labour and the Pandemic- Media Representation, *International Journal of Innovation, Creativity and Change*. **WWW.ijicc.net**. Special Edition: COVID-19 Life Beyond, September 30 2020. p. 145-165.

Agnimitra, N. (2021). Environment, Climate Change and Social Work: Imperatives for Practice. In Roy, S. (Ed.) *Social Work Education: Indigenous Perspectives* (pp. 119-142). Sage Publications. Anand, M. (2020). Gender and Schooling: A Feminist Perspective, in *Quest in Education*, Vol. XXXXXI, No.3,

Anand, M. (2020). Disability, Gender and the Trajectories of Mental Health (2020). in *Social Action*, Vol. 70, No.4, 396-409 (October-December 2020). Indian Social Institute. ISSN: 0037-7627.

Anand, M. (2020). *Gender and Mental Health: Combining Theory and Practice*. Singapore: Springer Nature. ISBN: 978-981-15-5392-9.

Anand, M. (2020). Introduction. In Meenu Anand (Ed.), 'Gender and Mental Health: Combining Theory and Practice'. Singapore: Springer Nature. ISBN: 978-981-15-5392-9.

Anand, M. (2020). Understanding Gender and Mental Health. In Meenu Anand (Ed), 'Gender and Mental Health: Combining Theory and Practice'. Singapore: Springer Nature. ISBN: 978-981-15-5392-9 (Co-authored)

Anand, M. (2020). Practising Strengths-Based Approach with Women Survivors of Domestic Violence (2020). In Meenu Anand (Ed.), 'Gender and Mental Health: Combining Theory and Practice'. Singapore: Springer Nature. ISBN: 978-981-15-5392-9. (Co-authored)

Anand, M. (2020). Prepared Online Teaching Learning Material (TLM) for the School of Gender and Development Studies, IGNOU as a part of the courses on *Gender, Science, Technology and Society* and *Gendered Perspectives on Health*:TLM prepared on the topic: Health and Well-Being and Mental Health and Gender Issues.

Jha, M. K. (2020). Not Just Denigrated, Muslims Have Been Demonised During COVID-19 Pandemic': Interview in The Outlook, 18th April,2020.

12-27 (July 2020). Gandhi Shiksha Bhawan. ISSN: 0048-6434

Jha, M. K. (2020). Suspending MPLADS funds for coronavirus crisis is another stab at Indian democracy, The Print. 24 April, 2020.

Jha, M. K. (2020). Confusing symptoms for disease, Opinion piece, The Indian Express 17 August, 2020.

Jha, P. (2021) Violence against Women: Explorations of the Continuum; in *Women's Link*, Vol.28, Issue 1, ISSN 2229-6409, New Delhi.

Jha, P. (2020) Review Article: Invisible Women: Exposing Data Bias in a World Designed for Men by Caroline Criado Perez; Chatto & Windus, an imprint of Vintage, London: 2019; in *Journal of Exclusion Studies*, JES Vol.10, No.2, August 2020, ISSN 2231 4547.

Shakil, M. & Khan, A. (2021). *Social Casework and Juvenile Delinquents: A Psychological Model*. In Sanjoy, R. (Ed.), Social Work Education: Indigenous Perspectives. New Delhi: Sage Publications India. ISBN: 978-93-5388-737-0.

Kaushik, A. (2021). Understanding Islamophobia through the eyes of American Muslim Children: Religious Bullying and School Social Work Interventions, [Co and corresponding author: Jannat, F.F.]. *Child and Family Social Work*, Wiley, 1-13, https://doi.org/10.1111/cfs.12828

Kaushik, A. (2020). The Consequences of Husband's International Migration on Family Left-Behind in Tamil Nadu, India [Co and Corresponding author: Arokkiaraj Heller] Journal of International Migration and Integration https://doi.org/10.1007/s12134-019-00705-9 (2020) 21:1149-1163 @Springer Nature

Kaushik, A. (2020). Positive Ageing in Indian Panorama; Challenges and Prospects, *Journal of interdisciplinary cycle research* [co-author: Dr. Beena Antony Reji]. 10-18. Vol. IX, (1) ISSN: 0022-1945 Kaushik, A. (2021). Effects of International Male Migration on Wives left behind in Rural Tamil Nadu (2021). (First and corresponding author: H. Arokkiaraj; Co-author: S. Irudaya Rajan). *Indian Journal of Gender Studies*, 1-20, DOI: 10.1177/0971521521997964. journals.sagepub.com/home/ijg

Kaushik, A. (2020). Experiences, Coping and Correlates of Encountering Death: Implications for Social Work Education and Practice. In Ilango Pannuswami and Abraham P. Francis (Ed.), *Social Work Education, Research & Practice: Perspectives from India and Australia* (139-160). Springer. ISBN: 978-981-15-9796-1

Kaushik, A. (2020). Addressing Marginalization among the Elderly: A Social work perspective. In Mala Kapur Shankardass(Ed.), *Ageing Issues and Responses in India*. (9-24). Springer. ISBN: 978-981-15-5186-4

Kaushik, A. (2020). Elder Care from a Distance: Emerging Trends and Challenges in the Contemporary India (2020). In Mala Kapur Shankardass(Ed.), *Ageing Issues and Responses in India* (97-114). Springer. ISBN: 978-981-15-5186-4

Kaushik, A. (2021). Indigenization of social work through Bhakti and Yoga. In Bishnu Mohan Dash, Mithilesh Kumar, D.P. Singh and Siddheshwar Shukla(Ed.), *Indian Social Work*. (84-106) Routledge ISBN: 970-0-367-74995-8.

Kaushik, A. (2021). Social Work Practice with Families and Children. In Sanjoy Roy (Ed.), *Social Work Education* (28-51) Sage. ISBN; 978-5388-637-0.

Kaushik, A. (2020). Prepared e-content under Consortium for Educational Communication (CEC), for NISD, Ministry of Social Justice and Empowerment, Government of India, on:

- o "Elder Abuse: Manifestation & Prevention" for geriatric professionals
- o "Old age care" for Course on 'Social Defence Issues' Police Functionaries

Pandey, N., Pandey, VK. & Mishra, AK. (2020). Dynamics of Child Sexual Abuse, *Journal of Social Work Education, Research and Action (JSWERA)*, 6 (1), ISSN: 2394-4102.

- Pandey, N., Zeeshan, Khan M.A., Khan, M.R. (2021). How Access to Non-Farm Income Affects Farm Investments in Rural India? *Journal of Public Affairs*. 2021:e2681. http://doi.org/10.1002/pa2681
- Pandey, N. & Rani P. (2020). An Extraordinary Journey of an Ordinary Women, *Journal of Exclusion Studies*, 10(2), 253-265, ISSN 2231-4547.
- Pandey, N. (2020). Services to the Women Survivors of Violence: Role of Forensic Social Work, in conference proceedings of Fourth International Conference of the South Asian Society of Criminology and Victimology (SASCV) and Department of Criminology, Raksha Shakti University, 197-200, ISBN 978-81-906687-81.
- Bohet, S. & Pandey, N. (2020). Politics of HIV/AIDS: Layers of Exclusion in *Journal of Exclusion Studies* 10(1), 1-12, ISSN 2231-4547
- Pandey, N. (2020). Voices of Survivors: Combating Domestic Violence, Guwahati: EBH Publishers, ISBN 9789390434282
- Roy, S. (2020). Women Education & Participatory Development: Need a Congruous Outlook for Empowerment. *International Journal of Historical Archaeology & Anthropological Sciences*, Med Crave, ISSN-2573-2897, 29th October 2020, Vol-05, Issue-05, p-183-191.
- Roy, S. (2020). (Co-author). Child Domestic Workers: Understanding from Rights Perspective, *The American Journal of Humanities & Social Sciences Research*, E-ISSN-2581-8868.Nov 2020, Vol-03, Issue-06, p-01-03.
- Roy, S. (2020). (Co-author). Issues and Challenges with COVID-19: Interventions through Social Work Practice and Perspectives. *Journal of Social Work Values and Ethics*, ISSN-1553-6947. October-2020, Volume 17, Number 2, Copyright 2010, ASWB.
- Roy, S. (2020). Women Obscenity in India: Social Outlook with Legal Reflection, *International Journal of Ecology & Natural Resources*, Medwin Publisher, March, 2020, ISSN-2578-4994, IF-2.09, p, Volume-4 Issue-2, USA.
- Roy, S. (Ed.) (2021). "Social Work Education: Indigenous Perspectives". Sage Publication, UK, New Delhi, ISBN: 978-93-5388-637-0 (HB), 978-93-5388-637-0 (E pub 2.0) & 978-93-5388-657-8 (WEB).
- Roy, S. (2020). Prospects and Progress of Sanitation in India: Legal and Policy Perspectives. In Nagendra Ambedkar Sole & S. Sudhakar Babu (Eds), *Public Policy in India: Changing Contours*, Segment Books Publication, New Delhi, ISBN-978-93-81513-14-9, p-75-94.
- Roy, S. (2020). Tagore's Sriniketan Experiment: A Viable Indigenous Model of Rural Development. In B M Dash, Mithilesh Kumar & S Shukla (Eds.). *Social Work in India: Indigenous Approaches and Models*, Concept Publishing Company Pvt. Ltd, New Delhi, ISBN-978-93-88937-49-8, p-30-40.
- Sharma, S. & Agnimitra, N. (2020). Migrant labour and the Pandemic. *International Journal of Innovation, Creativity and Change*, 145-165. Special Edition, COVID 19, Life Beyond, September, 2020, ISSN -2201 -1323.
- Sharma, S. (2020) Human Resource Management: Trends in Past Decade, Delhi: Papyrus Scrolls. ISBN-9788193322123
- Shashi Rani (2020). Labour Welfare and Social Security in India: A Case of Public Sector Industry BHEL, *Journal of Social Work Education, Research and Action* (SWERA), 52-65, Vol 4., No.3, ISSN 23944102.
- Shashi Rani & Sharma K.K. (2020) Gender and Pandemic, Journal of Exclusion Studies, Special Issue on Gender and Exclusion, 135-150, Vol 10., No. 2, ISSN 22314547.
- Shashi Rani (2021). Social Work and counselling: Contemporary and Emerging Practice Areas, in Sanjoy Roy (Eds.), *Social Work Education- Indigenous Perspectives*, 84-100, SAGE, India, ISBN 978935388637-0(HB), 2021.

Singla, P. (2020). *Soft Skills Training for Police Personnel*, Amazon Publishing (Paperback); Kindle Edition Sold by: Amazon Asia-Pacific Holdings Private Limited ISBN 978-93-5279-315-0

Singla, P. & Tulsyan A. (2020). 'Violence against Women' in Kamla Nath (Eds.), *The Indian Women's Journey: Last Five Decades*. New Delhi: Har Anand Publishers, ISBN 978-93-88409-58-2

Singla, P. (2020). Living in COVID times: From the diary of a social work faculty, International Association of Schools of Social Work website (www.iassw-aiets.org) https://www.iassw-aiets.org/covid19/5040-living-in-covid-times-from-the-diary-of-a-social-work-faculty/

Singla, P. (2020). Analysing the 'social' during Covid-19, International association of schools of social work website (www.iassw-aiets.org) https://www.iassw-aiets.org/covid-19/5079-analysing-thesocial-during-covid-1

Number of Department teachers serving as Editor(s)/Member(s) of Editorial Board

Agnimitra, Neera

- Member, Editorial Board, CJMR, Journal of Management Research (Journal of Dr. Vikhe Patil Foundation Centre for Management Research and Development).
- Academic Advisor, Learning Community (Journal of Educational and Social Development).
- Academic reviewer for British Journal of Social Work, Oxford Journals.
- Academic reviewer for International Journal of Disaster Risk Reduction, Elsevier B.V, Amsterdam, The Netherlands.
- Academic reviewer for Journal of Social Work Education, Research and Action, NAPSWI.

Anand, Meenu

- Peer Reviewer, Sage Open Access Journal.
- Peer Reviewer, Gender Issues, Springer.
- Peer Reviewer, International Journal of Social Welfare, Wiley Online Library.
- Peer Reviewer, Social Change, Council for Social Development.
- Peer Reviewer, Online DU Journal of Undergraduate Research and Innovation, University of Delhi.
- Peer Reviewer, Women's Link Journal. Sarojini Naidu Centre for Women's Studies, Jamia Millia Islamia

Bhatt, Sanjai

- Managing Editor, Journal of Social Work Education, Research and Action.
- Member, Editorial Board, New Horizons in University Education: A Journal of Development and Social Justice.

Jha, Pushpanjali

 Peer Reviewer-International Journal of Community and Social Development, Sage Publication

Maske, Sudhir

 Editorial Board Member, Indian Journal of Sustainable Development (IJSD), ISSN-2394-7675 Published by Department of Social Work, Central University of Rajasthan & Publishing India Group, New Delhi.

Pandey, Neena

- Member, Editorial Board- Journal of Exclusion Studies
- Peer Reviewer-International Journal of Community and Social Development, Sage Publication
- Peer Reviewer-British Journal of Social Work
- Peer Reviewer-Indian Journal of Social Work

Roy, Sanjoy

- International Advisory Board Member at Encyclopedia of Social Work, NASW, USA.
- Associate Editor at International Journal of Religion and Spirituality in Society, USA.
- Advisory Editorial Board Member at International Journal of African and Asian Local Government Studies, Rhodes University, South Africa.
- Editor at International Journal of Historical Archaeology & Anthropological Sciences, MedCrave.
- Editorial Board Member at Sociology International Journal, USA.
- Editorial Board Member at Journal of Ecology & Natural Resources (JENR), MedWin Publishers, USA.

Sharma, Seema

Reviewer at Asia Pacific Journal of Business Ethics

Singla, Pamela

- Academic Reviewer-Palgrave Macmillan
- Peer Reviewer-Indian Journal of Social Work

Kaushik, Archana

- Guest Editor of Research and Development Journal, Helpage India, Vol. 25, No.2, 2019, ISSN: 0972-0227 Special Edition
- Guest Editor of Research and Development Journal, Helpage India, Vol. 26, No.1, 2020, ISSN: 0972-0227 Special Edition

Conference/Workshop Organized-Conference, Dates, Funding Agency support

List of Webinars/Seminars Organized by Department of Social Work, University of Delhi, from 1st April,2020 till 31st March, 2021

S. No.	Date	Title	Speaker/s
1.	15 th May 2020	Mental health and Well- Being during COVID Pandemic	Dr Nimesh Desai, Director, IHBAS and Dr Shweta Verma, Founder and CEO, Ginny's Planet
2.	16 th May 2020	Ethnography and Social Work	Prof. Vinay Srivastava
3.	17 th September	Courage, Democracy, and Equality:	Prof Ajay Skaria, University of Minnesota

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S. No.	Date	Title	Speaker/s
	2020	Questions from Gandhi	
4.	19 th September 2020	Making sense of non-violence: Contemporary Challenges and Gandhian ways	Prof Dennis Dalton, Professor Emeritus of Political Science, Barnard College, Columbia University
5.	26 th September 2020	Gandhi and the claims of Indian modernity	Prof Akeel Bilgrami, Sidney Morgenbesser Professor of Philosophy, Columbia University
6.	30 th September 2020	Gandhian Perspectives on Self Reliance and Non-Violence: Social Work for Achieving Food Sovereignty	Mr. Ashish Kothari Founder member- Kalpavriksh
7.	2 nd October 2020	How to conceptualize Gandhi?	Prof. Bidyut Chakrabarty, Vice-Chancellor, VisvaBharati University
8.	9 th October 2020	Some ideas for how social workers can make use of Gandhi's heritage (while ignoring his utopianism)	Professor Mark Lindley, Professor of Eminence, MGM University, Aurangabad
9.	10 th October 2020	Research Colloquium titled Research experience in Andaman Nicobar Island	Dr. Ajay Saini, Assistant Professor, Centre for Rural Development and Technology, IIT Delhi
10.	21 st November 2020	Enhancing Mental Health and Well-Being for Youth: Role of Social Work	Dr Jitendra Nagpal, Senior Consultant Psychiatrist, Moolchand Medcity and Program Director, Expressions India
11.	4 th January 2021	Nothing About Us Without Us: Reflections from Policy Discourse and Legal Framework for Persons with Disabilities in India	Dr. Sanjay Jain Principal ILS Law College, Pune and Mr. Rajive Raturi Special Monitor National Human Rights Commission of India
12.	30 th January 2021	Breaking the culture of silence: A prerequisite for the empowerment of the marginalized	Dr Lenin Raghuvanshi, co-founder, People's Vigilance Committee on Human Rights and Dr Sanjay Singh, Parmarth Samaj Sevi Sansthan
13.	8 th March 2021	International Women's Day Celebration Conference (blended mode) Titled "Global Crisis and Women: Celebrating their Existence"	 Dr. Rashmi Singh Prof. Simrit Kaur Ms. Ashita Mittal Prof. Archana Dassi Ms. Trupta Panchal
14.	12 th March 2021	Capturing the Contribution of Women in India's Freedom	Dr Bijaylaxmi Nanda, Acting Principal, Miranda House, University of Delhi

S. No.	Date	Title	Speaker/s
		Movement	
15.	22 nd March 2021	Department of Social Work in collaboration with Vishwa Yuvak Kendra organized a webinar titled "Digitally Empowered Women: Need of the hour"	1

Brief Report of 10 Seminars/Webinars organized by the Department

I. Ethnography for Social Work on 16th May, 2020,

Resource Person- Prof. Vinay Srivastava Webinar Convenor-Mr. Abhishek Thakur

The session covered various important aspects of Ethnography and Social Work. The idea of field in the Ethnographic studies was explained by the Speaker. Beginning with shedding light on the role and influence of ethnographic traditions in Social Sciences, Prof. Srivastava expounded on the idea of ethnographic research in general and the importance of field work in particular. He elaborated on various types of ethnographic research, dwelling in detail on the processual dimensions of ethnography. He also highlighted the centrality of field work and utilizing variety of note taking in ethnographic research, such as scratch notes, process notes etc. While discussing that critical analysis of field notes are important, he spoke about process of data analysis paying attention to glossary of words generated, interpreter effect, field diary, existence in the field is captured by the field diary. He also shared that data collection, data analysis, data writing and data interpretation are simultaneous in ethnographic research. The terms like Cyber-Ethnography and its relevance in the Pandemic was also highlighted by the speaker.

II. Courage, Democracy, and Equality: Questions from Gandhi

Resource Person- Prof Ajay Skaria- Department of History /Institute for Global Studies, University of Minnesota, 17th September 2020, Thursday, 8.00 pm

Prof Skaria delved into the writings of Gandhi and the Gandhians and took a very discursive turn in defining and discussing the concept of courage. His speech and discussion reflected the contemporary society and polity in India. For this event, Mr P C Behera was Organising Secretary, Mr N T Thomas was Discussant and Dr Meenu Anand was the Convener. The event was chaired by the Head of the Department Prof Pamela Singla.

III. Making Sense of Non-violence: Contemporary Challenges and Gandhian ways

Resource Persons-Prof Dennis Dalton

Professor Emeritus in Political Science/Political Theory at Barnard College, Columbia University, 19th September 2020, Saturday, 9.30 p.m.

Prof Dalton has done extensive fieldwork in India and has meticulously analysed the last six months after independence of India. The role Gandhi played is very different from the role played for the freedom struggle. The role he played in these briefs played gives a strong message and solution for communal harmony. For this event, Mr P C Behera was Organising Secretary, Prof Neera Agnimitra was Discussant and Dr Meenu Anand was the Convener. The event was chaired by the Head of the Department, Prof P Singla.

IV. Gandhi and the Claims of Indian Modernity

Resources-Prof. Akeel Bilgrami, Sidney Morgenbesser Professor of Philosophy,

Professor, Committee on Global Thought, 709 Philosophy Hall, Columbia University, New York.

Prof Bilgrami very vividly posed the concept of alienation which is largely understood as a concept of Marx, but which is equally visible in the works of Gandhi. He then takes this concept to Indian society and polity. For this

event, Mr P C Behera was Organising Secretary, Prof Manoj Jha (Hon'ble MP, Rajya Sabha) was Discussant and Dr Meenu Anand was the Convener. The event was chaired by the Head of the Department, Prof P Singla.

V. <u>Gandhian Perspective on Self Reliance and Non-violence: Social Work for Achieving Food Sovereignty</u> *Resource Person: Mr Ashish Kothari (Founder member, Kalpavriksh)*, Date: September 30, 2020, Time: 6 p.m. - 7:30 p.m.

Prof Pratap Chandra Behera welcomed the participants of the Webinar and Prof Pamela Singla (HOD) delivered the opening remarks and formal introduction of the Department of Social Work, where she explained the reason of organizing webinar series on Gandhi, marking $150^{\rm th}$ years of celebration of Mahatma Gandhi and the Platinum Jubilee celebration of the Department of Social Work .

Major points of Mr. Ashish Kothari's talk, was emphasis on the need for social work to go beyond the charity aspect and to focus on self-empowerment However, he said, this requires acknowledging the dependence of the communities on natural resources. There are socioeconomic inequalities that heighten the food insecurity. He explored the issues related to food insecurity in greater detail and spoke of how 2/3tds of the population in India is deprived of the basic nutritious food, which became a serious issue due to the pandemic. There is hand to mouth existence, which is contradictory to the very idea of Swaraj. He explained how developmental policies which are based on Nature's exploitative model cannot enable for self-reliance to be achieved. These mega projects are resisted through various movements, which try to protest their erosion of self-reliance and reclaiming the swaraj. There are fundamental differences in the valuation of the rivers by the people and communities which view them as sacred, where for the developmental state it is for generating power. He spoke of the Satyagraha movements, and their significance such as the Black lives matter and Fridays for Future. The ideas from Gandhi with regard to Swaraj need to be seen as Sangharsh and Nirman, that is struggle and construction. He highlighted the need for Swaraj to expand into eco-swaraj that takes into account the linkages between human and natural species. He then highlighted the various narratives from the grassroots experiences, that are admirable illustrations of the concept of Swaraj linking swaraj to food sovereignty, such as Deccan Development Society (food sovereignty with implications to PDS, concept of Anna Swaraj, and support during Covid-19), North East Network (revival of millet and paddy production, worked to link it with larger market system), Maha Gram Sabha(sustainable livelihoods, governance of commons.

VI. How to Conceptualize Gandhi?

Prof. Bidyut Chakrabarty, Hon'ble Vice Chancellor, Visva Bharati, West Bengal, 2nd October 2020, Friday, 2pm

Prof. Chakravarty highlighted the glimpses of the struggle in South Africa and India led by Gandhi. He also told how so many intellectuals and political leaders were moved by his actions. The webinar also touched upon how Gandhi's idea of religion and spirituality, trusteeship and his position on mass production. For this event, Mr P C Behera was Organising Secretary, Prof Prof Sanjai Bhatt was Discussant and Dr Meenu Anand was the Convener. The event was chaired by Prof P Singla, Head of the Dept.

VII. Some ideas for how social workers can make use of Gandhi's heritage (while ignoring his utopianism)

Resource Person: Mark Lindley Professor of Eminence, MGM University, Aurangabad. Date: 9th October, 2020.

Dr. Mark Lindley spoke of the way social workers in India could take advantage of the cultural heritage bequeathed by Gandhi. However he cautioned about the utopian ideas of Gandhi which were problematic and placed his critique particularly on four ideas of visualizing a divine kingdom, of goodness guaranteeing good health, and of economically independent "village republics") and his praise of nonviolence. He exposed the ways in which social workers could utilize the legacy of Gandhi in four ways, fostering empathy in the relationship between social worker and client, but also between individuals and groups, further the need to inform institutions with empathy was also stressed.

The first Gandhian legacy was that humanism without aspiring to divine perfection, wherein he urged social workers to cultivate in their clients (and of course in themselves) the Gandhian virtues of truthfulness, empathy, wise self-discipline, and a modicum of trust with friends and colleagues – but without imagining that all these virtues could ever be achieved 100%.

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The second Gandhian legacy he spoke was on health-care, he urged social workers to derive strength from Gandhi's insights that the human body is both a *kuru-kshetra* and a *dharma-kshetra*, that insofar as it is a *dharma-kshetra*, it is one's duty to keep it in good shape, and that in order to perform that duty some form of genuine genuine physical work, is desirable. Also the health care function has been compared with clients suffering from lifestyle diseases and that of poverty induced illness, so that in case of clients practicing genuine physical work would be able to release the time and money required to attend the latter. Further the life style consumptions and waste generation were also critically looked at with a need to reduce the same. Human muscle power in reducing and recycling waste was emphasized upon. Palliative care for those in terminal illness and Gandhian support for the same were also shared.

In the third legacy idea from Gandhi for Social Workers, Prof Lindley spoke of the need for a social worker to critically look at the Village Republic concept and suggest to clients to relocate towards a moderate-size town not far from agriculturally productive villages, as there is a definitive relation between the town and the village in the era of interdependency.

In the fourth legacy ideas from Gandhi, nonviolence, self-discipline and cooperation, Dr. Lindley examined the concept of Crowd Psychology in Gandhian Crowds vs Fascist Crowds where in terms of self-discipline of the Crowds that are mobilized against the British in the freedom struggle were seen as different from Fascist crowd psychology, which was anti-humanity. Further he felt that the former had an important lesson for Social Workers on their collective social mobilizations. He suggested that social workers should teach some of their clients some analytical points about the differences between potentially volatile individuals and even more potentially volatile crowds. He exposed the needed role by social workers to 'not let their clients be swept up into crazy hatreds, but to focus instead on seeing things realistically and dealing constructively with their social problems'.

The lecture was followed by interesting questions which was moderated by Dr A Malathi. The closing remarks were offered by Prof. Pamela Singla HOD, Department of Social Work, Delhi University.

VIII. 'Nothing About Us Without Us': Reflections From Policy Discourse And Legal Framework For Persons With Disabilities In India, 4th January 2021.

The Department of Social Work, University of Delhi organised a webinar on 4th January 2021, from 4 p.m to 6 p.m on the occasion of World Braille Day. This webinar was a part of the webinar series being organised to mark the celebration of completion of 75 years of DSSW's committed academic engagement since 1946. The esteemed speakers were Dr. Sanjay Jain (Principal, ILS Law College) and Dr.Rajive Raturi (Special Monitor, NHRC Govt. of India.) The Webinar was organised by Mr.Abhishek Thakur and moderated by Mr. PC Behera. The speakers were welcomed by Dr. Pamela Singla, Head of the Department. Dr. Meenu Anand introduced the speakers to the participants. The speakers covered the National/International legal instruments for Persons with Disabilities. The concept like jurisprudence in the field of Disability in Advocacy was also discussed in detail. The speakers also shed some light on policy needs and change in the existing system. The major issues like Employment and Disability was also emphasized with the help of case studies which was shared by the speakers. The session was followed by the questions and answers leading to the fruitful discussion at the end.

IX. <u>Breaking The Culture Of Silence: A Prerequisite For The Empowerment Of The Marginalized</u>, 30th January2021; 3:00 p.m. to 4:30 p.m.

The Department of Social Work organized a webinar titled 'Breaking the Culture of Silence: A Prerequisite for the Empowerment of the Marginalized' on 30th of January, 2021, also coinciding with Mahatma Gandhi's death anniversary, Martyrs day. The webinar was an apt culmination of the series of webinars organized at the department commemorating Gandhi@150-the 150th birth anniversary year of the father of the nation. The webinar was organized by Dr Archana Kaushik, faculty member at Department of Social Work. Dr. Kaushik and was inaugurated by Prof. Pamela Singla, Head of the Department of Social Work who mentioned that the webinar is a step forward in an endeavour to mark the platinum jubilee of the Department of Social Work and as the field of social work draws heavily from Gandhian thoughts. Dr Lenin Raghuvanshi, co-founder of People's Vigilance Committee on Human Rights (PVCHR) and Dr Sanjay Singh, popularly known as "the waterman of Bundelkhand" were the speakers for the webinar.

Dr. Lenin Raghuwanshi, the first panelist, spoke on the sub-theme, "A Case Study of Dalits in Political Participation" and began his talk by sharing the work of his organisation which was established in the year 1996 and has been continuously working to facilitate Dalits and their families access their due rights. He emphasised that for hundreds of years the Dalits have been at the forefront of violence and apathy and they certainly do not need sympathy and social work professionals and activists can only work with them by showing utmost empathy. He also mentioned the importance of active listening while working with people. Throughout his talk, he shared many instances and challenges that he encountered while working with the Dalit for their rights and he portrayed

the triumph of hope, courage and social action over despair, poverty, oppression and vulnerability by narrating the struggle of *Dalits* who paved their way to a life of dignity, rightful share in the resources and decision making under his leadership.

He underlined the role of social activists as a mere watchdog, who will ensure that Dalits are getting their rights and to work as catalyst in their quest for breaking the vicious 'culture of silence'. He concluded his talk by stressing the dire need to 'break the culture of silence' which according to him is the first step towards the path of achieving Sustainable Development Goals, and will go a long way in promoting democracy and political participation of Dalits.

The second panelist of the day, Dr Sanjay Singh also known as the waterman of Bundelkhand spoke on the subtheme "A Case Study of Women's Access to Water Resources". He highlighted that through the courageous, zealous, unflinching efforts, of the team of *Parmarth Samaj Sevi Sansthan* it has created 1600 water bodies and has increased the irrigation facilities within the village by 22,000 sq. hectare area.

He shared the context and conditions in which the the concept of *Pani Panchayat* and *Jal Saheli* emerged. Sharing one of the instances where he was talking with a group of women in the village and how they shared that how from morning to midnight they work with water but still do not have any participation in it. The women also shared that they are rarely included in the decision-making processes of where to fit handpump and where to dig well as all of these things were decided by the men of the village. Thus, he narrated the life history of how the *Pani Panchayat* was formed to facilitate water security of the village and for managing and protecting water resources in the village and how *Jal Saheli* weave the water magic by changing the scenario of water in the village by conserving water pond, helping build the network of check dams and by undertaking rainwater harvesting to recharge wells. He highlighted that the main objective of both these initiatives was to promote the role of women in water livelihood linkage through decentralization and community water management and to strengthen the role of women in participatory and decision-making process.

X. Global Crisis and Women: Celebrating their Existence: International Women's Day celebration conference, 8th March, 2021

Department of Social Work celebrated International Women's Day on Monday, 8th March 2021, at the Department premises. This event was organized in a blended mode with guests and students joining through online and offline mode.

The COVID has affected the entity of women in manifolds. Society witnessed the gross violation of the rights of women. As a premier institution, the Department of Social Work (Delhi School of Social Work) felt the need to engage in the discourses of such crises in lives of women and at the same time is committed to finding ways towards the solution of this emerged problematic situation. The month of March is dedicated to Social Work and Women. Keeping up the spirit, the Department of Social Work, University of Delhi organised oneday international seminar on Global Crisis and Women: Celebrating their Existence. The chief guest and keynote speaker of the programme, Dr. Rashmi Singh, IAS, Director, Department of Women and Child Development, Delhi graced the event. Dr. Singh highlighted some crucial facts especially in the context of the current crisis. In this pandemic situation understanding the dynamics and challenges social workers are holding hands and contributing in diverse areas. She shared few examples of women empowerment from the work experience and shared a beautifully written poem by one such woman. The poem questioned this oneday celebration as the writer believes that women deserve to have all the days for themselves. Dr. Singh made an important point regarding holistic development, which she called the 360-degree approach. She finds that it is important to involve all stakeholders and all dimensions to maintain perpetual wellbeing. She defined wellbeing in terms of physical, emotional, mental, and psychological well-being. The concluding remarks by Dr. Singh was emphasis on acknowledging how social workers help in this well-being and generate outcome which then influences policy-making at national and global levels. Amongst the eminent speakers was Prof. Manoj K. Jha, Member of Parliament, Rajya Sabha. Prof. Jha emphasised on how pandemic has disrupted our education, personal lives and the most disturbing image was on the roads, the migrants. The most unfortunate reality is that whenever migrant workers are discussed the image that comes to our mind is that of "he" and not "she". Another significant issue pointed out was that there can't be different grammars to look at women's atrocities. So, if we look at UP and Bihar, we must look at Kashmir too.

The conference addressed wide range of issues by identifying, celebrating and increasing visibility of women's achievements which can help forge equality, strategic collaborations based on a foundation of shared purpose, trust and appreciation can impact positive change for women. Several sessions highlighted how

pandemic has further pushed women to margins like how incidences of violence against women has intensified, measures to protect girl child during pandemic, increased cases of trafficking. Women in leadership roles and the challenges they face especially the health frontline workers in the covid crisis which needs immediate attention. Each session reflected that woman of the world want and deserve an equal future free from stigma, stereotypes and violence; a future that's sustainable, peaceful, with equal rights and opportunities for all. To get us there, the world needs women at every table where decisions are being made.

Seminar/Conference Presentations/lectures delivered (National/International)-

Adusumalli, Malathi.

- Presented a paper 'Social Work Response to Covid-19 in India: Dealing with complexity and responding to multiple challenges', in a Webinar on BASW virtual event on 'Social Work in Disasters: Responding to Covid 19',25th November 2020,British Association of Social Workers Virtual Event
- Invited as a speaker to speak on Social Work Response to Covid-19 in India: Dealing with complexity and responding to multiple challenges, BASW Virtual Event Conference on 'Social Work in Disasters- Responding to Covid 19' Virtual event, 25th November 2020
- Organized a Webinar on 'Some ideas for how social workers can make use of Gandhi's heritage'
 Lecture by Prof Mark Lindley, on 9th October 2020 organised by Department of Social Work,
 University of Delhi,
- Organized a Webinar on 'Gandhian Perspectives on Self Reliance and Non Violence: Social Work for Achieving Food Sovereignty' Lecture by Mr Ashish Kothari, on 30th September 2020 organised by Department of Social Work, University of Delhi.

Agnimitra, Neera

- Delivered a lecture on "Marginalised Communities and Gender Issues" at the five-Day Professional Development Programme on 'Urban Resilience and Transforming Communities' under the aegis of BReUCom (a project funded under the European Union Erasmus + Program), School of Planning and Architecture, Bhopal on 23rd October, 2020 at 2 pm
- Delivered a lecture on "Promotion of Indian Knowledge System and Social Work Education, with Reference to the New Education Policy", at Workshop on Indian Knowledge System and Higher Education, with Special Reference to New Education Policy (NEP, 2020) organised by Gandhi Bhawan and Sanskrit Department on 13th March 2021 at 2.30 pm at Gandhi Bhawan, University of Delhi.
- Delivered a lecture on "Social Aspects of Environment and Gender" delivered at Refresher Course on Environmental Studies, Water, Earth and Environment on the theme "Towards Sustainable Environment" organised by Centre for Professional Development in Higher Education (CPDHE), University of Delhi on 4th November, 2020 at 9.30 am
- Delivered a lecture on "Migrant Women Workers; Issues and Challenges" at the One Day Webinar on Migrant Women Workers; Issues and Challenges", organised by the Faculty of Students' Welfare, Mahatma Gandhi Kashi Vidyapeeth, Varanasi and Sponsored by NCW, New Delhi, on 24th November, 2020, at 1.15 pm.
- Delivered a lecture on "Community Organisation and Social Action for the Welfare of the Elderly" at the Six Day Orientation Programme on Gerontological Social Work organised by BDU Heritage Centre for Gerontology, Department of Social Work, Bharthidasan University & Heritage Foundation of India on 15th July, 2020 from 11.30 am to 1.30 pm.

- Delivered a lecture on "Impact of Covid 19 Lockdown on the Vulnerable Population" at the National Webinar on "Covid 19 Lockdown and the Vulnerable Population" organised by PG Department of Social Work and IQAC, Government First Grade College, Mysuru, on 1st July 2020.
- Delivered a lecture on "Issue of Interpersonal Relationships" at NAPSWI Webisode for Social Work Students on 10th August, 2020 at 4 pm.
- Delivered a lecture on 'Academic Writing in Social Work" as part of 'Special Lectures on Research Methodology' at the Research Scholars Meet, Centenary Year of M.G Kashi Vidyapeeth, Varanasi on 20th August 2020 at 2 pm to 4 pm.
- Delivered a lecture on "Community Engagement Matters" as part of the Two-Week Online Certificate Course on 'Community Outreach Programme- Together We Can', organised by the Unnat Bharat Abhiyan Cell, Miranda House, University of Delhi on 25th August, 2020.
- Delivered a lecture on "Building the Foundations" as part of the Two Week Online Certificate Course 'Community Outreach Programme- Together We Can', organised by the Unnat Bharat Abhiyan Cell, Miranda House, University of Delhi on 26th August, 2020.
- Delivered a lecture on "Social Responsibility & Community Engagement in Higher Educational Institutions" as Expert Panellist, Laxmi Bai College, University of Delhi, 2nd May, 2020 at 6 pm
- Delivered Keynote Lecture on "Gender Equality in the Indian Context" at the Inaugural Session of the Three Day Workshop on Gender Budgeting organised by the Department of Social Work, University of Lucknow on 8th March, 2020 at 10.30 am.
- Moderated a Webinar on "Breaking the Culture of Silence: A Pre-requisite for the Empowerment of the Marginalised" organised by the Department of Social Work, University of Delhi on 30th January 2021 at 3 pm
- Moderated a Webinar on "Making Sense of Non-Violence: Contemporary Challenges and Gandhian ways", organised by the Department of Social Work, University of Delhi on 19th September 2020, at 9.30 pm.
- Conversation with Prof. R.R Singh on the theme: "Living with Corona: Implications for Social Work Practice" as part of NAPWI Conversation Series, on 9th June, 2020, at 4 pm.
- Chaired the First Prof. R.R Singh Memorial Lecture at the 8th Indian Social Work Conference, Department of Social Work, Visva Bharati, Srinketan on 1st March at 9 am.
- Co-hosted a Webinar on "Pandemic, Migrant Workers, and Social Work" organised by NAPSWI and the Department of Social Work, University of Delhi on 10th May 2020 at 11 am.
- Co-hosted the NAPSWI Conversation Series on "What after COVID 19- a Futuristic Perspective", May 2020
- Hosted a Webinar on "Caring for the Elderly amongst COVID 19: Challenges and Concerns", organised by the Department of Social Work, University of Delhi on 18th May 2020 at 11 am.
- Hosted a Webinar on "Mental Health and Well Being during the COVID Pandemic", organised by the Department of Social Work, University of Delhi on 15th May 2020 at 11 am
- Hosted a Webinar on "Ethnography for Social Work", Organised by the Department of Social Work, University of Delhi on 16th May 2020 at 3 pm
- Hosted a Web based talk on Self- Care in the Times of the COVID" organised by the Department of Social Work, University of Delhi on 15th May 2020 from 11 am-12 pm.

• Organized a Webinar on "National Education Policy: Potentials and Implications for Grassroots Engagement and Outreach" under the aegis of Unnat Bharat Abhiyan, University of Delhi on 21st September 2020 at 11.30 am.

Anand, Meenu,

- Presented a paper 'Impact of COVID-19 on Expectant and Lactating Mothers: Expanse for Social Work Response' in the UGC-DSA Phase- III Virtual National Seminar on "Social Work Education and Practices: Crisis Responses During Covid-19 Pandemic".on 24th March 2021, Organized by Faculty of Social Work, The Maharaja Sayajirao University of Baroda.
- Moderated a Webinar on "Ethnography for Social Work "organised by Department of Social Work, University of Delhi on 16th May 2020
- Delivered a lecture on "Understanding Students' Personality: Nurturing Mental Health" on 27th January 2021 in the Faculty Development Programme on 'Student Centric Pedagogic Methods' held from 27th January 2021 to 7th February 2021. Organized by IQAC, Janaki Devi Memorial College, University of Delhi in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.
- Delivered a lecture on "Understanding the Student Diversity" on 9th January 2021 in the Onemonth Faculty Induction Programme held from 28th December 2020 to 2nd February 2021. Organized by UGC-Human Resource Development Centre, Jamia Millia Islamia
- Delivered a lecture on "Personality and defining characteristics, Assessment of Personality" on 16th October 2020 in the First One month Faculty Induction Programme held from 5th October to 3rd November 2020. Organized by UGC-Human Resource Development Centre, Jamia Millia Islamia
- Invited as a Resource person in the Panel Discussion on "Mental Health during COVID-19 Pandemic" on 31st October 2020. Organized by System Research Society.
- Delivered a lecture on "Gender and Mental Health" on 4th September 2020 in the One Week Online Short-Term Course on Gender Sensitization held from 31.05.2020 to 05.09.2020. Organized by UGC-Human Resource Development Centre, Rani Durgawati University, Jabalpur, Madhya Pradesh
- Delivered a lecture on "Covid, Gender and Mental Health" in the Webinar on "Mental Health and Well-being in Post-Covid World" held on 20th July 2020. Organized by the Department of Anthropology in association with the Department of Psychology, University of Delhi.
- Delivered a lecture on "Gender and School Education" in the Online Faculty Development Programme for University and College teachers on 30th May 2020. Organized by Centre for Women's Studies, Dibrugarh University.
- Delivered a lecture on "Enhancing Mental Health and Resilience during the Covid Pandemic" in the Online Faculty Development Programme for University and College teachers on 26th May 2020. Organized by Centre for Women's Studies, Dibrugarh University.
- Organised a Webinar on 'Capturing the Contribution of Women in India's Freedom Movement on 12th March 2021
- Organised a Webinar on 'Enhancing Mental Health and Well-Being for Youth: Role of Social Work" on 21st November 2020
- Organised a Webinar on 'Mental health and Well- Being during Covid Pandemic' on 15th May 2020.

Behera, Pratap, C.

- Organized a Webinar on 'Courage, Democracy, and Equality: Questions from Gandhi', Prof Ajay Skaria, Department of History/Institute for Global Studies University of Minnesota, 17th September 2020, Department of Social Work, University of Delhi
- Organized a Webinar on 'Making sense of Non-violence: Contemporary Challenges and Gandhian ways', Prof Dennis Dalton, Professor Emeritus in Political Science/Political Theory at Barnard College, Columbia University, US, 19th September 2020.
- Organized a Webinar on 'Gandhi and the Claims of Indian Modernity', Prof Akeel Bilgrami, Sidney Morgenbesser Professor of Philosophy, Professor, Committee on Global Thought, Columbia University, New York, USA, 26th September 2020
- Organized a Webinar on 'Gandhian Perspectives on Self Reliance and Non-Violence: Social Work for Achieving Food Sovereignty', Mr. Ashish Kothari, Founder member- Kalpavriksh, 30th September 2020
- Organized a Webinar on 'How to Conceptualize Gandhi?', Prof. Bidyut Chakrabarty, Hon'ble Vice Chancellor, Visva Bharati, West Bengal, 2nd October 2020
- Organized a Webinar on 'Some ideas for how social workers can make use of Gandhi's heritage (while ignoring his utopianism)', Professor Mark Lindley, Professor of Eminence, MGM University, Aurangabad, 9th October 2020

Jha, Pushpanjali,

- Delivered lecture titled "Concept and approaches of Inclusive planning" at Department of Housing, School of Planning and Architecture, New Delhi- on 11th August, 2020. on a virtual mode.
- Delivered lecture titled "Inclusive Planning: Models and Case Studies" at Department of Housing, School of Planning and Architecture, New Delhi, on 18th August, 2020. on a virtual mode
- Delivered lecture titled "Methods of Community Participation" at Department of Housing, School of Planning and Architecture, New Delhi, on 8th September, 2020. on a virtual mode.
- Delivered lecture titled "Concept and Approaches of People's Participation and People's Participation in Urban Planning " at Department of Housing, School of Planning and Architecture, New Delhi, on 15th September, 2020. on a virtual mode.
- Delivered lecture titled "Understanding Marginalization/s in the context of Spatial Planning of a City" at Department of Housing, School of Planning and Architecture, New Delhi, 6th October, 2020. on a virtual mode.
- Delivered lecture titled "Understanding social and economic exclusion of the urban poor and addressing exclusion through urban planning". at Department of Housing, School of Planning and Architecture, New Delhi, 17thOctober, 2020. on a virtual mode.
- Co-Presented a paper titled 'Whose Social Work? Who Defines? Exploring the Identity of Social Work' in the 8th Indian Social Work Congress, jointly organized by Viswa Bharti University and NAPSWI, on 1st March, 2021, on a virtual mode.

Kaushik, Archana.

- Presented a paper on "Use of Self in Social Work" in the International E-Conference on "Indigenizing and decolonizing social work education: Perspectives from Africa and South Asia" on 21st August 2020, organized by Pandit Madan Mohan Malviya National Mission of Teacher Training and Mahatma Gandhi Fuji Guruji Centre for Social Work, Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya, Wardha in Academic collaboration with Bharatiya Shikshan Mandal from August 20 to 21, 2020.
- Co-chaired a session on the theme, "Indian Indigenous Social Work" (Chair: Prof. M.N. Parmar, MS University Baroda) on 21st August 2020 from 12:00 to 2:00 pm in the International E-Conference on "Indigenizing and decolonizing social work education: Perspectives from Africa

- and South Asia" on 21st August 2020, organized by Pandit Madan Mohan Malviya National Mission of Teacher Training and Mahatma Gandhi Fuji Guruji Centre for Social Work, *Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya*, Wardha in Academic collaboration with Bharatiya Shikshan Mandal from August 20 to 21, 2020
- As a Resource person delivered a talk on 'Elderly amidst Corona: Caring Concerns and Challenges' in a webinar titled, "Caring for the Elderly Amidst COVID-19: Challenges and Concerns" organized by the Department of Social Work, University of Delhi, on 18th May 2020.
- As a Resource person delivered a talk on "Effect of COVID-19 on Geriatric Care in an online National Seminar titled, "Extending new age horizons of social work practice and education: perspectives during and post COVID-19 pandemic", organized by Department of Social Work, the Bhopal School of Social Sciences on 6th February 2021
- As a Resource person delivered a talk on "Ethical challenges faced by social worker in institutional and non-institutional settings" in National webinar series on: "The challenges for social work professionals", organized by Department of Social Work, NEF college Lokhra, Guwahati on 29th January 2021 1:30 pm to 3:30 pm
- As a Resource person delivered a talk on "Converting Corona Crisis into Opportunity for Cordial Living: A Case of Civil Society Intervention, India" at the International Online Conference on Community Based Peacebuilding: Challenges and Opportunities on 18th December 2020 from 12:15 to 2 p.m. organized by College of Social Work, Nirmala Niketan, Mumbai, India
- As a Resource person delivered a talk on "Tracing Tribal Life during Corona Pandemic" in a webinar titled "Situating the life of tribes in times of COVID-19 by the Department of Social work, Indira Gandhi National Tribal University, Amarkantak in collaboration with Dr. Bhim Rao Ambedkar College, University of Delhi on 23rd July 2020.
- As a Resource person delivered a talk on 'Mapping the Situation of Dalits in Corona Times and State-Civil Society Response' in a webinar lecture series organized by the Centre for Study of Social Exclusion and Inclusive Policy, University of Jammu, on August 5, 2020; 11:30 am to 12:30 pm
- As a Resource person delivered a talk on 'Elderly amidst corona pandemic: Social Distancing or Social Disconnecting' in a webinar lecture series organized by the National Institute of Social Defence, Ministry of Social Justice and Empowerment, New Delhi, on October 20th, 2020; 11:00 am to 1:00 pm.
- As a Resource person delivered a talk on 'Enhancing active and healthy ageing: Significance and Strategies' in a webinar lecture series organized by the National Institute of Social Defence, Ministry of Social Justice and Empowerment, New Delhi, on January 11th, 2021; 11:00 am to 1:00 pm
- As a Resource person delivered a talk on 'Ensuring Happy, contented and graceful ageing: Ways
 and Means' in a webinar lecture series organized by the National Institute of Social Defence,
 Ministry of Social Justice and Empowerment, New Delhi, on January 19th, 2021; 11:00 am to
 1:00 pm
- As a Resource person delivered a talk on 'Successful and productive ageing: Challenges and Insights for Social adjustment and integration' in a webinar lecture series organized by the National Institute of Social Defence, Ministry of Social Justice and Empowerment, New Delhi, on January 28th, 2021; 11:00 am to 1:00 pm
- As a Resource person delivered a talk on 'STREE: Strategies Towards Role Efficiency & Effectiveness' in a webinar lecture series on Gender Sensitization organized by the Human Resource Development Centre, BPS Mahila University, Sonepat, Haryana, on March 11th, 2021; 10:00 am to 11:40 am.

- Delivered a lecture on "Mapping the Situation of Elderly Population in COVID-19: Social Distancing or Social Disconnecting" in a webinar organized by Democracy Dialogue and Social Work Collectives: Young Scholar's Forum on 1st July 2020, 11:00 a.m. to 1:30 p.m.
- Delivered a lecture on "Enhancing well-being of Elderly during COVID-19 Pandemic" in a
 webinar titled, "Enhancing Support for Eldercare during Pandemic" organized by Indian Society
 of Professional Social Work in association with Navjeevan Educational & Welfare Society on
 27th June 2020, 2:00 p.m. to 5:00 p.m.
- Delivered a lecture on "Auto-ethnography" in an online course for research scholars and academicians on 'Ethnography' organized by Anthropos India Foundation on 18th June 2020, 4-5:30 p.m.
- Organized a webinar titled, "Breaking the Culture of Silence: A Prerequisite for the Empowerment of the Marginalized" on 30th January 2021; 3:00 p.m. to 4:30 p.m., at Department of Social Work, University of Delhi.

Kumari, Prasann,

- Organised International Women's Day celebration seminar as organizing committee on 'Global Crisis and Women: Celebrating their Existence', on 8th March 2021, organised by Department of Social Work, University of Delhi.
- Organised a webinar on 'Digitally Empowered Women: Need of the Hour', 22nd March 2021at 2 p.m.- 4 p.m. on zoom organised by Vishwa Yuvak Kendra & Department of Social Work, University of Delhi.

Maske, Sudhir,

- Presented a paper on Dalit Literature an Ideological Apparatus in Indian Social Work Education in National Conference on "Contemporary Indian Society and Social Work Practice" Organized by Master of Social Work, Rajeev Gandhi Contemporary Study Centre, University of Mumbai (20th & 21st Feb, 2020)
- Invited as a Speaker on Recontextualizing Social Work Training and Practice in Two Days Webinar on Reimaging Social Work in the Changing Times. Organized Eklavya Academy, Yawatmal and Puroshotam Thote College of Social Work, Nagpur (13th & 14th June 2020)
- Invited as a Speaker on "National Level Webinar on New Education Policy and Higher Education" in India organized by Department of Sociology and Philosophy, Mahatma Basweshwar College, Latur (11th January 2021)

Pandey, Neena,

- Presented a paper 'Whose Social Work? Who decides? An exploration towards the identity of Social Work' in 8th ISWC organized by National Association for Professional Social Workers in India (NAPSWI) and Department of Social Work, Santi Niketan, West Bengal
- Invited as a Panel Member/Guest speaker in online panel discussion on *Novel Techniques of Work-work-life balance for the working women in the evolving COVID-19 scenario* on 1st March 2021, organized by Women Empowerment Cell, Department of Women and Child Development, Government of NCT of Delhi.
- Delivered Lectures on 1. Growth and Development: Principals, determinants and methods of study of development and 2. Stages of development-infancy, childhood, adolescent, youth and elderly, organized by Department of Social Work, Indira Gandhi University, Meerpur, Rewari on 9th Feb 2021

- Invited as a Resource Person in Social Service Unit Online Workshop Series on *Dealing with Individuals in context to problem solving processorganized* by Special Police Unit for Women and Children (SPUWAC) on18.12.2020 at 11.30am 1.00 pm.
- Invited as a Resource Person in Orientation programme on *Importance of Professional Development in Social Work Practice*, organized by Department of Social Work, St. Xavier's College, Kolkata, West Bengal on 12th Sep 2020.
- Invited as a Panelist in webinar entitled *Teaching*. *Teacher and Taught* jointly organized by NAPSWI, DSSW Society and GSSW Alliance on 8th September 2020 (11am to 1pm).
- Invited as a Guest speaker in NAPSWI Webisodes for Social Work students on *Field work amidst and post-Corona* on 7th August 2020
- Invited as a Resource Person, *Relevance of understanding of Gender Concepts in Academia* on 27th Nov 2020 in Multi-disciplinary Faculty Development Program on Self-reliant India: Policies and Challenges, 24-30 Nov 2020
- Invited as a Resource Person in online first month Faculty Induction Program on *Consequences* of Work-life Imbalance among teachers: Ways for improved life balance on 16th Oct 2020 (3.30-5.00 pm), organized by Human Resource Development Center, Jamia Milia Islamia, New Delhi
- Invited as a Resource Person for *Ethics in Research in one-week E-Workshop on Fundamentals of Research: When, Why and How*?" for the Ph.D. students of Social Sciences, Humanities and Management from 25th to 31st May, 2020 organised by Faculty of Students' Welfare and Campus Placement Cell of Mahatma Gandhi Kashi Vidyapith, Varanasi
- Invited as a Resource Personin an International Webinar on *Changing times with Coronavirus:* Social workers Adapting to the Changing Scenario, organized by Social work Department, Aditi Mahavidyalaya, University of Delhi
- Invited as a Key resource person for *How to select goals in a Well Being* Seminar organized by Brain Behaviour Research Foundation of India (BBRFI) in collaboration with FairGaze on 30.4.2020.
- Invited as a Key Speaker in Two days (13.03.2020.-14.03.2020) National Conference on Societal and Justice Response to Sexual Violence at Workplace: Measures for Policy Reform organized by Department of Social Work, Vivek College Bijnor, with the support of National Commission for Women (NCW).
- Organised Alumni Lecture Series and release of We Support document. The lecture entitled Implications of COVID-19 was delivered by Dr Kiran Bhatia, Founder of Sanjivni on 14th Aug 2020.
- Organised *Joint awareness programme on financial matters for students* by Economic Offence Wing, Delhi Police, Reserve Bank of India and Department of Social Work, University of Delhi on 9th Sep 2020.
- Organised a Webinar on *Pandemic, Migrants and Social Work* organised by Department of Social Work, University of Delhi on 10.5.2020
- Organised Workshop on Concurrent Field Work during Corona times in the Department of Social Work, University of Delhi, on 7-8 Oct 2020.
- Organised One day seminar as Co-convener on International Women Day on theme Global Crisis and Women: celebrating their existence, organised by Department of Social Work, University of Delhi, on 8th March 2021

Singla, Pamela,

- Presented paper titled, 'Digital world and Social Work—The Indian Perspective at 'International Social Work Education and Development Online Conference (ISWED)', 15th April, 2021(for Oral presentations) organized by ICSW, IASSW, March-April, 2021.
- Invited Presenter at 3rd International and 35th National Social Work Day Congress on Social Work, Social Observation and Social Solidarity' 9th April 2021. Presented online paper titled, 'Social Work and Social Solidarity during COVID 19', Tehran, Iran, organized by Iran Association of Social Workers.
- Invited Presenter at 'First International Conference on Contemporary Social Work Education & Practices: Challenges & Prospects', 2-3 February, 2021, organized by Department of Social work, University of Punjab, Lahore. Presented online paper titled, 'Social work in Indiahistory, curriculum and fieldwork: An Overview', 3rd February, 2021.
- Valedictory address at International webinar on 'Disability and Social Inclusion in the society', organized by Department of Social Work, *Aditi Mahavidalaya*, University of Delhi, 23rd October, 2020.
- Invited speaker at international Webinar titled 'Samarkand State University-Successor of Ulugbek Madrasa Oliya', organized Samarkand State University, Uzbekistan, 16-17 July 2020. Presented paper titled, 'Madarasas in India-an overview', 16th July 2020.
- Delivered the keynote address in Valedictory at UGC Funded National Conference on the theme, 'Unfolding the Potentials of Women and Girls including Children: Enhancing the Benefits Exponentially for One and All- Sabka Saath, Sabka Vikas Valedictory Session.', organized by Aditi Mahavidalaya, University of Delhi, Online, 27th March 2021.
- Plenary Speaker at the National Seminar on 'Social Work Education and Practices: Crisis Responses to Covid-19 Pandemic'. Presented paper titled, 'Response of Social Work Education and Practice to Covid 19 Pandemic' organised by Faculty of Social Work, The Maharaja Sayajirao University of Baroda, Vadodara, online, on 24th March 2021.
- Presented '75 years of Department of Social Work, University of Delhi' in 8th Social Work Congress 2020 and 8th ICSD Asia Pacific Conference titled, 'Social Cohesion, Collective Responsibility and Social Work Profession' 28th Feb-2nd March 2021, jointly organized by NAPSWI, ICSDAP, Department of Social Work, Viswa Bharti, 1st March, 2021.
- Resource person for talk on 'Gender Budget: Experiences and Best Practices' in the National Level Workshop on Gender Budgeting organized by UGC's Centre for Advanced Studies in Social Work and Centre of Excellence U.P. Higher Education Council, Government of Uttar Pradesh, Department of Social Work, University of Lucknow, on 3rd March 2021, in a virtual session.
- Resource Person for National Webinar on, 'Contemporary Concerns and Mahatma Gandhi', organized by Gandhi Study Circle, B.R. Ambedkar College, University of Delhi (DU), 30th January, 2021
- Resource Person at the National Webinar titled 'Situating the Life of Tribes in Times of Covid-19', organized jointly by Indira Gandhi National Tribal University (IGNTU), Amarkantak and B.R. Ambedkar college, University of Delhi (DU), Delhi, 23rd July, 2020.
- Speaker at the National Webinar titled 'Post COVID-19 Social Work Education and Practice: Emerging Opportunities and Challenges', organised by IQAC and Department of Social Work, Vivek College, Bijnor, 02nd July, 2020.
- Speaker at Vishwa Yuvak Kendra & Department of Social Work, University of Delhi collaborative webinar titled 'Digitally Empowered Women: Need of the hour', Monday, 22 March 2021, 02:00pm to 04:00pm. Spoke on Webinar objectives and background to the webinar.

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- Speaker at the National Webinar titled, 'Covid 19, social impacts and social work intervention' organised by Department of Social Work, M.S. University, Baroda, Gujrat, 26th June, 2020.
- Speaker at the National Webinar titled, 'Impact of COVID-19 on working women' organized by Women Studies Department, MGHN University, Wardha, 19th June, 2020.
- Speaker at the National Webinar titled 'COVID 19: Associated social problems and proposed interventions', organized by Makhanlal Chaturvedi Government College, Babai, Distt. Hoshangabad, (MP), affiliated to Barkatullah University, Bhopal, 13th June 2020.
- Discussant for a Special online Talk by Dr Nagmani Rao on 'Crossing the Threshold:
 Opportunities and Challenges to Women's Leadership in Rural Governance' as
 part of the series The State of Gender Equality #GenderGaps organized by
 the Gender Impact Studies Centre (IMPRI), 14th May, 2021.
- Resource Person for online Orientation Programme for 'NOC members, CARA', 13th May, 2021.
- Chief Guest introductory remarks online for 'Awareness programme on cancer prevention and healthy life style', organized by Sanjeevani-Life beyond Cancer, 4th February, 2021.
- Resource Person for 'Contemporary Concerns and Mahatma Gandhi', organized by B.R. Ambedkar College, 30th January, 2021, online.
- Resource person Eminent Lecture Series on 'Gender Sensitisation and Women Issues' organized by Gitarattan International Business School (GIBS) 20th February, 2021, online.
- Delivered a talk titled, 'Gender, Social work and Research: Insights from Field' on 17th February, 2021 at 'Refresher Course in Sociology and Social Work' on the theme, 'Theoretical and Methodological Issues in Sociology and Social Work' 'organized by UGC-Human Resource Development Centre, University of Jammu in collaboration with the Department of Sociology and Bhaderwah Campus, University of Jammu, Online Mode, 10.02.2021 23.02.2021.
- Guest of Honour and Resource Person for Lead Lecture titled, 'Research in Social Work-Experiences from the Field,' on 6th February, 2021 at 'Two weeks Refresher Course in Social Sciences, University of Kashmir.
- Resource person for talk on 'Gender Budget: Experiences and Best Practices' in the National Level Workshop on Gender Budgeting organized by UGC's Centre for Advanced Studies in Social Work and Center of Excellence U.P. Higher Education Council, Government of Uttar Pradesh, Department of Social Work, University of Lucknow, on 3rd March 2021, in a virtual session.
- Guest Speaker for the Launch event of National Legal Awareness Council, WICCI. Delivered online talk on the theme, 'Importance of Gender Studies for Gender Parity', 7th November, 2020
- Resource Person for 'Relevance of Gandhi in Contemporary World', organized by B.R. Ambedkar College, 2nd October, 2020, in virtual mode.
- Talk on 'Development Practice and Public Policy' organized by EdUpgrade, 14th October 2020.

Shashi Rani,

- Invited as Resource person in a Webinar on "Reproductive Health in the times of COVID-19", Organised by Girl Up Astitva Group, Miranda College University of Delhi, February 27th, 2021.
- Invited as Resource person in a Workshop on "Professional stress and burnout", organised by SSU, SPUWAC, Delhi Police, December19,2021
- Invited as Resource person in a Webinar on "Communication and Understanding between Parents and Children", Webinar organised by Bahujan Shasaktikaran Sangh, 23 August 2020

- Invited as Resource person in a Workshop on "Children in Conflict with Law: Psychological Aspects to Prepare Individual Care Plan (ICP), organised by DCPU North, Delhi, February 2019.
- As a faculty In-charge, participated as mentor for various online consultations and training programme, in SSU project, organised by SSU, SPUWAC, Delhi Police, 2010-2021.

Roy, Sanjoy,

- Presented a paper in International webinar on 'Migration and Reverse Migration in the age of Covid-19: Issues, Challenges and Opportunities' on 20 to 21st June 2020 organized by Academic 4 Nation, New Delhi.
- Invited as a Speaker in the 2nd National Summer School of Social Work on '*Promoting the Importance of Human Relationships*' from 9-11 September 2020, organized by Department of Social Work, University of Peshawar, Pakistan in collaboration with University of Calgary

Rafi, Naim

• Rafi, N., Delivered a lecture on Importance of Fieldwork in Social Work. MSW (MJPRU Bareilly) on 30 January 2021 organised by MJPRU, Bareilly.

Thakur, Abhishek

- Invited as a Resource person to speak on "COVID-19: Impact on Disabled Population", National Webinar on COVID-19 Lockdown and the Vulnerable Population, Mysore University,1st July 2020
- Invited as a Resource person to speak on "Disability and Social Work Population", Aditi MahaVidyalaya College, University of Delhi, 23rd October, 2020
- Invited as a Resource person to speak on History, Background and Introduction to Disability, Definitions: Impairment, Handicap and Disability, Summer School on Disability Studies, 8th August 2020
- Invited as a Resource person to speak on Types/Categories of Disability, Summer School on Disability Studies, 8th August 2020
- Invited as a Resource person to speak on Community Based Rehabilitation: Philosophy, approaches and programmes, Summer School on Disability Studies, 9th August 2020.
- Invited as a Resource person to speak on Understanding various approaches to Disability: The Charity Approach, the Medical Approach, Social Approach, Rights Based Approach, Summer School on Disability Studies, 8th August 2020
- Invited as a Resource person to speak on Accessibility: Infrastructure Accessibility and Accessibility Audit, Summer School on Disability Studies, 14th August 2020
- Invited as a Resource person to speak on Marxist and Materialist Discourse on Disability, Summer School on Disability Studies, 9th August 2020
- Invited as a Resource person to speak on Researching Disability: Some Concerns, Issues and challenges, Summer School on Disability Studies, 16th August 2020
- Organised a Webinar on 'Ethnography for Social Work', Department of Social Work, University
 of Delhi, Resource Person -Prof. Vinay Kumar Srivastava, 16th May 2020, Online Mode
- Organised a Webinar on 'Nothing About Us Without Us': Reflections from Policy Discourse and Legal Framework for Persons with Disabilities in India', University of Delhi, Resource Persons – Prof. Sanjay Jain & Mr. Rajive Raturi, 4th January 2021, Online Mode

- Invited as a Speaker to speak on "Disability: Identity and Challenges in South Asia/ P.G.D.A.V College, University of Delhi, 28th July 2020
- Invited as a Speaker to speak on Social Work intervention for Persons with Disabilities / Indian social work: Indigenous approach to development/ 23rd February 2021/ Bharata Mata School of Social work, Mahatma Gandhi University, Kerala. Bharata Mata School of Social Work.
- Invited as a Speaker to speak on Causes and Consequences of Disability, Introduction to Persons
 with Disability, National Institute of Social Development, Sri Lanka, Date -16th July 2020,
 Online

Thomas, N.T.,

- Presented a video on Department of Social Work 75 years of legacy and existence on 2nd March 2021 during the 7th Indian Social Work Congress organised by NAPSWI
- Invited as a Speaker to talk on "Group Work as a Primary Method of Social Work" on 10th March organised by Department of Social Work, NEHU
- Invited as a discussant in a webinar on 17th September 2020, on "Courage, Democracy, and Equality: Questions from Gandhi"

Yumnam, Veda,

- Invited as a speaker in the Virtual regional Consultation on 'Reviewing laws related to Inter-State Women Migrant Workers', 30th May 2020 organized by National Commission for Women, New Delhi and NLUJA
- Invited as a speaker in a Webinar on Research Priorities in NE India.organized by Sanskriti -North Eastern Institute of Cultural Research *, Guwahati on 16 Nov. 2020.

National/International MOUs Signed

Department of Social Work, University of Delhi is one of the partners in the project RISHII (Resources for Internationalization of Higher Education Institutions in India), which is co-funded by the Erasmus+ Programme of the European Union. RISHII focuses on management approaches that are necessary to plan and implement curriculum internationalization. Three Departments of the University of Delhi, viz. Department of Physics and Astrophysics, Department of Social Work and Faculty of Law are representing the University under RISHII.

Students under Exchange Programme-Inbound/Outbound- 7 foreign students are pursuing masters in the ongoing batch

Placement Details (Number and Percentage of students placed, Number of Organizations visited for campus recruitment)

Department of Social Work runs an active placement cell with excellent track record of placements. Till the month of August, 2021, seventy out of eighty interested students from M.A final received offers and all of them have already given the joining confirmation to their respective organizations. More than 30 organisation visited campus for placement, virtually/physically and offers were extended to the students. The Highest Package offered remained 15 LPA while 8+ students bagged a package of more than 7 LPA which is a milestone and a great feat for the Department.

Placement Statistics for the batch 2019-2021

Total Interested Students – 80 (Excluding those who didn't fall under interested students' criteria)

Total number of Students placed-71

Percentage of Final Placements-88.75%

- Organisations Reached by Placement Cell- 150+
- Organisations Tapped by Placement Cell- 30+
- Organisations where students are placed- 20+
- Highest Package Offered- 15 LPA
- Average Package offered- 5.10 LPA

Extension and Outreach Activities

Social Outreach Programme-Department of Social Work, University of Delhi

The Department has established and continued with its two field action programmes, which have been established over the years to demonstrate the relevance of social work intervention in dealing with social issues and problems. They have functioned as demonstration cum extension projects for the Department and have enabled the Department to strengthen its learning-practice engagements. One such field action programme is the Child Guidance Centre, which was instituted in the year 1971 and which later came to be known as the Centre for Child and Adolescent Wellbeing. Over the many years of its functioning, the Centre has only grown from strength to strength. The Department also established a community work-oriented centre called the Gram Mahila Kendra in Burari community in the year 1988. Subsequently this Centre came to be known as the Centre for Community Development and Action. Over the many years of its existence, this Centre has rendered exemplary community development services, based on participatory community action.

(A) Centre for Community Development and Action: CCDA 2019-2020

The centre for Community Development and Action CCDA earlier known as Gram Mahila Kendra is an Extension and Demonstration unit of Department. It's present area of work in Burari is Ajit Vihar. Professor Pamela Singla as the Director (Honorary) of CCDA (since 21st July 2014) And Dr. Neena Pandey took over as the Honorary Director in the year 2020. The full-time social worker at CCDA had to leave due to non-renewal of his services by the University. On a regular basis, two students from the Department are placed at Ajit Vihar for their concurrent field placement. The work undertaken in 2019-20 is enlisted below:

- ➤ Balwadi- The balwadi program strives to provide formal and informal education to the underprivileged children of the community.
- ➤ Women group- Women of the community who are largely involved in unorganized sector are brought together through group meetings and discussion on the topic of women safety, domestic violence, health and hygiene etc.
- Adolescent girl's group The group was involved in co-curricular, recreational activities, discussions and meetings. Career guidance and counselling was also provided to the girls related to educational and job opportunities. Two girls were helped get admission in IT course and jobs.
- ➤ Gandhi Jayanti- On the occasion of 150th birth anniversary of Mahatma Gandhi a cultural event was organized which cherished the values and principles of non-violence and truth. MLA of Burari Mr Sanjeev Jha was invited to the event which saw a turnover of about 100 people. Cultural events like group dance, songs, poem recitation art competition was conducted.
- > School admission- Parentsand children were counselled about enrolment in formal institutes of education. They were also guided with the education process and helped with getting required documents.
- Cleanliness of the community- Need assessment was done regarding clean surroundings and MCD workers and their regularity was assessed. Clogged drains and lack of regular cleanliness as an issue was taken up and letters were written with the help of Pradhan of Ajeet Vihar, other elderly members of the

community and girl's group. An online complaint was filed using single point complaint lodging system and grievance was registered at the number 155304, to ensure safe surroundings.

- International Women's Day (IWD)- The IWD is celebrated with great zeal in the area since last five years. However, this time it has been postponed due to spread of the pandemic corona virus. Neverthless, the children were prepared for the programme around the theme of women empowerment and women issues.
- Organization of events- Apart from the above events which were celebrated at a larger scale, several other important days like Teacher's Day, Republic Day, Independence Day etc were celebrated imparting information; spreading awareness and conducting activities with the residents of the community. CCDA also contributed in the organization of Saraswati Puja, a major festival celebrated in Ajit Vihar.

In the year 2020-2021, the activities at the community through CCDA were suspended due to the onset of the pandemic. The centre is kept alive at the community-Ajit Vihar in Burari through the community members, who had been participating in the activities run by the CCDA in the pre-pandemic times. There is regular chain of communication maintained by the department with the community representatives.

(B) Centre for Child and Adolescent Well Being (CCAW)

Centre for Child and Adolescent Wellbeing (CCAW), earlier known as the Child Guidance Centre works towards providing diagnostic, treatment and referral services to children, adolescents and their family members. It also caters to the neighboring schools and community, focusing on preventive and promotive wellbeing programs for the children. The Centre trains students from social work profession both from Bachelors and Masters courses. These students are engaged in neighboring schools to conduct weekly sessions on life skills, family life education and ethical values with children and adolescents. The team of the Centre comprised of Honorary Director, Prof. A. Malathi, full time social worker and one office attendant. Centre also avails part time services of Clinical Psychologist, Speech Therapist and Special Educator. The services of the centre have been suspended in the year 2016 due to lack of funds from the University. The Social Worker was appointed in July 2018 with a tenure up to July 2019. Because of this the centre had to curtail its services in house and focused on outreach activities instead. It may also be noted that the social worker's position was not renewed since July 2019. However, activities were pursued with the support of student trainees and resource personnel drawn from the research scholars at the Department, under the Hon. Director's initiative. The outreach activities as well as the various other in-house activities like counselling and follow up on cases was stopped due to the nation-wide lockdown since March 2020. These could not be revived in the year 2020-2021. These may be resumed once favourable conditions exist including the COVID-19 situation and the appointment of social worker at the Centre

Number of M.Phil./Ph.D Degree Awarded -PhD, -M.Phil.

During the period from April 1st, 2020 to March 31st 2021, seven PhD scholars have submitted their thesis. While, during this academic year, nine students received their PhD degree. The M.Phil. batch 2018-20, had nine Research Scholars who were pursuing their M. Phil Part II. They have submitted their M.Phil. Dissertation.

Faculty Strength

17 permanent faculty, and 6 guest faculty.

COLLEGES

ACHARYA NARENDRA DEV COLLEGE

Major Activities and Achievements

Acharya Narendra Dev College was ranked 19th Best Science College by India Today Survey 2021. Promotions pending since 2012 were bagged in alliance with Delhi University(18 faculty from Assistant to Associate Professors and 05 faculty from Associate to Professors). Following schemes *Paramarsh*, *Unnat Bharat Abhiyan* (*UBA*) of Government of India and *DBT STAR College Scheme* was sanctioned to the College. Under *UBA*. *ANDC* took consideration of the areas: Khanpur, Govindpuri Slum Area, Okhla Industrial Area, Pul Pehlad and Tajpur Pahari Badarpur. Under *Paramarsh scheme*. *ANDC* will mentor following colleges: A.K.P (PG) College, Dr. Nobin Bordoloi College, Manyawar Kanshiram Government Degree College, Manyavar Kanshiram Government Degree College, Holy Family College of Nursing and Swami Shraddhanand College. Seven Departments of college got recognized for *DBT STAR STATUS* in 2020. Eighteen ANDC students bagged a position in university examinations and 23 bagged positions at South Campus level. Students achieved INSPIRE Fellowship. One awarded with Summer Research Fellowship by Indian Academy of Sciences and two were conferred K S Krishnan Student-Mentor Award by HBCSE, TIFR, Mumbai. One Student was selected for SRFP (Summer Research Fellowship Programme) Fellow 2020 at JNCASR, Bengaluru . A student procured Kalpana STEM Fellowship by Vigyanshaala. College continued to fund SAKSHAM (financial assistance to needy UG students) and provide Research Contingency of Rs.15000/- per annum to all the research laboratories.

Honours/Distinctions:

Dr Gagan Dhawan, Department of Biomedical Science had been felicitated with several prestigious awards this year. The list is as follows:

- INSA Teacher's Award by INSA
- Fellow Royal Socitey of Chemistry (FRSC) by Royal Socitey of Chemistry, London, UK.
- Fellow Indian Chemical Socitey (FISC) by India Chemical Socitey, Kolkata, India

Prof. Sarita Kumar, Department of Zoology Anil Sadgopal awarded for Popularization of Science and contribution to Science Outreach-2020 by HBCSE-TIFR, Mumbai 2020.

Dr Sunita Jetly, Department of Biomedical Science was awarded Corona Warrior certificate by Journalist Press Council (India) for her social Work in Noida, Uttar Pradesh October, 2020.

Dr Sunita Jetly, Department of Biomedical Science was awarded appreciation certificate for volunteering in the 'Step One' program for helping the corona patients by 'Step One' and Sheros October, 2020.

Students with distinctions

Rahul Chawala of B.Sc. (Hons) Electronics III year got first rank in the University.

Sudeepta Singh of B.Sc. (Hons) Biomedical Science II year got first rank in the University.

Lalit Upreti of B.Sc. (Hons) Electronics III year got first rank in the University.

18 students bagged merit position at the University of Delhi.

23 students bagged merit position at the University of Delhi South Campus (UDSC).

Publications

Abraham, J. S., Somasundaram, S., Maurya, S., Gupta, R., Makhija, S., & Toteja, R. (2021). Characterization of *Euplotes lynni* nov. spec., *E. indic*a nov. spec. and description of *E. aediculatus* and *E. woodruffi* (Ciliophora, Euplotidae) using an integrative approach. *European Journal of Protistology*, 79, 125779. https://doi.org/10.1016/j.ejop.2021.125779

Dhingra, V., Kumar, S., Kumar, R., Garg, A., & Chowdhuri, A. (2020). Room temperature SO₂ and H₂ gas sensing using hydrothermally grown GO–ZnO nanorod composite films. *Materials Research Express*, 7(6), 065012. https://doi.org/10.1088/2053-1591/ab9ae7

Gupta, S., Singh, I., Sharma, A. K., & Kumar, P. (2020). Ultrashort peptide self assembly: Front-runners to transport drug and gene cargos. *Frontiers in bioengineering and biotechnology*, 8, 504. https://doi.org/10.3389/fbioe.2020.00504

Hervin, V., Arora, R., Rani, J., Ramchandran, S., Bajpai, U., Agrofoglio, L. A., & Roy, V. (2020). Design and Synthesis of Various 5'-Deoxy-5'-(4-Substituted-1, 2, 3-Triazolyl)-Uridine Analogues as Inhibitors of Mycobacterium tuberculosis MurLigases. *Molecules*, 25(21), 4953.https://doi.org/ 10.3390/ molecules25214953

Khanna, L., Singhal, S., Jain, S. C., & Khanna, P. (2020). Spiro-Indole-Coumarin Hybrids: Synthesis, ADME, DFT, NBO Studies and In Silico Screening through Molecular Docking on DNA G-Quadruplex. *Chemistry Select*, 5(11), 3420-3433. doi.org/10.1002/slct.201904783

Kumar, P., Chauhan, A., Kumar, M., Kuanr, B. K., Kundu, A., Solanki, R., & Kapur, M. K. (2021). In vitro and in silico anticancer potential analysis of Streptomyces sp. extract against human lung cancer cell line, A549. *3 Biotech*, 11(6), 1-12. https://doi.org//10.1007/s13205-021-02812-w

Lal, S., Prakash, K., Hooda, S., Kumar, V., & Kumar, P. (2020). Ibuprofen-based chemosensor for efficient binding and sensing of Cu2+ ion in aqueous medium. *Journal of Molecular Structure*, 1199, 127003. https://doi.org/10.1016/j.molstruc.2019.127003

Muthengi, A., Wimalasena, V.K., Yosief, H.O., Bikowitz, M.J., Sigua, L.H., Wang, T., Li, D., Gaieb, Z., **Dhawan, G.**, Liu, S. and Erickson, J. (2021). Development of Dimethylisoxazole-Attached Imidazo [1, 2-a] pyridines as Potent and SelectiveCBP/P300 Inhibitors. *Journal of Medicinal Chemistry*, 64(9), 5787-5801. https://doi.org/10.1021/acs.jmedchem.0c02232

Samal, R. R., & Kumar, S. (2021). Cuticular thickening associated with insecticide resistance in dengue vector, Aedes aegypti L. *International Journal of Tropical Insect Science*, 41(1), 809-820. https://doi.org/10.1007/s42690-020-00271-z

Saya, L., Malik, V., Singh, A., Singh, S., Gambhir, G., Singh, W. R., ... & Hooda, S. (2021). Guar gum based nanocomposites: Role in water purification through efficient removal of dyes and metal ions. *Carbohydrate Polymers*, 117851. https://doi.org/10.1016/j.carbpol.2021.117851

Journals

Number of college teachers serving as Editor(s)/ Member(s) of Editorial Board: 13 (as Reviewers)

Research Projects

DST, 2019-2020, entitled "Developing and Documenting Innovative Practices for Learning Physics and Biology through Experimentation for Children and Young Adults" Amount 22.16 lakhs: PI: Prof Sarita Kumar

DST-SERB, 2020-2023, entitled "DNA barcoding for ciliate species identification of Delhi, India" Amount 41.9 lakhs: PI: Prof Seema Makhija

ICMR, 2019-2022, entitled "Principal investigator of a multi-institution project (October 25, 2019-22) An Investigational Study on Mycobacteriophages and their Enzymes as New Drug (IND) for Treating Tuberculosis" Amount 22.16 lakhs: PI: Prof Urmi Bajpai

MERA INDIA Project (ICMR), 2020-2023, entitled "Attractive Toxic Sugar Bait (ATSB) methods to control mosquitoes in different regions of Delhi and NCR" Amount 36 lakhs: PI: Prof Sarita Kumar

SERB-DST, 2018-2021, entitled "Recombinant Endolysins from Mycobacteriophages: Exploring their anti-Mycobacterial potential: PI: Prof Urmi Bajpai

Patents Granted: 01

Dr Sunita Jetly (Biomedical Science) Granted Patent in March 2021 of "A novel beacon based diagnostic kit for detection of translocation of 8:21 in Acute Myeloid Leukemia Patients and method of working for the same" by Government of India.

Seminars/Webinars Organized

Dr Justin Clark, Lead Data Scientist and Co-founder of TAILΦR, a Baylor College of Medicine bacteriophage initiative at Houston, Texas, USA, Therapeutic use of bacteriophages and comparative genomics of ESKAPE pathogens, 25 March 2021.

Prof Gagandeep Kang, Welcome Trust Research Lab, CMC Vellore, Vaccines for COVID-19 and the way ahead, 21 January 2021

Prof Jai Ram, Professor, IIT Delhi, National Workshop on Advanced Bioinformatics, 9 January 2021

Dr Rajni Jain, Principal Scientist, IASRI, A Technical Talk on Insights of Machine Learning Algorithms, 3 November 2020

Dr Ashok Kumar, Sr. Scientist Department: Physico-Mechanical Metrology CSIR-National Physical Laboratory, Multifunctional magnetoelectric materials for device applications, 16 May 2020

Conferences/Workshops Organized

Organized Online 'Annual International Conference' of The Association of Microbiologists of India and Indian Network for Soil Contamination Research (INSCR) in association with The Energy and Resource Institute (TERI), Department of Zoology, University of Delhi (DU), Indian Agriculture of Research Institute (IARI) & Indian National Science Academy (INSA), February 03-05, 2021,.

Online Python learning workshop during November 2021 (weekends, 20 hour) by Ms Shruti Gupta and Mr Alok Anand, Jawaharlal Nehru University.

Two Week Online National Workshop on 'Tools and Techniques in Statistical Analysis' from April 06-19, 2021, under the aegis of DBT Star College Scheme.

Two week (online) Interdisciplinary FDP on 'From Research to Publication' from April 05-17, 2021, jointly organized by Department of Commerce, Acharya Narendra Dev College and Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi.

On Line: LabView Workshop: Workshop to provide basic training and hands-on exposure to Virtual Instrumentation and LabView for five Days from June 23-27, 2020, under the aegis of DBT Star College Scheme.

Seminar/Conference Presentations

Das, R., & Bajpai, U. presented their work in "Functional characterization of a DNA-dependent AAA ATPase from a F cluster mycobacteriophage. Entitled" *International e-Conference on Health and Research in Current Scenario": with Special Emphasis on COVID-19 'Virus Genomics and Pathogenicity organized by Venkateswara College, University of Delhi and PhiXgenPvt, July 14-17, 2020*

Deepika presented her work in Customer Loyalty and It's Antecedents: A Study of Service Quality entitled "ICSSR Sponsored National Conference on Sustainable Development and Business": Managing Organizations of Tomorrow organized by P.G.D.A.V. College, University of Delhi, August 18, 2020.

Falswal, J., Dey, D and Kumar, S. presented their work on Diversity of some pollinator bee fauna vis-à-vis crop from Delhi. International Conference on *New Challenges and Dimensions of Ecology and Environment*; Science and Environment Research Institute, Kolkata, April 2-3, 2021.

Khanna, P. presented his work on Computational, in vitro studies and Synthesis of Isatin based potentially bioactive molecules. Under the Frontiers Area of Research-Chemical Sciences. In the Young Scientist's Conference at IISF 2020 (India International Science Festival), December 22-24, 2020.

Kumar, A., Singh, N. Santakrus and Singh, U. presented their work on "Synthesis of Perovskite Based Material for Using Solar Cell Applications", In *International Web Conference on Recent Advances in Nanoscience & Nanotechnology for High-end Applications (IWCRANHA-2020)*, organized by Department of Applied Science and Humanities, Assam University, Silchar in association with The Society for Technologically Advanced Materials of India (STAMI), July 25-26, 2020.

Kumar, S., Kumar, P., Garg, A. & Chowdhuri, A. presented their work entitled "Antibacterial Property of Graphene oxide Nano flakes". In *National Conference on Recent Advances in Functional Materials (RAFM-2020), Atma Ram Santan Dharma College, University of Delhi*, November 5-6, 2020.

Rao, G. presented his work on Optimizing EOQ Model for Expiring Item with Stock, Selling Cost and Lifetime Dependent Demand Under Inflation. In *International Conference on Sustainable Development: Modeling and Optimization (ICSDMO) organized by Operation Research Society of India, Meerut Chapter*, February 16-17, 2021.

Singh, I., Jha, D., Gautam, H., Dhawan, G., Kumar, P. presented their work on Nano microbiocidal as Promising agents for combating antimicrobial resistance in post covid era. In *1st International e-Conference (iCiAsT-2020) "Importance of Biodiversity and Bioresources in the Post COVID Era* organized by Faculty of Science, Kasetsart University, Thailand; The Genetics Society of Thailand (GST); & Scientific and Educational Research Society (SERS), Meerut, India, December 14-15, 2020.

Somasundaram, S., Abraham, J. S., Maurya, S., Gupta, R., Makhija, S. and Toteja, R. (2021) presented their work on Silico Identification and Characterization of cadmium, copper metalloproteins and cysteine-rich proteins involved in cell defense in the freshwater ciliate, In 61st International conference of AMI-INSCR, February 3-5, 2021.

Bhatia, M. (2020). Smart women rise and shine with the power of STEM. In *Going Global International Conference for Education Leaders organized by British Council*, June 29-30, 2020.

National/International MoU Signed:

International:

MoU signed between Acharya Narendra Dev College (ANDC) and Creative Commons.

MoU was signed between ANDC and Translational Health Science and Technology Institute (THSTI), Faridabad for *Science Setu* programme in 2018-19 academic year

Placement Details

Number of Students Placed: 16

Number of Companies/Industries visited for Campus Recruitment: 05

Extension and Outreach Activities:

During the second wave of the COVID-19 pandemic, intense activities and initiatives for combating and assisting people were undertaken by NSS@ANDC. Three faculty members of Department of Physics were instrumental in establishment of Charitable Covid-19 Isolation Centre.. The UBA and NSS units of the college organised number

of webinars on National Education Policy-2020 to create awareness among staff and students of various institutes. UBA@ANDC along with the Entrepreneurship Cell of the college, organized 'Hands on training' for skill development of the interested residents of the adopted area. Various activities and programmes namely- VID IPSA (the aim of the project was to educate the underprivileged children), Swachh Bharat Abhiyan (SBA), Project Wellness, Project Feeding Stray Animals and Project Awareness about government schemes were also undertaken. The Eco Club of the college in collaboration with Bombay Natural History Society (BNHS) India organized a national workshop 'The Big Butterfly Month' to spread awareness about the butterfly diversity found in our city and to help restore butterfly habitats. The Eco club celebrated Eco Week 'Paritran-2021' with the aim of spreading awareness for sustainable development and environment protection. The Eco club has also undertaken two projects: Reduce Carbon Footprint and Indigenous Materials and Plants

Library Development

This year Library has been shifted to new Library Software KOHA. It is the first open library automation package used worldwide. The software includes modules for acquisitions, circulation, cataloguing, serials management, flexible reporting, multi-format notices. Koha will work for consortia of all sizes, multi-branch and single-branch libraries. Koha has an enhanced catalogue display that can use content from Amazon, Google etc. It is built using library standards and protocols such as MARC 21, UNIMARC, SIP2, SIP/NCIP ensuring interoperability between Koha and other systems and technologies. Koha's OPAC, circulation, management and self-checkout interfaces are all based on standards-compliant World Wide Web technologies—XHTML, CSS and Javascript—making Koha a truly platform-independent solution. This year 372 new books were added to the library.

Faculty Strength

Total Permanent 68 (including Principal)

Total Ad-hoc 54

Financial Allocation and Utilization:

Grants Sanctioned: Rs. 320121663/-

Grants Utilized: 100%

Other Significant Information:

College currently has thirty-two students pursuing their Ph.D. and Post-doc under the supervision of eighteen faculty members, duly recognized as Ph.D. guides by the University of Delhi. This year five students have submitted their Ph.D. thesis. Twelve postgraduate students of various esteemed Universities did their internship under the mentorship of ANDC faculty. Five school students were also trained by the College faculty. Students created their own virtual lab experiments in the college that could be demonstrated to their The links of all these at home activities and videos created by students and faculty of ANDC uploaded on ANDC website.

(https://www.youtube.com/channel/UCVia2DudfU5CD9NdpvoDLCA/videos). In 2020-21, Eighteen ANDC faculty members authored text books/contributed chapters in books/reviewed text books, eight faculty members uploaded educational e-content on web and four faculty members were resource persons in workshops dealing with review and update of syllabi, school text books by NCERT and Teachers training workshops. The undergraduate students of the college continue to be a part of CUBE program of HBCSE, TIFR, Mumbai. CUBE and promoting the student-centric collaborative culture, the college was conferred 'CUBE Regional Resource Centre Award' in the National meet organized by HBCSE-TIFR during November 6-8, 2020. During the meet, three students, Ms. Garima Kalakoti, Ms. Komal and Mr. Pulkit Singh were conferred 'K S Krishnan Student Mentor Award'. The College in association with the NII and IGIB has organized live demonstrations, webinars and virtual tours for UG students

ADITI MAHAVIDYALAYA

Major Activities and Achievements

A UGC funded National Conference on "Water Scarcity and Sustainability: A Jal Shakti Abhiyan Perspective" was organized through online platform. An aggregate of 329 registrations were received for four competitions-Paper reading, slogan writing, poster making and online quiz. Similarly, another Conference titled 'Unfolding the Potentials of Women and Girls including Children: Enhancing the Benefits Exponentially for One and All-: Sabka Saath Sabka Vikas Perspective. Department of BEIEd partnered with RELO (Regional English Language Office) of the US Embassy, New Delhi, US Department of State for the course focuses on Content and Language Integrated Learning (CLIL) designed for pre-service teachers in Elementary Education (Grades 1-8) to address some of the goals in the new National Education Policy. The College was a part of V2 Scheme which entails sharing resources and expertise through innovation, experimentation and experience. A total 51 faculty members were promoted in respective departments in the college.

Students with Distinctions

Kajal BElEd I year received Vaishali Tomar Memorial Scholarship

Shweta Gautam BElEd II year received Vaishali Tomar Memorial Scholarship

Rachna BEIEd III year received Vaishali Tomar Memorial Scholarship

Mansi BElEd III year was felicitated with OtiMilang Memorial Award

Publications

Arora, R., Singh, S., Singh, S. (2020). Numerical solution of second-order two-dimensional hyperbolic equation by bi-cubic B-spline collocation method. Math Sci, Vol. 14, pp. 201-213.

Gupta, P. (2020). Giving voice to woman's a(sexuality): Cinema of Kalpana Lajmi. Journal of Exclusion Studies, special issue on Gender and Exclusion, Vol.10(2), August, ISSN:2231-4547/Online ISSN:2231-4555, Pg No-190-203

Singh, S., **Singh S.** (2020). High order convergent modified nodal bi-cubic spline collocation method for elliptic partial differential equation, *Numerical Methods for Partial Differential Equations*, Vol. 36, Issue 5, Pg No. 1028-1043.

डॉ आशा 'यही सच है' बनाम 'रजनीगंधा': पाठ से परदे तक का सफ़र (सह-लेखन) (समागमअप्रैल 2021 Peer Reviewed Journal ISSN 2231-0479)

डॉ आशा 'बुजुर्गों का अकेलापन और हिन्दी सिनेमा' ('जनकृति' बहुविषयक विद्वत समीक्षित अंतर्राष्ट्रीय पत्रिका, वर्ष 6, अंक-68, दिसंबर 2020, ISSN 2454-2725, Impact Factor GIF 1.88)

डॉ आशा 'हिन्दी नाटकों में गांधी' (सह-लेखन) ('समसामयिक सृजन', अक्टूबर-दिसंबर 2020 ISSN 2320-5733)

डॉ आशा 'आचार्य शिवपूजन सहाय के मानस में तुलसी-काव्य' ('साहित्य यात्रा', वर्ष 6 अंक 23 जुलाई-सितम्बर 2020 ISSN 2349-1906)

डॉ आशा 'हिन्दी रंगमंच का आरंभिक स्त्री विमर्श' ('समसामयिक सृजन', ज्लाई-सितम्बर 2020 ISSN 2320-5733

Seminar Organised

Dr. Bani TamberAeri, Assistant Professor (Institute of Home Economics, University of Delhi), First 1000 days:

Role of Food safety and Nutrition in Health and Well Being, 22 September 2020

Prof. N.K. Chadha, Stress Management, 25 March 2021

Dr. Renu Kishore, Expressive Therapy, 26 March 2021

Dr. Nimisha Kumar, Cognitive Behavioural Therapy, 26 March 2021

Dr. Vandana Gambhir, Psychology in Organizations, 26 March 2021

Seminar/Conferences Presentations:

Dr Manisha Wadhwa nee Dabas presented "Inclusion in Schools: Challenges and Possibilities", Dr. Nitu Rana presented a paper on "Women Directors in Indian Corporate Sector: The Changing Scenario and the Challenges Ahead' in UGC funded National Conference "Unfolding the Potentials of Women including Girls and Children: Enhancing the Benefits Exponentially for One and All- SabkaSaath- Sabka Vikas, held on March 27, 2021.

Dr Poonam Lakra presented a paper on "Water Pollution- A Public Health Challenge", Dr. Nitu Rana presented a paper on "Water Audit and Water Conservation in Indian Industries: The Need of the Hour for Sustainability" during UGC funded, National Conference on "Water Scarcity and Sustainability, held on 9 March 2021.

Dr Punita Gupta was part of team to review Online Course in Social Sciences for Teachers, teaching at the Secondary Stage prepared by the Department of Education in Social Sciences and attended four-day virtual review meeting from 20 October 2020 to 23 October 2020, in connection with the PAC approved programme on the 'Development of On-line Course in Social Science for Teachers' and reviewed 2 courses.

Dr. Asha Acted as a Resource Person in Webinar titled 'Theatre in Education' on 29 May 2020, in Theatre Workshop on 22 Feb 2021 organized by Kasturi Ram College of Higher Education

National/International MoU Signed

Societies Registered Act XXI of 1860 with Registrar of Societies, Government of NCT of Delhi.

MoU with YWCA regarding Short-term Courses

MoU with Mother Dairy

MoU with HFM Roof Top Solar Private Limited

MoU with Reliance Jio Infocomm Ltd. Regarding Lease Line for Internet Facility

Dr Reema Lamba (Department of HDFE, AMV) and Ms. Nirmala Muralidhar (Dept of HDFE, JDM) collaboratively conducted a certificate course on "Decoding Disability in Children" during February-March 2021. The objective was to sensitize students and faculty involved in their colleges and other colleges offering similar UG programmes on this issues. An MOU for the same was signed between Prof Mamta Sharma (AMV) and Prof Swati Pal (JDM) for this collaborative conduct of certificate course.

Placements

Internship:

B.com = 10 students

B com (hons) = 14 students

B.el.ed = 11 students

B.A = 8 students

BSW = 2 students

Extension and Outreach Activities

Department in the collaboration with science society and Eco Club of the college organised virtual visit to Bio Diversity parkin the month of December, for all the years. Students were part of various other events organised

by the committees and societies of the college and participated in the events of other colleges and secured positions in competitions. **Industrial Visit**: The Department organized virtual industrial visit for final year students to Yakult Danone India Pvt. Ltd. on 5 February 2020 via MS teams software. The program began with warm welcome of all the students, faculty members and team of Yakult. Mr. Ajay Dahiya and Mr. Aadish, Executive, in public relations department (Yakult Danone India pvt. Ltd.) introduced the students to the development process of the product and brand through an informational presentation. They presented various videos, images and slides that gave an insight about the working and working environment of a fully automatic production system. Around 117 students joined the program.

Library Development

The library automation process was initiated at the beginning of the academic year and is likely to be completed within a week. A reading room equipped with a reference section has been established for the faculty as well as for the students. The college library has been energetic in providing remote access to e -books, e -journals and e - resources to both faculty members and students throughout the pandemic.

Faculty Strength

Teaching Faculty: 100 Non-Teaching Faculty: 56

Other Significant Information

To ensure physical and mental well-being of the Aditi family variety of workshops and webinars were organized during the lockdown period. Overall, the college has proactively utilized the lockdown for the academic enrichment of the staff and students alike. Students and faculty members have carried out survey on how the students coping with COVID-19. NSS students prepared masks and gave these masks to all the nearby Police Stations for distribution. The college building was offered as a quarantine centre to CRPF to aid the state government in facilitating health services. The teaching and non-teaching staff geared up to equip themselves by attending ICT workshops to enable better e-connect with the college staff and students. Uploading study materials, filling examination forms was a smooth ride in the electronic mode with the combined efforts of Management staff and Students. Online yoga sessions were attended enthusiastically by the staff and students to keep themselves physically and mentally fit during lockdown. The college submitted its first SSR for NAAC Accreditation in March 2020. A special impetus has been provided in the direction of maximum quality sports facilities for our sports students. Alumni became the most valuable resource of the college to count the direct and indirect contribution to the college and society. As a result of Covid19 pandemic situation, an alumni programme organized its 4thAlumni Web Meet on 23 May 2020. The Alumni Web Meet was started by college principal Dr. Mamta Sharma with motivational speech and welcomed all key speakers. Aditi's prominent alumni were invited in their respective field as keynote speakers, where they shared their views on "A journey from double burden of women to double boon", which became a moment of attraction in the meet

AHILYA BAI COLLEGE OF NURSING (ABCON)

Major activities and achievements

Ahilya Bai College of Nursing, established in the year 1993 has been now formally approved by University of Delhi and has also been recognized by INC (Indian Nursing Council) and DNC (Delhi Nursing Council). Along with the B.Sc (Hons) Nursing courses the faculty members are also teaching Nursing aspects to the MBBS students of Maulana Azad Medical College. The 2017-21 batch of B. Sc. (Honours)-Nursing has successfully completed their course and all the students have got placements. Many of these students have got placed in the Govt sector of our country and also abroad. The college is proud of its faculty and students who have worked as Covid warrior during this pandemic time which our country is facing at present. The B.Sc. (Hons)-Nursing

students (Intern) were posted for their clinical posting in Covid wards of Lok Nayak Hospital, New Delhi during the period 17 April 2021 to 31 May 2021. Mental Health Day was celebrated by the college on 10 October 2020, in the Department of Psychiatry of G.B.P.H. New Delhi on the theme "Investment in Mental Health Services". Nurses Day was also celebrated on 12 May 2021 at ABCON.

LIBRARY

The college library is equipped with more new editions and special features of the current year. The Library has approximately 2500 Books, 70 International Journals, 100 National Journal, 130 References Books and 30 Research Thesis. There has been a purchase of 147 new books in the year 2020 – 2021.

Faculty

The college has a total of 15 faculty with the specialization in areas such as Medical Surgical Nursing, Psychiatric Nursing, Pediatric Nursing, Obstetrical Nursing and Community Health Nursing.

Other Significant Information

Master academic rotation plan had been planned for the all the semesters I, II, III, IV, V, VI, VII and VIII and it has been implemented successfully. The students of the college gained clinical experience at Lok Nayak Hospital, GB Pant, GNEC, and community field experience from Urban Health Centre, Mandi House New Delhi and Barwala Village. The future plan for ABCON includes opening a National level training institute of midwifery Nursing. The college is working to start M.Sc. Nursing Program soon.

AMAR JYOTI INSTITUTE OF PHYSIOTHERAPY

Major activities and achievements:

Amar Jyoti Institute of Physiotherapy is a well known centres of excellence in the field of physiotherapy in India. It has created a reputation for its quality programs, student engagement and applied research, that has been enabled by a creative, innovative and supportive academic organizational structure and learning culture. The primary objectives of the Institute is to provide its students a comprehensive and stimulating environment for theoretical and applied learning, as well as teaching facilities for the development of skill and competencies – both clinical as well as academic. This year the faculty and students entered a new world of virtual teaching mode. The innovative and highly-skilled faculty, who worked collaboratively, resourcefully and creatively using online apps, video lectures and assignments, created an interesting and enjoyable experience for students. The institute takes exceptional effort to enhance the academic standards of our students enrolled in the Bachelor's and Master's programs.

Outstanding Honors/ Distinction:

The 'Piyush Trivedi' award for the most meritorious student was awarded to Mr.Mahima Bhatia, BPT fourth year. The 'Dan Sterner' award for all round excellence was won by Ms. Shreya Vashisht (outgoing graduate student).

The 'Dr. Kamla & G.H. Gidwani' award for academic excellence in MPT (Musculoskeletal) was awarded to Ms.Shivani Ahuja.

The 'Dr. Kamla & G.H. Gidwani award' for academic excellence in MPT (Neurology) was awarded to Ms. Sana Ahmad.

Students with distinction:

Anushka Garg of Bachelor of Physiotherapy (BPT) 2 year secured First rank in the university.

Mridula Dua and Ms. Vanika Chopra of Bachelor of Physiotherapy (BPT) Fourth year secured First and Third rank in the university respectively.

Shreya Vashisht secured of Bachelor of Physiotherapy (BPT) secured 1st position overall in the University (I, II, III, IV and Internship).

Shivani Ahuja and Ms. Shailly Gupta of MPT (Musculoskeletal Physiotherapy) secured the First position in the University in the First and Third semester respectively.

Sana Ahmad and Sparsh Jain of MPT (Neurological Physiotherapy) secured the First position in the University in the First and Third semester respectively.

Publications

Patki, Kshitija, Sanghi Divya, Parasher, Raju K. and Bhatnagar, Barkha (2021). The Micronutrient Consumption in Indian Elementary School Children across Socioeconomic Strata. *International Journal of Child Health and Nutrition*, 10, 24-33.

Garg, Mayank, Saxena, Prerna Mohan, and Parasher, Raju K .(2020). Awareness about Diabetes: A Comparison between Population of Urban Areas and Urban Slums, *Indian Journal of Public Health Research & Development*, 11 (7), 524-529

Samuel Ankita, Shukla, Mayank. (2020). Systolic blood pressure and heart rate responses of individuals with neck obesity in response to incentive spirometry – a new clinical tool in making. HTL journal. 26(12), 318-322.

Saxena, Prerna Mohan, Raju K Parasher. (2020). Back Pain and Associated Risk Factors. *Indian Journal of Public Health Research & Development*, 11(11), 148-153.

Sharma Kiran, Meena Makhija. (2020). Strength of scapular stabilizers in shoulder pain male population with and without scapular dyskinesis. *International Journal of Allied Medical Sciences and Clinical Research*, 8(2), 237-244

Sharma, Kiran (2020). Dynamic Neuromuscular Stabilization- A Narrative Review, *International Journal of Health Sciences and Research.* 10(9), 221-231.

Yadav, Aashish (2020). Impact of COVID-19 lockdown on physical and mental health in the general population: A cross-sectional study. *International Journal of allied medical sciences and scientific research*, 8 (2).

Journals

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board: 4

Research Projects

Self Funded, 2018-20, "A study of the factors associated with fear of falls during ageing and establishing their relationship with functional abilities", Dr Sampada Jahagirdar, Dr Sonia Singh, Dr Raju K Parasher, Amount: Nil.

Society of Indian Physiotherapist funded, 2020, "Development and validation of a screening tool to determine the prevalence of urban women predisposed to Polycystic Ovary Syndrome in Delhi", Dr Jeyanthi. S (PT), Dr Raju K. Parasher, Amount Rs. 25,000.

Self Funded, 2020, "Development and Validation of questionnaire to explore knowledge, barriers, facilitators and preferences of physical exercise in Cancer Survivors", Dr Jeyanthi. S (PT), Dr Kiran Sharma (PT), Amount: Nil.

Self Funded 2020-22, "Deficits in balance, function, cognition and quality of life in Indian cancer survivors", Dr.Nidhi Singh (PT), Dr.Sunil Kumar, Dr. Raju K Parasher. Amount Nil.

Self Funded, 2020-22, "Relative Efficacy of Dynamic Neuromuscular Stabilization Exercise Compared to Kegel's Exercise in Women with Stress Urinary Incontinence", Dr. Kiran Sharma (PT), Dr. Jasmine Kaur Chawla, Dr. Raju K Parasher.

Seminar/Conference Presentation

Kiran Sharma (PT) presented a paper entitled "Dynamic Neuromuscular Stabilization" in Sports Connect held on 14 February 2021.

Kiran Sharma (PT) delivered an Invited Talk on "Urinary Incontinence" in Amity University on 20 March 2021.

Library Development:

The library has been sanctioned a total budget of Rs. 1,46,93 for its development and upgradation. This year the college library added 21 books and subscribed to 6 Physiotherapy related journals.

Faculty Strength:

Number of Faculty: Sixteen (Fourteen Academic and Two Clinical)

ARYABHATTA COLLEGE

Major Activities and Achievements

The college has recently obtained approvals from local bodies for construction of three additional floors for its two buildings and the tender for its construction has been awarded by CPWD. The new construction would augment the existing covered area by 5700 sq. m. The work of creation of the HT and LT rooms with transformers and metering rooms has been taken up jointly with the RLA College. The project is being implemented by CPWD and is expected to be completed by December 2021. Sewage Treatment Plant project is at the stage of designing and floating of tender. The project is expected to be completed within the present financial year. The promotions for the past years are as follows: Assistant Professors promoted from Stage I to II: 28 Assistant Professors promoted from Stage II to III: 10 Non-teaching staff promoted to the post of Professional Assistant: 01

Honours/Distinctions

Prof. Manoj Sinha (Principal) was appointed the UGC Observer for the North Eastern, State Eligibility Test (SET) at Gangtok Centre (14 February 2021), Andhra Pradesh, State Eligibility Test (SET) at Rajamundary Centre (20 December 2020) & Karnataka, State Eligibility Test (SET) at Shivamoga Centre (27 September 2020).

Mr. Binoy Bhushan Agarwal was the Returning Senior Judge for The Queen's Commonwealth Essay Competition 2020 held under the aegis of The Royal Commonwealth Society, London.

Dr. Sangeeta was awarded PhD in History for her thesis on 'Development of Women's Education in Delhi (1911-47)' by Jawaharlal Nehru University, New Delhi, 2020.

Dr. Shivani Raheja was conferred 'E-Innovation Award 2020', an Excellence in Teaching Award, for Innovative Teaching pedagogy in Higher Education, organized by the Innovation Society of India on the Occasion of 150th Birth Anniversary of Mahatma Gandhi on 02 October 2020. She was also awarded the 'Nirmal Research Scholar of the Year 2020' in November 2020.

Ms. Thangbiakching was awarded PhD in Psychology by the University of Delhi, 2021.

Students with Distinctions

Radhika, B. Sc (Hons) Mathematics department secured highest marks with a CGPA 9.541.

Garima, B. Sc (Hons) Mathematics department secured highest marks with a CGPA 9.257.

Anjali Kumari, B. Sc. (Hons) Computer Science secured highest marks with a CGPA of 9.149. Deepankar Joshi and Anuj Phogat, B.A. (Hons) Economics secured highest marks with a CGPA of 8.919 each.

Publications

Agarwal, Binoy Bhushan. (2020). William Congreve's The Way of the World. *British Literature:* 18th Century, Delhi: School of Open Learning, University of Delhi, 3-18.

University of Delhi: Annual Report 2020-21

Deb, Surajit (2020). Child Malnutrition in North-East India, A. Pankaj, A. Sharma and A. Borah (Ed.): *Social Sector Development in North-East India*. CA, Los Angeles Sage Publication Private Limited.

Singh, J.K. (December 2020). Investment in Sectoral Indices – A Proposal with High Risk and High Return (A Research Study in Indian Stock Market). *Saaransh*. USA & Ulrich's Periodical, Vol 12.

Singh, Yogender, Vinod Kumar Aggarwal, Remica Aggarwal. (September 2020). On Exploration of Various Factors Affecting the Appropriate Selection of Movies for Teaching of School and Undergrads Students and Studying the Mix of Relationships amongst Them. *International Journal of Management and Applied Science*, Volume-6, Issue-9, 44-49.

Thangbiakching. (2020). The Inner Journey and the Cultured Self. *Journal of Psychiatry and Psychology Research*, Volume 4, Issue 2.

बहादुर, सिंह धीरेंद्र. (2020) "जेएनयू : इन्दिरा का स्वप्न-शिशु" जुलाई-सितंबर,विधायन (शोध पत्रिका) अंक-19,(जुलाई-सितंबर 2020)पेज संख्या 59-62.

Sri, Promila, (2021) "टैगोर की कहानी काबुलीबाला और पोस्टमास्टरः एक विवेचन", श्रीलंका हिन्दी समाचार, जनवरी 2021, भारतीय सांस्कृतिक संबंध परिषद्, भारतीय उच्चायोग, कोलम्बो.

Books

Mangalam, B. (2021). Ilango Adigal's Silappadhikaram. Delhi, Worldview Publications.

Mishra, C. B. (2021). Environment and Disaster Management. Delhi, Dreamtech Press.

Mishra, D. P. (2020). Kavyalochna ki Nayi Drishti, Sangrathan, September 29, Ank-9.

Seminars Organized

Tabish Khair, Indian English Author & Associate Professor, Aarhus University (Denmark), 'Why Literature Matters?' 21st May 2020. (Host: English Department).

Prof. Girishwar Mishra, Former Vice Chancellor, Mahatma Gandhi International Hindi University, 'Mental Health and Well Being: Current Concerns', 11th July 2020 (Host: Psychology Department).

Dr. Shveta Singh, Associate Professor & Area Chair of Finance at the Dept. of Business studies, IIT Delhi, 'Corporate Governance And Its Impact On Financial Decision Making', 24th April 2020 (Host: BBE Department).

Dr. Sanjeev Rai, Adjunct Professor, Tata Institute of Social Sciences (TISS), 'Covid Emergency- Reimagining Education' on 27th May 2020. (Host: Political Science Department).

Dr. Giti Chandra, an Author from Iceland, along with Prof. Meenakshi F. Paul, Principal, Himachal Pradesh University, Invited Speakers at the "Forms of Telling: Narrativity, Myths & Literature", an International Webinar, during 26th- 27th February 2021.

एल्मर जोसेफ रेनर (डेनमार्क), सुश्री एम्. नधीरा शिवंती(श्रीलंका), सुश्री जामीला ख्मेलकोवा(युक्रेन), डॉ. विपुल गोस्वामी (भारत), "विदेशी भाषा के रूप में हिन्दी शिक्षण की चुनौतियाँ", अंतर्राष्ट्री य वेबिनार, 9 जून 2020. (Host: Hindi Department).

Conferences Organized

'FINOMENA '21- The Annual Conclave of Finance and Investment Cell. It had 8 renowned speakers from diverse fields ranging from Economics and business to activism namely, Ms Meenakshi Lekhi - Member of Parliament New Delhi , Federico Salas - Mexican Ambassador to India , Mr Arvind Mayaram - Ex Finance Secretary and Economic Advisor to Rajasthan CM , Mitali Nikore - Founder of Nikore Associates, Harish Iyer - Human Right Activist , Sharad Sagar - Founder and CEO of Dexterity Global , Mr Ashok Vajpeyi - Poet and former civil servant and Sunny Garg - Founder of ae! On 23rd-24th January 2021.

Seminar/Conference Presentations

Mr. Binoy Bhushan Agarwal presented 'Of Intimate Lives and a Tense State: The Phenomenon of 'Going Native' in Indian Port Cities' at the 'Workshop on Indian Ocean Port Cities and Their Hinterlands', an International conference-workshop at the Centre for Global Asia, New York University, Shanghai, China, 23rd -24th October 2020.

Dr. Monica Aggarwal presented 'Psychological Impact of Corona Virus on Diverse Sections of Economy – A Study in Indian Context' at an international conference organised by Maitreyi College, University of Delhi. 24th February 2021.

Dr. Pritika Dua presented 'Building Capabilities for Environmental Management: Case Study of Hindalco Industries Limited' at an International Conference on Contemporary Business Trends 2021 organized by the Department of Humanities, Social Sciences & Management, National Institute of Technology Srinagar, 16th-17th January 2021.

Ms. Roshni presented 'The Politics of 'Choice': From Yajnaseni to Deeya Panchal' in an International e-Conference on Environment, Literature & Culture organized by Higher Education & Research Society, Mumbai, 11th -12th September 2020.

Dr. Satish K Jha presented 'Reclaiming Republican Democracy in the 21st Century at a conference jointly organized by India International Centre, Delhi Foundation for Creative Social Research and Raza Foundation on 06th September 2020.

Dr. Kamayani Kumar presented 'Broken Columns: Trauma in the Paintings of Frida Kahlo' in 5th Interdisciplinary National Conference titled 'Representation of Disability in Literature and Cinema' organized by the Department of English, Maharaja Agrasen College, 15th-20th June, 2020.

Mr. Sanket Shekhar presented 'Developing Hierarchical Relationships among factors influencing Corporate Governance Mechanism' at Changing Business Environment in India: Challenges and Opportunities' Conference organized by Shyama Prasad Mukherji College, University of Delhi, 21st July 2020.

National/International MoUs Signed

With Indian/Foreign Companies/Industry:

MOU signed with Alliance Française, Delhi (AFD), affiliated to French Embassy in India (2020-21) for Add-on Course on 'French Language' (Duration: 108 hours).

MOU signed with Langma School of Languages Pvt Ltd. for Add-on Course on 'English Proficiency' (Duration: 108 hours).

MOU signed with Gagan Winning Edge Persona for Add-on Course on "Future Skills to boost Employability" (Duration: 40 hours).

Other Inter-Institutional Collaboration

Add-On Programs:

Course Coordinators: Dr. Surajit Deb, Dr. Aanchal Gupta & Dr. Madhulika Nirmal

French Language Beginners Level Certificate Course. Level A 1.1 & 1.2 (108 hours). The course was offered in collaboration with Alliance Française de Delhi affiliated to the Embassy of France. September—December 2020.

English Proficiency: language and communication 60 hours duration in collaboration with Langma School of languages, affiliated to the University of Cambridge. October-December 2020.

Advance Program in Financial Modelling" (100 Hours) conducted by Aryabhatta College in collaboration with IMS Proschool under the flagship of National Skill Development Corporation (NSDC), Organization of Ministry of Skill Development and Entrepreneurship, Government of India and NSE. September 2020-June 2021.

Business Analytics Course" (100 Hours) conducted by Aryabhatta College in collaboration with IMS Proschool under the flagship of National Skill Development Corporation (NSDC), Organization of Ministry of Skill Development and Entrepreneurship, Government of India and NSE. September 2020-June 2021.

"Future Skills to boost Employability" (40 Hours) in collaboration with Gagan Winning Edge Persona Program (GWEPP). October-December 2020.

Ibtida—the Advent of A new Beginning: Having witnessed the air quality worsen year after year, the team at Enactus Aryabhatta was determined to tide over these issues with a vision to bring about a revolution in the construction industry. Undertaking extensive research and development, *Enactus Aryabhatta* synergically collaborated with *GreenJams*, to come up with an ingenious solution to tackle the grave problem of air pollution. Thus, the remarkable result of brilliant minds being put together led to the inception of Project Ibtida. Established on the fundamentals of providing sustainable solutions through scientific research, *Ibtida* is an action plan that aims to utilize unexplored sources of pollution and upcycling these pollutants into innovative products, while promoting sustainability and significantly reducing the carbon footprint.

Placement Details

Number and percentage of students placed: 15 out of 46 interviewed (33%) Number of Companies visited for campus recruitment: 22

Extension and Outreach Activities

Covid Counselling Psycho-Social Helpdesk for students and faculties of Aryabhatta College, 2021.

One Week Online in-house Faculty Empowerment Program on "eTools for Online Teaching" organized and conducted by Training Team, Aryabhatta College, University of Delhi, from 6th - 13th July 2020.

Class wise-Students mentoring programs conducted by College Faculty Members. 2020-2021.

"Advance Skill Programme on Financial Markets" (ASPFM) (100 Hours) conducted by Aryabhatta College. (Add-On Program). January 2021- Ongoing).

Library Development

440 books have been added to the College Library Collection. The College Library is also subscribing to the NLIST services for online access of the e-books and e-journals.

Faculty Strength

Permanent: 53 Ad-hoc: 38

Financial Allocation and Utilization

Grant sanctioned: Rs. 43,45,00,000/-Grant Utilized: Rs. 29,00,59,898/-

Other Significant Information

Prof. Manoj Sinha delivered a lecture in Appreciation Course hosted by Lok Sabha Secretariat. Dr. Satish K Jha was nominated a member to the Department Research Studies in Political Science, Delhi University. Dr. B. Mangalam delivered lecture as the First Foundational Lecture Series at Janki Devi Memorial College.Mr. Binoy Bhushan Agarwal was Selected Evaluator for 'Toycathon Competition' organized by the Ministry of Education's Innovation Cell. January 2021. He also organized Special Lecture Series that ropes in international authors and academicians. Students of Enactus Aryabhatta have bagged prizes in various business plans and case study competitions organized by Enactus teams across India. Project Palaash worked towards financial empowerment of women under Project Utkarsh. Enactus Aryabhatta featured in acclaimed media houses, international as well. These include *Impakter*—a London-based publisher documenting green businesses worldwide, *Six Yard Story* The Hindu, Times of India, the Indian Express to name a notable few.

ATMA RAM SANATAN DHARMA COLLEGE

Major Activities and Achievements

Atma Ram Sanatan Dharma College was ranked 13th in overall college rankings, and was ranked 16th, as per the recent India Today ranking of Arts, Science and Commerce colleges in India, 11th among Commerce and 12th for Arts courses in India. The college has organised over hundred webinars (National and International) for teaching, non-teaching and students (from various institutes), which includes -03 days online International Conference on "Advanced Functional Materials and Devices" collaboration with IQAC from 4-6 March 2021. And one week National Online Faculty Development Programme on "Research Methodology: Tools & Technique" organized by IQAC ARSD in association with the Teaching Learning Centre (TLC), Ramanujan College, University of Delhi from 05-11 June, 2020. The College is actively involved in implementation of the Unnat Bharat Abhiyan (UBA), a flagship programme of the MHRD on rural development through use of affordable technologies. Recently, A.R.S.D College has adopted 5 villages of South-West Delhi under this UBA Programme. The college has adopted villages in the regions-Delhi cantonment, Nasipur, Najafgarh, Asalatpur Khawad and Shikarpur.

Honours/Distinctions

Dr. Om Prakash Yadav, Assistant Professor received Commendable research award 2020 for his contribution in the research.

Dr. Syed Mubin Zehra Assistant Professor Department of History was part of the delegation who met USA Assistant Secretary of State Madam Marie Royce at New Delhi during her visit to India in January 2020.

Dr. Jyothsnaphanija Bolla, Assistant Professor, Department of English got Uttama Kavitha Puraskaram for her poetry.

Dr. S.Shankar Subramanian, received Commendable Research Award in recognition of research during the year 2020 at 4th Research Excellence Award organized by Delhi Technological University on February 15th, 2021.

Dr. Manika Jain is presented, BEST PAPER AWARD for the Paper Presented at the E-conference on "Organizational Renaissance in the Post COVID Era" organized by Delhi Institute of Advanced Studies, GGSIPU, on 10th April 2021. Paper title was & quot; An Investigation into the Relationship Between AI enabled Chatbot Interface and Online Buying Behaviour of Consumers in Delhi NCR Region" (Online presentation).

Students with Distinctions

Sunhit Bishnoi, B.A. (Hons.) Political Science, III year won Delhi NCR Cup 2021 Tournament organized by Delhi Golf Club and also won 1st Position in Champions of North Tour Championship organized by Junior Golf Score Board in January 2021.

Aditya won the award, Best Author-FICTION at Cherry Book Award 2021.

Manish Bhati, B.A. (Prog.) II Year selected for training of Archery in National Centre of Excellency, Guwahati.

Sunhit Bishnoi, B.A. (Hons.) Political Science, III year

Sunhit Bishnoi, B.A. (Hons.) Political Science, III year participated in National Tournament and finished T4 in 105 participants organized at Chandigarh.

Publications

Total no. of Publications in UGC Care list is – 140

International: 102 National: 38

Kumar A., Kumari P., Bhagat S. (2020). A simple and highly efficient synthesis of novel fluorinated 4,6-disubstituted aminopyrimidines using Cd(OAc)2. *Synthetic Communications*. ARSD

Kumar M., Shankar S., Tuli V., Mittal S., Joshi V., Jha M.K., Gupta G. (2020). Structural Analysis and Magnetoelectric Sensing in Cobalt Ferrite–BaTiO3 Composites. *National Academy Science Letters*. ARSD

Shahid R., Pandey R., Singh P. (2020). Polymorph co-existence and its implication on transport dynamics in monomer and trimer strontium meta-silicate. *Journal of Physics and Chemistry of Solids*. ARSD

Adalati R., Kumar A., Kumar Y., Chandra R. (2020). A High-Performing Asymmetric Supercapacitor of Molybdenum Nitride and Vanadium Nitride Thin Films as Binder-Free Electrode Grown through Reactive Sputtering. *Energy Technology*. ARSD

Dujearic-Stephane K., Panta P., Shulga Y.M., Kumar A., Gupta M., Kumar Y. (2020). Physico-chemical characterization of activated carbon synthesized from Datura metel's peels and comparative capacitive performance analysis in acidic electrolytes and ionic liquids. *Bioresource Technology Reports*. ARSD

Shankar S., Maurya I., Raj A., Singh S., Thakur O.P., Jayasimhadri M. (2020). Dielectric and tunable ferroelectric properties in BiFeO3–BiCoO3–BaTiO3 ternary compound. *Applied Physics A: Materials Science and Processing*. ARSD

Shankar S., Thakur O.P., Jayasimhadri M. (2020). Structural, multiferroic, and magnetoelectric properties of (1 – x) Bi0.85La0.15FeO3-xBaTiO3 composite ceramics. *Journal of Materials Science: Materials in Electronics*. ARSD

Gupta A., Arya P.K. (2020). Impact of splits on stock splits ratios around announcement day: Empirical evidence from India. *Investment Management and Financial* Innovations. ARSD

Gupta A., Arya P.K. (2020). Growing importance of digital finance for financial inclusion and empowerment of women: Evidence from India. *International Journal of Advanced Science and Technology*. ARSD

Shrivastav L.K., Jha S.K. (2020). A gradient boosting machine learning approach in modeling the impact of temperature and humidity on the transmission rate of COVID-19 in India. *Applied Intelligence*. ARSD

Journals

SERB-DST, October 2018 -2021(Ongoing), entitled "Design and optimization of performance of hybrid capacitors using graphene (nano carbons)/metal oxide nanocomposite electrodes with sodium ion-based electrolytes". Dr. Yogesh Kumar. Sanctioned Amount: 23 lakhs

JSPS (India-Japan joint project) 2019 (On-going), entitled "Study of Novel oxide conductors as solid electrolyte for SOFC Applications". Dr. Raghvendra Pandey. Sanctioned Amount: 13.3 lakhs.

CSIR, 8th May 2019 – 2022 (On-going), entitled "Preparation of.....based composite materials" Mr. S. Shankar Subramanian. Sanctioned Amount: 16 lakhs

ICSSR, March, 2019 – 2021 (On-going), entitled "Identifying global parameters for quality education: a comparative study of public and private sector universities in India" Dr. Uma Sanjay Singh. Sanctioned Amount: 11.8 lakhs

ICSSR, March, 2019-2021 (On-going), entitled "A study on urban governance around realities and suggestions for effective and innovative public policy in India" Dr. Surendra Singh. Sanctioned Amount: 6 lakhs

Patents Filed/Granted

No. of national patents: 01

Title: A process for Chemical Synthesis of A Herbal Antidiabetic compound isolated from E. Jambolana.

Seminars Organized

Prof. Dinesh Singh, Former Vice chancellor DU & Chancellor, K.R, Mangalam University, DEMYSTIFYING THE CORONA VIRUS: GOOD NEWS FOR INDIA, 28 April 2020.

Prof. Anand Prakash, Head, Dept. of Psychology, Delhi University, STRESS MANAGEMENT DURING LOCKDOWN, 17 April 2020.

Prof. R. K. Singh, Head, Department of Commerce, University of Delhi, COVID 19: MANAGING UNCERTAINTIES, 30 April 2020.

Prof. Ram Ramaswamy, Department of Chemistry, IIT Delhi Professor (Retired) SPS and SCIS, Jawaharlal Nehru University, HIGHER EDUCATION IN INDIA AFTER COVID-19, 7 May 2020.

Prof. Girishwar Mishra, Former Vice Chancellor, Mahatma Gandhi International University Wardha, CORONA CRISIS: A GANDHIAN PERSPECTIVE, 11 May 2020.

Conferences Organized

Atma Ram Sanatan Dharma College (ARSD) of University of Delhi organized the second edition of two-day National conference on "Recent Trends in Functional Materials" on 5th-6th November 2020 under the Star College Scheme of the Department of Biotechnology, Govt. of India and the College IQAC.

Atma Ram Sanatan Dharma College (ARSD) of University of Delhi organized the 03 day International Conference "Advanced Functional Materials and Devices" on 4th-6th February, 2021 with collaboration with IQAC by the department of Physics.

Two day Online National Conference was organised by the department of Political Science on "State and democracy in India: Social, Economic and Political Aspects" on Feb 23-24, 2021.

Two day National Seminar was organised by the Hindi Department in collaboration with IQAC on" Fanishwernath Renu Ka Sahitya: Ek Alochanatmak Vimarsh" on 25-26, March 2021.

Seminar/Conference Presentations

Manika Jain presented Academic Research Poster Presentation at Enactus World Cup 2020 on the theme "Social Entrepreneurial Action and Social Innovation". The topic of the poster was "Revisiting Agility in the Post-Pandemic World", held on 10 September 2020.

Manika Jain presented Paper at the E-conference on "Organizational Renaissance in the Post COVID Era" organized by Delhi Institute of Advanced Studies, GGSIPU. Paper title was "An Investigation into the Relationship between AI enabled Chatbot Interface and Online Buying Behaviour of Consumers in Delhi NCR Region", on 10 April 2021

Dr. Apra Sinha presented paper on "Policy Errors and Business Cycle Fluctuations: Evidence from an emerging economy" at American Economic Associations, 2021, USA.

Dr. Manish Kumar presented paper at National Conference on "Organic-inorganic perovskite-based solar cell designs for high conversion efficiency: A comparative study by SCAPS simulation" organized by NCFM-2020, Sharda University, Greater Noida, Uttar Pradesh from July 25-26, 2020.

Dr. S. Shankar Subramanian presented paper at International e-Conference on Advanced Functional Materials and Optoelectronic Devices (ICAFMOD-20), organized by Centre for Renewable Energy, Veer Bahadur Singh Purvanchal University, from 13-15 June 2020.

Dr. S. Shankar Subramanian presented paper at National Conference on "Functional Materials Emerging Technologies and Applications in Materials Science (NCFM-2020)" organized by Physics Department, School of Basic Sciences & Research, Sharda University from 25-26 July, 2020.

National MoUs Signed

MoUs have been signed with National Skills Qualifications Framework (NSQF) on 30-06-2020 for the following 12 courses: IT/Ites/Certificate Course on Artificial Intelligence, Media and Entertainment/ Certificate Course on Business Communication & Personality Development, IT/Ites/ Certificate Course on Cyber Security and Mobile Security, Management and Enterpreneurship/ Certificate Course on DIGITAL MARKETING, Media and Entertainment/ Certificate Course on Digital Photography, Media and Entertainment/ Certificate Course on French Language, Media and Entertainment/ Certificate Course on Smart Film Making, IT/Ites/ Certificate Course on Data Science, IT/Ites/ Certificate Course on Skill Programme on MS –EXCEL, Certificate Course on Instrumentation, Certificate Course on Media and Entertainment and Life Sciences/ Certificate Course on Forensic Science and Criminal Investigation.

Placement Details

Number and percentage of students placed- 134 and 10% Number of Companies visited for campus recruitment-20

Extension and Outreach Activities

The NSS unit of ARSD College is selflessly devoted to community service and volunteering for different causes around the year. It has initiated 4 plantation drives for a green and clean environment. It has also organized donation drives like 'pulse donation drive' on 10th February 2021 and 'Stationary donation drive' on 24th Jan in lieu of International education day and National Girl child day. On 2nd October 2020, the unit conducted a 2-km PLOG RUN as a part of the FIT INDIA movement as per the directions from the Directorate of NSS, Ministry of Youth Affairs and Sports. NSS ARSD in collaboration with Delhi traffic police organized a road safety awareness workshop under the 'National Road Safety Month 2021, 11 February ' (NRSM'21). Project JEEVSEVA aimed at 'stray-care' - targeting stray dogs, cats, and birds at the moment. The NSS Unit has also adopted Shri Ram JJ Camp, a slum near the college. About 105 NSS volunteers are part of the education team which has undertaken the task of guiding young minds under the name of SEVADEEP.

Library Development

The College Library procured 927 books, 21 periodicals and 30 magazines in previous year (2020-21). It has vast collection of 1,16,725 (Approx.) books. It recorded approx. 537 books issued and 1167 books returned during 2020-21. The Library uses SOUL 2.0 Integrated Library Management Software to automate housekeeping operations and is equipped with 8 PCs to access the E-resources of DULS resources, NLIST project, DELNET, other sources. 2Pcs are available for Online Public Access Catalogue (OPAC). The College also trains, students of Delhi Library Association and IGNOU where they get working experience. It has also registered in Developing Library Network (DELNET) to provide books on loan to faculty as well as students along with online resources. College Library seeks to design and develop a Digital Library and Institutional Repository.

Faculty Strength

Total faculty strength -189

Financial Allocation and Utilization

Grant sanctioned - Rs.56,52,90,792/-

Grant utilized - Rs.76,50,07,184/-

Other Significant Information

During COVID-19 Pandemic around 100 Webinars/e-FDPs/ Workshops organized by ARSD College with more than 10000 participants.

BHAGINI NIVEDITA COLLEGE

Major Activities and Achievements

Two international virtual conferences on "Vasudhev Kutumbhkam" were conducted in June 2020 and March 2021, addressing people, science, environment, pandemic, and discrimination. A variety of webinars and discussion sessions were held between 16 April and 30 May, 2020. These covered topics such as "Sports Injuries and First-aid", "Obesity Management", "Detoxification for Health and Sports Performance Enhancement". The Dramatics Society of Bhagini Nivedita College, Abheesht, also organized a webinar on "Nukkad Natak" in September 2020. The NSS committee of the college organized Covid-19 vaccine awareness drive and programmes on mental health. NCC cadets of BNC actively participated in various university-level activities such as University Convocation, Shaurya Diwas, the Republic Day as well as the Independence Day. Additionally, the cadets participated in both online and offline events on Covid-19 awareness campaign, mask distribution, food distribution, Aarogya Setu App awareness campaign for vaccines, Ek bharat Shreshta Camp and Combines Annual Training Camp, Special National Integration Camp, which were organized by the NCC Directorate, Delhi.

Honours/Distinctions

Dr. Yogesh Kumar, Department of Chemistry, was awarded 'Best Distinguised Investigator' from Center for Global Health, Hansraj College, university of Delhi, India and Loyla University Chicago Stritch School of medicine, USA, in association with TCl Chemicals (India) Pvt. Ltd., 2019.

Dr. Vishal Chaudhary, Department of Physics, was invited as a resource person in workshop on 'Virtual Labs' initiative from 20-22 July, 2020, and 'HTML and ExpEYES software' from 14 to 27 May 2020, organized by SVP College, Bhabhua in association with IIT Bombay, India. Both the events were under MHRD initiative.

Ms. Sushma Rani Khurana, Department of commerce was invited as a resource person for CBSE Online Training Session in Shorthand (English) and Typography, and Computer Application on 18, 19, and 25 February 2021.

Students with Distinctions

Aarti and Tamanna Jindal, B.Sc. (Hons) Physics, fourth semester, received I and II Oral Award respectively at International Youth conference to speak out discrimination, Vasudhev Kutumbkam-2 held on 20 March 2021, organized by Research Cell, BNC.

Publications

Chaudhary, V. and Chavali, M. (2021). Novel methyl-orange assisted core-shell polyaniline-silver nanosheets for highly sensitive ammonia chemiresistors. J Appl Polym Sci., e51288.

Kaushik, G. (2021). Vartmaan Sandarbh Mein Lok Janjatiya Saahitya Evam Sanskriti ka Mahatva. Shodh Sarita; 2348-2397; 44-46.

Kumar, P. and Vedeshwar, A.G. (2020). Cavity-assisted enhanced and dephasing-immune squeezing in the resonance fluorescence of a single quantum dot. Phys. Rev. A 102, 043715.

Kumar, Y., Kumar, S., Singh, A. K. (2020), COVID-19: An Update on Clinical Trials Current Topics in Medicinal Chemistry, 20(17), 1516-1517. (ISSN: 1873-4294)

Kumar, Y., and Jain, A. (2020). COVID-19 Pandemic – Are we heading from Health Crisis Towards An Unprecedented Nutrition Crisis? Current Topics in Medicinal Chemistry, 20(16), 1438-1439. (ISSN: 1873-4294)

Ram, J., Singh, RG., Singh, F., Chauhan, V., Gupta, D., Kumar, V., Kumar, U., Yadav, BC., Kumar, R. (2020). Ion beam engineering in WO3-PEDOT: PSS hybrid nanocomposite thin films for gas sensing measurement at room temperature. Inorganic Chemistry Communications, 119, 108000.

Singh, R.G., Gupta, H., Mehra, R. M., Singh, F. (2021). Tuning of defects induced visible photoluminescence by swift heavy ion irradiation and thermal annealing in zinc oxide films. Radiation Physics and Chemistry 183, 109400.

Singh, J., Singh, R.G., Gautam, S.K., Gupta, H., Ojha, S., Singh, F. (2021). Swift heavy ion irradiation induced negative differential resistance and transport of charge carriers in conducting polymer-metal oxide hybrids. Radiation Physics and Chemistry 179, 109211.

Yadav, R.K., Kumar, Y., Chaudhary. S. (2020) Metal-Free, H2O2-Mediated, Regioselective Direct C-3 Hydroxylation of Imidazo [1,2-a] pyridines via C(sp2)-H bond functionalization. Chemistry Select, 5(29), 9235-9239. (ISSN = 2365-6549)

Journals

Number of college teachers serving as Editor(s)/ Member(s) of Editorial Board: 04

Research Projects

DST-SERB Start-up Research Grant (Young Scientist), 2016-2019, entitled "Synthesis of hetero-substituted amino acids via C (sp3)-H functionalization and its applications". Amount 34 lakhs.

Seminars Organized

Prof. Ajoy Ghatak, Megh Nad Saha Professor, NASI, "Light and Einstein's E=mc2", 5 November 2020.

Dr Praveen Pathak, Scientist E, HBCSE, TIFR, "Symmetry in Physics", 27 October 2020.

Dr. Pankaj Parsad, Research Scientist, Weill Cornell Medical College, USA, "International webinar on myths and facts related to COVID-19", 18 April 2020.

Hricha Rashmi, Hindustani Classical Vocalist, Lecturer, Delhi University, Graded Artist, All India Radio, Delhi, "Tales Tunes Tell: A Brief History of Indian Classical Music", 7 October 2020.

Dr. Muhammad Kazim, Academician and Theatre Activist, Nukkad Natak: A Form of Theatre, 19 September 2020.

Conferences Organized

Organized an International Symposium entitled "Ciliate Biology 2018" in collaboration with Maitreyi College and SGTB Khalsa College, University of Delhi during 4 to 6 April 2018. Funding agencies: ISOP, IUBS, INSA, DBT, DST-SERB, CSIR, ICMR, DRDO and ZSI.

Organized an International Virtual Conference entitled "Vasudhev Kutumbkam: People, Science, Environment and Pandemic", Research Cell and Community engagement and Outreach cell, BNC, during 5 to 7 June 2020.

Organized an International Youth conference "Vasudhev Kutumbkam-2", Research Cell, Bhagini Nivedita College, in collaboration with University of Hyderabad, on 20 March 2021.

Seminar/Conference Presentations

- V. Chaudhary presented their work entitled, "Discriminatory Traits: Superiority Complex" at International Youth conference to speak out against discrimination, Vasudhev Kutumbkam-2, organized by Research Cell, Bhagini Nivedita College, University of Delhi, India in collaboration with University of Hyderabad, India on 20 March 2021.
- V. Chaudhary presented their work entitled, "Mental health: Stigma, Importance and Prevention" at International Webinar on Mental health organized by Nile university, Nigeria on 23 January 2021.
- V. Chaudhary presented their work entitled, "Stigmal Aspects of Mental Health" at international webinar on Mental health organized by NSS & Research Cell, Bhagini Nivedita College in collaboration with Happy Mental Club on 10 October 2020.
- V. Chaudhary presented their work entitled, "Stigma Related to Mental Health: Silent Pandemic" at International Conference on "We Need to Talk: Mental Health & Stigma" organized by Debate Bots Club, Delhi on 12 July 2020.
- V. Chaudhary presented their work entitled, "Role of Nanotechnology in combat COVID-19" at International Virtual conference on "strategies of self-dependency in COVID-19 and application of exotic materials in field of Physics, Chemistry, Biology, Medicine and Engineering" organized by SVP College, Bhabhua, VKSU in association with Society for Technologically advanced materials of India (STAMI), India on 29 to 31 May 2020.
- V. Chaudhary presented their work entitled, "How huge is Nano?; An introduction to Nanotechnology" at International Webinar organized by QUBIT: Physics society, Bhaskaracharya College of Applied Sciences, University of Delhi, India on 29 May 2020.

Geeta Kaushik presented their paper entitled, "Nadee Sanrakshan" at National Webinar, funded by UGC, organized by Aditi Mahavidyalaya on 9 March 2021.

Placement Details

Number and percentage of students placed: 06

Extension and Outreach Activities

Considerable number of extension and outreach activities were conducted throughout the session. World Mental Health Week Celebration was organized from 5 to 10 October, 2020 in collaboration with Happy Mentals Club, India. ISRO Week Celebration was organized from 7 to 12 August, 2020. Nuclear Week Celebration on "After the Bomb: Life story of Hibakusha" was held from 3 to 6 February, 2021 in collaboration with Peace Boat and ICAN (Novel Peace Prize winner, 2017). Campaign to feed stray animals around the neighborhood was conducted on World Stray Animal Day, 5 April 2020. Finally, online celebration of World Earth Day was conducted through slogan/caption picture competition on 22 April 2020.

Library Development

BNC library stands with a collection of nearly 31,000 books, 42 magazines and journals. Nlist programme of INFLIBNET, UGB, provides access to approximately 1 lakh e-books and 6,000 e-journals to the users. BNC library is proud to initiate the use of URKUND plagiarism prevention software package of MHRD together with UGC and INFLIBNET through University of Delhi for plagiarism check of publications.

Faculty Strength

Total permanent: 39

Total Ad-hoc: 36

Financial Allocation and Utilization

Grant Sanctioned: Rs.14,11,00,000.00/-

Grant Utilized: Rs.14,11,00,000.00/-

BHARATI COLLEGE

Major Activities and Achievements

The college has successfully executed the Screening cum Evaluation for promotion of teachers in different departments. Promotions have taken place for all stages. College now has four Professors. Other achievements include the launch of a much-improved interactive website which will serve as a one stop source of information for anything related to the College. Further, the Minority and the OBC cell have been formally constituted. Care has been taken, to make both the cells diverse and representative. Towards Quality Assurance, the College has successfully registered for NIRF. The IIQA (and the SSR) have been submitted to the NAAC. Finally, as the College moves towards its 50th Founding Anniversary- a year-long celebration has been launched.

Honours/Distinctions

Bharati college was ranked 57 in the top 100 arts colleges of the country and 40 in the best commerce college list.

Students with Distinctions

Vijaylakshmi B. A. (Hons) Mathematics I year secured 92% in aggregate.

Jyoti B. A. (Hons) Mathematics II year secured 92% in aggregate.

Sarita B. A. (Hons) Sanskrit II year secured 87% in aggregate.

Ritika B.Com. (Hons) I year secured 86% in aggregate.

Garima Yadav B.A Prog. II year secured 84% in aggregate.

Publications

Banarjee, A. (2020). Representation of women in the movies Padman and Toilet: Ek prem katha. *IJELLS: International journal of English: Literature, language and skills*. 9(3): 10-20.

Dwivedi, S.S. (2020). Clashes in Trade and Causes of Migration: The Case of India and China as the Dynamic to the world. *Institute of Chinese Studies*. ICS: 116.

Gupta, M. (2020). Approximate Solutions and Levitin-Polyak Well-Posedness for Set Optimization using weak efficiency. *Journal of Optimization Theory and applications*. 191-208.

Jha, S. (2020). Rape and the Black Experience in Toni Marrison's, The Bluest Eye. *Daath voyage: An International Journal of Interdisciplinary Studies in English (A referred open access journal)*. 5(2): 1-7.

Malhotra, R. (2020). Efficacy of Solution Focused Brief Therapy on Self-concept of Bullied Adolescents. *International Journal of Psychological Rehabilitation*. 24(5): 3930-3936. doi: 10.37200/IJPR/V24I5/PR2020101.

Sen, N. (2020). Growing up: A Study of the role of childhood in shaping adults through Toni Morrison's The Bluest Eye. *Rock Pebbles a Peer-Reviewed Journal of Multidisciplinary Studies*.

NIRAJ (2020) Bhumandleekaran Aur Samkaleen Kavita Ka Yatharth. New Delhi: Hindi Book Centre. ISBN 13: 9788194541080.

Singh, S. Constructivism. *Book International Relations: Theory and Practice Ed.Nirmal Jindal and Kamal Kumar.* SAGE Publications India. ISBN: 9789353883454: 134-150

Journals

Number of college teachers serving as Editor(s)/ Member(s) of Editorial Board: 7

Seminars Organized

Dr. Ramesh Chandra Sharma, Online Digital Repositories for Lectures, Course Materials and Digital Library, 4th May, 2020.

Dr Vandana Mishra, Department of Environmental Studies, University of Delhi, Translating the current environmental state into an unexpected opportunity for industrial sustainability, 11th May, 2020.

Mr. Mohit Shaw, Co-founder of Career Keeda, Digital marketing for iGEN, 30th October, 2020.

Prof. Jonathan Gil Harris, Ashoka University, India, Listening to Shakespeare, 24th July, 2020.

Dr. Meenakshi Dhote Professor, Department of Environmental Planning, School of Planning and Architecture (SPA), Role of City Planning in Controlling Pandemics, 14th May, 2020.

Conferences Organized

The Politics of Women's Writing, 26th-27th May 2020.

Goods and Services Tax, 3rd Nov, 2020, Vanijya Samiti, Commerce Society of Bharti College, in collaboration with Edu Mission.

India- China Relations in Global Perspective: Emerging Relevance of Glossary, $28^{th} - 29^{th}$ October, 2020, Department of Political Science, Bharati College, in collaboration with Department of Political Science, Jamia Milia Islamia, Commission for Scientific and Technical Terminology (CSTT) and Department of Higher Education, Ministry of Education.

Covid 19 and its impact on world order, 6th-7th May, 2020, Department of Political Science.

Seminar/Conference Presentations

Sonia Kaushik presented a paper entitled, "Market Structure of Public Sector Banks in India" in the International Conference on, "Contemporary Issues in Accounting, Finance and amp; Banking" organised by Punjab Commerce and Management Association in collaboration with Khalsa College for Women, Ludhiana, held between 26th-27th December, 2020.

Sonali Jain presented on, "Kamala: From Invisibility to Truth, in the, "APCS Annual Conference" organized by Rutgers University, New Brunswick, NJ, USA, held during October, 2020.

Dr Rashmi Kumari presented on, "Industrial water contamination and Human Health" in the Indo-Iranian workshop on, "Water resources management" held on 29th October, 2020.

Dr Priyambada Patri presented a paper entitled, "Impact of climate change and sustainable water resource management- A case study' in the Indo- Iranian Workshop on, "Water resource management" organized by Ferdowsy University of Mashhad, Iran and Jamia Milia Islamia, New Delhi, held during 27th-29th October, 2020.

Swati Bawa Sawhney presented a paper entitled, "Use of AI Technology for Children with Special Needs" in the 18th International Conference of Indian Society of Ergonomics (ISE) on, "HumanizingWork and Work Environment" held during $10^{th} - 12^{th}$ December 2020.

Dr. Shivani Jha presented a paper entitled, "The Dark Side of Domestic Spaces: A Deliberation" in the International Webinar on, "The Politics of Women's Writing" organized by Department of English, Bharati College, University of Delhi held between $26^{th} - 27^{th}$ May, 2020.

Bhawna Shivan presented a paper entitled, "Undoing the past in the 'Identity' framework: Narratives of Social history of Dhanaks in Haryana" in the SASNET conference on, "Rethinking the Politics of Memory in South Asia" organized by Lund University, Sweden, between 9th-10th December, 2020.

Dr. Anavisha Banerjee presented a paper entitled, "Classroom E- management and Assessment in the Digital World: Virtual versus Traditional Classroom Teaching & quot" in the National Conference on, "Teaching and Learning Language and Literature in the DigitalEra: Opportunities and Challenges" (online), organized by Shri Vaishnav Vidyapeeth, Indore on 29th Oct,2020.

Dr. Madhuri Sharma presented a paper entitled, "Capital Choking, stubble burning: Livelihood and Environment" in the National Annual Conference of Haryana History Congress, fifth Virtual Session held between 25th -26th December, 2020.

National/International MoU Signed

MoU with Psycho-Analysis India signed on 4/08/2020 for a Certificate Course on Mental Healthand Counselling.

Other Inter-Institutional Collaboration

Ongoing Collaborations include those with IGNOU to run Post graduate courses, with to runshort term courses and with Green-o-Tech to recycle paper.

Placement Details

Number and percentage of students placed: 12.66%

Number of companies/industries visited for campus recruitment: 14

Extension and Outreach Activities

The extension and outreach cell of the college undertook many different initiatives during this period, to aid in the difficult situations and spread awareness amidst the population. 'Let's share learning' is an initiative launched to help the children of Nirmal Chaya in their studies, trying to secure a better future for them. 'Aiding Someone' was another initiative by the college during the Covid-19 pandemic times, in which, students volunteered to distribute food to the poor and provided digital knowledge and counselling. They also aided their friends, not to discontinue their education due to financial handicap and supported in all the possible ways.

Library Development

Bharati College library uses an automated Integrated Library Management System with OPAC facility with a total of 52,853 books of various disciplines. The library attains annual subscription to a number of academic journals for reference purposes that encourages the research output among faculty and students. N-List membership provides access to a number of e-resources enhancing digital learning initiatives among administrative staff and faculty members. DELNET membership has been activated by the college for accessing the e-journals and e-books and providing the readers with diverse resources. In the year 2019-20 the College library weeded out several old, and damaged books. These books were put up for sale in the college for a very nominal value. The students purchased 231 second hand books at a price of Rs. 4560. The leftover books were taken away by Green-O-Tech Ltd. The process ensured reuse of old books.

Faculty Strength

Total permanent faculty: 65

Total Ad hoc - 56

Financial Allocation and Utilization

Grant Sanctioned: Rs.283589000/-Grant Utilized: Rs. 284890805/-

Other Significant Information

College has initiated the process for the second cycle of NAAC accreditation in the period under review. Data collection was completed. College has submitted its Self Study Report (SSR). An additional piece of significant information is that the Auditorium has been inaugurated

BHASKARACHARYA COLLEGE OF APPLIED SCIENCES

Major Activities and Achievements

The college celebrated its 23rd Annual Day and Prize Distribution function in an online mode on September 8, 2020. More than 100 webinars on academic, social and current issues like Covid-19 pandemic and National Education Policy were conducted during the year. For management of Covid-19, task force was constituted and facilities for hand washing and sanitizing equipment, oxygen concentrator and isolation area were made available in the college. Counselling was also offered to staff, students and their families. Bhaskaracharya College of Applied Sciences is the first in the University to enter into partnership with the Government College, Arunachal Pradesh under the Vidya Vistar Scheme. The college is also collaborating with Indira Gandhi Government College, Tezu, Arunachal Pradesh under this scheme. The process of promotion of faculty members was initiated in the college under CAS 2010/2018. Forty-one faculty members at various stages have been promoted during the period October 2020 -March 2021.

Honours/Distinctions

Prof. Balaram Pani was awarded NESA Honorary Fellowship by National Environment Science Academy (NESA), 2020 in January 2021.

Prof. N.S. Abbas was awarded certificate of recognition for excellent contribution to 'Current World Environment Journal' as a Reviewer for the year 2021.

Award of Excellence was presented to PRof. Geeta Mongia for excellent mentorship for research work presented in 'ICONICS-UG' organized by Department of Electronics, Sri Aurobindo College, University of Delhi.

Prof. Eram S Rao won the Food System Vision 2050 - Rockefeller Foundation Prize as an Expert Team member in document development.

Gandhian Study Centre of the college was felicitated by Gandhi Bhawan, University of Delhi on October 2, 2020 for its outstanding performance in propagating the Gandhian values among the students. The principal of the college (Prof. Balaram Pani), Convener of Centre (Dr. Shivani G Varmani) and Student representative of Centre (Mr. Shishir of B.Sc. Hons. Instrumentation) were felicitated.

Students with Distinctions

Jyoti Dahiya of B.Sc. (Hons.) Polymer Science III year was awarded first rank in the university and the college.

Muskan Sharma of B.Sc. (Hons) Biomedical Science was awarded second rank in the University and first in the college

Tanushree Singh of B.Sc. (Hons) Microbiology III year was awarded second rank in the University and first in the college.

Komal of B.Sc.(Hons.) Polymer Science was awarded second rank in the University and the college.

Riya Garain of B.Sc. (Hons) Botany was awarded first rank in the college.

Publications (Other details enclosed)

Chugh, B., Singh A. K., Poddar D., Thakur S., Pani, B., & Jain P. (2020). Relation of degree of substitution and metal protecting ability of Cinnamaldehyde Modified Chitosan. Carbohydrate Polymers, 234, 115945, 1-10.

Deep, B., Mathur, I. & Joshi N. (2020). Coalescing IoT and Wi-Fi technologies for an Optimized Approach in Urban Route Planning. Environmental Science and Pollution Research, 27, 34434–34441.

Kaur, N., Chugh, H., Sakharkar, M. K., Dhawan, U., Chidambaram, S. B., & Chandra, R. (2020). Neuroinflammation Mechanisms and Phytotherapeutic Intervention: A Systematic Review. ACS Chemical Neuroscience, 11(22), 3707–3731.

Kumar, R., Kumari, S., Rai, B., Kumar, R., Sirohi, S., & Kumar, G. (2020). A Facile Chemical Approach to Isolate Cellulose Nanofibers from Jute Fibers. Journal of Polymers and the Environment, 28(10), 2761-2770.

Kushwaha, C.S., &Shukla, S.K. (2020). Electrochemical Sensing of Paracetamol Using Iron Oxide Encapsulated in Chitosan-Grafted-Polyaniline. ACS Applied Polymer Materials, 2, 2252-2259.

Kushwaha, C.S., &Shukla, S.K. (2020). Potentiometric extractive sensing of lead ions over nickel oxide intercalated chitosan-grafted-polyaniline composite. Dalton Transactions, 49, 13862-13871.

Sharma, G.S., Krishna, S., Khan, S., Dar, T.A., Khan, K.A., & Singh, L.R. (2021). Protecting thermodynamic stability of protein: The basic paradigm against stress and unfolded protein response by osmolytes. International Journal of Biological Macromolecules, 177, 229-240.

Singh, A. K. Chugh, B., Thakur, S., Pani, B., Lgaz, H., Chung, I., Pal, S., & Prakash, R. (2020). Green approach of synthesis of thiazolyl imines and their impeding behavior against corrosion of mild steel in acid medium. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 599, 124824.

Singh, P., &Shukla, S.K. (2020). Structurally aligned nickel oxide encapsulated polypyrrole nanocomposite for hydrogen peroxide sensing. Dalton Transactions, 49, 8744-8754.

Warepam, M., Mishra, A.K., Sharma, G.S., Kumari, K., Krishna, S., Khan, M.S.A., Rahman, H., & Singh, L.R. (2021). Brain Metabolite, N-Acetylaspartate Is a Potent Protein Aggregation Inhibitor. Frontiers in Cellular Neuroscience, 15, 617308.

Journals

Number of college teachers serving as Editor(s)/ Member(s) of Editorial Board: 02

Research Projects

DST, 2020-2022, entitled "ARMEd: Antimicrobial resistance mitigation and eradication using blended learning approach – social media, outreach and awareness activities". Dr. Uma Chaudhry (Principal Investigator), Dr. Avneesh Mittal (Principal Investigator). Amount 17.91 lakhs.

ICMR, 2019-2022, entitled "Exploring moonlight enzyme, glutamate racemase, of *Neisseria gonorrhoeae* as a target for anti-gonococcal drug discovery". Dr. Uma Chaudhry (Principal Investigator), Prof. Bishwajit Kundu, IIT, Delhi (Principal Investigator). Amount 40.04 lakhs.

SERB-DST, 2018-2021, entitled "Significance of 5-hydroxymethylcytosine in neurodegeneration associated with rapid eye movement sleep deprivation". Dr. Uma Dhawan (Principal Investigator). Amount 40.11 lakhs.

Seminars Organized

Prof. Carsten Denker, Head, Solar Physics, Solar Observatory Einstein Tower, Germany; 'A Short History of Solar Physics', 30 July 2020.

Dr. Manoj K Bhasin, Director, Single Cell Biology Program at Aflac Cancer and Blood Disorders Center, Atlanta, USA; 'Epidemiology, Diagnostics and Therapeutic Approaches to Combat COVID-19', 26 June 2020.

Dr. Amita Misra, Data Scientist, IBM Watson, California, USA; 'Artificial Intelligence: Societal Implications of Thinking Machines', 22 June 2020.

Dr. Vikas Karwasara, Director, Thar Hospital and Multispeciality Centre, Barmer, Rajasthan and Dr. Shilpika Bagh, Professor, Biochemistry and Genetics, AUC, St. Maarten; 'Prevalent Crisis Triggered by the Covid-19 Pandemic and its Appraisal', 18 and 19 May, 2020.

Dr Gautam Goswami, Head - Technology Vision, TIFAC, DST, GoI and Dr. Sanjeev Sarpal, Director, Advanced Solutions, Netherlands; 'Technological Trends for the Next Generation', 1 June, 2020.

Seminar/Conference Presentations

Dr. Meenakshi Garg presented a paper on 'Recent developments in food packaging for enhancing food quality and safety' in the international conference on Advances in Agricultural and Food Sciences to Face the Challenges to Environment and Biosecurity organised by the School of Agricultural Sciences, Sharda University, Greater Noida, India during January 16 to 20, 2021.

Sirohi, S., Dobhal, S., Pani, B., &Nain, R. Chitosan functionalized mesoporous silica nanoparticles for drug delivery applications. Oral presentation in First International Online Conference on Blends, Composites, Bio-Composites and Nanocomposites (ICNC-2020) at Mahatma Gandhi University, Kottayam, Kerala, India held on October 9 to 11, 2020.

Dr. Amit Kumar presented a paper titled 'Sanskrit as language for Artificial Intelligence & Robotics' in International Sanskrit e-conference on 'Insight into Sanskrit Knowledge world', Government College of Arts and Science, Aurangabad, Maharashtra held on June 29 and 30, 2020.

Arti Dua presented a paper titled 'Network Steganography using Extension Headers in IPv6' at 5th International Conference on Information, Communication & Computing Technology (ICICCT -2020) held on May 9, 2020.

Dr. Eram Rao was invited as a speaker at a National webinar on 'Food Health and Safety' at Deshbandhu College, University of Delhi on 'Unintentional Contaminants in Foods' on September 19, 2020.

Dr. Amit Kumar presented a paper titled 'Computer vision: Adding more Senses to Artificial Intelligence' in the Conference Recent Advances in Technology & Engineering (CRATE-2020), Department of Computer Science & Engineering, Vemu Institute of Technology held on August 20-21, 2020.

Dr. Amit Kumar presented a paper titled 'Artificial Intelligence to Combat Corona Pandemic: Discussion Paper' in the National Conference on Industry 4.0: Exploring New Horizons and Challenges for New Normal Post Covid-19, JIMS Engineering Management Technical Campus, New Delhi on July 11, 2020.

Dr. Madhulika Bajpai was invited as a speaker for an e-lecture on 'Stress Management' organized by Bihar Animal Sciences University, Patna held on June 20, 2020.

Dr. Eram Rao was invited as a speaker at a National webinar on 'Food Products- Innovation and Launching' organized by MSU, Baroda on June 15, 2020 onthe topic titled 'Tracking Trends in Food Processing Industry from Product development to Launch'.

Dr. Madhulika Bajpai was invited as a speaker for a webinar on 'Lifestyle Interventions in Managing Stress: Prevention is Better than Cure' organized by Amity University, Noida held on May 6, 2020.

National/International MoU Signed

MoU signed between the college (Department of Food Technology) and The Nutrition Alchemy, Mumbai for virtual internship for the students of department of Food Technology.

Other Inter-Institutional Collaboration

The Department of Microbiology (Principal Investigator; Dr. Ruchi Gulati Marwah) has collaborated with Dr. Deepti Jain, Structural Biology Lab, Associate Professor, Regional Centre for Biotechnology (RCB), Faridabad on the biochemical and molecular aspects of a robust biofilm formed by a novel strain of Bacillus sp. bcasdu2018/du. In this project, one of our alumni Mr. Anirban Adhikary who is presently the Master's student at RCB in Dr. Deepti's lab is also actively involved.

Extension and Outreach Activities

A multitude of webinars were conducted, including "Yoga on Modern Age" in collaboration with ISKCON, "Cancer Awareness for Women" in collaboration with Manipal Hospital and B. R. Ambedkar Centre for Biomedical Research, "Reflection on Entrepreneurship Development and North East India", "Obesity Management" in collaboration with Indira Gandhi Institute of Physical Education and Sports Sciences, "The Challenge of personal and Social Well-being" in collaboration with Bhagini Nivedita College, along with others. Summer Training Programme on 'Unite for Our Corona Warriors' was organized by the college in association with Society of Pollution and Environmental Conservation Scientists, Dehradun. NSS Facilitation programme for online marathon by Youth for Seva NGO was done with the aim to reach and encourage social belongings in youth population amid Covid-19 pandemic. An outreach activity of five days practical yoga sessions on 'Gandhi ji auryog, yog se mitaye rog' with Dr. Praveen Saroha, Director, Physical Education, Netaji Subhas University of Technology was organized by Gandhian Study Centre.

Library Development

Library has a collection of 27,068 volumes of books including reference books, 336 bound volumes of journals and 1231 CDs/DVDs. Apart from the regular subscription to some Newspapers and Magazines, the library, this year, has renewed its subscription to N-LIST (National Library and Information Services Infrastructure for Scholarly Contents) programme of INFLIBNET. This has provided the facility to access a large number of eresources to the students and staff throughout the year 24x7. During the year 2020-21, 9 books (out of 704) were withdrawn and written-off from the library stock.

Faculty Strength

Total permanent: 44

Total Ad-hoc (including leave vacancy): 48

Financial Allocation and Utilization

Grant Sanctioned: Rs.21,91,72,061.97/-Grant Utilized: Rs.21,44,54,069.11/-

Other Significant Information

An online Career Assessment Test was organized by Career Counselling Cell in collaboration with GUS Global Services, Pearl Academy and UPES for the final year students of college to help them choose a career which suits their aptitude, interest, personality, orientation and emotional quotient. Aashi Singh, B.Sc. (Hons.) Polymer Science I year won a silver medal in National MMA championship 2021 on February 21, 2021 in Lucknow. Ashima Jha of B.Sc. (Hons.) Biomedical Science II year won various awards at Model United Nation during the year. The Alumni committee in association with Departments of Electronics, Department of Physics and Department of Instrumentation organized an Alumni Interaction session on February 19, 2021 on the topic 'Alumni Interaction: Research Opportunities in Physical Science'. To commemorate Martyrs' Day, the Gandhian Study Centre designed a newsletter which was released by Prof. P. C. Joshi, Vice Chancellor of University of Delhi, Prof. Suman Kundu, Director, South Campus and Prof. Balaram Pani, Dean of Colleges, University of Delhi and Principal of the college on February 1, 2021. Various programs such as English enhancement classes, Computer literacy and Capacity building using Computer basics and Office package were organized for nonteaching staff. More than 1800 saplings were planted. Many more events of interest were conducted which have not been mentioned here.

Publications (2020-2021):

- 1. Bedi, P., & Dua A. (2020). ARPNetSteg: Network Steganography using Address Resolution Protocol. International Journal of Electronics and Telecommunications, 66(4), 671-677.
- Bisht, A., Kamble, M. P., Choudhary, P., Chaturvedi, K., Kohli, G., Juneja, V. K., Sehgal, S., & Taneja, N. K. (2021). A surveillance of food borne disease outbreaks in India: 2009-2018. Food Control, 121, 107630
- Chugh, B., Singh, A.K., Thakur, S., Pani, B., Lgaz, H., Chung, I., Jha, R., & Ebenso, E.E. (2020). Comparative Investigation of Corrosion-Mitigating Behavior of Thiadiazole-Derived Bis-Schiff Bases for Mild Steel in Acid Medium: Experimental, Theoretical, and Surface Study. ACS omega, 5 (23), 13503-13520. doi: 10.1021/acsomega.9b04274
- 4. Chugh, B., Singh A. K., Poddar D., Thakur S., Pani, B., & Jain P. (2020). Relation of degree of substitution and metal protecting ability of Cinnamaldehde Modified Chitosan. *Carbohydrate Polymers*, 234, 115945, 1-10. doi: 10.1016/j.carbpol.2020.115945
- 5. Deep, B., Mathur, I., & Joshi, N. (2020). Coalescing IoT and Wi-Fi technologies for an Optimized Approach in Urban Route Planning. Environmental Science and Pollution Research. 27, 34434–34441.
- 6. Deep, B., Mathur, I., & Joshi, N. (2020). Estimated Power Cost Comparison of Physical Server Vs Virtualized Server in a Data Center. International Journal of Advanced Science and Technology, 29(06), 5335-5342.
- 7. Eram S. Rao, Rizwana, C. Lalmuanpuia*, G. Aparajita and K. Prateek (2021) Food Additives and Hypersensitivity: A Review. *International Journal of Current Microbiology and Applied Sciences*. 10(02): 1697-1717.
- 8. Ghazala Riaz, Satya Narayan Naik, Meenakshi Garg and Rajni Chopra(2021), Phytochemical composition of an underutilized plant Sorrel/ Roselle (Hibiscus Sabdariffa L.) cultivated in India, Letters in Applied Nanobiosciences, vol.10,issue 2,2138-2147
- 9. Grover, S., Kumari, P., Kumar, A., Soni, A., Sehgal, S., & Sharma, V. (2020). Preparation and Quality Evaluation of Different Oil Blends. Letters in Applied NanoBioScience, 10(2), 2126-2137.
- 10. Juneja, V. K., Osoria, M., Altuntas, E. G., Salazar, J. K., Kumar, G. D., Sehgal, S., & Baker, D. (2021). Inactivation of *Listeria monocytogenes, Escherichia coli O157:H7*, and *Salmonella* spp. on dates by antimicrobial washes. Journal of Food Processing and Preservation, 45(3), e15282.
- 11. Kaur, N., Chugh, H., Sakharkar, M. K., Dhawan, U., Chidambaram, S. B., Chandra, R. (2020). Neuroinflammation Mechanisms and Phytotherapeutic Intervention: A Systematic Review. *ACS Chemical Neuroscience*, 11(22), 3707–3731.
- 12. Kumar, A. (2020). Sanskrit as Language for Artificial Intelligence & Robotics. Ajanta, 9(2), 1–5.
- 13. Kumar, A. (2020). Wavelet Signal Processing: A Review for Recent Applications. International Journal of Engineering & Techniques, 6(6), 52–60.
- 14. Kumar, A., & Bhatnagar, P. K. (2020). Enhanced Performance of Single Layer MEH-PPV Polymer Light Emitting Diodes: Effect of Alq3 Electron Transporting Layer and LiF:Al Cathode Contact on Single Layer MEHPPV Polymer LEDs. International Journal of Creative Research Thoughts, 8(7), 3893–3897.
- Kumar, H., Agnihotri, S., Roy, I., Pani, B., & Kumar, P. (2020). Microemulsion Mediated Multifunction of Doxorubicin Encapsulated Core-Shell Iron Oxide/Ormosil Nanoparticles as Efficient Magnetically-Guided Delivery, Bioimaging and In-Vitro Studies. *Advanced Science, engineering and Medicine*, 12(9), 1175-1182. doi:10.1166/asem.2020.2674.
- 16. Kumar, M., Kumar, A., Saini, R., Khanna, M. K., Bhatt, G., & Kapoor, A. (2020). Effect of high index buffer layer in PbSe clad waveguide to design a visible range polarizer. Optik, 228, 166001

- 17. Kumar, P., Bali, A., Kapur, L., & Shaw, D. (2020). Autonomic functions of college boys and girls (A comparative study), *International Journal of Physical Education, Sports and Health*, 7(2), 134-139.
- 18. Kumar, P., Bhatt, G., Kaur, R., Dua, S., & Kapoor, A., (2020). Synthesis and modulation of the optical properties of carbon quantum dots using microwave radiation, Fullerenes, Nanotubes and Carbon Nanostructures, 28(9),724-731.
- 19. Kumar, R., Kumari, S., Rai, B., Kumar, R., Sirohi, S., & Kumar, G. (2020). A Facile Chemical Approach to Isolate Cellulose Nanofibers from Jute Fibers. Journal of Polymers and the Environment, 28(10), 2761-2770.
- Kumar, S. Chatterjee, R. Ghosh, N.N. (2021). Influence of varying particle sizes on microwave absorbing properties of U-type hexaferrites and development of broadband microwave absorber, AIP Advances, 11, 015311
- 21. Kumari, S., Kumar, R., Rai, B., Sirohi, S., & Kumar, G. (2020). Study on the modification of polyester resin bamboo fiber-based composite with euphorbia coagulum and their effect on mechanical and thermal properties. Journal of Composite Materials, 54(24), 3473–3480.
- 22. Kushwaha C.S. and Shukla S.K.,(2020). Potentiometric extractive sensing of lead ions over nickel oxide intercalated chitosan-grafted-polyaniline composite, Dalton Transactions, 49:13862-13871.
- 23. Kushwaha CS. and Shukla S.K. (2020). Electrochemical Sensing of Paracetamol Using Iron Oxide Encapsulated in Chitosan-Grafted-Polyaniline, ACS Applied Polymer Materials 2:2252-2259.
- 24. Kushwaha CS., Singh P., Abbas N.S and. Shukla, S.K, (2020). Self-activating zinc oxide encapsulated polyaniline grafted chitosan composite for potentiometric urea sensor, Journal Materials Science: Materials in Electronics 31:1887–11896.
- 25. M Bassi, A Bharadvaja, K L Baluja, A study of electron scattering from 1-1 C₂H₂F₂ from 0.1 eV to 5 keV, The European Physical Journal D 74 (12), 1, 2020
- 26. Meena, P.L., Choudhary, S., Juhi, & Sadhu, S. D. (2020). Importance of Packaging in Pharmaceutical Industries. International Journal of Research and Analytical Reviews, 7(2), 956-971.
- 27. Mongia, G., Himanshu, & Verma, G. (2020). Design and analysis of Li-Fi system. International Journal of Innovative Research in Technology, 7(6),94-100. ISSN: 2349-6002.
- 28. Pandey, S.S., Singh B., Barwa M.S., Gautam Y.P. & Pani, B. (2020). Geochemical Signatures and Chemical Toxicity Assessment of Groundwater Uranium in the Agricultural Dominated Tehsil after Indian Summer Monsoon. *Research Journal of Chemistry and Environment*, 24 (10) 1-6.
- Pandey, S.S., Singh, B., Barwa, M.S. Gautam Y.P. & Pani, B. (2021). Terrestrial Gamma Radiation Dose (TGRD) Environmental Distribution in Alluvial Soil Region, its Monsoonal Variation and Assessment of Lifetime Cancer Risk, *Research Journal of Chemistry and Environment*, 25(2) 186-193.
- 30. Rao E.S., Meena P.L., Barwa M.S. (2021). Development of sugar free cookies with novel biodegradable packaging film. Journal of Applied and Natural Science. 13(1): 316-326.
- 31. Rao.E.S and C. Lalmuanpuia, (2020). Salt Reduction Strategies in Foods. International Journal of Chemical Studies, 8 (6):2458-2468.
- 32. Sadhu, S. D., Garg, M., & Meena, P. L. (2020). Cellulose Acetate/gelatin/Polyethylene Glycol Blend: Its Preparation, Characterization and Biodegradation. International Journal of Research and Analytical Reviews, 7(3), 484-490.

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- 33. Sadhu, S.D., Meena, P.L., Kumar, J., Gupta, J. Choudhary, S., Gupta, A. (2020). Preparation and characterization of polyaniline- and polythiophene-based copolymer and its nanocomposite suitable for electro-optical devices *Polymer Composites*.1-12.
- 34. Sehgal, S., Khanna, P., & Yadav, R. (2020). Phytochemical constituents of Hibiscus rosa-sinensis, Laurus nobilis and Psidium guajava leaves and their antimicrobial activity. Indian Journal of Natural Sciences, 11(63), 28549-28557.
- 35. Sharma, G.S., Krishna, S., Khan, S., Dar, T.A., Khan, K.A. & Singh, L.R. (2021). Protecting thermodynamic stability of protein: The basic paradigm against stress and unfolded protein response by osmolytes. *International Journal of Biological Macromolecules*, 177, 229–240.
- 36. Singh P. and Shukla S.K. (2020). Structurally aligned nickel oxide encapsulated polypyrrole nanocomposite for hydrogen peroxide sensing, Dalton Transaction 49:8744-8754.
- 37. Singh P. and Shukla S.K. (2020). Structurally optimized cupric oxide/polyaniline nanocomposites for efficient humidity sensing, Surface and Interface 18:100410.
- 38. Singh, A. K. Chugh, B., Thakur, S., Pani, B., Lgaz, H., Chung, I., Pal, S., & Prakash, R. (2020). Green approach of synthesis of thiazolyl imines and their impeding behavior against corrosion of mild steel in acid medium. *Colloids and Surfaces A: Physicochemical and Engineering Aspects* 599, 124824.
- 39. Singh, P., Chauhan, S, S., Tripathy, S. S., Singh, V. P. & Quraishi, M. A. (2020). Electrochemical corrosion inhibition investigations of mild steel in 1 M HCl solution. AIP Conference Proceedings 2220, 090002.
- 40. Sodhi, K. K., Kumar, M., Balan, B., Dhaulaniya, A. S., Shree, P., Sharma, N., & Singh, D. K. (2021). Perspectives on antibiotic contamination, resistance, metabolomics, and systemic remediation. *SN Applied Sciences*, *3*(2), 1-25
- 41. Srivastava, S., & Singh, V.P. (2020). Characterization of biocontrol microorganisms from the rhizoplane of *Decalepis arayalpathra* and screening of secondary metabolites. *Vegetos: An International Journal of Plant Research and Biotechnology*, 33(2), 352-359.
- 42. Tripathi, A. D., Sharma, R., Agarwal, A., & Rizwana (2021). Nanoemulsions based edible coatings with potential food applications. International Journal of Biobased Plastics, 3(1), 112-125.
- 43. Tripathi, A., Abbas, N. S., & Nigam, A. (2021). Biochemical profiling of in-vitro regenerated and conventionally grown *Ocimum basilicum* var. *thyrsiflora* plants. *Vegetos*, 1-6.
- 44. Varah, F., Mahongnao, M., Francis, D., & Shimrah, T. (2020). Measuring environmental attitudes and behaviors: a study of undergraduate students in Delhi. *Natural Hazards*, 103(2), 1291–1306.
- 45. Varah, F., Mahongnao, M., Pani, B., & Khamrang, S. (2020). Exploring young consumers intention towards green products: applying an extended theory of planned behavior. *Environment, Development and Sustainability*, 1-15.
- 46. Warepam, M., Mishra, A.K., *Sharma*, G.S., Kumari, K., Krishna, S., Khan, M.S.A., Rahman, H. & Singh, L.R. (2021). Brain Metabolite, N-Acetylaspartate Is a Potent Protein Aggregation Inhibitor. *Frontiers in Cellular Neuroscience*, 15:617308.
- 47. Yadav, K. K., Kumar, H. Pani, B., Roy, I. & Kumar, P. (2020). Mono Dispersible Water-Soluble Iron Sulfide Nanoclusters: Synthesis, Characterization Catalytic Application for Highly Efficient Synthesis of Xanthene Derivatives, *Advanced Science*, *engineering and Medicine*, 12 (5), 603-611. doi:10.1166/asem.2020.2564.

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List of Books published (2020-2021):

- 1. Garg, M., Chaturvedi, S., Sadhu, S.D., Barwa, M.S. &Pani, B. (2020). *Practical Handbook of Food Engineering*. Aaryush Education.
- 2. Garg, M., Meena, P.L., Sadhu, S.D., & Alam, T. (2020). *Food Packaging: A Practical Guide*. The Computype Media (Publishing Division)
- 3. Kumar, P (2021). Fitness and Exercise Management (1st ed.). Friends Publications (India). ISBN: 978-81-7216-569-7
- 4. Mishra, G., Mishra, L.C., & Dwivedi, S.R. (2021). *Ecological Approaches to Pest Management*. Bioscientific Publisher.
- 5. Varah, F., Mahong, M., Khashimwo, P., & Tuisem, S. (2020). Environmental Studies. Heritage Publishers
- 6. Wajida. A., & Eram S. R., (2020). Allergen Free Cooking. Variety Book Publishers, New Delhi.

Book chapters published (2020-2021):

- 1. Bedi P., & Dua A., (2020). Network Steganography Using Extension Headers in IPv6. In: Badica, C., Liatsis, P., Kharb, L., & Chahal, D. (Eds.), *Communications in Computer and Information Science* (pp. 98-110), Springer, Singapore.
- 2. Bedi, P., &Dua, A. (2020). Network Steganography using the Overflow Field of Timestamp Option in an IPv4 Packet. In: S.M. Thampi, S. Madria, X. Fernando, R. Doss, S. Mehta & D. Ciuonzo (Eds.), *Procedia Computer Science* (pp. 1810-1818), Elsevier.
- 3. Khurana, S., & Singh, R. (2020). Sunflower (*Helianthus annus*) seed. In B. Tanwar, & A. Goyal (Eds.), *Oilseeds: Health Attributes and Food Applications* (pp. 123-143). Springer, Singapore.
- 4. Kumar, A. (2020). Artificial Intelligence to Combat Corona Pandemic: Discussion Paper. In R. K. Raghuwanshi (Ed.), *A Handbook on Industry 4.0: Exploring New Horizons and Challenges for New Normal Post COVID-19* (pp. 204–213). Taurean Publications.
- 5. Kumar, A. (2020). Online Learning a Success Story: Report of One day Online National Workshop on Primers of Artificial Intelligence. In L. K. Sharma (Ed.), Digital Stress Management (pp. 35-43). Asian Press Books.
- Kumar, A. (2020). Review of Recent Electronic Manufacturing Schemes Announced by MeitY and COVID-19 Pandemic. In R. K. Gupta (Ed.), Global Economic Order in the Post-Covid-19 Era: Challenges, Opportunities and Strategies (pp. 183–189). Maharaja Agrasen University Publication.
- 7. Kumar, A. (2020). Study of ancient Indian education system to get clues of improvements in science education amid Covid-19 pandemic. In K. Kaur & L. Kumari (Eds.), *The Changing India amid Covid-19 Catastrophe* (pp. 50–55). Asian Press Books.
- 8. Kumar, A. (2020). Suggestive Study of Indian Universities amid Covid-19 pandemic. In K. Kaur & L. Kumari (Eds.), *The Changing India amid Covid-19 Catastrophe* (pp.90–95). Asian Press Books.
- 9. Kumar, A. (2020). Urgently adopted online teaching amid Covid-19 Pandemic: An Experience Sharing. In: Dr. Lalita K. Sharma (Ed.), *Dynamics of Educational Psychology* (pp. 162-172). Asian Press Books.
- Sehgal, S. (2020). Microbial Safety of Fresh Produce Sold in Delhi Markets and Implementation of Risk Management Approach. In: Thakur, M., & Modi, V. (Eds) *Emerging Technologies in Food Science*. Springer, Singapore

- 11. Sehgal, S.,& Sharma, V. (2021). Palm/Palm Kernel (*Elaeis guineensis*). In: Tanwar B., Goyal A. (Eds) *Oilseeds: Health Attributes and Food Applications*. Springer, Singapore.
- 12. Singh, R., Gautam, S., Sharma, B., Jain, P., Chauhan, K.D. (2021). Biopolymers and their classifications. In S. Thomas, S. Gopi, & A. Amalraj (Eds). *Biopolymers and their Industrial Applications: From Plant, Animal and Marine Sources to Functional Products* (pp. 21-44), Elsevier.
- 13. Singh, R., Sharma, R., Shaqib, M., Sarkar, A., Chauhan, K.D. (2021). Biodegradable polymers as packaging materials. In S. Thomas, S. Gopi, & A. Amalraj (Eds). *Biopolymers and their Industrial Applications: From Plant, Animal and Marine Sources to Functional Products* (pp.245-259), Elsevier.

College of Nursing, Army Hospital (R&R)

Major activities and achievements

Several academic activities were conducted such as a poster making competition was organized on the occasion of WHO Day on the theme, 'COVID-19 spread and prevention'. 73rd Independence Day was celebrated at Nursing Cadets' Mess with speech and inter-house group song competition followed by National Anthem on 15 August 2020. DNC inspection was carried out for inclusion of two new PB Diploma courses in Hematology Nursing and stem cell transplantation. Twenty-Nine graduates of batch no 03 were commissioned into Military Nursing Service on successful completion of 04 years B.Sc. (Hons) Nursing Course. International women's day was celebrated from 5 to 8 March 2021. Health education on Prenatal care, postnatal care and breast feeding was conducted in Gynae wards under supervision of Lt Col Suman Dhaka. Poster competition on "Women empowerment" was organized. Maj Gen Smita Devrani, Principal Matron AH (R&R) inaugurated the event and distributed the prizes to the winners after addressing the MNS Officers and the Nursing Cadets. "Anwesha-College Day" was celebrated with various cultural events on 13 Mar 2021 with Mrs Anjana Chatterjee, First Lady Army Hospital (Research & Referral) as Chief Guest and Maj Gen Sonali Ghoshal, Addl DGMNS as Guest of Honour. College released the fifth edition of college magazine "Tarangini" during the occasion.

Honours and Distinctions

Col Rekha Bhattacharya was awarded her Ph..D degree in Nursing from Sarvepalli Radhakrishnan University Bhopal in Child Health Nursing

Students with Distinctions (Total distinctions-40)

N/Cdt Biji M R, III Semester secured 2nd position in the University examination with 80.5% marks in aggregate.

N/Cdt Arshpreet Kaur, V Semester secured 2^{nd} position in the University examination with 80.25% marks in aggregate

N/Cdt Bhawana Subba, VII Semester secured 3rd position in the University examination with 83.75% marks in aggregate.

N/Cdt Parul Pandey, III Semester secured 6th position in the University examination with 77.75% marks in aggregate

N/Cdt Vaishnavi, V Semester secured position in the University examination with 78.25% marks in aggregate

Publications

Bhattacharya, R. (2020). A study to assess the effect of perceived Nurse-parent support on parental stress level of hospitalized children in the pediatric wards of a selected tertiary hospital, Pune. *International Journal of Scientific Research*, 9(3): ISSN – 2277-8179

Bhattacharya, R. (2020). Effect of Helfer skin tap technique and expressed breast milk on response to pain among neonates during intramuscular injection. *International Journal of Paediatrics & Geriatrics*. ISSN – 2664-3685

Bhattacharya, R. (2020). Comparison of effects of various non pharmacological methods on pain in infants during vaccination. *International Journal of Preventive, Curative and community medicine*. ISSN-2454-325X

Dhaka, S., Ramhlunmawi. Knowledge, Attitude and practice among mothers for impart of sex education to children. *Journal of Nursing Research Society of India*. ISSN – 0975-6841

Uthup, M. M. A study to assess the effectiveness of a structured teaching program on the knowledge and attitude regarding vasectomy among married men working in a civil establishment in western Maharashtra. *Journal of Nursing Research Society of India.* ISSN-0975-6841

Research Projects

Lt Col Asha Abraham: A study to assess the effect of traditional breast stimulation techniques on quantity of expressed breast milk among mothers of newborns admitted in NICU.

A study to assess the effectiveness of a structured teaching programme regarding knowledge on post-operative care in joint replacement among patients undergoing surgery for the same in selected tertiary care hospitals. Guide- Maj Jiji Rajeev

A study to assess the effectiveness of structured teaching programme on knowledge and attitude of biomedical waste management among the 4th year students of a selected College of nursing in Delhi. Guide: Maj Mein Uthup

A cross sectional study to assess the prevalence and determinants of anemia among individuals of low socio economic status in a selected urban community. Members: N/Cdt Bhawna Subba and 05 more students. Guide: Lt Col Sunita and Maj Jiji, Funding agency: Self funded by students as study was part of curriculum

A descriptive study to assess the knowledge and attitude of Nursing students regarding organ donation in a selected College of Nursing of Delhi. Members: N/Cdt Anjali Bhandari and 05 more. Guide: Lt Col Archana Kushwaha and Maj Sunita Devi. Funding agency: Self funded by students as study was part of curriculum

A study to assess the effectiveness of a video assisted teaching on knowledge regarding tracheostomy care among selected nursing students in a quaternary care Hospital. Members: N/Cdt Shipra Rai and 05 more. Guide: Lt Col Sreekala B and Maj Sridevi C. Funding agency: Self funded by students as study was part of curriculum

A study to assess the effectiveness of structured video teaching program on the knowledge regarding neonatal resuscitation program among undergraduates Nursing students of selected college in New Delhi. Members: N/Cdt Mahima Negi and 05 more. Guide: Lt Col Suman Dhaka. Funding agency: Self funded by students as study was part of curriculum

A study to assess the effectiveness of structured video teaching on knowledge of antenatal examination among Nursing students of selected College of Nursing in Delhi. Members: N/Cdt Shimayala and 05 more. Guide: Lt Col Nisa Gopidas. Funding agency: Self funded by students as study was part of curriculum

Seminar Organized

Lt Col Dola Banerjee, Associate Prof, College of Nursing , AHRR presented on, 'Cardiac Arrythmias' on 26 March 2021

Conferences Organized

A Conference on, 'Breast Feeding Workshop and Panel discussion' was organized on 7 August 2020. Funding agency Army Hospital (R&R).

Seminar / Conference Presentations

Maj Sridevi C attended the I virtual workshop on 'Management of CBRN causalities for Medical Officers' organized from 15 to 18 Mar 2021.

Placement details

29 students of first batch of B.Sc. (Hons) Nursing course commissioned as Lieutenant in Military Nursing Service on January 2021.

Extension and Outreach activities

Nukkad Natak on women empowerment and Substance abuse was performed in Urban Health Centre Dwarka and Jaffarpur Kalan Rural health centre respectively in March 2020. School Health Programme at Govt Dwarka by B.Sc. (Hons) Nursing III year Cadets in February 2020. A survey related to anemia among individuals of low socioeconomic status was done by B.Sc. (Hons) Nursing III year cadets in March 2020. An awareness campaign on "Immunization and family planning" was conducted by B.Sc. (Hons) Nursing III year cadets in February 2020.

Library Development

Total No of books available in the college 5000. Total number of books in Army Hospital (R&R) library is 10000.

Faculty strength

Permanent Faculty: 25 Ad-hoc Faculty: 05

Financial Allocation and Utilization

Sanctioned grant

ACG grant: Rs 66,32,184/-TTIEG grant: Rs 34,30,000/-IHQ Fund: Rs 2,00,000/-

Grants Utilized: 100% utilized

Other Significant Information

College of Nursing Army Hospital (R&R) also conducts six Post Basic Diploma Speciallity courses in Nursing along with B.Sc. (Hons) Nursing which are recognized by Indian Nursing Council. Syllabus on Haematology Nursing and Stem Cell Transplant and Post Basic Diploma in Burns Nursing also developed and approved by Indian Nursing Council and the same has got the approval of MoD and Indian Nursing Council. These two courses will commence from October 2021.

COLLEGE OF VOCATIONAL STUDIES

Major Activities and Achievements:

College of Vocational Studies, a maintained institution of Delhi University, was founded in 1972. It makes a small beginning in a great change in the field of higher education making it more meaningful and diversified. Through this experiment, we seek to break new ground by bridging the gap between static university education and the social environment.

Honors and Distinctions

Dr. Sunil Koak was awarded Ph.D. from Department of Physical Education and Sports Sciences, University of Delhi and he has authored a book on Media and career in Physical Education.

Dr. Swati Chandra was awarded Ph.D. from University of Delhi. She has also written two poems featured in an anthology titled 'Ignite Poetry' published by Soul Scribblers Society and Rotary Club, Salem.

Publications

Jain, V. K. (2021) Teesri Kasam Khane ki Lachari. LAMAHI, a quarterly Hindi Journal listed in UGC care list.

University of Delhi: Annual Report 2020-21

Kakkar, S. (2020) "Gandhi's Evolving Discourse on Leprosy", in "M.K. Gandhi, Media, Politics and Society: New Perspectives", ed. Chandrika Kaul, Palgrave, UK.

Madan, N. (2020) The East Bengali Hindu Refugee in Bengali Fiction: Issues of Entitlement, Citizenship and Disavowal. *Creative Forum: Journal of Literary and Critical Writings.* 34:1-2, ISSN 0975-6396.

Mishra, G., Singh A. B., Satyal, A. (2021). 'Innovating College Placements: Challenges and changing dynamics with the Industry' ed. Khama Publishers.

Sunil (2021). Foreign Direct Investment (FDI) is an Alternative Arrangement for Economic Growth: A Review. *Kala Sarovar*. 24(1) ISSN: 0975-4520, pp. 21-29

Sunil (2020). Relationship between the Structural Growth of Agriculture, Manufacturing and Construction Sector in Delhi. *Wesleyan Journal of Research*, 13:4 (IX), pp.94-103. ISSN:0975-1386.

Satyal, A. (2021). Market for Higher Education: Case for Effective Regulation. *Inclusive – A Journal of Kolkata Centre for Contemporary Studies*. II(18). pp. 25-39. ISSN No: 2278-9758.

Journals

Number of College teachers serving as Editor(S)/Member(s) of Editorial Board:- 01

Seminars Organized

COMSOC, the Commerce Society organised a webinar on the topic "Current & Long-Term Effects of Covid-19 on the Banking Sector" on 8 August 2020and another webinar on the topic "Current and long term effects of COVID-19 on the insurance sector" on 6 September 2020.

TEB, The Entrepreneurial Board of the college organized a webinar on the topic "Start-Up Culture and the Problems Start-Ups are Facing during Pandemic". Session conducted by Mr. Sivesh Kumar, founder of StartUP Monk

Placement organized webinar entitled 'Innovating placements' in which two speakers from the corporate world shared their views on the current placement scenario in the industry in March 2021 and another webinar was organized in collaboration with Career Launcher.

Webinar by Ms. Shalu Chopra was organized on "Personality Development" on 7 October 2020.

ECONOX, a society of Department of Economics organised a webinar on 'Building Back Better: The Economic Stimulus'. Ms. Sanjana Kadyan, Assistant Director in Department of Economics Affairs, Ministry of Finance, IES and Dr. Avanindra Bath, Associate Professor, OP Jindal Global University were the speakers for the session.

ECONOX also organised a webinar on the topic 'Impact of Covid-19 on Unemployment and The Revival Strategy' on 31 August 2020. Ms. Mitali Nikore, Developmental Economics Consultant, Asian Development Bank and Consultancy Services, World Bank was the speaker.

Department of Tourism organized a national webinar in collaboration with *Samvardhan* trust NGO Held on 22 July 2020 Topic – prospects of tourism industry in the post pandemic world: with reference to cultural tourism in India. Department of Tourism has also organised an International webinar on the theme of 'World Tourism Day 2020 - TOURISM AND RURAL DEVELOPMENT'

A webinar on "Android Applications Development" was organized by Department of Computer Science on May 16, 2020. An industry expert on Android development working in OYO presented hands-on knowledge on Android development. The take away for the audience was intensive knowledge session on various Android development concepts.

Seminar/Conference Presentations:

Mr. Sanjiv Kakkar presented a paper entitled, "Bibliotherapy at what cost? The leprosy patient in India and the biblio-therapeutic interventions of caregivers: A historical perspective", at an International conference, "Surviving Isolation: Real and Transcendental Stories of Disease and Death and Bibliotherapy", organized by the Department of English, Rayenshaw University, Cuttack from 23 to 25 August 2020.

Dr. Pavitra Kumari presented a paper entitled, "Ambivalent Fairies: Interrogating Representations of Femininity in Haryanvi Folktales" in the National webinar on 'Multidisciplinary Approaches to Folklife: Challenges and Perspectives' organised by Department of MIL&LS, University of Delhi from 5 to 7 November 2020.

Mr. Sanjiv Kakkar presented a paper entitled, "Bibliotherapy at what cost? The leprosy patient in India and the biblio-therapeutic interventions of caregivers: A historical perspective", at an International conference, "Surviving Isolation: Real and Transcendental Stories of Disease and Death and Bibliotherapy", Dept. of English, Ravenshaw Univ., Cuttack, India, Aug 23-25, 2020.

Dr. Pavitra Kumari presented a paper entitled, "Ambivalent Fairies: Interrogating Representations of Femininity in Haryanvi Folktales" in the National webinar on 'Multidisciplinary Approaches to Folklife: Challenges and Perspectives' organized by the Department of MIL&LS, University of Delhi from 5 to 7 November 2020.

Placement details

Number of Placements: 170 students

Number of Internships offers to the students: 208

Extension and Outreach Activities

Green Brigade, the environment society of CVS, is a platform through which students enlighten themselves and others about pressing environmental issues like plastic pollution, climate change, deforestation, among others and sustainable development. Green Brigade has been active throughout the year and organized various events – Tree Plantation Drives, Talks, Workshops, Nukkad Nataks, Nature Walks and Outreach activities to develop Green Good Behaviour among students. The Environmental Society celebrated its Annual Fest: VASUDHA '21 on 6 April 2021. It was a one-day fest but, filled with exciting events which thrilled the throng with elation. Events like 'Green Plan', 'Prakriti ki Khoj' and 'Nature-e-Shayari' were organized which enthralled the participants and audiences. Activity namely, "Eco-friendly Opportunities in the Business World". The participants were encouraged to come with their ideas for a life-changing initiative for a sustainable environment and to bring Forth Futuristic Idea. The winners from Hansraj College had an amazing idea to use the stubble, which is usually burnt, and convert it into mushroom or use it in farming further. Thus, reducing pollution and making life sustainable. The 1st runner-up had a beautiful project which focused on growing small plants and they have collaborated with colleges and NGOs who purchase these plants from them as gifts for their events. 2nd runner-up had an amazing idea to reduce the cutting of trees and use the unused leftover pages of notebooks to make fresh notebooks and provide this at the cheapest rates.

NSS CVS is constantly working towards the welfare of society in the field of environment, mental health, and fitness and dedicated to uplift various section of society. NSS, strive to achieve similar goals through various activities which have a direct impact on the society. An interactive session was organized on Women Healthcare, Hygiene and Gender Sensitivity in collaboration with CSR RESEARCH FOUNDATION with its chairman CA Deendayal Aggarwal. A Sanitary Pad vending machine and a incinerating machine for sanitary pads was installed in the Girl's Common Room. A tutorial was given for the same. This will make sure that mensuration care is accessible for the girls of the college. NSS CVS is took a step to make our campus more clean and hygienic and ensure that there should be proper disposal of plastic waste. Separate bins were setup for different types of waste in different areas of the college. Green waste bins for dry waste and white waste bins for plastic waste were set up in the college. Blue waste bins were set up for wet waste. These different colors are used to make it easier to segregate the trash from biodegradable to non-biodegradable.

An awareness campaign on "Child Sexual abuse and POCSO" were organized by NSS-CVS in collaboration with SAKSHI (an organization). They presented "THE RAKSHIN PROJECT" which taught us about the prevention and protection of children in our society. She addressed the students emphasizing on children's activities and behavior in their childhood stage that is under 18 years of age. Rakshin team elaborated the meaning of rakshin that is to prevent and protect the child from any sexual abuse. Pornography, fondling, forceful sex, rape, indecent exposure, wrong gestures and contact, child grooming - all these come under child sexual abuse. They further illustrated how to find symptoms in children who are facing this. They also discussed about how Parents can maintain a healthy and trustful relationship with their children so they can share everything with them which most of us do not share because we hesitate and are scared of being scolded and distrusted by our parents. For this, we all need to be aware of our rights and always be alert and keep an eye on everyone.

Library Development

There are 59418 books in the stock. The college library subscribes various types of 25 National and International Journals. Internet facility has been upgraded with Wi-Fi Connectivity, Laptop Connectivity and E-Resource to

library users through Inflibnet facilities. The teachers are given the access to e-resource of UGC/INFLIBNET N-list & Delhi University Library System for academic activities/research work in their respective areas.

Faculty Strength

Total Permanent faculty: 33 Total Temporary faculty: 01 Total Ad-hoc faculty members: 66

Financial Allocation and Utilization

Sanctioned Grant: Rs. 28, 98, 97000/-Utilized Grant: Rs. 25, 80, 57,541/-

Other Significant Information: N.A.

NSS wing organized a short video competition 'PEHCHAN' which is followed by a 10 day kindness challenge which included different challenges on different days like feeding stray animals, helping in household chores, cooking a meal for your family, donate food to needy people, writing a letter to corona warriors and many more. Apart from this NSS wing launched its first annual E-MAGAZINE volume one 2020. NSS of the college has always been a supporter of local Indian products and services to promote local for vocal initiative of Indian government. A seven day online speech competition was organize to promote local brands. A lecture on 'Fundamental rights and duties' by advocate Rohit Dhawan was organized to create a better understanding among youth regarding their rights and duties. On Independence Day the core members of NSS recalled the sacrifice of our freedom fighter and payed tribute to them through a video it was done to develop a sense of patriotism among youth. Further, a webinar on fighting against cyber-crime by Mr. Makarand wagh was organized to explain the types of cyber-crimes and how to prevent them. On the occasion of teacher's day, NSS team paid tribute to their beloved teachers for all their support and guidance they have given us throughout their lives.

Mr. Avinash Chandra, Assistant Professor, Department of Tourism has attended Seven Day Faculty Development Programme (27 May to 3 June 2020) "Mind – Sets, Knowledge Sets and Skill – Sets for 21st Century Youth: Innovations and Adaptions"; Organized By Internal Quality Assurance Cell, Shri Ram College of Commerce, University of Delhi. He also participated as a Subject Expert in the National Webinar on "Problems and Challenges for the Tourism Industry after Covid-19" convened on 24 May 2020, Organized by Department of History, Madhay College, Gwalior.

Dr Ravindra Singh Kushwah, Assistant Professor, Department of Tourism was a Resource Person (Distinguished Speaker) in the National Webinar on "Problems and Challenges for the Tourism Industry after Covid-19" convened on 24 May 2020, Organized by Department of History, Madhav College, Jiwaji University, Gwalior. He also attended an international webinar on the theme of World Tourism Day 2020 - TOURISM AND RURAL DEVELOPMENT convened on 27 September, 2020, organized by Department of Tourism, CVS, University of Delhi

Dr. Pavitra Kumari presented a paper entitled, "Ambivalent Fairies: Interrogating Representations of Femininity in Haryanvi Folktales" in the National webinar on 'Multidisciplinary Approaches to Folklife: Challenges and Perspectives' organized by the Department of MIL&LS, University of Delhi from 5 to 7 November 2020. She also successfully completed seven day National Faculty Development Programme "Emerging Trends of Pedagogy in Language, Literature and Social Sciences" 13 to 19 July 2020 organized by Ministry of Human Resource Development Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching, Teaching Learning Centre, Ramanujan College and Shyama Prasad Mukherji College for Women, University of Delhi.

DAULAT RAM COLLEGE

Major Activities and Achievements

Daulat Ram College participated most of the programs through online platforms (Google Meet, Google Classroom, MS Teams) and online study resources (NDLI, NPTEL, NISCAIR, INFLIBNET, e-PG Pathshala)

were opted for teaching during pandemic. Official IDs on DU domain were mandatory for both students and faculty. For science students 60% of practicals were conducted offline (during the month of March 2021). Admissions (UG, PG); orientations, webinars, conferences were conducted online. Symposium on National Education Policy, 2020 and first event of TEDxDRC was organized. New website was launched for college alumni. Recycling unit incessantly maintained zero waste campus, Zebra Fish Centre persistently provided vital information for university. Advisories from MHA, MoE, UGC, DU were implemented. Promotion of teachers was facilitated after due screening. 600 students were given scholarships furthermore 55 visually impaired students were provided full monetary, educational aid support; faculty also supported 18 students financially by paying their fees during pandemic.

Honours/Distinctions

Prof. Savita Roy received 2nd Dr. APJ Abdul Kalam National Dedication Award 2021 in the field of Education.

Prof. Savita Roy received Excellence Award for Promoting and inculcating Gandhian Values among Youth, from Gandhi Bhawan, University of Delhi.

Dr. Sarita Nanda received Pride of the Nation Excellence Award (NGO) in the field of Women Empowerment.

Dr. Deepti Bansal received Baba Allauddin Khan Smriti Samman by Baba Allauddin Khan Music Foundation, Delhi in November 2020.

Dr. Malini Sharma received Pride of the Nation Excellence Award (NGO) in the field of Women Empowerment.

Dr. Meetu Khosla received Shastri Indo Canadian Research Award from Shastri Indo Indian Institute.

Dr. Suparna Jain Thakur got commissioned as ANO, NCC, DRC and received Commandants Gold Medal, Best NCC Officer and Best in Academics Awards and topped the course at Gwalior officers Camp, NCC.

Students with Distinctions

Ankita Chahal of B.A. Prog. III year awarded with Prof. Madan Mohan Prasad Memorial Prize, for her International recognition in Academics / Extra Curricular Activities/Sports.

Shreya Kandpal of B.Sc. (Hons) Biochemistry II year secured II position in University.

Garima Singh of B.Sc. (Hons) Botany III year secured II position in University.

Ritika Kalra of B.Sc. (Hons) Physics II year secured II position in University.

Arundhati Dubey of B.A. (Hons) Philosophy III year secured II position in University.

Aditi Verma received Certificate of Appreciation from the Office of the Advisor to the Chief Minister, Govt. of NCT of Delhi.

Publications

Annapoorni, S., Asokan, K., Mangla, Onkar, Roy S., (2020). A study on defect annealing in GaAs nanostructures by ion beam irradiation. *Bulletin of Materials Science* 43, 78.

Dash P., Dixit, A., Garg L. C., Sahoo P. K., & Yadav, S. K., (2021). Recombinant outer membrane protein OmpC induces protective immunity against Aeromonas hydrophila infection in Labeo rohita. *Microbial Pathogenesis*.

Jain, S., Kumar, M., Sharma, S. N., Singh, A., (2020). Structural Modelling of Hybrid ZnO–CdSe Nano-Compounds Using X-ray Photoelectron Spectroscopy Depth-Profiling Technique. *Journal of Nanoscience and Nanotechnology*, 20(6), 3741-3753.

Khosla, M., (2020). Exploring Gender Differences and the Relationship between Religious commitment and wellbeing in Indian cultural context. *Asian Journal of Psychology and Education*, 53, 3-4, 2-16.

Mudgal, P., (2020). The increased risk of elderly population in India in COVID-19 pandemic. *International Journal of Health Sciences Res*, 10 (10):166-175.

Sharma, M., (2000). Game Theory Explains the Pandemic (Opinion piece). *India Currents*, San Jose, California.

Sharma, J., (2020). Bhasha Aur Sanskriti Ke Vikas Mein Media Ki Bhoomika. Bhasha, Sahitya, Samaj aur Sanskriti.

Vandana. (2020). Dalit Literary Historiography: Concept, Context, Relevance. *Reading the Margins: History, Culture, Literature.* (Ed. Provakar Palaka). People's Literature Publication (Print), Mumbai Pp. 69-84.

Wadhawan, D. and Das, S. (2020). Dissipation and quantum noise in chiral circuitry. *Physica E*, 121, 114117.

Journals

Pramila an annual trilingual magazine.

Number of College teachers serving as Editor(s)/Member(s) of Editorial Board – Dr. Sunita K. Yadav, Editor in Chief; Advisors: Ms. Vandana (English); Dr. Sangya Upadhyaya (Hindi); Dr. Sushma Devi (Sanskrit)

Shreshtha, Annual Magazine of WDC, DRC.

Dr. Anita Garg Mangla (Advisor & Convener, Shreshtha) Dr. Kusum Lata, Editor, Hindi Section and Dr. Violina Borah, Editor, English Section

Seminars Organized

Dr Pratibha Jolly, Former Principal, Miranda House, University of Delhi, Academic Consultant NAAC, on the topic "Art and Science of Mentoring", 1 June 2020.

Prof. Rajneesh Kumar Shukla, the Hon'ble Vice Chancellor of Mahatma Gandhi Antarrashtriya Hindi Vishwavidyalaya, Wardha, Maharashtra, on the topic "Swaraj Svavlamban Ki Darshnik Dhrishti Aur Aatmanirbhar Samaj", 5 June 2020.

Ms. Jyotika Kalra, Member, National Human Rights Commission, on the topic "COVID-19 Migrants - Challenges and the Way Forward", 11 June 2020.

Prof. Pami Dua, Professor, Delhi School of Economics, Member- Monetary Policy Committee RBI, on the topic Interest Rate Setting under Current Monetary Policy Framework, 24 June 2020.

Prof A. K Bakshi, Vice-Chancellor, Bahadurgarh University (Haryana), on the topic "Technology-Enabled Higher Education in India: Challenges and Opportunities", 19 June 2020.

Seminars/ Conference Presentation

Khosla, Meetu. "Mindfulness and Compassion Global summit", virtual summit, LosAngeles, USA. 4 to 6 June 2020

Bansal, Deepti. "Vaayu" in Vyas Samaroh - An International Conference on 'Vaayu Purana' organized by Sanskrit Department, CCS University, Meerut ,16 Nov 2020.

Bortamuly, Deepshikha M. "Translating and Trans-creating: The Processes, Problems and Challenges in terms of the Anglo Assamese Dictionary by Hiren Gohain", International Webinar on Assamese Literature in Translation: Theory and Practice, Department of MIL &LS, DU, 27 and 28 November 2020.

Anand, Pooja V. "Impact of Positive Psychology in dealing with Covid19" at the International webinar on 'Emotion regulation in the age of Covid19: Indian and Western perspectives' organized by the Faculty of Humanities and Social sciences, Shri Ram Swaroop Memorial University, Lucknow, 10 May 2020.

Bhattacharya, Moitree. "Seventy Years of Indian Constitution: Some Reflections" in a National Webinar Series on The Legacy of the Living Document, organized by DPS Society, Patna, 13 August 2020

Sharma, Malini. "Importance of Behavioural Economics and Nudge theory in the light of Covid-19", in MAIMS International Conference on, "Global Economic Order in Post Covid-19 Era: Challenges, Opportunities and strategies, organized by Maharaja Agrasen Institute of Management Studies (MAIMS), 25 July 2020.

Gangwar, Nikhil. "Agrarian society, Indebtedness and British rule during the early decades of the Nineteenth Century: Azamgarh District as A Case Study". International Multidisciplinary Conference on Current Research Trends, 19 and 20 September 2020.

Naorem, Deepak. "Assam Relief Measures, Relief and Rehabilitation Work in Manipur and the Naga Hills" at 33rd Annual Conference of the Japanese Association for South Asian Studies, Kyoto University, Japan. October 3-4, 2020.

Naorem, Deepak. "Yelhou and Miyan mayek: Multiscriptalism, identity and contested orthographies in Meetei Language" at the international conference, Borderland Futures: Technologies, Zones, Co-existences, organized by Asian Borderland Research Network & University of Leiden, Seoul, Chung-Ang University, South Korea, 25 to 27 June 2020.

Vimal, K. "The Vedic Concept of Value Education – Its Relevance and Significance Today" on December 27, 2020 at the 14th International and 24th India Conference on Impact of Vedic Wisdom on the World today

organized by WAVES International and WAVES India in association with S-VYASA, Bengaluru, India, 25 to 27 December 2020.

Placement Details

Total no of recruitments ~ 50 Students that got selected in top corporates > 225

Extension and Outreach activities

Project itminaan (Total 4,612 strays fed till December under this project) and parwaah (Rethinking Mental Illnesses) were launched on June 4 and 8 2020 respectively by NSS Unit. NCC Unit cadets engaged in food distribution during lockdown (27 May 2020), Tree plantation campaign (13-26 July 2020), Kargil Diwas webinar (26 July 2020), Gandhi Jayanti celebration at Rajghat (2 October 2020), RLA college NCC Conference (17-18 October 2020), DRC webinar on waste to wealth (10 November 2020), Constitution Day Youth Club activities (17 November-13 December 2020), Cleanliness drive Yamuna bank (21 November 2020), Rashtriya Swachhta Kendra(25 November 2020), Digital forum (28 November 2020), Rashtriya Swachhta Kendra(11 January 2021), Rajpath Swachhta abhiyan(18-31 January 2021), Rajpath visit(26 January 2021).

Library Development

During the year 2020-21, the library of the college purchased new books and periodicals. The library also purchased antivirus and software maintenance services. A new partition for braille section was made. Library study hall was renovated. The total expenditure for the year is Rs. 9,44286.00/-

Faculty Strength: Total: 188

Financial Allocation and Utilization

The grants received for the various projects have been utilized to the optimum.

Other Significant Contribution

Three-day FDP was conducted to provide hands-on training of ICT tools along with tutorial for attendance recording for faculty. 3-day In-house Skill Development Programs was organized for SDP cell for new students for guidance regarding busage of online platforms and tools. Online orientations for AECC and GE subjects were organized for all the students.

DELHI COLLEGE OF ARTS & COMMERCE

Major Activities and Achievements

During the Covid-19 pandemic year, college organized a series of webinars, invited lectures and department festivals in the virtual mode, besides online teaching. On 26 July 2020, Vijay Diwas was celebrated by NCC cadets. Independence Day was celebrated on 15 August 2020. A Week-long Fit India Movement was organized on 1 to 7 September 2020 which was launched by the Prime Minister on 29 August 2020. Another week-long event was organized on the occasion of Gandhi Jayanti, under which various competitive activities took place. Rashtriya Ekta Diwas was celebrated on 31 October 2020, celebrating Patel's contribution. Prakram Divaswas celebrated on 23 January 2021, acknowledging Bose's contribution.

Honors/Distinctions

Dr V. B. Singh was promoted as Professor in the Department of Computer Science.

Mr. Bir Singh from the Department of Economics submitted his Ph.D. thesis in October 2020.

Dr Sarthak Gupta in the Department of Commerce completed Ph.D from Shri Jagdish Prasad Jhabarmal Tibrewala University, Rajasthan in October 2020.

Under the supervision of Dr Anuradha Gupta, three students have submitted their Ph.D. thesis.

Promotions of teachers from Stage I to Stage II and Stage II to Stage III were initiated.

Students with Distinctions

Utkarsh Mathur (NCC Ex-JUO) cleared his SSB and will soon be commissioned.

Aishkarsh Malviya (NCC Ex-SUO) cleared his AFCAT and SSB.

Six NCC cadets were given rank panels.

Twenty three NCC cadets participated in various camps and activities.

Publications

Anita. (2020). Mergers & Acquisitions in Bombay Stock Exchange, Testing for Market Efficiency Using Panel Regression. *IJRCM*, Vol.10 (Issue 10), 6-16. ISSN 2231-4245

Banerjee, S., Saksena, S., and Ailawadi, N., (2020). The Working Woman: Indian Perspectives on Stereotypes, Marginalization and Empowerment. New Delhi, India: Bloomsbury. ISBN 978-93-90252-93-0

Garg, A. (2020). Valuation of e-Commerce firms in India. *E-commerce in India – Economic and Legal Perspective*. Sage Publication.

Goel, K. R. (2021). *Concept Building Approach to Cost Accounting*. Delhi: Cengage. ASIN: B08XVQX1C7 (1st Edition, March, 2021) for B. Com (Hons.)/B. Com under CBCS, Semester IV of University of Delhi.

Gupta, A. (2020), "Properties (BR) and (BgR) for bounded linear operators", *Rendiconti Circolo Mathematico Di Palermo*, 69, 601-611. (ISSN: 1973-4409) (UGC, SCOPUS, SCI Expended)

Kapoor, N. (2020). Fundamentals of Digital Marketing. Pinnacle Learning. ISBN 978-93-848-66-9.

Tandon, A., Sharma, M., Kumari, M., Singh, V. B. (2020). Entropy based Software Reliability Growth Modelling for Open-Source Software Evolution. *Tehničkivjesnik*, 27, No. 2, 550-557. Indexed in Scopus and SCIE. IMPACT FACTOR: 0.644. ISSN:1330-3651 (Print). ISSN: 1848-6339 (Online)

Singh,B. (2020). Contractualisation in India's Manufacturing Sector since 1991: Trends Based on ASI Data. *Labour& Development*, Vol. 27, No. 1, 70-83. ISSN 0973-0419

Singh, K. C. (2020). Effect of Privacy, Trust, and Risk Concerns on Mobile App-based Shopping: An Empirical

Study in the Context of India. MANTHAN Journal of Commerce & Management, Vol.7(2). ISSN No. 2347-4440 e-ISSN: 2395-2601

Singh, R. (2020). Social Discrimination in Religious and Educational institutions: A Study of Bama's *Karukku*. *International Journal of Scientific and Innovative Research Studies*, Vol.8, (Issue No.6 June), 18-21.

Seminar/Conference Presentations

International

Smita Banerjee presented a paper on "Collaborative Praxis: Feminisms and Empowerment in Contemporary Popular Bengali Cinema" in a Virtual International Conference on *Towards New Visions: Women in Films, Media and Beyond*, IITM and University of Guelph, Canada, hosted by Canada India Research Centre for Learning and Engagement (CIRCLE), in March 2021.

Neha Jingala, presented paper on "Contribution of Door darshan as a Medium of Entertainment in COVID-19 Crisis: A Study on Indian Youth" during the International Conference on Global Economic Order in the Post COVID-19-Era: Challenges, Opportunities and Strategies, Maharaja Agrasen Institute of Management Studies, GGSIP University, Delhi, in October 2020.

Rishabh Gupta, presented a paper on "An Empirical Testing of Five Factor Model in India and Thailand Stock Market" in International E-Conference on Advances in Business and Management, Shaheed Bhagat Singh College, University of Delhi from March 4 to 6 March 2021.

Dr NeeruKapoor, presented a paper on "Effect of Performance Expectancy, Effort Expectancy and Price Value on Behavioural Intention towards Mobile App-based Shopping: An Empirical Study among Select Demographics of Consumer" in an International e-Conference on Advances in Business and Management, Shaheed Bhagat Singh College, University of Delhi, on 4 to 6 March 2021.

Santosh Bharti, presented a paper on "Exploring Religion and Gender Violence" in the second international conference on *Literature*, School of Humanities, University Saini's Malaysia, in July 2020.

Neelam Yadav, presented a paper on "Voice of Dissent: Mannu Bhandari's *Aapka Bunty* and *Mahabhoj*" in International online Conference on *Gender Equality for a Better World: Issues and Challenges*, Women's College, Aligarh Muslim University in collaboration with UGC, in August 2021.

Chandan Kumar Singh, presented a paper on "Effect of Performance Expectancy, Effort Expectancy and Price Value on Behavioral Intention towards Mobile App-based Shopping: An Empirical Study among Select Demographics of Consumer" in an international e-Conference on Advances in Business and Management, Shaheed Bhagat Singh College, University of Delhi 4 to 6 March 2021.

National

Jyotsna Pathak presented a paper on "Nation in the post-Covid world" in Modernism and Postmodernism Studies online Conference, Kocaeli University, Department of Western Languages and Literatures and Modernism and Postmodernism Studies Network, Turkey, 2020.

Amit Kumar Yadav, presented a paper on "Oral Epic of Bharthari: A Song of Renunciation "in a three-Day National Webinar on Multidisciplinary Approaches to Folklife: Challenges and Perspectives, Department of Modern Indian Languages and Literary Studies, University of Delhi, Delhi, in November 2020.

Shilpa Chowdhary, presented a paper on "The Changing Nature of Bhakti Movement" in a National Conference on *Historicity and Literature*, Mahatma Gandhi Mahavidyalaya, Ahmedpur, Maharashtra, in September 2020.

Placement Details

Number of Students placed: 50 +

Number of companies visited for campus recruitment: 20+

Number of Internships offered: 100+

Extension and Outreach activities:

NGO Eco Roots Foundation interacted with the NSS volunteers sensitizing them to various environmental issues, especially the need to conserve water. Enactus DCAC, Project Taaleem makes a difference to the lives of the refugee and migrant children by imparting primary education in a community driven model where the teachers are identified from the community itself and provided training by their NGO Partner Katha. They collaborated with UNESCO to provide digital training to the teachers under the program 'The Digital Teacher' under Mahatma Gandhi Institute of Education for Peace and Sustainable Development (MGIEP), UNESCO. Enactus Saahas project, an initiative for the breast cancer survivors, have fabricated a patented cotton-based prosthesis made of recyclable cotton, sold under the brand name Canfem and is approved by AIIMS and Tata Memorial and they are willing to sell it. Hospitals like Apollo, BL Kapoor and Max have already helped with sales. Have collaborated with Kidwai Hospital, Bangalore for sales. The Health Ministry of India is ready to support the project. NCC Cadets in collaboration with Rotary Blood Bank organized a blood donation camp on r 1December 2020. NCC Cadets participated in a Cleanliness Drive where they were responsible for the overall cleaning of the statue Quila Rai Pithora, Ahinsa Sthal, New Delhi. CDT Sansar Singh was selected for a visit to the Prime Minister's residence.

Library Development

The total number of books added during the current year is 483. An orientation program was conducted by Officiating librarian to generate awareness among newly admitted students about library services and facilities through virtual mode. During Lockdown due to covid-19, college library provided access to e-resources subscribed by library and officiating Librarian updated the students and faculty about it. To access freely available e-resources, open access e-resources (URLs) link was also shared by officiating Librarian. Students and college staff members were informed about N-LIST awareness program to access to e-resources under N-LIST. The facilities for plagiarism check facility through Urkund software was also generated and provided by Officiating librarian to the faculty members and students.

Faculty Strength

Total permanent: 47 and Principal

Total Ad-hoc: 41

Financial Allocation and Utilization

Grant Sanctioned in Rs: 27,03,36,000/-

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DEEN DAYAL UPADHYAYA COLLEGE

Major Activities And Achievements

Deen Dayal Upadhyaya College was ranked 15th under the college category in NIRF 2020 and 13th in College Category in India Rankings 2021 rankings by MoE, Govt. of India, it ranked 10th under 'Science' and 16th under 'Commerce' categories by India Today MDRA survey and ranked 7th for Science stream in Delhi. Department of Biotechnology (DBT), Government of India under its DBT Star College Scheme 2021 granted Star Status to the college for the five participating Science Departments (Botany, Chemistry, Mathematics, Electronics and Zoology). Nobel Laureate Prof. Jean-Marie LEHN, Chemistry 1987; Nobel Laureate William D. Phillips, Physics 1997; Nobel Laureate Sir Anthony J. Leggett, Physics 2003; Nobel Laureate David Wineland, Physics 2012; Nobel Laureate J. Michael Kosterlitz, Physics 2016; Nobel Laureate Professor Randy Schekman, Physiology/Medicine 2013 and Nobel Laureate Professor Andrea Ghez, Physics 2020 were invited for webinars organized in college under DBT Star College Scheme. The college was a nodal centre for IIRS/ ISRO Outreach Programme. The college was one of the Network Institutes for conducting Live and interactive courses of Indian Institute of Remote Sensing (IIRS), Dehradun.

Honours/Distinctions

Dr. Manoj Saxena was elected as Member of Board of Governors (2021-2023) of IEEE Electron Device Society, USA.

Dr. Sudhir Verma was awarded 'Anil Sadgopal Award 2020' by Homi Bhabha Centre Of Science Education (HBCSE) of Tata Institute Of Fundamental Research (TIFR), Mumbai, India.

Dr. Priya developed e-lectures for the course 'Developmental Biology' in DTH SWAYAM Prabha channel-15, Ministry of Human Resource Development (MHRD).

Dr. Rakesh worked in the review of 'Journal of financial economic policy' (published by Emerald), 'International Journal of emerging markets' (published by Emerald) and 'International journal of finance and economics' (published by Wiley).

Dr. Manoj Saxena (Department of Electronics, DDUC), Dr. Poonam Kasturi (Department of Electronics, DDUC), Dr. Sudhir Verma (Department of Zoology, DDUC), Dr. Ravinder Kaur (Department of Electronics, DDUC) and Dr. Yogieta Mehra (Department of Management Studies, DDUC) were recognized as Innovation Ambassador by Institution's Innovation Council, MoE's Innovation Cell, AICTE, Government of India after successfully completing the Innovation Ambassador Training conducted by them

Students and distinctions

Ashutosh Mishra, B.Sc. (Hons) Electronics III year and Raghvendra Pratap Singh, B.Sc. (Hons) Electronics II year were selected as 'Innovation Ambassador' by Institution Innovation Council (IIC), Ministry of Education, Govt of India, after successfully completing the Innovation Ambassador Training conducted by them

Ashutosh Mishra, Ekansh and Raghvendra Pratap Singh from Electronics Department were selected in National Innovation Contest (2020) eligible for a grant of up-to rupees 10 lakhs by Ministry of Education, Govt. of India.

Yogesh Kumar from Department of Physics, received 'Best Poster Presentation' by Department of Physics, ARSD College, DU.

Shubham Dahiya awarded 'District Child Scientist Award' at 25th district level National Children's Science Congress by Haryana Vigyan Manch, Rohtak.

Abhay Agarwal, Bachelor of Management Studies, III year was awarded with the "The Best Manager Event" by VAMNICOM Pune, with a Cash Prize of Rs. 12,000/-.

Publications

Ameer, S., Gupta, V., Jindal, K., Jha, P.K., Tomar, M. (2020). Tunable electronic and magnetic properties of 3d transition metal doped Bi2Fe4O9. *Journal of Magnetism and Magnetic Materials*. 509:166893.

Barbhuiya, S.A., Bhatt, V., Bhattacherjee, A.B., Jha, P.K. (2020). Controllable bistable optical switch and normal mode splitting in hybrid optomechanical semiconductor microcavity with single quantum dot driven by amplitude modulated field. *Journal of Physics B: Atomic, Molecular and Optical Physics.* 53(15):155402

Bhadouria, R., Raghubanshi, A.S., Singh, R., Srivastava, P., Tripathi, S., Verma, P. (2020). Effects of grass competition on seedlings growth under different light and nutrient availability in tropical dry forests in India. *Ecological Research, Data rescue–collection of precious and laborious in situ observed data*. 35(5): 807-818.

Chauhan, A., Kuanr, B.K., Kumar, P., Kumar, M., Kapur, M.K., Solanki, R. (2020). Draft genome and secondary metabolite biosynthetic gene clusters of Streptomyces sp. strain 196. *Molecular Biology Reports*. 47:6741–6747.

Dawra, D., Dimri, M., Jha, A.S., Mohan, M., Singh, A.K., Sharma, R. (2020). Relativistic photoionization cross section calculations and resonance parameters for Mg-like Se XXIII. *Radiation Physics and Chemistry*.168: 108447.

Dubey, Gupta, M., Narang, R., Saxena, M. (2020). Investigation of Single Event Transient Effects in Junctionless Accumulation Mode MOSFET. *IEEE Transactions on Device and Materials Reliability*, 20(3): 604-608.

Gupta, M., Kumari, V., Saxena, M., Singh, P. (2020). Assessment of Dual-Gate AlGaN/GaN MISHEMT for high temperature DC to DC converter. *Superlattices and Microstructures*. 2020(144): 106574.

Jain, H.C., Tiwari H.N. (2020). Ownership Concentration & Firm Performance during Global Financial Crisis: Evidences from India. *International Journal of Management*. 11(12): 2788 – 2799.

Jagannathan, S., Jain, D., Malik, S., Seshadri, T.R. (2020). Impact of magnetic field on the gas mass fraction of galaxy clusters. *New Astronomy*. 84:101531.

Preeti, Bala, R., Dagar, A., Singh, R.P. (2021). A novel online sequential extreme learning machine with L2,1-norm regularization for prediction problems. *Applied Intelligence*. 51:1669–1689.

Journals

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board: 02

Research Project

DST-SERB, 2017-2020, entitled "Study of atomic processes for multicharged ions for plasma diagnostics". Dr. Avnindra Kumar Singh. Amount 44.0748 lakhs.

Contract for Acquisition of Research Services (CARS), DRDO, 2019-20, entitled "Layout Optimization and Thermal analysis switching applications and LNA Design". Dr. Manoj Saxena (Co-Principal Investigator). Amount 23 lakhs.

Institute of Eminence (IoE), University of Delhi Research Project, 2020, "Device Simulation for Radiation Analysis of GaN HEMTs for High Power Applications". Dr. Manoj Saxena (co-principal investigator). Amount 5 lakhs.

Patents Filed/ Granted

Number of National Patents: 1

Title: System and method for watermarking MPEG-4, Advanced Video Coding (AVC) videos.

Seminars Organized

An online summer school on "Advances in Signal Processing and Machine Learning" was jointly organized with Department of Electronic Science, University of Delhi and National Academy of Sciences India (NASI) – Delhi Chapter from 20 July 2020 to 25 July 2020. The summer school was supported by IEEE Electron Device Society (EDS), Delhi Chapter. Some of the speakers invited during the summer school were as follows: Prof. Surendra Prasad, Emeritus Professor, Department of Electrical Engineering, IIT Delhi; Prof. Tapan K. Gandhi, Associate Professor, Department of Electrical Engineering, IIT Delhi; Prof. Subhasis Chaudhuri, Director, IIT Bombay, Mumbai were the invited speakers, among others.

Science Academies online lectures on the theme "Frontiers in Science & Engineering - Opportunities for Graduates" were organized during 14 to 19 September 2020. Prof. Anurag Sharma Department of Physics, IIT Delhi; Prof. Jitendra P. Khurana, Professor, Department of Plant Molecular Biology, University of Delhi South Campus, New Delhi; Dr. Dinakar Kanjilal, Fellow & Former Director, Inter University, Accelerator Centre (IUAC) New Delhi, were some of the invited speakers.

Conferences/Workshop Organized

Science Foundation and MoE-IIC-DDUC Chapter Deen Dayal Upadhyaya College, University of Delhi, New Delhi and under the aegis of DBT Star College Program, jointly organized the Fifth Joint Science Academies Lecture Workshop (Online) on "Trans-disciplinary Areas of Research and Teaching by Shanti Swarup Bhatnagar (SSB) Awardee" from 8 to 26 March 2021. Some of the Resource Persons that were invited for their presentations during the workshop were as follows: Dr Aninda Sinha, from Centre for High Energy Physics, Indian Institute of Science, Bangalore, Karnataka; Prof. G.K. Ananthasuresh, Department of Mechanical Engineering, Indian Institute of Science, Bangalore; Dr Dhiraj Kumar, Cellular Immunology Group, International Centre For Genetic Engineering And Biotechnology, Aruna Asaf Ali Marg Jawaharlal Nehru University, New Delhi; Prof. Nissim Kanekar, DST Swarnajayanti Fellow, National Centre for Radio Astrophysics (NCRA), Tata Institute of Fundamental Research (TIFR), Pune, India.

A faculty development program on Intellectual Property Right was organized from 8 to 13 February 2021. Resource Persons for the program were as follows: Prof. R. M. Mehra, Professor Emeritus, Electronics and Communication Engineering, Sharda University; Dr. Naveen Varma, Senior Partner, ZeusIP Advocates LLP; Dr. Shweta Singh, Founder CEO - ENNOBLE IP and Dr. Madhuranjan Vatsa, Designated Partner, Patent attorney, Indian Trademark and Design Attorney, Akhildev IPR and Research Services.

A Pedagogical Training program for Effective Online Teaching & Learning was organized from 3 to 10 August 2020. The Resource Persons for various sessions were as follows: Shri S. Parameswaran N - Advisor, Ministry of Human Resource Development; Dr. Renu Solanki & Dr. Shailly Anand - Assistant Professor in Dept. of Zoology, Deen Dayal Upadhyaya College, University of Delhi, Delhi; Dr. M. N. Shelar - Associate Professor and Head, Department of Computer Science in KRT Arts, BH Commerce and AM Science College, Gangapur Road, Nashik; Dr. Sambhaji Pagar - Assistant Professor in Dept. of Economics, KRT Arts, BH Commerce & AM Science College, Nashik, among others.

Seminar/ Conference Presentations

Dr. Dinesh Kumar presented a paper entitled "Dynamics of nearly abelian transcendental semigroup" in International Web-Conference on Complex Analysis and Differential Geometry: Revisiting(IWCADGR-2020) held at Sidho-Kanho-Birsha University, Purulia, West Bengal on 29 and 30 June 2020.

Dr Rajan Gupta and Dr S. K. Pal presented "Effective inclusion of citizens through eGovernance services: case study of direct benefit transfer in India" at the 13th International Conference on Theory and Practice of Electronic Governance, United Nations University in the month of September 2020.

Dr Rajan Gupta and Dr S. K. Pal presented a paper on "Technology Applications for Health Safety Decision Making under COVID-19 Pandemic Management" during an International Conference on Decision Aid Sciences and Application (DASA), Bahrain, in the month of November 2020.

National/International MoUs Signed

MoU signed between Deen Dayal Upadhyaya College and CSIR-Central Electronics EngineeringResearch Institute (CSIR-CEERI) for Academic Exchange of Scientific Staff and Faculty Members.

Placement Details

Number of students placed:50

Number of companies/industries visited for campus recruitment: 26

Extension and Outreach Activities

Orizzonte'20, a management fest, held on 27 October 2020 witnessed the participation of about 300 school students and more than 25 schools. Department of Commerce with Desire Society (org. for children fighting AIDS) organized a Diwali celebration and an online cultural program entitled "Roshani Ki Dhun" on 12 November 2020 for the children in Desire home care facility at Noida, India. A Training Program on GIMP software was organized for Government schools during January 11-20, 2021 that had a participation of 8 schools. An Online International Conference "Reaching out to Children & Society: A Step towards promoting Microbiology Literacy" was held on 3 February 2021 under the aegis of Synapses & Science Foundation in collaboration with The Association of Microbiologists of India (AMI), Indian Network for Soil Contamination Research (INSCR), The Energy and Resources Institute (TERI), Indian Agricultural Research Institute (IARI) and Indian National Science Academy (INSA).

Library Development

A professional database software has been used for automated operation through network of client-server systems. The library held 'User Orientation Program' on 18th November, 2020, in online mode for the new batches in different sessions. A Book Exhibition was organized by college library during March 5-8, 2021 and about 10 prominent publishers and vendors participated in it. Access to e-resources comprising hundreds of books (as per curriculum) was provided. Scanned previous year question papers were sent to students via

E-mail. N-LIST login ID was provided to students and faculty members under N-LIST Programme, MHRD. The library has added 769 volumes of books this year.

Faculty Strength

Total Permanent Faculty: 91

Total Ad-hoc Faculty: 26

Financial Allocation and Utilization

Grant sanctioned: Rs. 42,61,21,644.00/-

Grant Utilized: Rs. 41,14,44,797.00/-

Other Significant Information

Just In case '21, an official global case competition was conducted on by 180dc cell of Department of Management with participation from USA, UK, Singapore, Malaysia, Nepal. Dr. Poonam Kasturi, Associate Professor, DDUC and Mr. Ankur Sangal instructed for 20 hours each in an Online Internship - cum - Hands-on Training Workshop on "Verilog Implementation of Digital Circuit Designs on FPGA using Vivado" from 17 June to 17 July 2020 organized by Department of Electronics and MHRD – INSTITUTION'S INNOVATION COUNCIL (IIC) under DBT Star College Program, Electronics in collaboration with CoreEL Technologies. 63 participants registered for the internship program from 22 different institutes across India. Dr. Renu Solanki & Dr. Shailly Anand co-ordinated an Online Quiz on "Corona Gyan" held on 2 and 3 July 2020, under the aegis of Science Foundation, University of Delhi, to generate awareness about Covid-19.An appreciated no. responses of 2107 were received from various parts of India.

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DESHBANDHU COLLEGE

Major Activities and Achievements

Deshbandhu college has undertaken numerous activities for providing a better environment like construction of an advanced integrated composting facility (DBC-AICF), installation of a rooftop solar PV system, bird housing, rain water harvesting plant and development of a green belt. The *i-4* Center for Interdisciplinary Research has been established Under the patronage of the DBT-STAR College scheme. College has approved more than 30 research projects under this scheme involving more than 30 faculty members and more than 150 students. Department of Physical Education and Sports Sciences organized an International Yoga Day Festival from 1 to 21 June 2020. An online Sanskrit Sambhashan Workshop was organized in collaboration with Sanskrit-Bharati, Delhi. 10 NCC cadets (4 DBN) participated in Independence Day Parade at Red Fort on 15 August 2020. 5 NCC cadets got selected for Prime Minister's Rally by Delhi Directorate. 1 NCC cadets was selected for the National War Memorial by Delhi Directorate.

Honours/Distinctions

Dr. Umesh Kumar, Department of Chemistry, was awarded with, 'Teacher's Association for Research Excellence Award-2020' by Science and Engineering Research Board (SERB).

Dr. Pratibha Kumari, Department of Chemistry, was honoured with, 'Indo U.S. Fellowship for Women in STEMM' by the Indo U.S. Science and Technology Forum (IUSSTF) and the Department of Science and Technology (DST), Govt. of India.

Dr. Bajrang Bihari Tiwari, Department of Hindi, was felicitated with, 'Om Prakash Chaturvedi Parag Puraskaar' by Rajya Karamchari Sahitya Sanstaan, Uttar Pradesh and, 'Kissa Kotah Kathetar Puraskar-2020' by Kissa Kotah.

Ms. Jyoti Kapil, Department of Physics, received the, 'Best Oral Presentation Award' in the National Conference on Materials and Devices (NCMD-2020) organized by Department of Physics, Faculty of Engineering and Computing Sciences, Teerthanker Mahaveer University, Moradabad.

Mr.Vikash Kumar Singh, Department of History, was awarded the, 'National Youth Icon Award-2020' by Krishna Group of College, Bijnor, Uttar Pradesh.

Students with Distinctions

Sarabjit Chakraborty of B.Sc. (Hons) Chemistry secured all India rank 4 in Joint Admission Test for Masters (JAM-2021).

Deepa Kumari of B.Com. (Hons) bagged first position in Tarang Digital Singing Competition by Radio Madhuban 90.4 FM.

Shivam Rana of B.Sc. (Hons) Mathematics qualified three days selection and recruitment process as, 'Campus Ambassador' at younity.in.

Arita Chakraborty of B.Sc. (Hons) Zoology got selected for M.Sc.-PhD integrated course in Department of

Biological Sciences, TIFR, Mumbai.

Mudit Kumar of B.Sc. (Hons) Physics secured all India rank 249 in Joint Admission Test for Masters (JAM-2021).

Publications

Akhtar, A., Ahmad, N., Chowdhury, I.R. (2020). Socio-economic inequality in catastrophic health expenditure among households in India.: A Decomposition Analysis. *Ind. Economic Review*. 55: 339-369.

Barak, S. (2020). Shree Jagannath and Rath Yatra. Journal of Asiatic Society. 2(1): 75-83.

Karwal, P., Vats, I.D., Sinha, N., Singhal, A., Seghal, T., Kumari, P. (2020). Therapeutic applications of peptides against Zika Virus: A Review. Curr. Med. Chem. 27(23): 3906-3923.

Kumar, S. (2020). अग्निलीक : परिवर्तन और निरंतरता का परिपक्व आख्यान. HANS Hindi Journal. 82-86.

Kumar, S. (2020). प्रतिक्रियावादी पलटवार के अवैधानिक galp. *आलोचना*. 63: 178-183

Prasada, J., Singh, A.K., Paliwal, A., Tomar, M., Gupta, V., Singh, K. (2021). Hydrothermal synthesis of microflower like morphology aluminium-doped MoS₂/rGO nanohybrids for high efficient electromagnetic wave shielding materials. *Ceramics International*. 47(11): 15648-15660.

Sharma, B., Singh, P., Singh, A.K., Awasthi, S.K. (2021). Advancement of chimeric hybrid drugs to cure malaria infection: An overview with special emphasis on endoperoxide pharmacophores. *European Journal of Medicinal Chemistry*. 219. 113408.

Singh, A., Kumar, A., Hartley, S., Singh, I.K. (2020). Silicon: Its ameliorative effect on plant defence against herbivory. *Journal of Experimental Botany* (Oxford Press U.K.). 71(21): 6730-6743.

Sushmita, A., Dhamma, K. (2021). Ashok ke Dhamma: Neeti ki Sameeksha. *International Journal of History*. 3: 17-20.

Suraj, Md.S., Aggarwal, R., Mittal, A., Asique, Md.C. (2020). The perturbed restricted three-body problem with angular velocity: Analysis basis of convergence linked to the liberation points. *International Journal of Non-Linear Mechanics*. 123. 103494.

Journals

Number of college teachers serving as Editor(s)/ Member(s) of Editorial Board: 19

Research Projects

Department of Biotechnology, Government of India, project for three years, entitled, "DBT Star College Scheme". Amount 104 lakhs.

ICMR, GOI, 2020-23, entitled, "Synthesis and biological evaluation of novel lead compounds for the treatment of Fibrodysplasia Ossificans Progressiva (FOP)". Amount 43.84177 lakhs.

ICMR, GOI, 2021-24, entitled, "Identification of the molecular mechanism of mechano-transduction pathways that act upstream of Hippo Pathway for treatment of breast cancer". Amount 41.262 lakhs.

DHR-ICMR, GOI, 2019-22, entitled, "Pharmacophore modelling to design novel inhibitors of MCL-1 as targeted therapy of human cancer". Amount 33.255 lakhs.

Defense Research & Development Organization (DRDO), Ministry of Defense, Govt. of India, three years, entitled, "Design and Development of smart nanomaterial-based biosensors for pesticide detection in food". Amount 30.94 lakbs.

Seminars Organized

Dr. Girish Jha, Arizona USA, "Journey of Mindfulness by a seeker", 01 June, 2020. Prof. Pramod Kumar, Professor, Department of Mathematics, Ohio University, Zanesville, USA, "A Journey from Integers to Rings", 13 October, 2020

Dr. Supriya D. Mahajan, Associate Professor, Medicine Division of Allergy, Immunology and Rheumatology at University at Buffalo, USA, "Nano-Therapeutics: Future of Personalized Nanomedicines" Date: 14 February, 2021.

Prof. Marcelo Calderon, Professor, Polymat institute, University of Basque country, Donostia, San Sebastian, Spain, "Crossing Biological Barriers- Smart Modalities to improve performance of polymer nano-carriers" Date: 07 March, 2021

Acharya Bramdeo Mokoonlall, Hindu Center of Atlanta, USA, "Application of Yoga Philosophy in day-to-day life", 21 June 2020.

Seminar/Conference Presentations

Aparna Nautiyal presented a paper entitled, "Sustainable Consumption of Food: A Healthier And Better Tomorrow" in International Interdisciplinary e-Conference on "Sustainable Future for Humanity: The New Learning Curve" held on 24 February, 2021.

Ashutosh Rajput presented a paper entitled, "Global Stability and Optimal Control for a Tuberculosis Model with Vaccination and Treatment", in International Conference on, "Recent Trends in Mathematics and Its Applications to Graphs, Networks and Petri Nets (ICRTMA-GPN-2020)" held at Jawaharlal Nehru University on 28 September, 2020.

Shipra Chauhan presented a paper entitled, "Robe's restricted three-body problem when the less massive primary is not spherical" in the twenty sixth International Conference on, "Differential Equations and Mathematical Modelling" (IC-ADE-MM-2020) (Online), organised by School of Computational and Integrative Sciences, Jawaharlal Nehru University, Delhi during 18 to 20 December 2020.

Astha Giri presented a paper entitled, "Clove (Syzygium aromaticum) and Black pepper (Piper nigrum) as promising antimicrobial agents against common food borne pathogens" in the International Conference on, "Advances in Biosciences and Biotechnology" organised by Jaypee Institute of Information and Technology held during 28 to 30 January, 2021.

Tanvi presented a paper entitled, "Mathematical Modelling of a Cluster Based Novel Coronavirus: A Case Study of India" in 20th International Symposium on, "Mathematical and Computational Biology" (BIOMAT 2020) held on 3 November, 2020.

Rajiv Aggarwal presented a lecture as Invited Speaker on the topic entitled, "Modelling HIV-TB Co-infection with Optimal Intervention Strategy: Assessing the Impact of Immune Reconstitution Inflammatory Syndrome" in 20th International Symposium on, "Mathematical and Computational Biology" (BIOMAT 2020) held on 4 November, 2020.

Monika Sharma presented a paper entitled "Magneto-dynamic Properties of Rare-earth Doped Permalloy Nanowires" in IEEE International Magnetics Conference (Internag) 2020, held on 3 May, 2020.

Dr. Seema Narain, presented a paper entitled "Double Whammy IR: Situating Postcolonial Feminism in the House of Global IR", at ICWA-SAU Webinar on, "Women and Power: Gender within International Relations and Diplomacy" held during 15 and 16 October, 2020.

Dr. Rajvir Shastri, delivered lecture on, "Contribution of Modern Poets in Sanskrit Literature", in the international eresearch conference organized by Maitreyi College, University of Delhi and Dept. of Sanskrit, Rambachan Singh Govt. Girls Degree College, Bagali Pijara, Mau, UP held during 28 to 30 November, 2020.

Dr. Mukesh Kumar Mishra, delivered lecture on "स्वातन्त्र्यसंभवमहाकाट्यकेप्रथमदोसर्गोकीसमीक्षा" in the international e-research conference on, "Contribution of Modern Poets in Sanskrit Literature" organized by Maitreyi College, University of Delhi and Dept. of Sanskrit, Rambachan Singh Govt. Girls Degree College, Bagali Pijara, Mau, UP, during 28 to 30 November, 2020.

National/International MoU Signed

MoU signed between Deshbandhu College and Lalit Suri Hospitality Group.

MoU signed between Deshbandhu College and Medanta.

MoU signed between Deshbandhu College and Healthcare Sector Skill Council (HSSC).

MoU signed between Deshbandhu College and Retailers Association's Skill Council of India (RACSI).

MoU signed between Deshbandhu College and Tourism and Hospitality Skill Council (THSC).

MoU signed between Deshbandhu College and Bureau of Energy Efficiency (BEE).

MoU signed between Deshbandhu College and LMC Enterprises Pvt. Ltd.

MoU signed between Deshbandhu College and Movie and Entertainment Skill Council (MESC).

Other Inter-Institutional Collaboration

A total of following 35 Inter-Institutional collaborations were seen during the last academic year. Important ones are listed below:

Collaboration with Dr. Julius Limos Meneses, Vice President for Research and Extension Services, Rizal Technological University, Science, Philippines.

Dr. Veeranoot Nissapatorn, Associate Professor, Walailak University, School of Allied Health Sciences, Thailand

Dr. Vladimir V. Zarubaev, St. Petersburg Pasteur Institute, Virology, Russia

Prof. Subba Reddy Palli, Department Chair & State Entomologist, University of Kentucky, Department of Entomology, USA.

Dr. Rajesh Sinha, University of Alabama, Department of Dermatology, USA.

Prof. Heinz-Josef Lenz, Associate Director, Keck School of Medicine, USA.

Prof. Ian Baldwin, Founder Director, Max Planck Institute for Chemical Ecology, Germany.

Dr. Chetna Tyagi, University of Szeged, Department of Microbiology, Hungary.

Dr. Amit Roy, Faculty of Forestry and Wood Sciences, Czech University of Life Sciences Prague, Suchdol.

Dr. Irfan A. Rather, Abdulaziz University, Department of Biological Sciences, Saudi Arabia

Prof. Tod F Stuessy, Emeritus Professor, Ohio State University, USA.

Placement Details

Number of students placed: 350

Number of companies/industries visited for campus recruitment: 69

Extension and Outreach Activities

Different departments of the college organised various competitions, workshops and virtual visits to inculcate awareness and curiosity among the students. An online 11-day Sanskrit Sambhashan Workshop was organised by the college from 25th January to 6th February 2021. The NCC unit of the college participated in the, "Swacchta Pakhwada" environment pollution awareness, Independence Day celebration at red fort, tree plantation drive, ek bharat shreshth bharat. They also organised rallies on traffic pollution management and water conversation. Blood donation drive was conducted in the base hospital, delhi cantt. International yoga festival was celebrated from 1st to 21st June by both NCC and NSS units in collaboration with the yoga society of the college. Different donation and awareness drives were also conducted by the NSS unit from time to time.

Library Development

The library added 1431 new books during 2020 - 2021 to strengthen the library collection. The library subscribed the DELNET Annual Institutional Membership for the period 18th January 2020 to 17th January 2021 and NLIST for the academic year 2020-2021 for accessing the e-journals and e-books and providing the readers with diverse resources. The library organized a webinar on 'Search, Research and Publication Ethics' for the faculty members of the college on 24th July, 2020. Air-conditioned reading Hall, Touch screen information kiosks and facility for visually-Impaired Students improve the utilization of Library.

Faculty Strength

Total permanent: 102 Total Ad-hoc: 110

Financial Allocation and Utilization

Grant Sanctioned: Rs. 599500000/-Grant Utilized: Rs. 647276000/-

Other Significant Information

Smart internet Leased Line, an optical fiber based internet provides 24x7 internet facility that creates a modern and innovative ICT infrastructure in campus. In a drive for the green campus by the Eco Club of the college, 3.5 acres of landscape area has been developed in the backyard with over 500 new plants and grasslands enabling scope for maximum biodiversity and bio-conservation. A more than 1000 million-year classic sedimentary rock has been found out during the dig and set for display in the campus itself to highlight the environmental heritage of the institute. New Science block building in reinforced concrete has recently been completed in college campus. It consists of three floors with highly equipped scientific lab and environment friendly big lecture hall.

DR. BHIM RAO AMBEDKAR COLLEGE

Major Activities and Achievements

With a total student strength of about 3400 students (41% girl students) and 136 faculty members, the College offers a number of Professional and Honours' Courses like Business Economics, Hindi Journalism and Mass Communication, Applied Psychology, Social work, Commerce, Economics, Hindi, Geography and History in addition to B.A.(Programme), B.Com. and Urdu as an elective subject. The College is privileged to have WUS Health Centre and maintains a good Herbal Park. Despite the challenges posed by the unfortunate situation created by the pandemic COVID-19, the College not only carried out all its activities but also contributed to the mitigation efforts of COVID-19 crisis, such as 'Food Distribution and Hunger Centre', 'NCC Yogdan' etc. The extra and cocurricular activities included program related to 'Needs and Health Concerns of Elderly', 'Baba Saheb Memorial lecture (online)', 'Maha Parinirvaan Divas', A Blood Donation Camp and awareness about Women sensitization and rights. In addition to department wise online lectures by experts, National seminars/webinars in collaboration with national and international bodies on following themes were organized: 'Covid-19 Crisis: Times Ahead', 'Covid Patient Counselling', 'Relevance of Mahatma Gandhi in Contemporary World', 'New Education Policy', 'Climate Change', 'Impact of COVID-19 on Women: Changing Gender Roles'. The NSS and NCC units took many initiatives. The Welfare/Fee Committee, Placement Cell, IQAC Cell, The Student Council, and The Alumni Club are effectively functioning. The annual function 2020-21 and Journal Academia provided opportunities to express cultural and academic creativity.

Honours/Distinctions

Dr. Bishnu Mohan Dash, Department of Social Work received Best Teachers' Award from the Govt. of NCT of Delhi.

Publications total number

Dash, Dr. Bishnu Mohan (2020) 'Women and Poverty in India: Poverty Alleviation and Empowerment through Cooperatives', *Social work & Society, vol.8* (2), PP. 1-14.

Dash, Dr. Bishnu Mohan (2020): 'Alienation among Older Persons: A Comparative Analysis' in *Practice-Social Work in Action*, Vol. 32(5), 327-343, Routledge, Taylor and Francis, London.

Dash, Dr. Bishnu Mohan (2020): 'Colonial Legacy and Professional Imperialism in Social Work: Calls for Bharatiyakaran/Indianisation of Social Work education in India', in *African Journal of Social Work, vol. 10(2), pp. 16-22*

Dwivedi, Dr. R.P. (2020). "डगमग राहों का पथिक: बच्चन की आत्मकथा", in *Globalculturz* - An International Journal of Culture & Global Studies, 1(1).

Kumar, Dr. Navin (2020). 'Empowering leadership and Organizational Culture in Relation with Employee Wellbeing', in *International Journal of Psychosocial Rehabilitation*.

Priya, Dr. Malinee (2020). Mindfulness Disposition, Health and Psychological Well Being. *Journal of Indian Health Psychology*, 15(1).

Priya, Dr. Malinee (2020) 'Ahamkara and Health: An Empirical Review', in *Journal of Indian Health* Psychology, 15(1).

Singh, Mahesh Kumar (2020). Study of Small Towns in the Seventeenth century Suba of Bihar. *International Research Journal of Management Sociology & Humanities (IRJMSH)*, Vol 11, Issue 1.

Shrivastav, Dr. Rohit Kumar (2020). Trend Analysis of the Indian Capital Market. *Indian Journal of Research in capital Market*, 7(2-3).

Verma, Dr. Jaya (2020). State and Economy in Early Medieval Rajasthan. *Jigyasa - an inter-disciplinary peer reviewed Refereed Research Journal*, Poddar Foundation, Varanasi.

Journals

Published by the college: Journal named "Academia" is being published by the college. Number of college teachers serving as Editor(s)/Member(s)of the Editorial Board: 15

Seminars Organized

The Department of Mathematics organized a webinar on 'Graph Theory and Applications: The Königsberg Bridges Problem and Eulerian Graphs' on 28th October, 2020, in which invited Speaker was Prof. Geetha Venkataraman, Professor of Mathematics and Dean, Research and Consultancy, Dr. B. R. Ambedkar University, Delhi.

The Department of Mathematics organized a webinar on 'Open Book Examination: Different Perspectives' on 25th June, 2020 in which the Resource Persons were: Dr Rajiv Ranjan, Michigan State University, USA; Dr Navnit Jha, Faculty of Mathematics and Computer Science of South Asian University, New Delhi.

The Department of Environmental Studies organised a Webinar for Earth Day Celebration on "Climate Change" on 24th April, 2020 in which the Chief Speaker was Prof. R.B. Singh, Secretary & Treasurer, International Geographical Union, Member International Council of Science, ICSU, Chair Research Council, CSIR and Shri Gyanendra Singh, Senior Journalist & Writer and Chairman Rashtriya Paryavaran Suraksha Samiti was the special Guest.

The Department of Economics organized a webinar on 'Covid-19 and the Changing landscape of Indian and the US Higher Education' on 24th May, 2020. The speaker of the webinar was Dr Gaurav Pathania, Sociologist, Georgetown University, Washington DC, USA.

The Department of Environmental Studies organised a Webinar on 'Environmental Issues and Their Solutions' on January 08, 2020, in which Guest Lectures were given by Dr. Romila Verma, University of Toronto, Canada, Dr. M. N. Roy, Founder President, SIGMA Foundation, India and Dr. Debashri Mukherji, Senior Research Officer, SIGMA Foundation.

Conferences Organized

National Online Conference on Environment, Health and Sustainable Development Goals was organized by Dr Bhim Rao Ambedkar College, University of Delhi, Environment and Social Development Association (ESDA), CSIR-NEERI, Dr. RML Avadh University, Ayodhya, GD Goenka University Gurugram and Amity University Haryana on June 5-6, 2020.

Global Water Congress 2020 was organized by Dr. Bhim Rao Ambedkar College, Environment and Social Development Association (ESDA), University of Delhi, CSIR-NEERI, GD Goenka University Gurugram and Amity University Haryana (October 2-4, 2020).

Seminar/Conference Presentations

Dr. Dhananjay Kumar, Department of Hindi participated and presented a paper in the International Hindi Sammelan, organized by Hansh Raj College, Delhi at Vigyan Bhavan. (10-11 January 2020).

Mr. Purshottam, Department of Commerce participated in Word Environment Summit 2020 as a "Member of Organizing Committee" and also presented a paper titled "Socio Economic Impact of Climate Changed and Environmental Degradation of Indian Society" during the technical session at P.M. Auditorium, V.P. Chest Institute, University of Delhi, Delhi (18.01.2020- 19.01.2020)

Ms. Diljeet Kaur, Department of Commerce presented a paper in the International Conference on Marketing, Technology and Society organized by Indian Institute of Management (IIM), Kozhikode held online due to the COVID-19 (December 7-9, 2020).

Dr. Rajni, Department of Hindi presented a paper titled "The contribution of Hindi cinema in the promotion and propagation of Hindi" in International Hindi Conference on 10th-11th January, 2020 organized by Hansraj College, University of Delhi.

Dr. Kumar Manish, Department of Environmental Studies presented a paper in the International Conference titled 'Impact of climate change on the Himalayan biodiversity' in World Environment Summit organized by ESDA at University of Delhi, Delhi (January 18-19, 2020).

Dr. Rajbala Gauttam, Department of Business Economics presented a paper titled 'Impact of Air Pollution on Subjective Wellbeing: A Comparative Study on Population of Delhi and Mumbai', and secured 3rd position for best paper presentation Award in a National Online Conference on Environment, Human health and Sustainable Development, organised by ESDA (June 5-6, 2020).

Dr. Rajbala Gauttam, Department of Business Economics presented a paper on "Air Pollution and Population: Modelling the Association between the Air Quality and Its Impact on Population in India", in ICSSR sponsored 2-day International Conference on 'Roadmap to Sustainability: Environment and Health', organised by Sri Guru Gobind Singh College, Chandigarh (March 5-6, 2020).

Dr. Rajbir Vats, Department of Hindi participated and presented a paper titled 'वर्तमान परिदृश्य और युवाओं में देशभिक्त की आवश्यकता', in a National Conference on 'Role of NCC in National Integration', organized by Ram Lal Anand College, University of Delhi (17-18 October. 17-18, 2020).

Dr. Sarla Bhardwaj, Department of Mathematics presented a paper titled 'Understanding Health Concerns of the Elderly During Corona Virus Pandemic', in the 1st National Conference on 'Application of Mathematical Tools in Social Sciences and Sciences', organized by Zakir Husain Delhi College, University of Delhi (October 17-18, 2020).

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Dr. Tushti Bhardwaj, Department of Social Work presented a paper titled 'Understanding Health Concerns of the Elderly during Corona virus Pandemic: A Statistical Approach', in a National Conference on 'Application of Mathematical Tools in Social Sciences, organised by Zakir Hussain College, University of Delhi (October 17-18, 2020).

Placement Details

Number/percentage of students placed: 35/45%

Number of Companies visited for campus recruitment: 6-7 Companies

Extension and Outreach Activities

During the time of COVID pandemic, NCC cadets of the college took part in the COVID relief programs titled as COVID Worriers and worked for smooth functioning of supply chain and performed various other functions such as distributing sanitizing kits, maintaining lockdown norms and duties in COVID shelters. The College IQAC organized a Debate Competition on the occasion of observance of Vigilance Week. The theme of the debate

Competition was "सतर्क भारत, समृद्ध भारत - Satark Bharat, Samriddha Bharat" (Vigilant India, Prosperous India)' (27th October, 2020). NSS unit of the college organised three competitions named 'Vid-up Words' (Debate Competition), 'Poster Competition' and 'Photography Competition' on the occasion of the 74th Independence Day (August 15, 2020). The Cultural Society organised Indian Classical Solo Dance Competition "NATYA TARANGINI", Western Solo Dance Competition "MAGNUM" Fashion Competition "A LA MODE" and an Online Solo Singing Competition during the year 2020-21.NSS unit of the college observed the 'Fit India Awareness Week' (7th September-13th September, 2020) which included events like - 'Let's Exercise', 'Poster Making Competition', 'Quiz Competition', 'Slogan Competition' and 'Message Writing by Volunteers', etc. The College Red Ribbon Committee invited write-ups on "Life Does not Rewind, Say No to Drugs" or "Blood Donation-A Noble Way to Save Your Life" or "Importance of Blood Donation" on 5th November, 2020.

Library Development

Our Library with floor wise signages is well equipped (books, approx. 41399) with extended facilities like OPAC (through which Registered users can check their library accounts) and N-LIST (E-Journals) of INFLIBNET. This year the college has added 498 new books and subscribed to around 54 periodicals (17 English and 14 Hindi) in addition of 23 newspapers (8 English, 14 Hindi and one Urdu) on the recommendations of TICs / Library Committee. Meritorious and economically weaker students (about 10) have been provided 18 books under SAF scheme. Special facilities like CCTV surveillance system, separate AC Cabin with computer facility and online membership of *Sugamya Pustakalaya* are arranged by the library for our *Divyang* students. Separate sitting space has been earmarked provided for reading of Brailie study material provided by University of Delhi. Special Collection of Dr. Ambedkar, Gandhi, Nehru & other personalities are available in the Library.

Faculty Strength: 136

Financial Allocation and Utilization

Grants Sanctioned: Rs.336100001.00/-Grants Utilized: Rs. 306571678.00/-

DURGABAI DESHMUKH COLLEGE OF SPECIAL EDUCATION (VISUAL IMPAIRMENT)

Major activities and achievements

The college was established in 2006 to conduct B.Ed (Special Education) degree programme with specialization in teaching the visually impaired under the Department of Education, University of Delhi. The college is established & run by the Blind Relief Association, Delhi a premier non-government organization. The college has permanent recognition from the University of Delhi, University Grants Commission (UGC) as well as Rehabilitation Council of India. It receives partial financial support from the National Institute for Empowerment of the Persons with Visual Disabilities (NIEPVD)- an apex body under the Ministry of Social Justice & Empowerment, Government of India. As a Trust- run institution, its 19 member Governing Body constituted under the terms of the relevant University statutes manages the college. The college has an intake capacity of 30 students per academic session. In the current academic year its faculty members Dr. Swati Sanyal and Dr. S. K. Dubey contributed as script writer in PMeVidya for Mathematics Audio books preparation by CIET, NCERT.

Publications

Agarwal, Pubali.(2020), A study on the Role of Different Stakeholders in Developing Daily Living Skills among Students with Visual Impairment. In Sandeep. Kumar, & M. Rajendran (Eds), *Anthology of Qualitative Research in Education*, 1st ed, V. L. Media Solutions, pp.195-210.

Conferences Organized

In association with The Blind Relief Association, Delhi and in collaboration with *Saksham, Delhi* organized a Webinar on "The latest IT Solution for learners with Visual Impairment" on 1 October, 2020.

Collaborated with The Blind Relief Association, Delhi to organize a webinar on "White Cane –My Independence, My Identity" on White Cane Day on 15 October, 2020.

In association with The Blind Relief Association Delhi organized a webinar on the occasion of 212 the Anniversary of Louis Braille "World Braille day" on 4 January, 2021.

Seminar / Conference Presentation

Pubali Agarwal delivered a talk on "National Education Policy from a Special Education Perspective" in the webinar on "New Education Policy 2020 on Disabilities: Expectations, Assurances and Realities" organised by Gujarat National Law University, Gandhinagar on 3 December, 2020.

Pubali Agarwal delivered a talk as invited speaker in the webinar on "Different Assistive Technologies for Students with Visual Impairment" organised by Faculty Development and Research Centre, Army Welfare Education Society, Delhi, 23 June, 2020.

Pubali Agarwal spoke as invited speaker in the webinar on "How to teach different subjects and activities to children with visual impairment" organised by Faculty Development and Research Centre, Army Welfare Education Society, Delhi, 18 June, 2020.

National/International MoU Signed

The College has close collaboration in terms of delivering Guest lectures, Paper setting, Examination, with many institutions viz., Jamia Millia Islamia, IGNOU, DIET, NCERT, RCI, and NIEPVD etc. It has also a collaboration with National Association for the Blind (NAB), Amarjyoti Rehabilitation Centre, Delhi.

Placement Details

Number and percentage of students placed: About 50% of the trainees got employment as special teachers in Special schools, regular schools and Inclusive schools. Number of visually impaired trainees got placement in various banks. Few students are also pursuing higher education such as M.A and M.Ed.(Spl.Education).

Number of Companies visited for campus recruitment: Various NGOs & Public/private schools from Delhi & other states requested for Special teachers from the college.

Extension and Outreach Activities:

The college and The Blind Relief Association, Delhi organized a Webinar on the occasion of 151 anniversary of Mahatma Gandhi on the theme "Inspirations from Gandhi" on 8th October ,2020. Mr. Akash Anand, a disciple of well known Sarod player Shri Bishwajit Roy Choudhary was invited to pay musical tribute on Saroad to Gandhiji.

Library development

The college library has a total of 4523 books, which includes Braille books too. The library subscribes to 20 Print Journals on Special Education as well as Education. The college added around 50 books during 2020-2021.

Faculty Strength

Permanent: 4

Financial Allocation and Utilization

No grant were received from either UGC or Delhi University in the current academic year.

DYAL SINGH COLLEGE (DAY)

Major Activities and Achievements

Dyal Singh College was ranked 21st at all India level under the college category in NIRF 2020 ranking. The college administration along with IQAC team has taken number of quality ascent initiatives in administration and academics

such as workshop on Google Tools for teachers, submission of APAR in online-offline mode, alumni registration, student feedback mechanism, paper-less office, constituting parent teacher associations, mentor-mentee system, login credentials to access e-resources of the college/DU through library. Continuous efforts are being made for e-governance in day-to-day administrative activities. College has organized online webinars/seminars/conferences by its departments, Inter-college competitions, Annual Cultural Festival - PRIYADARSHANI'21, International Women's Day 2021, Vigilance Awareness Week, and Cloth Donation Drive. NCC wings were engaged in events - "Swachhata Pakhwada" (keep the Rajpath clean), distribution of food and relief materials during the pandemic, tree plantation drive, Yoga Day celebration and commemoration of "Kargil Vijay Diwas."

Honours/Distinctions

Dr. Anil Kumar Nain secured a position in USA World's Ranking of Top 2% Scientists 2020.

Dr. P. Chitralekha was awarded 'Anil Sadgopal Award for Popularisation of Science & Contribution to Science Outreach 2020' by CUBE, Tata Institute of Fundamental Research, Mumbai.

Dr. Aruna Chinkara, received Harrison McCain Foundation Award.

Dr. Sanjeewani Sehgal, received best paper award in National Marketing Conference, 12 December 2020.

Dr. Ruchi Gupta commissioned into the Armed Forces of India as Lieutenant.

Publications

Ankita and Nain, A.K. (2020). Study of solvation behavior and interactions of drug betaine hydrochloride in aqueous-Dxylose/L-arabinose solutions at different temperatures by using volumetric, acoustic and viscometric methods: *Journal of Chemical Thermodynamics* (Elsevier). 143, 106046.

Barai, M.K. and Kar, M. (2020). South Asia and the Chinese B&R Initiative: An Indian Perspective FOCUS: *Journal of International Business*. 7(2), 1-19.

Chaudhary, N. and Nain, A.K. (2020). Volumetric, ultrasonic, viscometric and refractive index studies of molecular interactions in binary mixtures of 1-butyl-3-methylimidazolium tetrafluoroborate with methyl acrylate at temperatures from 293.15 to 318.15 K: *Journal of Molecular Liquids* (Elsevier). 297, 111890.

Chauhan, J. and Goel, A. (2020). Feature-Based Analysis of Social Networking and Collaboration in MOOC: *International Journal of Distance Education Technologies*. 18(2), 34-51.

Garg, C., Priyam, A., Kumar, P., Sharma, A.K., and Gupta, A. (2020). In-vitro Assessment of Core-Shell Micellar Nanostructures of Amphiphilic Cationic Polymer-Peptide Conjugates as Efficient Gene and Drug Carriers: *Journal of Pharmaceutical Sciences*. 109, 2847-2853.

Jain, P., Singh, M., Singh, A. P. and Stepanov, V.D. (2020). On duality of grand Bochner Lebesgue spaces: *Mathematical Notes*. 107(2), 247-256.

Kumar, S., Ram, I. and Kumar, U. (2020). Structural, optical, and low temperature resistivity of Ca-doped PrMnO3 nanoparticles: *Emergent Materials* (Springer). 3, 595-604.

Paul, J. and Singh, D. (2020). Does CSR Committee composition affect CSR Disclosure: A Study of Indian companies: *Corporate Governance Insight*. 2(2), 63-79.

Rani, S., Mishra, T., Jha, J., and Kumar, R. (2020). Geo-statistical analysis of increasing addiction to electronic gadgets and its impact on social interaction in everyday geography of Delhi: *Research Review International Journal of Multidisciplinary*. 5(9), 279-289.

Tripathi, N. (2020). Relevance of behaviour in finance: Conceptual analysis: *International Journal of Creative Research Thoughts*. 8(8), 3815-3823.

Journals

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board: 04

Research Projects

CCRH, 2017-2021, entitled "Physicochemical studies of homoeopathic drug formulations by using volumetric, acoustic, viscometric, optical and conductometric measurements". Dr. A.K. Nain. Amount Rs. 44,68,780

ICSSR IMPRESS scheme, 2019-2021, entitled "Agricultural Development, Land Degradation and Rural Sustainability in Border Areas of Uttar Pradesh: A Case Study of Siddharthnagar District". Dr. Rajesh Kumar Abhey. Amount Rs. 8,50,000.

SERB, 2020-2023, entitled "Extrapolation in some Labesgue type space". Dr Arun Pal Singh. Amount Rs. 6,60,000. ICSSR, 2018-2020, entitled "Akhil Bhartiya Vanvasi Kalyan Ashram and Quest for Self-Dependent Tribal Communities: A study with special reference to the PESA and FRA". Dr. Kamal Nayan Chaubey. Amount Rs. 6,45,000.

ICSSR, 2019-2020, entitled "Concept of Kautilya's Governance: A Re-examination of Hindu Political Thought-inContemporary Context". Dr Sudhir Kumar Singh. Amount Rs 3,80,000.

Patents Filed/Granted

Number of National Patents: 2

Title 1: Method Facilitating wiredly and wirelessly charging Batteries of Electric Vehicles (EVS) via deployment of Smart charging plug and socket for Autonomously locating and Engaging Plug-Socket connector in context of Smart charging.

Title 2: MMP-ML-technique: managing a manufacturing process operation using machine learning technique.

Seminars Organized

Mr. Arjun Bahree, Enterprise Cloud Architect with Accenture IT Services, Leveraging Emerging Technologies in Covid Scenario, 2 May 2020.

Dr. Garima Gupta, Associate Professor, Faculty of Management Studies, University of Delhi, Revisiting Marketing in COVID-19 Era, 14 May 2020.

Prof. Vijay Kumar Shrotryia, Department of Commerce, Delhi School of Economics, University of Delhi, Happiness and Public Policy in the wake of COVID 19, 25 May 2020.

Prof. Ajai Gaur, Rutgers Business School, Newark, Asia Context Global Problems – Opportunities and Challenges for India, 23 February 2021.

Dr. Devender Toor and Dr. Jasleen Kaur, Amity University, Noida, Opportunities in Immunology and Virology, 18 March, 2021.

Conferences Organized

Organized an online workshop entitled "Google Tools" for teachers on 10 August 2020.

Organized a one week Faculty Development Program entitled "Research Methodology" from 2 November 2020 to 9 November 2020.

Organized workshop for non teaching staff entitled Tally and PFMS on 4 January 2021.

Organized a "Smart Protein Workshop" from 11 January 2021 to 18 February 2021 in collaboration with Good Food Institute, India.

Organized a one week workshop by Adore India entitled "Career Development" from 29 March 2021 to 5 April 2021.

Seminar/Conference Presentations

Bibek Kumar Rajak presented a paper entitled "Social Inequality in Access to Labour Market in Jharkhand: Evidence from NSS Unit Level Data from 1999-00 to 2017-18" at Young Scholars' webinar on 'Indian Economy: Theory and Policy' held at Jawaharlal Nehru University, New Delhi on 15 October 2020.

Dr. Arun Pal presented a paper entitled "Rubio de Francia Extrapolation Theorem in Variable Lebesgue Spaces" in the 86thAnnual Conference of The Indian Mathematical Society – An International Meet held at Vellore, Andhra Pradesh, during 17 to 20 December 2020.

Dr. Harmeet Kaur presented paper on Novel entitled "Sponsorship Vich Parvaas Diyan Chunautiyan" in the International Punjabi Literary Festival held at Hansraj Mahila Mahavidyalaya, Jalandhar during 4 to 5 March 2020.

Dr. Kamaljeet Singh presented a research paper entitled "Guru Nanak Bani Chintan: Sabhyacharak Paripekh" in World Punjabi Conference on 'Guru Nanak Bani Chintan: Globally Paripekh' held at Patiala on 25 February 2020.

Dr. Rajesh Kumar Abhay presented a paper entitled "Measuring Intra-District Regional Disparities in the Agricultural Development of Siddharthnagar District, Uttar Pradesh" in the DGSI Conference on 'Climate Change, Disasters and Sustainable Livelihood' held at University of Allahabad, Prayagraj during 26 to 28 November 2020.

Dr. Uma Shanker Singh presented a paper entitled "Vivekananda: The Pioneer of Spiritualism and Humanism" in seminar on Swami Vivekananda: Indian Culture and Heritage held at Gandhi Smriti and Darshan Samiti, New Delhi during 11 to 13 December 2020.

Dr. Ravinder Singh presented a paper entitled "Seete Bullan da Suneha" in International Webinar held at Jaito, Punjab on 14 March 2021.

Mr. Shish Pal presented a paper entitled "Revisiting Education in the Covid 19 Era: Issues, Concerns and challenges" in the National Webinar on 'Emerging Trends, Issues, Challenges & Opportunities Post Corona Crisis' held at Mahatma Gandhi Central University, Bihar during 30 to 31 May 2020.

Shweta Rani presented a paper entitled "Trends, Challenges, Sustainable Tourism and its Impact on Economy and Society in India During and Post Pandemic Covid-19" in International Web-Conference on 'Covid-19 Pandemic from the Eyes of Geography: Global, National and Regional Perspectives' held at Gauhati University, Assam during 11 to 12 September 2020 in collaboration with Commonwealth Geographical Bureau.

Shweta Rani presented her work entitled Diffusion of Modern Digital Technology and GeoInformatics: A Move Towards Rural Transformation' in the International Webinar on 'Recent Advances In Geospatial Technology and Its Role in Rural Development' held at Balrampur, UP on 20 September 2020.

National/International MoUs Signed

MoU signed with National Institute of Immunology, JNU, New Delhi for 'Science Setu' Program.

Other Inter-Institutional Collaboration

Collaboration with Central Council for Research in Homoeopathy (CCRH), Ministry of Ayush.

Students under Exchange Programme

Two students of Zoology (Hons) got research training at NII under Science Setu Program. Twenty-six students from Economics department did internships at various places.

Placement Details

Number and percentage of students placed: 138 (27.6%)

Number of Companies visited for campus recruitment: 95

Extension and Outreach Activities

DST-NCSTC, Dr. Vatsala Tripathi, Motivational Program for Science Students and Teachers of Uttar Pradesh through exhibitions and demonstrations held at Shamli during 2 to 6 March 2021.

Dr. Priyambada Tripathi (mentor), three Online Programs in Mathematics organized by MTTS(Mathematics Training and Talent Search Programme for Undergraduate/Graduate, India) on July 2020, October 2020 and March 2021.

Library Development

The library has spent Rs. 942825 on the purchase of books and subscription of Journals/Magazines/Newspapers for the year 2020-2021. Total of 1648 books were added to the library this year. The library also has renewed the membership of 'Nlist Programme' to access 6000+ Journals and 1,99,500+ eBooks. In the view of current pandemic, the library has been providing online User ID and Password to students and faculty members to explore the N-list database. The library is also providing online User ID and Password to remote access of DULS e-resources in coordination with Delhi University Library System. The Library has also initiated use of 'Urkund Software' for the plagiarism check of research publications of faculty members.

Faculty Strength

Total permanent – 145

Total Adhoc – 95

Financial Allocation and Utilization

Grant sanctioned - Rs. 785725000.00/-

Grant Utilized - Rs. 662384000.00/-

Other Significant Information

A large number of faculty members are engaged in research and 17 are recognized PhD supervisors and currently 36 PhD students are pursuing PhD in the college under their supervision. Research internship opportunities (unpaid) are provided for students of our college, other DU colleges and other University colleges. College has been regularly participating in NIRF ranking, submitting data on AISHE portal and has a fully functional IQAC which takes a number of quality upgradation initiatives. NAAC was accredited in 2017 and since then AQARs have been successfully submitted. College has been made as the NODAL CENTRE by Remote Sensing (IIRS) – Indian Space Research Organization (ISRO), Department of Space, Government of India under its Outreach Program.

DYAL SINGH EVENING COLLEGE

Major Activities and Achievements

Dyal Singh Evening College (a full-fledged day college) remained buzzed with activities throughout this year. More than 90 faculty members were incessantly involved in academic upgradation. Over 50 articles and books were published by teachers in International and National Journals. Total 966 books were added to the already enriched library and 10 teachers and librarians got promotion this year. The college Psychologist Dr. Jaya Mohan provided counselling services telephonically and took online seminars to sensitize students during covid times. Over 25 online fests, events, panel discussions and webinars were organized in the college by various cells, societies, associations and forums which attracted a crowd of 5,000 students across various colleges. Students also won numerous accolades and prizes across diverse events. The college remained active throughout the period of lockdown and the online classes continued smoothly.

Students with Distinctions

Jyoti Nara of B.Com (Hons) VI semester scored a CGPA value of 8.419.

Neha Sinha of B.Com (Hons) VI semester scored a CGPA value of 8.47.

Pulkit Wadhwa of B. A. (Hons) Political Science II semester scored a CGPA value of 8.91.

Arshya Jain of B.Com II semester scored a CGPA value of 8.36.

Rekha Devi of B.Com II semester scored a CGPA value of 8.77.

Publications

Birwal, N. Published paper: *Behavioural Finance: Origin, A Paradigm and Prospects in Multidisciplinary Issues in Social Science Research* (editors Dr. Singh, V. and Vaishali under R.P. Publications). ISBN: 978-93-82398-07-3.

Gupta, P. (2020). International Journal of Health Care Management, Taylor and Francis Scopus, ESCI: *Social Media use by Patients in Health Care: A Scoping Review*.

Hussain, S. (2020). Book: TaraqqipasandtahreekaurHalqayearbabezouq(Eiktaqablimotaleya)

Kakkar, D. Published paper in IJAEM (International Journal of Advanced in Engineering and Management): *Indian Women Entrepreneurship Problems and Prospects Vol 2*. Issue 6, ISSN 2395-5252.

Kayastha, A. (2021). Peer Reviewed and Indexed Journal, Yashwant Rao College Ambajogai. *Bhartiya Sanskriti Aur Sahitya*.

Kumar, B. (2021). Stri Vimarsh ed. Dr. Ram Ratan Prasad: *Stri Vimarsh Aur Ekkisvi Sadi* (Swakshar Publications, New Delhi).

Sachdeva, P. (2020). International Journal-Peer Reviewed: Corona Kal Mein Online Shiksha. S.S.M.W.A.

Singh, S.K. (2021). Published article in Asia-Pacific Journal of Management Research and Innovation: *Information Spill Over in Indian Agricultural Commodities Market 2021*.

Taluja, S.D. (2021). The book Inhabiting Cyberspace in India: Theory, Perspectives, and Challenges: *Digital Feminist Interventions: A Critical Assessment of the Pink Chaddi Campaign and #Me Too India* (Edited by Simi Malhotra et al. Published by Springer Link in 2021). ISBN-10: 9811599335. ISBN-13: 978-9811599330.

Thapar, P.R. (2021). Article in Punjabi Magazine SamkaliSahit: Banere De Chirag-ViaktiChitran Di Shreshat Shelli- 2021.

Seminars Organized

Dr. Jaya Mohan, psychologist, Ways to Cope with Internet Fatigue during Covid Times, 12 March 2021.

Professor C.R. Babu, former Pro Vice-chancellor of the University of Delhi, presently Professor Emeritus and Project In-charge Biodiversity Parks programme at the University of Delhi, Biodiversity: The Saviours of Humanity, 22 May 2021.

Prof. Mike Knowles, fellow of the Royal Society of Arts London, Designing as a Field of Entrepreneurship, 10 March 2021.

Mr. Yashashvi Kumar, founder of Hacketh, Cyber Security, 1 February 2021.

Mr. Arpit Lochan, CEO of HomeflicWegrow, How to Begin Your Own Start-Up, 2 February 2021.

Seminar/Conference Presentations

Mr. Amit Kumar presented a paper entitled "Social Media and Baby Boomers: A pilot Study of Use for Health Care Support" at e-Conference, Synergy 2020-Holistic Development of Future Digital India held at Seshadripuram Commerce College, Bengaluru.

Dr. Babita Saini presented a paper entitled "Impact of Covid 19 on Sustainable Development Goals and on Environment" at the International Conference on 'Strategies on Sustainable Practices' held at Jagannath University.

Dr. Deepika Kakkar presented a paper entitled "Use of Solar Dehydrating Technology as a Game Changer for Indian Agriculturist in the Testing Times of Covid-19 Pandemic" at the International Conference held at Mittal School of Business, LPU, Punjab.

Dr. Mridusmita Baruah presented a paper entitled "Imagining Modern India through the Lens of Vivekananda" at the three-day National Seminar on 'Swami Vivekananda: Indian Culture and Heritage' conducted by GSDS.

Dr. Mridusmita Baruah presented a paper entitled "Situating Eco Feminism in the State of Manipur" at the International Conference on 'Human Rights: National and International Issues and Challenges' held at Dr. Ambedkar International Centre during 22 to 23 February 2020.

Dr. Pawan Sachdeva presented a paper entitled "Manav Sabhyata ke Vikas mein Shiksha ka Yogdan" held at IRA, Jaipur.

Dr. Pawan Sachdeva presented a paper entitled "Badalte Parivesh mai Vishv ki arth vaivastha" held at IRA, Jaipur.

Dr. Poonam Gupta presented a paper entitled "Utility and Risk of Social Media in Healthcare and its Regulatory Framework in India" in International e-Conference, Advances in Management at Social Science and Technology, Indian Academicians and Researchers Association.

Dr. Prithvi Raj Thapar presented a paper in the seminar on the poetry 'IkChundiAsman' of Gagan Meet held at Baba Namdev Library by Punjabi LokManch.

Dr. Prithvi Raj Thapar presented a paper in the symposium on the poetry book of Principal Amrit Lal Manan entitled 'Amrit Valvale' held at Baba Namdev Library (Punjabi LokManch) on 4 April 2021.

Placement Details

Number of students placed: 150

. 150

Number of companies visited for Campus Recruitment: 15

Library Development

The library has over 69,000 books out of which 966 have been added this year. The library also offers 14 different newspapers for its readers. A total of 28 periodicals are available in the library. The college library has consistently been contributing towards the expansion of knowledge of students and teachers alike. The library also provides the faculty and students an access to e-resources by being a member of N-list, INFLIBNET, UGC and e-resource provided by the Delhi University Library System.

Faculty Strength

Total strength of the faculty is 112

Financial Allocation and Utilization

Grant sanctioned: Rs. 203570000/-

Grant Utilized: Rs. 206349000/-

FLORENCE NIGHTINGALE COLLEGE OF NURSING

Florence Nightingale College of Nursing was established in 1994 and is offering a Diploma in General Nursing & Midwifery course, with the approval of Dept. of H&FW. Govt. of NCT of Delhi upgraded the diploma course to a B.Sc. Nursing course with effect from 2019 which extends over a period of four academic years (8 semesters inclusive of Internship). Currently annual intake is 70 seats plus 10% EWS reservation. The institution is financially controlled by the Govt. of NCT of Delhi and academically controlled by University of Delhi. The Florence Nightingale College of Nursing is attached with Guru Teg Bahadur Hospital (GTBH) & University College of Medical Sciences (UCMS). College has a Rural Teaching Centre established at Barwala rural area under UCMS. Mrs. Anjana Dhall, Principal is Elected as President of Delhi Nursing Council (SNRC). College has participated in various programs by virtual mode in Eye donation program, Oral Cancer prevention program, Hepatitis day, perfect health Mela program. College is participating in a skill training program for patients with COVID-19, trained health professionals from satellite hospitals. The college works in close association in the Ministry of Health & Family Welfare.

Students with distinctions

Ms. Anuoshka Biswas, Ms. Bhawana Kamboj, Ms. Jyoti Malik of B.Sc. Nursing II year NSHT-311.

Ms. Simran, Ms. Rashi Singh, Ms. Pragya Chauhan and few others of B.Sc. Nursing NSHP-II.

Result of B.Sc. Nursing III semester is 100%

Seminars/ Conference Presentation

Orientation Program was organized for the new batch of students to welcome them in the FNCON family on 24 November 2020 on an online mode. Curriculum was implemented via Online and offline mode as per government guidelines due to COVID-19 Pandemic.

Saraswathi Pooja was held in the College of Nursing on 16 February 2020.

Floor Painting and Poster Making Competition was held in Apollo School of Nursing on 7 February 2021.

Extension and Overreach Activities

Affiliation is obtained from Urban (under MCD Centre) and Rural (under UCMS) Community centers for providing community health experience. Where special emphasis will be on MCH services and national health programs. Numerous activities are undertaken to prevent ragging & sexual harassments of women on workplace.

Library

The college library has total 1671 books, 10 journals and two Newspapers.

Faculty Strength

Principal (officiating): 1 Vice-Principal (officiating): 1

Senior lecturer: 1

Tutor: 7

Clinical Instructor: 12

GARGI COLLEGE

Major Activities and Achievements

College was ranked 9th in the Arts stream, 14th in Commerce and 12th in Science stream by India Today Ranking 2021. College was 16th in the NIRF ranking. Construction for the new academic block started on the college premises during this academic year, as per the OBC Expansion Plan of UGC. Foundation stone ceremony was held on 25 February 2021 with Mr. Saurabh Bhardwaj, Minister of Legislative Assembly, Govt., NCT of Delhi, as the chief guest for the occasion. Long-overdue promotion of all eligible faculty members was carried out, which included promotion of 77 Assistant Professors from stage 1 to stage 2, 63 Assistant Professors from stage 2 to stage 3 and 32 Assistant Professors from stage 3 to Associate Professor. One faculty member was also promoted from the post of Associate Professor to Professor. Ms. Deepanshi Gupta of B.A. (Hons) Political Science was awarded with Dr. Shankar Dayal Sharma Gold Medal for being an all-rounder b University of Delhi.

Honours/ Distinctions

Dr. Shashi Chawla, Department of Microbiology, was honoured with the International Women Empowerment Award by Nutrition and Natural Health Sciences Association.

Dr. Vandna Luthra, Department of Physics, achieved "IOP Trusted Reviewer Status" by Institute of Physics (IOP), UK.

Dr. Rashmi Saini, Department of Zoology, was awarded with the Women Researcher Award 2021 in the category International Scientist Awards on Engineering, Science and Medicine, organized by VDGOOD Professional Association, Salem India. She was also awarded with the Edge India Times Award-2020, Honor of Excellence in Teaching & Research (5-star) by Edge India Publications.

Dr. Manpreet Kaur Rawal, Department of Microbiology, and Dr. Rashmi Saini, Department of Zoology received the InSc Research Excellence Award 2020 by the Institute of Scholars (InSc), Bengaluru – an ISO-certified Institute, accredited by UASL.

Dr. Babita Gaur, Department of Library, received the College Librarian of the Year Award 2019 in recognition of her outstanding contributions as college librarian and her achievements in the field of Library & Information Science.

A Ph.D degree was awarded for a thesis titled "Counseling in Schools: Examining Needs, Issues and Perspectives with Implications for Counsellor Training, Wellness and Development" under the guidance of Dr. Sangeeta Bhatia.

Students with Distinction

Anshu Arora of B.A. Programme I year was awarded the Meritorious Award by the Directorate of Higher Education, Government of NCT of Delhi.

Kajal Garg of B.Com Programme I year was awarded the Meritorious Award by the Directorate of Higher Education, Government of NCT of Delhi.

Lipika of B.Com (Hons.) I year was awarded the Meritorious Award by the Directorate of Higher Education, Government of NCT of Delhi.

Aastha Sardana of B.Com (Hons.) II year was awarded the Meritorious Award by the Directorate of Higher Education, Government of NCT of Delhi.

Harshita Agrawal of B.Sc. (Gen.) I year was awarded the Meritorious Award by the Directorate of Higher Education, Government of NCT of Delhi.

Publications

Dev, A. N. (2020). The multicultural poem...makes its own rules: Poetic Dilemmas and Resolutions in the Poetry of Sujata Bhatt. *IOSR Journal of Humanities and Social Science (IOSR-JHSS)*. Volume 25, Issue 10, Series 3, Pages 40-47.

Dutta, S. (2021). Disciplined Subjects: Schooling in Colonial Bengal. Routledge, 2021.

Kumar, N. et al. (2020). Comparative Transmission Dynamics and Optimal Controls for Chikungunya, Dengue and Zika Virus Infections. *Letters in Biomathematics*. Vol. 6(2), Pages 1-14.

Kumari, S. (2021). Gender wise Comparison of Mindfulness Amongst Moderately Active Population during Covid-19 Lockdown. *International Journal of Physical Education, Sports and Health*. Volume 8(1), pp. 16-19.

Luthra, V. et al. (2021). Raman and Infrared Spectroscopic Investigation of the Effects of Yttrium and Tin Codoping in Barium Titanate. *Journal of Physics and Chemistry of Solids*. Volume 154, 110079 JCR indexed.

Navneet, R. (2020). Abhinav Gupta's Theory of Rasa In The Context Of Aesthetic Experience As Communion of Feelings. *International Journal of Research and Analytical Reviews (IJRAR)*. Volume.7, Issue 3, pp. 883-888.

Phogat P., Sharma R., Grewal S., Malik A. (2020). The overlapping principles of Bhagvat Gita and contemporary psychotherapies. *International journal of Indian Psychology*. 8 (3), 1902-1908.

Raina, J. (2020). Policy Shifts in School Education: Where Do We Stand. *The JMC Review: An Interdisciplinary Social Science Journal of Criticism, Practice and Theory.* Volume IV, 2020, 153-180.

Saini, G., Kalra, S., Kaur, U. (2021). The purification of wastewater on a small scale by using plants and sand filter. *Applied Water Science* (2021) 11:68. https://doi.org/10.1007/s13201-021-01406-4.

Utreja, D., Rizvi, S.H. (2020). Anger in Anxiety Disorders: A Review. *Journal of Psychiatry and Psychological Research*. Vol. 3(5): 239-242.

Journals

Number of college teachers serving as Editor(s)/ Member(s) of Editorial Board: 02

Seminars Organized

Department of Business Economics organized a webinar on "Entrepreneurship and Start-ups" by Shawrya Mehrotra, founder Metvy.

Department of Microbiology conducted a webinar on "Interesting Interface of Microbiology with Food Industry and Career Opportunities therein for a Microbiologist" by Dr. Ruchi Srivastava, Food Safety and Quality Professional, in association with Microbiologists Society, India (Delhi Unit).

Department of Political Science organized a national webinar on the pertinent theme 'Pandemic, Laws and State Responses in India: A Citizen's Perspective'

An interdisciplinary webinar series entitled "Writing as an Enabling Cognitive Activity (WECA)".was organized by the Departments of Elementary Education, Philosophy and English.

Department of Applied Psychology embraced the power of technik to meet the challenges posed by the pandemic and started off with an International webinar series on Mental Health Care during COVID-19.

Conferences/workshops Organized

Department of Physics under aegis of IQAC organized a workshop on "Extending Mathematical and Computational Skills using spreadsheets"

The Fine Arts Society 'Hues' organized a workshop in collaboration with the Physics department on "Art Integration in Science and Mathematics" by Dr. Ankon Mitra

Department of Microbiology organized ENKINDLE, a three-day International Colloquium on Microbes, Environment and Science Communication.

Department of Zoology organized an International e-conference "NeuroEunoia 2020: A Neuroscience Affair" in association with Indian Academy of Neurosciences, Lucknow

Department of Zoology organized an International Symposium 'WISE' (Women in Science Event) on the occasion of International Day for Women and Girls in Science.

Department of Zoology organized an International colloquium 'Breaking stereotypes-la femme-Her Story' on the occasion of International Women's day.

Seminar/Conference Presentations

Dr. Jyoti Raina, Department of Elementary Education, presented a webinar on 'NEP: 2020: What does it mean for school teachers?' at Delhi Public School, Faridabad, Haryana on 24 November 2020.

Dr. Monica Gupta, Department of Elementary Education, presented a paper titled "Harmonies of Light: Walking with Rohith Vermula and Sri Aurobindo" at an online conference titled "The Philosophy and Practice of Sri

Aurobindo" organized by India Council of Philosophical Research in association with Sri Aurobindo Ashram, New Delhi on 25 and 26 February 2021.

Dr. Shashi Chawla, Department of Microbiology, presented an e-poster on "A Fact-Finding Study on Differences In Fatalities Due To Covid-19 Between East And West" in the 61st Annual International Conference on Microbial World: Recent Developments in Health, Agriculture and Environmental Sciences during 3 to 5 February 2021.

Dr. Rekha Navneet, Department of Philosophy, presented (via Zoom) an hour-long lecture on "Addressing Present Day Life Situation Through Ancient Indian Tradition" to the Department of Development and Family Empowerment, Janki Devi Memorial College (University of Delhi) on 22 March 2021.

Dr. Alka Garg, Department of Physics, presented two invited talks during the eleven week-long course on "Learning physics with Conceptual & Problem based approach" during 26 September 2020 to 11 October 2020 organized by NASI (The National Academy of Sciences-Delhi Chapter).

Dr. Mansi Agrawal, Department of Physics, presented a paper titled "Plasma assisted molecular beam epitaxy grown GaN nanowires on Si (211) substrates for UV sensing applications" in International Conference on Emerging Electronics (ICEE-2020) held virtually at the Indian Institute of Technology, Delhi during 26 to 28 November 2020.

Dr. Sangeeta Bhatia, Department of Psychology, presented a paper titled "Media Literacy: Relevance & Implications for Adolescents" at the 56th National & 25th International Conference of the Indian Academy of Applied Psychology (IAAP), Patiala during 18 to 20 February 2021.

Dr. Poonam Sharma, Department of Zoology, presented a paper in the International Conference on "Innovations in Biotechnology and Life Sciences" hosted by the Department of Biotechnology, DTU during 18 to 20 December 2020.

Dr. Niyati Singh, Department of Chemistry, made an online paper presentation in International seminar on "current trends in chemical and pharmaceutical sciences" organized by Dr HSG University, Sagar during 20 to 22 January 2021

National/International MoUs Signed.

MoU signed with Centre For Science and Environment (CSE).

MoU signed with Government Model Degree College, Zanskar, University of Ladakh under the Vidya Vistar Scheme of University of Delhi (In Process).

MoU signed with IBM Skills Build Country Partner - CSRBOX (In Process).

MoU signed with ICT Academy.

MoU signed with Coursera.

MoU signed with DU Vibes.

MoU signed with DU Assassins.

Other Inter-Institutional Collaboration

Collaboration with Kamala Nehru College, University of Delhi.

Placement Details

Number and percentage of students placed: 136 placed out of 633 applied (21.48% of the students who appeared).

Number of companies/industries visited for campus recruitment: 131

Extension and Outreach Activities

Despite the hardships of operating in a virtual setup, NSS organized a plethora of activities, sessions, and challenges. Throughout the year, NSS Gargi initiated multiple donation drives and campaigns like each one feed one, winter clothes donation drive, etc. To encourage physical well-being amongst volunteers in these adverse times, activities like lazy yoga, suryanamaskar, DIY walkathon, plog run, cycling, outdoor sports, dance etc. were organized under the Fit India campaign. To promote compassion, gratitude, and mental well-being, an interactive session on handling anxiety, Inaayat-a-Sadbhavana – a day event, etc. were conducted. Various lectures, workshops, webinars, and interactive sessions such as the Webinar on National Education Policy, Vigilance week talk, BYOL financial literacy webinar, NSS x RSVI session on awareness about visual impairment, Changemakers summit on social

entrepreneurship, Sustainable periods session on World Menstrual Health day, etc. were also conducted. NSS Gargi also arranged various poetry, article writing, poster making, group discussion, and videography competitions throughout the year on themes like Vigilance, Freedom, Gandhi Jayanti, Atmanirbhar Bharat, etc. To keep volunteers productively engaged with pressing issues, numerous week-long social media challenges catering to menstrual health awareness, road safety, women's day, etc. were launched. All the events witnessed enthusiastic participation from volunteers, thereby, helping NSS make a difference in society.

Library Development

The library online orientation program was held by the College Library for all students on 23 November 2020 to spread awareness and to train new users to navigate the library collection and to find and evaluate information. Students and faculty from Arts, Commerce and Science streams attended the session. Online attendance was 900+ attendees and the YouTube views were over 2,500. WEBOPAC, the facility of UGC INFLIBNET and access to the DU Library Catalogue continued throughout the Gargi Library website (http://www.gargicolglibrary.webs.com) and online use of e-resources increased during the year. The library saw an addition of 478 new books till March 2021 which amounted to ₹4,96,781, making a total of 76,001 books available to all. At present, the library has an asset of 381 CDs/videos and also has access to 46 periodicals and 10 newspapers. Electronic Resource Management package for e-resources: User control has been provided by NLIST. The library subscribes to a large number of Electronics Resources through UGC-Infonet which includes e-resources (6,000+ e-journals and 31,35,000+ e-books) and University of Delhi connectivity which includes Delhi University Library System. All of this is available in the present library with Wi-Fi-connectivity in the library computer lab. Approximately 4899 Books were consulted and loaned by users, which includes consultation of ref. sec. and excludes periodicals. use of loose issues Approximately 1620 students visited library during the year till 31 March 2021, which excludes faculty and nonteaching staff. During the year, approximately 708 Books were issued and 879 Books were returned till 31st March, 2021. Apart from this, DULS subscribes to a large number of electronic databases which the college has access to – UGC Inflibnet Data and e-ShodhSindhu consortium which has access to 6,000+ journals, 1,99,500+ e-books under N-List and 6,00,000 e-books through NDL.

Faculty Strength:

Total Permanent: 136 Total Ad-Hoc: 80 Librarian: 01

Financial Allocation and Utilization

Grant Sanctioned: Rs. 5306.56 Lakhs/-

Grant Utilized: Rs. 6559.58 Lakhs/-

Other Significant Information

Three of our students were felicitated at the convocation ceremony, Delhi University for the academic year 2019-2020. University medals were awarded to Ms. Priyanshu Chalana (B. Com Programme) and Ms. Smriti Rawat (B.A. Hons. in Applied Psychology) for scoring the Highest Aggregate in the entire Delhi University. This year, the recipient of the prestigious Dr. Shankar Dayal Sharma Gold Medal for All Rounder in the entire Delhi University was our very own Ms. Deepanshi Gupta (B. A. Hons. in Political Science). Ms. Amisha Tokas (B.A. Hons. Political Science II Year) secured bronze medal in the selection trials for the Indian Judo Team (Women) in the forthcoming Olympic Qualifying Events 2021.Ms. Prerna Tokas (B.A. Programme I Year), and Ms. Jyoti Tokas (B.A. Programme I year) secured bronze medals in the Selection Trials at CSJM University, Kanpur for the 31st World University Games 2021 to be held in China.

HANS RAJ COLLEGE

Major Activities and Achievements.

Hans Raj College was ranked 9th by NIRF in 2020. The college was ranked 4th in Commerce and 5th in Arts and Science in the India Today Ranking 2021. The college team, out of 400 teams, made it to the Top 10 in the World Business Case competition 2021 organized by the Academy of Asian Business. It therefore received The Global Scholar Award package by the Academy. A Covid-19 RT-PCR centre was also started in the college during the second COVID-19 wave.

Honours/Distinctions.

Prof Rama was felicitated with the Special Appreciation Award for the category 'College Principal in Service' by the University of Delhi.

Prof Rama was awarded by the Prime Care foundation for her tireless work during the Pandemic.

Prof Rama was awarded the 'Outstanding Leader Award in Education' at the Higher Education Summit in New Delhi on 25 February 2021.

Students with Distinctions

Sagarika Rao of M.Sc. Anthropology II year received a distinction.

Tanya Singh of M.Sc. Geology II year received a distinction.

Divyansha Khajuria of B.Sc. (Hons) Anthropology III year received a distinction.

Himanshu Dewan of B.Sc. (Hons) Computer Science III year received a distinction.

Aman Pratap Singh of B.A. (Hons) Hindi III year received a distinction.

Publications

Chandel, V., Sharma, P. P., Kumar, N., Jha, N., Rathi, B., Kumar, D. (2021). In silico identification of potential inhibitor for TP53-induced glycolysis and apoptosis regulator in head and neck squamous cell carcinoma *Springer*. 3Biotech 2021, 11, 117 https://doi.org/10.1007/s13205-021-02665-3 (IF, 1.798; Springer; ISSN, 2190-5738). Page 3 2020.

Chandel, V., Sharma, P. P., Raj, S., Choudhari, R., Rathi, B., Kumar, D. (2020). Structure based drug repurposing for targeting Nsp9 replicase and spike proteins of severe acute respiratory syndrome coronavirus 2. *J. Biomol. Struct. Dyn. Taylor & Francis*. In Press DOI: 10.1080/07391102.2020.1811773 (IF, 3.310/2018; Taylor & Francis; ISSN, 1538-0254).

Gupta, Y., Goicoechea, S., Pearce, C., Mathur, R., Romero, J., Kwofie, S., Weyenberg, M., Daravath, B., Sharma, N., Poonam, Akala, H., Kanzok, S., Durvasula, R., Rathi, B., Kempaiah, P. (2021). The emerging paradigm of calcium homeostasis as a new therapeutic target for Protozoan Parasites. *Wiley-VCH Verlag GmbH & Co. KGaA*. (IF, 9.3; Wiley-VCH Verlag GmbH & Co. KGaA, Germany; ISSN: 1098-1128).

Gupta, Y., Maciorowski, D., Zak, S., Jones, K., Kathayat, R., Azizi, S., Mathur, R., Pearce, C., Ilc, J., Husein, H., Herbert, A., Bharti, A., Rathi, B., Durvasula, R., Becker, D., Dickinson, B., Dye, J., Kempaiah, P. (2021). Bisindolylmaleimide IX: A novel anti-SARSCoV2 agent targeting viral main protease 3CLpro demonstrated by virtual screening pipeline and in-vitro validation assays. *Methods, Elsevier*. https://doi.org/10.1016/j.ymeth.2021.01.003 (IF, 3.78; Elsevier; ISSN, 1095-9130).

Kumar, S., Goicoechea, S., Kumar, S., Pearce, C. M., Durvasula, R., Kempaiah, P., Rathi, B.*, Poonam*. (2020). Oseltamivir analogs with potent anti-influenza virus activity. *Drug Discov. Today, Elsevier Netherland*. In Press DOI: 10.1016/j.drudis.2020.06.004(IF, 7.321; Elsevier Netherland; ISSN, 1359-6446).

Kumar, S., Sharma, P. P., Shankar, U., Kumar, D., Joshi, S. K., Pena, L., Durvasula, R., Kumar, A., Kempaiah, P., Poonam, Rathi, B. (2020). Discovery of New Hydroxyethylamine Analogs Against 3CLpro Protein Target of SARS-CoV-2: Molecular Docking, Molecular Dynamics Simulation and Structure-Activity Relationship Studies. *J. Chem. Inf. Model.*, *American Chemical Society* Accepted doi.org/10.1021/acs.jcim.0c00326 (IF, 4.549; American Chemical Society; ISSN, 1549-9596).

Raj, S., Chandel, V., Rathi, B, Kumar, D. (2020). Understanding the Molecular Mechanism(s) of SARS-CoV2 Infection and Propagation in Human to Discover Potential Preventive and Therapeutic Approach. *Coronaviruses*. 2020,1, 73-81.

Sharma, N., Gupta, Y., Bansal, M., Singh, S., Pathak, P., Shahbaaz, M., Mathur, R., Singh, J., Kashif, M., Grishina, M., Potemkin, V., Rajendran, V., Poonam, Kempaiah, P., Singh, A., Rathi, B.* (2020). Multistage Antiplasmodial Activity of Hydroxyethylamine Compounds, In vitro and In vivo Evaluations. *Royal Society of Chemistry, UK*. RSC Adv. 2020, 10, 35516-35530 (IF: 3.119; Royal Society of Chemistry, UK; ISSN: 2046-2069).

Sharma, P., Kumar, S., Srivastava, S., Srivastava, M., Jee, B., Gorobets, N., Kumar, D., Kumar, M., Asthana, S., Zhang, P., Poonam, Zoltner, M., Rathi, B.* (2021). Computational validation of novel inhibitory molecule, 1-(4-((2S,3S)-3-amino-2-hydroxy-4- phenylbutyl)piperazin-1-yl)-3-phenylurea, with high potential to competitively block ATP binding to the RNA dependent RNA polymerase of SARS-CoV-2 virus. *J. Biomol. Struct. Dyn. Taylor & Francis.* under revision (IF, 3.310/2018; Taylor & Francis; ISSN, 1538-0254).

Srivastava, S., Verma, S., Kamthania, S., Agarwal, D., Saxena, A., Kolbe, M., Rathi, B., Nayar, A., Shin, H., Vashisht, K., Pandey, K. C. (2020). Computationally validated SARSCoV-2 CTL and HTL Multi-Patch Vaccines designed by reverse epitomics approach, shows potential to cover large ethnically distributed human population worldwide. *J. Biomol. Struct. Dyn. Taylor & Francis*. Accepted (IF, 3.310/2018; Taylor & Francis; ISSN, 1538-0254).

Journals

The journal 'Hans Shodh Shikhar' is published by the college on its website.

Research Projects

SERB, December 2020-2023, entitled "Lead Optimization of Potent Multistage Antimalarials". Dr Brijesh Rathi (Principal Investigator). Amount 46.41 lakhs.

DST, April 2019-2021, entitled "Development of Nanoantenna Sensor for Infrared Detection". Dr Brijesh Rathi (Principal Investigator). Amount 63.08 lakhs.

DRDO, October 2017-2020, entitled "Design and Catalytic Large-Scale Synthesis of New Functionalized Perfluorinated Ketones/Ethers as Potential Fire Extinguishants". Dr Brijesh Rathi (Principal Investigator). Amount 48.20 lakhs.

Patents Filed/Granted.

Brijesh Rathi, Prakasha Kempaiah, Agam P Singh, Snigdha Singh, Yash Gupta, Neha Sharma, Poonam, Ravi Durvasula, "Hydroxyethylamine-based Piperazine Compounds, and Methods of Producing and Using the Same for Treating Disease" (Patent filed; Application No. 202011056923; 29 Dec 2020).

Neha Sharma, Brijesh Rathi, Agam P Singh "Novel Antiparasitic Agents Based on Piperazine and Uses thereof" (Patent Filed; Application No. 202011043767; 08 October 2020).

RP Singh, Kavita, R. Rangarajan, Brijesh Rathi, Rishi Pal Singh "Chalcone Derivatives and Uses thereof" (Patent filed; Application No. 2017110041295).

Dhruv Kumar and Brijesh Rathi 'Anti-viral herbal inhaler having nano-gold based herbal formulation" (Provisional Patent Filed; Application No. 202011018564; 30 April 2020

Seminars Organized

Dr. Ruchika Ramakrishnan OBE Evaluation Coordinator, DU Dean Examinations Office, presented on 'OBE:Examination and evaluation' in association with Mahatma Hansraj Faculty Development Centre on 22 June 2021.

Prof. Yash Pal Sharma, Professor and Former Head, Department of Botany, University of Jammu. Presented on 'The art of taking advantage: Fungal and Human Opportunism' in association with Mahatma Hansraj Faculty Development Centre on 14 June 2021.

Dr. Sudhir Rana Editor, FIIB Business Review (Sage Publishing), South Asian Journal of Marketing (Emerald), AEMBO (Taylor and Francis), Associate Professor and FPM Chairperson FIIB, presented on "Essentials of Writing High Quality Paper: A View from an Editor and Reviewer" in collaboration with Mahatma Hansraj Faculty Development Centre on 28 August 2020

Conferences Organized

Organized a National e-Conference titled, "Plant Science Research: Relevance, Funding, Challenges and Opportunities" by Department of Botany, Hansraj College in collaboration with Mahatma Hansraj Faculty Development Centre on 16 and 17 January 2021.

A National Science week was organized and following events were conducted from 25 to 28 February 2021; a webinar was conducted on "Innovation and Research at Undergraduate Level"; a project presentation competition, "Breaking Bounds"; a debate competition, "Tark-Vitark"; and another event named "Fit in Physicist".

An Online Workshop on "Social Networking: The Gen Z Power Recruitment Tool" was organized by Prof. Kamla Bhardwaj Ex. Dean Student Welfare S.L.B.S.N. Sanskrit University in association with Mahatma Hansraj Faculty Development Centre on 27 and 28 February 2021.

National/International MoUs Signed

MOU signed with EMBO, Meyerhofstrasse Heidelberg, Germany University of British, Colombia

MOU signed with Translational Health Science & Technology Institute (THSTI), NCR Biotech Cluster, Faridabad

MOU signed with Ramjas College, University of Delhi under UGC Paramarsh Scheme

MOU signed with DAV Institute of management, Faridabad under UGC Paramarsh Scheme

MOU signed with SVSD College, Bhatoli under UGC Paramarsh Scheme

MOU signed with S L Bawa DAV College, Batala under UGC Paramarsh Scheme

MOU signed with MCM DAV College, Kangra under UGC Paramarsh Scheme

MOU signed with Stritch School of Medicine, University of Loyola, IL USA

MOU signed with University of Debrecen, Hungary

MOU signed with Federal Rural University of Pernmbuco, Brazi

Other Inter-Institutional Collaboration

Collaboration with Dr. Archana Singh and Prof. Ian T. Baldwin from EMBO, Meyerhofstrasse Heidelberg, Germany for a period of three months for undertaking collaborative research work at Department of Molecular Ecology, Max Planck Institute of Chemical Ecology, Jena, Germany.

Collaboration with Dr. Baljeet Kaur from Hansraj College, University of Delhi for a period of two years for doing Post-Doctoral Research at Jawaharlal Nehru University, New Delhi.

Collaboration with Mr. Goicoechea, Steven and Miss. Jessica L. Simpson from Stritch School of Medicine, University of Loyola, IL USA for a period of one month for mutual Exchange of Students.

Collaboration of Dr. Brijesh Rathi with Dr. P. Kempaiah, Department of Medicine, University of Loyola, Chicago, USA for undertaking collaborative research work.

Collaboration of Dr. Brijesh Rathi with University of Debrecen, Hungary and Federal Rural University of Pernmbuco, Brazil for a period of more than ten days each for Ph.D. course work and a short course.

Collaboration of 13 Enactus students with LAMAARA TECH for a period of seven months for conducting water filtration techniques research.

Entrepreneurial Cell, Hansraj College is working on an Incubation Centre (MHCIIE), wherein start-ups are mentored in collaboration with PayTm Build for India. The mentor board for the MHCIIE includes Paresh Gupta (CEO, GCEC), Bharat Sethi (CEO, Shelfmonk) to name a few.

Placement Details

Number of students placed: 220

Number of Companies visited for campus recruitment: 84

Extension and Outreach Activities

The college organized and took part in a myriad of Extension and Outreach Activities. The highlights of the year include a Tree Plantation Drive under NCC in which 160 students participated, Swachhata Pakhwada event under the Swachh Bharat scheme in which 150 students took part. Botanique – The Botanical Society of the college also organized various events and activities such as the 'Hands-on Workshop on 'Mushroom Cultivation and Bonsai Making' which saw a participation of 60-80 students under 6 teacher coordinators. AICTE with Computer Science Department of the college organized a Smart India Hackathon 2019-20. ENACTUS group of the college organized various activities during COVID-19 pandemic. Some of these activities include distributing food and necessities to VOWS NGO; conducted awareness program in collaboration with Raunak helping hands; Recreational deaddiction awareness for minor drug addicts program with SPYM; provided digital literacy to the kids by visualy impaired via Ashadeep Foundation, among others.

Library Development

Around 1262 new books were added this year for a total amount for Rs. 9,28,181/-. The college has been able to add 49 e-books and has access to e-journals through the DULS. An RFID system is in place for the circulation, security, stock verification and other library work. KOHA, an Open-Source Integrated Library Management System (ILMS) is also available. An online public access catalogue (OPAC) is also functioning in the library. Various old books and journals were weed out this year.

Faculty Strength

Total Permanent: 114 Total Ad-Hoc: 69

Financial Allocation and Utilization

Grant Sanctioned: Rs. 45,63,01,468.00/-

HINDU COLLEGE

Major activities and achievements

Hindu College is ranked the Number one College in the country in Arts and Science streams and second in Commerce in the **India Today Best Colleges Ranking 2021**. Despite the constraint of working in the online mode, the faculty and students of the college devised bold and innovative ways to participate in many enriching activities. Each department actively organized webinars and interactive talks online. The Department of Physics ran a successful Add-On Course, titled "Programming in Python", in collaboration with IIT Bombay. In December 2020, the Department of Chemistry co-organized a two-day international conference on "Environment, Water, Agriculture, Sustainability and Health (EWASH -2020): Expanding Our Vision Post Covid-19", in collaboration with Save the Environment, CSIR-NEERI, Delhi, Royal Society of Chemistry, North India, and the Environment and Social Development Association, Delhi. The various societies of the college also adapted excellently to the virtual world. Among the many activities organized by these societies was *Compass 2020* – a webinar series by Caucus – The Discussion Forum of Hindu College, in May-June 2020. The series involved conversations with eminent personalities from diverse fields - including Dr Vinay Sahasrabuddhe, Ms Shailaja Chandra, Professor Dinesh Singh, Mr Harish Salve QC, Dr Arvind Panagariya, Amb. Lakshmi Puri and Mr Shekhar Gupta – all of whom graciously shared their intellectual expertise.

Honours/Distinctions

Two faculty members were awarded Ph.D. degree this year, Dr. Narendra Kumar, from Department of Statistics and Dr. Vivek Chopra from Department of bio-technology, Delhi Technological University.

Dr. Devanshi Magoo, Assistant Professor in Chemistry, was awarded the Young Researcher Award (Faculty Category) by Save The Environment - An NGO for Environment Protection and Water Management.

Dr. Pallavi Saxena, Assistant Professor in Environmental Sciences, was selected as Chair of South-Asian and Middle-East Region for Early Career Scientists Network of iLEAPS Community, UK from 1st Jan 2020–31st Dec 2021.

Dr. Archana Verma, Associate Professor in History was made Member of the Heritage Conservation Committee (HCC), Government of India.

Publications

Aggarwal, A. (2020). Manufacturing Profits: Modes of Surplus Extraction at Lower End of Global Value Chain. *Probings & Reprobings: Essays in Marxian Reawakening* (Eds Sankar Ray & Saibal Gupta). Delhi: Aakar Books. Ashdhir, P., Singh, A., Tutlani, C. (2020). Understanding Electrostatic Potential and Field Distributions by Simulation. *IAPT Physics Education, Volume* 36(2), ISSN Number: 0970-5953.

Basu, R. (2020). *Continental Philosophy: Selections from the European Continent*. Delhi: Worldview Publications. ISBN-10: 9382267611, ISBN-13: 978-9382267614

Choudhary, R.B.A.. (2021). The Tradition of Equine Veterinary Literature in Pre-colonial and Colonial India: The Writing of faras-nama. *Studies in People's History*. 8(2).

De, Gitika. 2020. Contested law-making: Mobilization for the Right to Information law in India, 1990-2005. in Ida Nijenhuis et.al. (eds.), *Information and Power in History: Towards a Global Approach*. London & New York: Routledge.

Ghorai, S., Kaur, H., Yadav, A., Wadhwa, K., Jain, K. (2020). Azoles used in agriculture as possible cause of Azoleresistance in clinical Candida isolates. *Biosciences Biotechnology Resaerch Asia*. 17 (4).

Gupta, A. (2020). Statue of Unity or Opportunity? An Argumentative Review. *International Journal for Research in Engineering Application & Management (IJREAM)*, 05, (01).

Kanoujia, S. (2020). Development of Dalit Consciousness in UP: 1900-1950s. *Shodh Sarita*, Volume 7, Issue 27. Saxena, P., Goel, A., Saxena, P., Sonwani, S., Rathi, S., Srivastava, A., and Bharti, A.K. (2021). Quantification of health benefits due to Respirable Particulates in COVID-19 lockdown over Delhi-NCR and non-attainment cities of Uttar Pradesh, India. *Aerosol and Air Quality Research*. (https://doi.org/10.4209/aaqr.200460).

Sharma, R.K., Yadav, P., Yadav, M., Gupta, R., Rana, P., Srivastava, A., Zboril R, Varma, R.S.Antoniette, M., Gawande, M.B., (2020). Recent Development of Covalent Organic Frameworks (COFs): synthesis and catalytic (organic-electric-photo) applications, *Materials Horizons*, 7(2), 411-454.

Srivastava, A., Sharma, R. K.. (2021). *Green Chemistry for Beginners*. Singapore: Stanford Pub. ISBN 978-981-4316-96-5

Journals

Published by college

Two

Number of college teachers serving as editors(s)/ member(s) of editorial board: **One**

Research Projects

SERC, 2020-21, Designing and development of high efficiency inverted organic solar cells, amount sanctioned, Rs 700000

Indian Council of Historical Research, 2020-21, On History And Politics - Advaita - Vedanta and the Idea of self in colonial India, amount sanctioned, 47500

Indian Council of Historical Research, 2020, amount sanctioned, Rs 4,00,000

Seminars Organized

Dr. Tarun Saint, Independent Researcher, 'The Significance of Twenty-First Century South Asian Science Fiction', April 5, 2021.

Prof Ian Hall, Griffith University, 'India's Foreign Policy', 11th February 2021.

(Late) Prof. Vinay Kumar Srivastava, Professor of Anthropology. "Why Study Sociology?' 23rd November 2020.

Prof. Vipin Singh, Institute of Biotechnology, Chandigarh University. "Next Generation Sequencing Techniques and Applications", 18th June, 2020.

Conferences Organized

Environment, Water, Agriculture, Sustainability and Health (EWASH-2020): Expanding our vision post Covid-19. Date: 19 to 20 Dec, 2020; Organized by: Save the environment (A Society for Research, Awareness and Social development) Kolkata West Bengal, Co-organized by CSIR-NEERI, Delhi zonal centre; Royal Society of Chemistry, North India; Environment and Social development association(ESDA), Delhi; Department of Chemistry, Hindu College

Seminar/Conference Presentations

Mr. Akshaya Chaudhary, presented a paper, "The Dynamics of Culture and Neo-liberal Globalisation in Postcolonialism" at a three day international conference "Re-thinking the Postcolonial: Texts and Contexts", organized by New Literaria Journal in collaboration with Department of English, Assam University held from 25-27 September 2020.

Dr. Pallavi Saxena presented a paper, "Variation in Criteria Air Pollutants during Major Firework Festival and Significance of Transboundary Air Mass Movement on Air Quality in Megacity of Northern India", AGU Fall Virtual Meeting, 2020, San Francisco, USA.

Dr. Poonam Sethi presented paper, "Does Shareholding Pattern of companies in India reflect the Corporate Governance Phenomena at Contemporary Times?" at International Conference of Global Research Foundation of Corporate Governance, September 2020.

Dr. Adarsh Singh presented a paper in International Conference, "Low Cost Hybrid Vortex Collector for Cleansing Hydro Ecosystems", Nithin V.P., Sandra M.P., Adarsh Singh, 32nd World Conference on Applied Sciences, Engineering and Technology held during 30-31 Dec. 2020, Goa, India.

Dr. Vivek Chopra presented poster, "Analyzing *Mallomonas* sp. From river Yamuna in Delhi Region using Scanning Electron Microscopy" in International conference World Environment Summit 2020, held during 18-19 January, 2020 at Delhi.

Dr. Reema Gupta_presented a paper, "Recent Advances in Functional Materials" (RAFM-2020) at an online conference organized by ARSD College held during 5-6th November 2020.

Dr. Neha Kapoor, Resource Person in the RDAB-2020, National Seminar cum Workshop Recent Developments in Applied Biotechnology, 06-08th March, 2020 at IIIT Allahabad

Other Inter Institutional Collaboration

The College has an MoU with the National University of Singapore, Singapore from 2011 onwards for a student and faculty exchange Programme. Under this MoU, students from NUS have been spending one semester each academic year. In its first year, the College is hosting students from University of Heidelberg, Germany and UBC, Canada through the affiliating university's MoU with the respective universities.

The College offers foreign language courses through MoUs and joint collaboration with well-known institutions such as Goethe Institute, Max Mueller Bhawan for German; Instituto Cervantes for Spanish, Alliance Francaise de Delhi for French and Department of Slavonic and Finno-Ugrian Studies for Russian.

Placement details

Number and percentage of student's details: About 60% of students placed are from arts and science courses 40% are from the commerce department.

Number of companies visited for campus: Approx. 52

Extension and Outreach Activities

Extension activities in the College are organised through the NSS, NCC and some other societies, prominent being the environment society (Panchtatva), The Equal opportunity Cell (Ankur), Women's Development Cell (WDC), Enactus, etc. NSS organized various virtual camps as well as Blood donation camp, Cleanliness drive, Cloth donation drive, Collection Drive, Scholarship drive, Awareness Drive, Swachh Campus Rally,

28 cadets participated in Combined Annual Training Camp; representation in Republic Day Camp, Nau-Sainik Camp; organized camp for International Yoga Day; celebrated Surgical Strike Day, National Voter's Day.

Library Development

Total Budget = 11,73,250/- (Book Fund) +11,50,750 (Library Development) No. of books added in 2020-2021 = 312 Books Internet Facility = Wi-Fi facility available in the Library

Faculty Strength: 163

Financial Allocation and Utilization

Grant sanctioned Rs.4446.00 Lakh Utilized Rs. 5196.43 Lakh

HOLY FAMILY COLLEGE OF NURSING

Major Activities and Achievements

There was no entrance exam due to Covid 19 Pandemic. Selection of candidates for the academic year 2020-2021 was done based on merit of the Qualifying Exam for each course. For B.Sc. (H) Nursing 53 students were admitted, for B.Sc. Nursing (Post Basic), 30 students and for, M.Sc. Nursing: 15 students were admitted. Few offline classes

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also were arranged for B.Sc. Nursing (Post Basic) and M.Sc. Nursing Students. Before calling back the students for providing the required clinical experience, an online meeting of Principal with parents & students was conducted for each group separately to alleviate their fear and anxiety and prepare them mentally for joining back the College. They were counseled by class teachers as well. As per the guidelines issued by the INC, the clinical hours were reduced and the hours for simulation based learning in the labs were increased. Webinars on "COVID-19" were organized separately for each group of students. Sessions on donning & doffing & special infection prevention measures for COVID 19 were conducted. There was a great support from the management in providing adequate supply of PPE kit & hostel facility for the day scholars during their clinical experience. Students were provided experience in COVID19 positive areas. All PPE as per the government protocols was provided to the students by the management. Students have actively participated in COVID19 vaccination with staff.

SNA (Student Nurses Association) Activities

Digital SNA elections were held in the month of October 2020 and new office bearers and committee members were elected. Students also participated in MTNL digital Health Mela and Medico Masti on3rd and 4th of June, 2020 and received prizes for varies cultural events like poetry competition { 2nd position,} debate competition, [ist position] Covid innovation[3rd position,] painting competition { 1st position}, dance competition { 3rd position}, slogan writing[1st position]. Students organized digital teacher's day celebration on 5th Sept 2020 Digital farewell was given to the outgoing batches of M.Sc., BSc (Post Basic) and BSc (Hons) Nursing students.

As part of the revision of TNAI procedure manual for Fundamentals of Nursing a photoshoot was organized and conducted by our College on 26th and 27th of November 2020 keeping all SOP's related to Covid-19 restrictions

International Days

World Health Day was celebrated on 9 April 2019 with role play & health education by BSc 3rd year in HFH OPD. This year theme was health for all: Everyone, Everywhere.

World Hepatitis Day was celebrated on 29 July 2019 with role play, and health education, at Anganwadi hub of Chawla village in south west district of Delhi by Post Basic 2nd year students. This year theme was: invest in eliminating hepatitis

World AIDS Day was celebrated on 2nd December 2019 with role play and health education in HFH OPD.

World Hepatitis Day was celebrated on 4th December. Students participated in Poster and Skit Competition at ILBS, Vasant Kunj.

World Cancer Day was celebrated on 4th February 2020 with Role play and Health Education at Holy Family Hospital, New Delhi

Publications

Banerjee, (2019).Assess the effectiveness of self-instructional knowledge, attitude, and practice regarding pharmacovigilance among staff nurses. Current Medicine Research and Practice. 9: 93-97. https://doi.org/10.1016/j.cmrp.2019.05.001 Bhawna (2019). Assess the effectiveness of hot water application with Epsom salt and hot water application on joint pain among adults suffering from arthritis. International journal of science and research volume 9 (10) DOI: 10.29322/IJSRP.9.10.2019.p94105

Goswami, S. (2019). Assess the Knowledge and Attitude of Mothers regarding Prevention of child sexual abuse (CSA) in selected urban community in New Delhi. *Journal of Nursing Science and Practice*.9(3).

Dimri, N. (2019). To assess the knowledge of staff nurses regarding 24 hours care of patients with myocardial infarction admitted in selected hospitals of Delhi with a view to develop self instructional module. *International journal of multidisciplinary education research* 8:10(1)

Pandey, C. (2019).To of Assess the Quality of Life Adolescents (13-19)Selected Years) attending **ART** Centre of Hospital in New Delhi. Indian Journal of Youth and Adolescent Health. 6(1):28-35.

Lawrence, L, Babu, C. (2020). Assess the Stressful Factors and the Coping Strategies of Parents of Children Living with Cancer. *International journal of science and research*. 9(2) DOI:10.21275/SR20218085541 Mala (2019). Assess the effectiveness of Structured Teaching Programme in terms of Knowledge of Adolescent Girls regarding Polycystic Ovarian Syndrome and Prevention of its Complications. *International Journal of*

Nursing & Midwifery Research. 6(1): 28-32. DOI: https://doi.org/10.24321/2455.9318.201907

Parcha, M. (2019). Assessment of nutritional status of children (3-5 years) and association of their mothers knowledge. International Journal of Science and Research, 8 (9),723-725.ART20201122.

Rautela M., Thomas S., Sr. Rita P. D. (2020). Assess the Effectivness of Helfer Skin Tap Techinique on the level of pain during intramuscular injection. International Journal of Nursing Education, 12, DOI Number: 10.5958/0974-9357.2020.00010.0

Uniyal R(2019). Develop and Evaluate the Effectiveness of Video Assisted Teaching Programme on Knowledge Regarding Screening of Substance Abuse among Staff Nurses. *Indian Journal of Nursing Studies*, 10 (1): 47-55

Research projects

B.Sc. Interns divided in 5 groups and conducted Research projects in the area of Med-Surg. Nursing, Midwifery, Pediatrics, and Community Health Nursing & Mental Health Nursing. Post B.sc 2nd year divided in 3 groups and conducted research project in the area of medical-Surg. Nursing, Midwifery, Pediatrics, and Community Health Nursing & Mental Health Nursing.

M.Sc. Nursing students are conducting individual Research projects in their respective Specialty areas.

Seminar Organized

M.Sc. Students organized and conducted a webinar on "Nightingale Challenge: Global Initiative to Nursing Leadership" from 15-17July 2020.

A three day workshop was organized on the topic of Personal Development: A way to Professional growth' for nursing personnel from 11 - 13Feb 2021.

A Three days 'workshop was organized by M.Sc. Nursing Students on the topic of 'Innovations in Emergency Nursing from 2 – 4 March 2021.

Conference / Workshop organized/Participated as Resource Person

Dr. Raminder Kalra was speaker for the following sessions

- "Time Management" on 11thFebruary 2021
- "Critical Thinking and Decision Making" on 13th February 2021
- "Effective Communication: A ticket to Patient safety" on 9th February, 2021 in RAKCON
- "Item Analysis" in Rufaida College of Nursing, Jamia Hamdard on 2 March, 2021
- "Human factor during Pandemic" in Kalawati Saran Hospital on 23 March, 2021

Mrs. Anney Avarachan was a speaker for the session on the topic of "Staffing in Nursing Unit and team building" on 13 February 2021

Prof. Cimil Babu was a speaker for the session on the topic, "Concept of Management and Administration" on 11th February 2021and on "Motivation" on 13 February 2021

Ms. Malar Selvi was a speaker for the session on the topic of "Human Relations" on 11 February 2021

Ms. Smitha Jose was a speaker for the session on the topic, "Occupational Health and Safety" on 12 February 2021

Ms. Giji John was a speaker for the session on the topic, "Medical Legal Aspects in Nursing" on 12 February 2021

Ms. Jibanlata Devi was a speaker for the session on the topic of "Adult Learning and Promoting Staff Development" on 13 February 2021

Ms. Sherly Thomas was a speaker for the session on the topic of "Personal Leadership Skills and Leadership Training" on 13 February 2021

Ms. Giji John was a speaker for the session on the topic Ms. Anshu Tomar was a speaker for the session on the topic of "Disaster Management" on 2 March 2021

Ms. Lincy Lawrence was a speaker for the session on the topic of "Psychiatric Emergency" on 3 March 2021 Prof. Cimil Babu and Ms. Smitha were speakers for the session on the topic of "Obstetrical Emergencies" on 4 March 2021.

International MoUs Signed

National. International MoUs Signed Acharya Narendra Dev College, University of Delhi, New Delhi. To promote 'Paramarsh'- a University Grants Commission (UGC) scheme for Mentoring National Accreditation and Assessment Council (NAAC) Accreditation Aspirant Institutions to promote Quality Assurance in Higher Education.

Placement details

Number of students getting successful placements- 100%

Number of Companies/Industries coming for campus recruitment- Not encouraged because all students preferred and were offered job in parent hospital (Holy Family Hospital).

Extension and outreach activities

Due to COVID -19 lockdown & protocols community projects and posting were suspended from mid-March 2020to mid-September 2020. Posting were started for BSc Interns and POST Basic BSc 2nd year from September 2020. On 26 September 2020 group project was conducted by Post BSc 2nd year on topic Malaria in MCH Centre, Defence Colony. On 1st October 2020 group project was conducted by Post BSc 2nd year on the topic Antenatal care in MCH Centre, Defence Colony. The skit focused on sensitizing the population regarding Antenatal care and facilities available for the antenatal mother provided by the Government of India On 9th October 2020 BSc interns and Post BSc 2nd year had taken efforts to sensitize the public who were attending OPD in MCH center, Defense Colony on Prevention of COVID 19. The students in street play acted as corona virus and focused on prevention like social distancing, frequent hand washing and avoid over crowded areas. On 29th October 2020 again both batches students have performed group project on Family planning. Students have beautifully depicted various contraceptive methods and need of family planning in MCH Centre, Defence Colony. On 6th November 2020 BSc interns and Post BSc 2nd year student performed group project on Geriatric Carein MCH Centre, Defence Colony, On 9th November 2020 MSc nursing students as part of their ANP community project did a group project on Cancer Awareness with theme "I can, I will" in PHC Palam. World Cancer Day was celebrated on 4th February 2021 with Role play and Health Education at PHC Palam by BSc 3rd year. On 18th February 2021 MSc 2ND Year community specialty during their elderly home posting in Sashiraj Foundation Shadra, Delhi conducted health camp for the inmates & presented a street play for them. On 26th February and 5th March 2021, BSC 3rd year conducted group project on Non Communicable Diseasses in RHTC Najafgarh and PHC Palam respectively. On 26th February 2021 community posting summary presentation of BSC 3rd year and GNM 3rd year was given to RHTC Director and staffs. They appreciated our student's efforts during their posting. Further a community bag with articles and stretcher prepared by MSC 2nd year (community health nursing) was given to them.

Library development

No. of Book Racks/ cupboards

Total number: 96 Nursing: 24

No. of journal racks: 5

No. of tables: 28

No. of tables/ stools: 177, Seat Reading Room 5

No. of Nursing books available: 1789

No. of latest edition Nursing books (since 1990): 945 No. of Nursing Journals Subscribed: 15 (11+4=15) Internet facility available for students: Yes Books purchased in the last financial year: 25

Faculty strength- 39

INDIRA GANDHI INSTITUTE OF PHYSICAL EDUCATION & SPORTS SCIENCES

Major Activities and Achievements

An Online Webinrar Conducted with Zoom Application for Conducting Assembly on 13.04.2020, 26 to 30 April, 2020, 3 to 7 May, 2020, 10 to 14 May, 17 to 21 May, 2020 and 24 May to 25 May due to outbreak of

pandemic COVID-19. The Live Sessions conducted Conouseling, Motivations and Appraisal. Organized One day International day of Yoga on Yogasana and Meditation during Covid – 19 on 21st June, 2020. Two days webinar was organized on Extension services/social outreach on Yoga and Meditation Training Camp on 22nd and 23rd June, 2020. An online Introduction Programme of Faculty and Non-Teaching Staff with students for New Academic Session of 2020-21 was organized on 18 Nov.2020. One Day Cancer Awarness Programme in association with Rajiv Gandhi Cancer Institute was organized on 24 Feb. 2021 at IGIPESS. Daily Assembly has been conducted in accordance with the Time Table for all the students and staff. For the purposes of cross checking the attendance, to announce and motivate the student for their next line of action / brief lecture or speech, for counseling / for redressal of any Grievance/s or short coming/to discipline the students / to recognize the accomplishment of students / Mass participation for fitness followed by *National Anthem* as a unique activity for the first time in the system of University of Delhi.

Publications

Dhananjoy, S.,A., Rana A., Patel, S. Kumar, S., Singh, D. (2021). Comparison among the Selected Seven Stakeholders Groups belonging to Non-Co-Educational Colleges of University of Delhi in regard to their Perception towards the Physical Education Programme", 4th International Conference on Sports Psychology at IGIPESS

Dhananjoy, S., Rana, A., Singh, D. (2021). Comparison between Non Co-educational and Co-educational Colleges of University of Delhi in regard to the Perception of the Selected Seven Stakeholders Groups towards the Physical Education Programme", 4th International Conference on Sports Psychology at IGIPESS.

Dhananjoy, S., (2018). Kinesiology and Biomechanics Enhancing Performances" Science Reporter – A CSIR Publication, 23-24.

Shaw, Dhananjoy, (2018). Protein for Sports Persons and Myths about Plant-Based Protein" Global Journal of Nutrition and Food Science.1(2), GJNFS.MS.ID.000507.

Dhananjoy,S., Kaur, M., Husain, R. (2021). Reliability of Health Questionnaire for Females Involved in Individual Sports", 4th International Conference on Sports Psychology at IGIPESS.

Singh J. Tiwari, S.2020). Relationship of BMI with Musculosketetal Fitness in College Students" *International Journal of Physical Education & Sports* 5 (03): 1-6

Mishra J. Tiwari, S. (2020). An Assessment of Participation in Physical Activity Amonth the Elderly Female of Delhi Region International Journal of Movement Education & Sports Sciences, Vol VIII No. 1 pp 38-40.

Mishra Jyoti, Sandhya Tiwari (2020) Assessment of Psychological Well being of Elderly Women of Delhi Region. *International Journal of Movement Education and Sports Scienceds*, VIII (1): 41-43

Gupta K., Chaktraborty, S. (2020). Significance of Curriculum Model And Design in Curriculum Development, International Journal for Innovative Research in Multidisciplinary *Field* (ISSN 2455-0620): 759-762.

Khare P., Chakraborty, S., Negi, G. (2020). Graphical Representation and Analysis of Selected Factors Through Feedbacks From Several Editions of Am, ateur Level Football Tournament, *International Journal for Innovative Research in Multidisciplinary Field* 6 (17).

Journals published by the College

One

Number of College Teacher's serving as Editor(s)/Member(s) of Editorial Board .

7

Seminar/Conference Organized

A National Webinar on Obesity Management was held on 29 May, 2020 in collaboration with Bhaskaracharya College of Applied Sciences

2nd National Webinar on Being Healthy was held on 09th June, 2020 in collaboration with Bhaskaracharya College of Applied Sciences

Organized a two days webinar on Extension services/social outreach on Yoga and Meditation Training Camp on 22 - 23 June, 2020.

A Two days webinar on the topic: Psychological strategies for winning organized on 23 - 24 July, 2020 in which renowned resource persons delivered online lectures.

A One day Webinar on Training of Microsoft Team for Faculty Members on 19 August, 2020.

A Two days webinar on compliance of Teacher's Promotion on 14- 15 Dec, 2020 organized by IGIPESS under the agies of IOAC.

Organized Two Day Webinar on Mental Imagery For Sports Performance on 25-26 Feb, 2021 at IGIPESS.

Seminar/Conference Presentations/Participation/Webinar*

Dr. Sandeep Tiwari, Resource Person in;

Webinar on Technical and Practical Preparation of Sports Persons organised by PEFI on 10. Nov 2020.

Webinar on Quantifine Training Load – A scientific way refresher course organized by UGC – HRD Center, BPS Women University on 05 Nov 2020

Webinar on Career and Professional Development in Physical Education and Sports, Central University of Punjab, Bhatinda on 02 Nov 020.

Webinar on Physical Activity and the Immune System Amidst Covid – 19 organized jointly by Gujarat Vidhyapeeth and Swarnim Gujarat Sports University, Gandhi Nagar on 16 October 2020.

Webinar Induction/Orientation Training Programme for Faculty in Universities/Colleges organized by Learning Center, Ramanujan College, University of Delhi during 26 June to 24 July 2020.

Conference Organized

Organized 4th International Conference on Sports Psychology Serving Athletes and Coaches in association with Department of Physical Education and Sports Science and Sports Psychology Association of India on 09 -10 and 12 March, 2021 at IGIPESS.

National/International MoUs Signed

MoU negotiations with various Institutions of National and International repute are under consideration.

Other Inter-Institutional Collaboration

Other Inter-Institutional Collaboration is under process with various Institutions of National and International repute.

Placement Details

Students of this Institute got the job in Kendriya Vidyalaya School, Navodaya Vidyalaya School and other government schools of NCT of Delhi (through DSSSB) and various private schools of Delhi. Recently, in the year 2018 around 140 students (B.Sc. and B.P.Ed.) of this Institute have been appointed in Delhi Government Schools through DSSSB.

Extension and Outreach Activities

The International Yoga Day was celebrated in the Assembly Hall of the Institute on 21 June 2020 in which children of adjoining area were called to participate in the function.

One Day Cancer Awarness Programme was organized in association with Rajiv Gandhi Cancer Institute on 24 Feb 2021 at IGIPESS.

Library Development

Successfully implementation of digital library, users of IGIPESS have access to the full text documents in digital format i.e. old question papers, M.P.Ed., B.P.Ed and B.Sc. Syllabus, all Ph.D. thesis and all M.P.Ed. Dissertations awarded from 2013 onwards. Presently IGIPESS library database "Vidya: Library Management Software" has been put on-line through XAMPP Server.

Total Library collection 12869 (9212 Accessioned Books, 2300 Reading Room, 729 Thesis and 598 Department Books) has been computerized in the database and Bar-coded which is searchable through Online Public Access Catalogue (OPAC). Library has organized three library orientation programs to enhance the use of physical and digital information resource.

Journal Subscribed: *

Paperback Version : 02 (International)
Paperback Version : 20 (National)

Faculty Strength

Permanent = 26 (including Officiating Principal)

Financial Allocation and Utilization

Unspent as on 01.04.2020	Rs 1,03,34,435
Allocation	Rs 13,01,65,565
Total GIA Received	Rs 132324374
Expenditure	Rs 13,99,74,691

GIA – Other than Salary

 Unspent as on 01.04.2020
 Rs 2,64,510

 Allocation
 Rs 97,35,489

 Total GIA Received
 Rs 97,35,489

 Expenditure
 Rs 58,82,745

GIA – Promotion of Sports Facilities

Unspent as on 01.04.2020	Rs 2188800
Total GIA Received	Rs 2188800
Balance as on 31.03.2021	Rs 2188800

GIA – Capital Assets

Unspent as on 01.04.2020 Rs 8741987 Balance as on 31.03.2021 Rs 8741987

INDRAPRASTHA COLLEGE FOR WOMEN

Major activities and achievements

The College celebrated its 97th Annual Day. Online Teaching and Learning was facilitated with the College launching its flagship online platform for all events IPCW-ON, with the posting of the Electronic College Prospectus. An online FDP on 'Basics of Online Teaching and Learning' was conducted. The College's Audio Repository Application, Lecture Hall, developed for the use of Visually Impaired (VI) students, and was made accessible to students across the University. The College held 70 National and International Webinars and Lecture series, 27 Departmental Events, 9 Online Quizzes, 1 FDP, and 6 Workshops. The process of promotions of 53 colleagues was duly approved. During the second surge of COVID 19, the Principal with regular outreach ensured support to the College community, also arranging for two oxygen cylinders for campus emergencies. The College Counsellor's services were made available to all. A database of available resources in the city for COVID emergencies was prepared.

Honors/Distinctions

The results of *Hansa Research Survey – The Week* Best College Ranking 2020 were announced in early September 2020. The All India Rank of the College among first 50 Colleges was as follows: Rank 14 among Arts Colleges and Rank 22 among Commerce Colleges. The College could not find a place among first 50 Science Colleges. In Delhi, the College was in Rank 8 among Arts Colleges and Rank 7 among Commerce Colleges.

On the basis of the Survey of *Outlook Magazine* published in early September 2020 for India's Top 120 Professional Colleges, the College was placed at All India Rank 13 among Arts Colleges and at Rank 9 among Arts Colleges in Delhi.

The Hamsa Animators: Nurturing Gender Just and Inclusive Campuses has acknowledged Prof. Babli Moitra Saraf, Principal as Women in Security Conflict Management and Peace (WISCOMP) Partner, who strives to make educational institutions inclusive and gender just. She has been featured in the Compendium Profiles of WISCOMP Partners.

Prof. Babli Moitra Saraf, Principal was an invited speaker to the International Seminar, 'Gender Equity in Higher Education: A U.S. – India Dialogue' by Women in Security, Conflict Management and Peace (WISCOMP), August 2020.

Principal, Prof. Babli Moitra Saraf, Ms. Swaha Swetambara Das, Convener, Gandhi Study Circle and Student Representative, Ms. Amisha Pareek were felicitated on 2 October, 2020 by Gandhi Bhawan, University of Delhi on the occasion of the closing ceremony of *Gandhi 150* for Singular Contribution to the Promotion and Dissemination of Gandhian Thought (*Gandhi Vichar Ke Prachar-Prasar Mein Apratim Yogdan Ke Liye*).

Prof. Babli Moitra Saraf, Principal was an invited speaker to the Deans Summit 'Connected Together Towards Resilient Leadership' by Delloitte 3 June 2020 – 12 August 2020.

Prof. Babli Moitra Saraf, Principal was the invited speaker to the grand finale of the 'Graduate School of Maverick 2020' by Deloitte, 20 August 2021.

Dr. Roopali Goyanka, was awarded a Consultancy with WHO to prepare a report on financial protection in use of healthcare services for member countries, per Sustainable Development Goals of UN.

Dr. Harsh Bala Sharma was awarded the Bhartendu Harishchandra Rashtriya Sahitya Ratna Samman 2020 by Swarn Bharat Pariwar for unprecedented contribution in the field of Literature on 11 November, 2020.

Dr. Nawin Tiwary won the Best Film Award at CMS Vatavaran – three-minute film competition on the theme 'Biodiversity' for his film *Hide or Seek* on 24 July, 2020.

Dr. Meena Bhargava, Academic Strategist, was nominated the Nodal Officer for QS Global Ranking of the University of Delhi.

Students with Distinctions

6 medals and prizes have been awarded to our students for the year 2020 at the 97th Annual Convocation of the University of Delhi held on 27 February 2021.

31 University positions have been secured by our students in University Examinations 2019-2020. Principal's Honour Roll for Individual Initiative and Significant Achievement beyond the Curriculum awarded to 87 students.

38 students from Indraprastha College for Women were awarded the UN Millennium Fellowship, Class of 2021, for their Outreach Projects and initiative in pursuit of Sustainable Development Goals (SDG) and 18 students were appointed as Campus Ambassadors.

Sanyukta Goyola, Psychology (Hons.) III Year was selected as Peer Support Moderator on a part-time basis, by Supportive, the San Francisco Anonymous Peer Support Network in April 2020

Yastika Sharma, B.A. (Hons.) Geography, II year, published her poems in the e-book version of an anthology published by Swadhya Publishing House on 7 June, 2020.

Ananya Gupta, B.A. (Hons.) Economics, II Year and her team participated in the World Asian Case Competition organized by Academy of Asian Business, Seoul. The team was declared 'Silver Cup Winners' on 8 August, 2020.

Shriya Rai, Priya Thakran and Shreya Sharma of B.Sc. (Hons.) Computer Science participated in the Harvard College Project for Asian & International Relations (HPAIR) Conference 2021 from 15-18 January, 2021.

Chanimay Chahar and Sonamsi of B.Sc. (Hons.) Computer Science, II year won the Best Student Award in the 'Seeding Nanoscience in Young Minds- Live Interaction with Nanoscientists' program in the 6th International Conference on Nanoscience and Nanotechnology (ICONN 2021) organized by SRM Institute of Science and Technology Kattankulathur and the Indian Science Congress Association, Chennai on 2 February 2021.

Videsha Srivastava, B.A. Program, II year was won the category of 'Slogan Writing' and was felicitated by the Hon'ble Dr. Ramesh Pokhriyal 'Nishank', Union Minister for Education, on 23 March 2021, as part of Shaheed Diwas celebrations held in college.

Publications

Books Published	4
Book Reviews	5
Chapters in Edited Books	13
Research Papers	34
Articles in Newspapers and Magazines	50

Beri, Suraj. (2020). Dynamics of Capital and Local Contexts: Understanding Patidar resistance in Gujarat'. In V. Sujatha. *Global Capital and Social Difference*. Routledge. ISBN No. 978-081-53-6049-0

Bhargava, Meena. (2020). Akbarnama: Persian Chronicle in World Literature'. In K. Seigneurie. ed. *A Companion to World Literature*. Hoboken: Wiley Blackwell. ISBN No. 978-1-118-99318-7

Das, Nitoo. (2020). 'Charred Paper'. A. Kashyap. *How to tell the Story of an Insurgency: Fifteen Tales from Assam*. New Delhi: Harper Collins India. ISBN No. 978-9-353-57652-3

Das, Nitoo. (2020). Crowbite. New Delhi: Red River. ISBN No. 978-81-948164-2-3

Dutta, Srinjoyee. (2020). What makes it Pop? An Introduction to Studies in Popular Fiction'. New Delhi: Worldview. ISBN No. 978-93-82267-64-5

Gera, Gagan. (2020). Digital Streaming: Badalta Film Udyog. In S. Mishra. *Digital Kraanti aur Hindi*. New Delhi: Anang Prakashan. ISBN No. 978-81-94516-25-5

Jangra, Seema. (2020). 'Performance Analysis of Vehicular Delay Tolerant Networks Using Real Contact Traces'. In V. Gunjan. ed. *ICICCT 2019 – System Reliability, Quality Control, Safety, Maintenance and Management*. Singapore: Springer. ISBN No. 978-981-13-8461-5

Mishra, Achyuta Nand. (2020). 'Kabir'. New Delhi: Ananaya Prakashan. ISBN No. 978-93-89191-30-1 Sharma, Harsh Bala. (2020). 'Ritikaleen kavya aur naitikta ke dayre ke vistar ki aavashyakta'. In M. Garg. *Stri kin ajar se Ritikaal*. New Delhi: Vani Prakashan. ISBN No. 978-93-89563-80-1

Sinha. Vinita. (2020). 'Empty Wallet (Trans.)'. In. S. Sen. *Anamika, My Typewriter is my Piano: Selected Poems*. New Delhi: Aark Arts. ISBN No. 978-1-899179-39-8

Sonkar, Madhulika. (2020). Power, Positionality, and Ethnography in Educational Research. In G. Noblit. *The Oxford Encyclopedia of Qualitative Research Methods in Education*. Oxford: Oxford University Press. ISBN No. 978-01-90643-75-1

Swami, Anita. (2020). 'Advaitavedantasamkshepasara'. New Delhi: Vidyanidhi Prakashan. ISBN No. 978-93-85539-87-9

Journals

Published by the College One

Number of College Teachers serving as Editor(s)/Member(s) of Editorial Board: 4

Research Projects

The Centenary Decade Under-Graduate Research Grant 2020 was awarded to twelve students for six projects, across disciplines of the College.

Penguin Random House India project, 'Biography of Sultan Raziya', Amount sanctioned Rs. 30, 000. Ms. Ruchika Sharma

Gandhia Research Foundation, Jalgaon , 'Gandhiana Bibliography in Spanish and English comprising Gandhiana literature published in the Hispanic World'. Amount, Rs 30,000/- Hari Nair and Yogendra Sharma The Zubaan-Saskawa Peace Foundation. for Young Researchers from the Northeast for a project titled 'Excluded from the Kitchen: The Story of Muslim Domestic Workers in Assam'. Amount Rs. 35, 000 , Rituparna Patgiri

Seminars/Webinars Organized

Centre for Inter-Disciplinary Studies (CIDS) organised a series of Webinars titled 'Interdisciplinary Enquiries in Theory and Methods' on IPCW-ON w.e.f. 6 October, 2020.

Department of Philosophy organised International Webinar on 'Bioethics: Health and Responsibility in the Contemporary Times' on 28 October, 2020.

Department of Economics organised an International Webinar on 'Economics and Public Policy' on 31 October, 2020.

Department of Multi Media and Mass Communication organised an International Webinar on 'Introduction to Multi Media and Mass Communication Tools: From Theory to Practice' from 25-28 August 2020.

National Service Scheme organised a Webinar on 'Experience of Covid-19: Women Frontline Warriors' on the occasion of International Women's Day. Dr. Gayotri Goswami, WMCL, New York USA and Dr. Annu Singhi, Marwari Hospital, Guwahati, Assam were invited as speakers.

Conferences Organized

Hindi Sahitya Sabha conducted a two-day International event on 'Bhasha Shikshan ke Vividh Prarupevam Chunautiyan' on 2 -3 November, 2020.

Department of Geography organised an International Colloquium on 'Pandemic and the Production of Space' from 23 January—27 February 2021, on every consecutive Saturday of the week.

Translation and Translation Studies Centre of the College organised an international Lecture series on 'Women's Writings in India: Issues and Perspectives' in collaboration with South Asian Studies Program, Princeton University from 12 February 2021 – 23 April 2021.

National Service Scheme organised an International event on 'Welfare Services and Alumna Connect' in collaboration with the Graduate Institute, Geneva on 26 February, 2021. Ms. Monideepa Mukherjee and Ms. Safa A. Rahim were invited as speakers.

Centre for Inter-Disciplinary Studies organised an online panel discussion 'Behind the Scenes: The Life of a Civil Servant' on 'Method in the Madness: Insights from My career as an Insider-Outsider', a book by Shri Parameswaran Iyer on 10 March 2021.

Seminar/Conference Presentations

Bahukhani, Annima presented a paper,. 'Tracing lesser known histories: Methodological reflections'. First Annual Conference of the Indian Association for South Asian Studies (IASAS): Rethinking South Asia: Alternative Paradigms, Practices and Discourses. Centre for Alternative Studies in Social Sciences, New Delhi, 7 – 9 November 2020.

Borah, Jayashree presented a paper 'Contested Memories and Rites of Return: Reading Siddharta Deb's The Point of Return'. 2nd International Conference on Literature on 'Asian Diasporic Literature: Past, Present and Future'. English Studies Section, School of Humanities, University Sains, Malaysia, 29 – 30 July 2020.

Dutta, Srinjoyee. presented a paper, 'Fairies in the Charmed Circle: Queer Analyses in Academia'. International Conference on Gender Studies. London Centre for Interdisciplinary Research at University of Oxford, 5 September 2020.

Gera, Gagan presented a paper, 'Network Societies and Changing Dynamics of Media Communication: A Case Study of Public Discourses During Delhi Riots 2020'. International Conference on 'Issues of Community, Agenda and News'. DME Media School, Delhi Metropolitan Education, Noida, 25-28 March 2020.

Gorai, Bithika presented a paper, 'Ecological Concerns in *Mahabharata*'. International Virtual Conference on Indigenous Studies. Cape Comorin Trust, India, in collaboration with the School of Arts and Social Sciences, Southern Cross University, Australia, 20 – 22 August 2020.

Mehta, Divya presented a paper, 'Voicing Health and Illness: Rethinking Gender Rights in India'. 14th Annual Conference on Asian Studies. Palacky University, Olomouc, Czech Republic, 20-21 November 2020.

Saha, Anindita Roy and Tiwary, Nawin Kumar presented a paper, 'Wildlife trade and global pandemics: An analysis of policy gaps and the road ahead'. International Conference on 'Solid Waste Management-Circular Economy (IconSWM-CE)'. International Society of Waste Management Air and Water, Kolkata, 2-7 December 2020.

Sarkar, Soma presented a paper, 'GIS-based multi-criteria assessment of water resource situation in the Godavari Basin'. IGU India International Conference (Virtual) 2020, in collaboration with the Faculty of Earth Sciences, MLSU, Udaipur, IGU commissions, 18 – 20 December, 2020.

Sengupta, Debjani. presented a paper, 'The Partition of India and the Northeast'. International Conference on 'Neither East Nor West: Vistas of Postcolonial Discourses'. Department of English, Women's College, Agartala, 9 August, 2020.

Yadav, Sonali presented a paper,. 'Conservation And Entangled Identities On The Margins Of National Park'. POLLEN 20-Binneal International Conference. ESRC STEPS Centre, IDS/SPU, University of Sussex, 25 September 2020.

National/International MoUs Signed

International

Middlebury School, Vermont, USA, April 2019

Other Inter-Institutional Collaborations:

International

Embassy of Sweden to host the Nobel-India National Quiz in the college premises

Institute of Iranian Studies, Georg-August-Universitat Gottingen

International Committee of the Red Cross (ICRC) on the activities of ICRC and International Red Cross and Red Crescent Movement

Princeton University, USA to host Lecture Series: February-April 2021

National

Balipara Foundation

Heritage Associates for the renovation and expansion of Museum and Archives Learning Resource Centre Indira Gandhi Delhi Technical University for Women

Loktantrashala

Shakespeare Society of India

Placement Details

Number of students placed: 111 Number of companies visited for Campus Recruitment: 54

Extension and Outreach Activities

Enactus IPCW

Project Dhyan-College Community Outreach Programme

Project Nidaan-Waste Management under the slogan 'No Waste Leaves the Campus'

Project Noor-College Community Outreach Programme

Library Development

Total number of books in the Library as on 31/03/2021	95959
Number of books added during 2020-2021	583
Number of books withdrawn during 2020-2021	(-) 8
Total number of e-resources (CD/DVDs	349
Number of Academic Journals subscribed	87
Number of Magazines subscribed	25
Number of Bound Periodicals	4775

Online Services

E-delivery of digitized question papers, syllabus etc.

E-journals and e-Database subscribed by University of Delhi Library System (both on campus and remotely accessible)

E-reference service

Library Web Portal accessible through college website

Submission of Inter-Library Loan request

UGC-NLIST and DELNET database remotely accessible 24x7 from anywhere

Web-OPAC accessible on college campus

Special Facilities and Services for PWD/Visually impaired (Divyang) students and faculty

ATLAS for visually impaired ('India'-published by National Atlas and Thematic Mapping Organisation, Department of Science and Technology, Government of India, Kolkata, 2017)

Braille books, magazines, dictionaries and reference books

Computer and scanners equipped screen reader software

Daisy books (talking books)

Embosser (Braille Printer)

Lex-Air Camera with Note books (Print Assisting Device)

Library fully accessible with lift

Special cubicles with computers equipped with screen reader software

Three-in-one Angel Pocket Daisy Player

Faculty Strength

Permanent	83
Temporary	1
Ad-hoc	78
Contractual	5
Guest	8

Financial allocation and Utilization

Grant sanctioned Rs 44,83,85,362 Utilized Rs 42,89,08,022

Other Significant Information

College improved its NIRF ranking, moving up 10 positions to the 43rd rank. College launched its flagship online platform IPCW-ON, with the posting of the Electronic College Prospectus and further facilitated all

online activities on the college. College consolidated its Best Practice of Diversity, Inclusion and Integration with two major initiatives:

Access to 'Audio Repository App' for visually impaired students for purposes of OBE

Fee waiver, Fee concession, Fee payment in installments and One time Measure of Financial Support to all such students who faced economic hardships due to the pandemic

Covid-19 Awareness Pledge was organized on 8 October, 2020.

College observed the Vigilance Awareness Week from 27 October - 2 November 2020.

National Voters Day was celebrated with pledge taking ceremony on 25 January 2021

In compliance with the notifications of the Ministry of Education and Ministry of Information and Broadcasting regarding celebration of 75 years of Independence- **Azadi ka Amrut Mahotsav**, the college organized essay and slogan writing competitions. In compliance with directions received from the Dean Students' Welfare regarding commemoration of 90 years of Martyrdom, **Shaheed Diwas**, the college organized essay, slogan, poetry and song writing competitions. The college won First Prize for the Best Video Film in the competitive category; Department of Sociology Cup for the Best Rose Garden; Department of Geography Cup for the Best Garden Climbers, Shrubs and Trees; and 5 prizes in the Potted Plants and Hanging Basket categories at the 63rd Annual Flower Show, organised by the University of Delhi. Internal Quality Assurance Cell (IQAC) held its Annual Academic Audit in the online Academic Congress of the Staff Council to review and initiate the academic agenda and pedagogical practices for the session. Under the aegis of IQAC, one week Faculty Development Program (FDP) on 'Basics of Online Teaching and Learning' was organised by Department of Computer Science from July-30, 2020 on IPCW-ON.

Online Certificate Course in 'Ecology, Environment and Sustainability' was organised by the Department of Environmental Studies, under the aegis of Centre for Earth Studies from August 18- September 15, 2020

As part of project RISE, the EOC and EU carried out two online courses on 'Resume Building and Conversational Skills' and 'Personal Interview'.

To observe the International Day of Persons with Disabilities, the EOC and EU organized an online lecture on 'Disability Movement in India'.

Community Outreach programme, Parwaaz, of B.A. Program organized a webinar on 'Overthinking and its impact on Wellbeing' on 18 February, 2021.

Department of Sanskrit organized a webinar on 'Celebration of Sanskrit Diwas' on 22 February, 2021.

Discussion Forum organized a documentary screening followed by a discussion on 'Samvidhan: The Making of the Constitution of India' on the occasion of Constitution Day.

Centre for Earth Studies submitted the project report on 'Dust Capturing Capacity of the Existing Green Cover and Lessons for Future: A Study of Indraprastha College for Women, Delhi (Phase II)' on 2 March, 2021.

To celebrate International Women's Day on 8 March, 2021, National Service Scheme (NSS) organized a webinar on 'Experience of Covid'19: Women Frontline Warriors' and Women's Development Cell (WDC) held a webinar on 'Feminist Action and Activism in the 21st Century'.

INSTITUTE OF HOME ECONOMICS

Major Activities and Achievements

The Institute of Home Economics (IHE) is a premier institution of the University of Delhi, imparting holistic value-based education to women students. The year 2020-21 has been a special case, as the circumstances that the university faced have been unique and unprecedented, with the major part of the year spent in a lockdown. In response challenges posed by the prevailing pandemic, teaching and other inputs that were needed for teaching-learning process shifted to online mode, using google classrooms and google meet with alacrity. Despite the challenges posed, the college organized several activities such as webinars, trainings, competitions, internships, etc. throughout the year besides regular academic activities. Eminent Educationists, Practitioners, Government officers, heads of organisations were invited to interact with students and staff. A number of national days like National Social Justice Day, National Autism Day,

World Food Day, World Health Day, International Mother Earth Day, World Environment Day and International Women's day were celebrated. During this year, the college undertook various environment friendly "green practices" and sustainability initiatives during the year 2020-2021. Organic composting with the use of Aerobins was taken up to utilize wet and food waste from canteen and Deparet of foods and nutrition labs to make compost. Vermicomposting for dry leaves and garden waste continues to generate organic compost. Twenty five solar lights were put up in the campus of the college as part of 'go green' initiative. Water harvesting and endeavours to eliminate plastic are part of the environment protection initiatives. Several community outreach activities where student gave demonstrations to the community were part of this year's training programs.

Honours / Distinctions

Director Prof Geeta Trilok-Kumar is a member of several prestigious national and international committees such as:

Member Steering committee for Healthy Lifestyle Trajectories Initiative, A multicountry Initiative under Department of Biotechnology March 2021 onwards;

Member Governing Body, Central Board of Secondary Education (CBSE);

Member, NCD Policy Group for the Comprehensive National Nutrition Survey (CNNS) constituted by Ministry of Health and Family Welfare;

Chairperson Task Force on "Balanced & Healthy Diets' set up by Nutrition & IDD Cell, Directorate General Health Services, Ministry of Health & Family Welfare;

Member, UK Research Initiative (UKRI) college for reviewing project proposals for UK funding agencies (MRC, Newton fund, BBRC, etc.);

Member, Technical Advisory Group, Comprehensive National Nutrition Survey, Ministry of Health & Family Welfare, Govt. of India & UNICEF

Dr. Seema Puri- was appointed as Member FSSAI Scientific Panel on foods, Nutraceuticals, Dietetics and other similar products and on Labeling, Claims and Advertisements

Ms Shipra Gupta- was put as an Expert, Panel on Maternal Nutrition for Anemia Mukt Bharat (AMB) Technical Support, Institute of Economic Growth, Delhi; She also got Third Prize in Slogan Competition on the theme "Eat Right Bite by Bite" organized by the Home Economics Association - Nagpur Chapter on 2nd September 2020.

Ms Akansha Chand and Dr Vandana Sabharwal. Awarded third rank in best presentation for paper Nutritional Factors Associated with Severity of Menopausal Complications in Women belonging to Urban Areas of Delhi' presented at International Workshop on Women's Health and Nutrition: Emerging trends and challenges" organised by Saksham Society, Jaipur Rajasthan, India in Association with Narasingh Choudhury Autonomous College, India.

Dr. Preeti Khanna, Scope School Global Scholarship on obesity and mental health- World Obesity Federation, March 2021

Dr. Geeta Chopra Member of expert group for The online review workshop for "Development of Training Modules in Preschool Education" NCERT; Member, Working group for review and finalizing working paper on 'Preschool Education and Foundational Literacy and numeracy, NEP, NCERT (2020)

Dr Charu Gupta was appointed as Technical Expert , Board of Governors, Apparel Training and Design Center, AEPC , Delhi.

Dr. Amita Walia is on the Board of Studies, Faculty of Fashion and Design, SGT University, Gurugram. She also conducted a number of sessions with Dar Al-Hekma University Jeddah KSA on topics like Thesis writing and Fabric Selection.

Dr. Jyoti Aggarwal is on Board of Studies, Dayalbagh Educational Institute, Agra

Dr. Nidhi Gulati-Expert on the Selection Panel for Fulbright Teaching and Achievement Programme; Expert on the Selection panel for Fulbright Nehru English Teaching Assistants; Expert on Panel USIEF Teacher Alumni Award Selection Committee (2021-2022).

Dr. Jyoti Dalal- Mentor, IUIF fellows (UNICEF fellowship), General Secretary and Dr. Ruchira Das is Joint Secretary of Comparative Education Society of India (CESI)

Dr Manjula Suri Received Record of Achievement. in WHO Health Emergencies online program on "Occupational health and safety in Health Workers in the context of COVID-19"

Students with distinction:

Ms. Payal of MSc Food and Nutrition (Final Year) secured first position in the University

Publications

Sarkar, A., Sabharwal, V., Qualitz, G., Bader, N. (2020). Influence of Social Inequalities on Dietary Diversity and Household Food Insecurity: An In-Depth Nutrition Baseline Survey Conducted in Madhya Pradesh, India. World Review on Nutrition and Dietetics, 121:212-220

Arora, G., Aggarwal, J. (2020). Cosmopolitanism and Clothing Interest Determinants amongst College Students of Delhi. *Fashion Practice*, 12(2), 288-307, ISSN 1756-9370 / 1756-9389.

Jain, P., **Gupta**, C. (2021). A Sustainable Journey of Handmade Paper from Past to Present: A Review. Problemy Ekorozwoju - Problems Of Sustainable Development. 16(2)/234-244

Jollife D.A, .Trilok-Kumar G. (2020). Martineau AR. Vitamin D supplementation to prevent acute respiratory infections: a systematic review and meta-analysis of aggregate data from randomised controlled trials. medRxiv. .07.14.20152728. doi: 10.1101/2020.07.14.20152728

Malik A, Gusain Y, Trilok-Kumar G. (2020). Status of Vitamin B_{12} among healthy adult and elderly population in India: A Review. *J Nutr Vitaminol* (Tokyo); 66 (Supplement): S361-368. Doi:10.3177/jnsv.66.S361

Iqbal, M.A., Siddiqui, S., Rehman, A.U., Siddiqui, F.A., Singh, P., Kumar, B., Saluja. D., Multiomics integrative analysis reveals antagonistic roles of CBX2 and CBX7 in metabolic reprogramming of breast cancer. *Molecular Oncology* 15 (5)

Parray, M.I. Divorcing Religion and Politics: Journalistic Field in Early Twentieth-Century Kashmir. *Media History* https://doi.org/10.1080/13688804.2021.1901564

Parray, M.I., Ghosh, S.G., Problematic of Practice as Pedagogy: Understanding Journalism's Aporia. *Economic and Political Weekly*, 55(51), 25–30.

Khanna, P., Bani Tamber Aeri (2020). Association of Quantity and Quality of Protein Intake with Depression and Anxiety Symptoms among adolescent boys and girls (13-15 years) studying in public schools of Delhi. *Journal of Nutritional Science and Vitaminology*, 66:S141-S148

Kapila, R., G.,Sen, A., Nigam, A. (2021). Compositional Evaluation of Vermicompost Prepared from Different Types of Organic Wastes using *Eisenia fetida* and studying its Effect on Crop Growth. *Indian Journal of Agricultural Research.*/ DOI: 10.18805/IJARe.A-5708

Puri, S. Gupta, S. Jain, S.G.(2020). Balanced nutrition is needed in times of COVID19 epidemic in India: A call for action for all nutritionists and physicians. Diabetes & Metabolic Syndrome: Clinical Research & Reviews, 14(6):1747-1750

Singh, R., Chopra, G. (2021). Evolution from Negative Identity to Affirmation of 'Disability Identity': Life story of a Woman with Spina Bifida in India. Disability, CBR & Inclusive Development..32(1): 81-100

Vachher, M., Sen, A., Kapila, R., Nigam, A., Microbial therapeutic enzymes: A promising area of biopharmaceuticals. Diabetes & Metabolic Syndrome: Clinical Research & Reviews (Elsevier), 3, 195-208.

Journals

Number of college teachers serving as editors(s)/ member(s) of editorial board: 4

Research Projects

Medical Research Council, UK (2021-2024), - Long-term health after severe acute malnutrition (SAM): the role of the Pancreas- (SAMPA). Funding for three years for £2 million (to be shared by 6 country sites). Prof. Geeta Trilok-Kumar

Wellcometrust-DBT Alliance (Rs 4.5 crores), To improve understanding of the interactions among intrauterine growth retardation, early growth, vitamin D supplementation, intestinal permeability, body fat content and distribution, diet, and physical activity in order to develop interventions to decrease the risk of chronic diseases in Indian children born low birth weight (LBW) at term. Director, Prof. Geeta Trilok-Kumar-

DBT, Body composition, early growth, and chronic disease risk of school-aged children who were born low birth weight at term Amount sanctioned, 70 lakh

Seminars Organised

Two day Seminar on "Environment and Disease Risk" for International conference on Environment, Health and Sustainable Development organized by Dept. of Biology, Environment Committee and Dept. of Physiology and Promotive Health and Dept of Biology

Two day National Symposium on Ethics in Social Science Research and Publication organized by Dept Of Human Development & Childhood Studies.

4 day MOODLE: An Online Learning Management System organized by Dept of Biochemistry.

Two days International webinar series on "Bioinformatics (concepts and applications)" organized by Dept of Biochemistry.

Ten Week Online Course Teaching English for 21st Century Skills Content Language Integrated Learning in collaboration with Regional English Language Office of the US Embassy in collaboration with Delhi government (Jan-April, 2021)

Seminar / Conferences Presentations

Prof. Geeta Trilok-Kumar and Prof Suzanne Filteau presented a paper, "To Improve Understanding of Interactions Among Intra- Uterine Growth Retardation, Early Growth, Body Fat and Risk of Chronic Disease in Low-Birth Weight Children at American Society for Nutrition Meeting, Seattle, June 2020

Ms. Shipra Gupta and Dr Deeksha Kapur presented a paper, "Energy Intake, Expenditure and Balance among Female College Students in Delhi Having Normal and Disordered Eating Behaviours at 53rd IDACON 2020 - International Conference of Indian Dietetic Association on "Dietetics in the Digital Era: Opportunities and Challenges" held from 21 November 2020 - 10 January 2021

Ankita Chaturvedi and **Ms.Shipra Gupta** presented a paper titled Body Dissatisfaction and its Implications on Dietary Practices and Nutritional Status of Nutrition and Dietetics Students at 53rd IDACON 2020 - International Conference of Indian Dietetic Association on "Dietetics in the Digital Era: Opportunities and Challenges" held from 21 November 2020 to 10 January 2021

Dr Preeti Khanna presented a paper, "Correlation between mental health, nutrition and immune system during Covid-19 Pandemic at International conference on nutrition 2020 - Improving the quality of life with NULIMEAL (Nutrition, Lifestyle and Mental Health) 2020 Indonesia (Online)

Dr. Geeta Chopra Invited Speaker and addressed on National Education Policy 2020- An Inclusion

Perspective at HCL Foundation Convergence meet for partner NGOs, 2020

M. Imran Parray presented a paper, "Between 'Colonial' Governmentality and 'Oriental' Despotism: Metaphor, Satire, and Humour in Early Twentieth-Century Kashmir. Conference organized by Department of Cultures, Faculty of Arts, University of Helsinki, Finland, online

Jagriti Kher and Dr. Savita Aggarwal presented a paper, 'Is the Climate and water related vulnerability gender neutral? Case study of slums in capital city of India' at International Virtual Conference on Earth's Changing Climate: Past, Present & Future.

Ms. Suneeta Misra presented paper, "Metaphorical extensions of the color term *kaala* 'black' in Hindi: A cultural-cognitive view at CLIC 2021(Cultural Linguistics International Conference, Budapest (online)

Dr. Nidhi Gulati presented a paper, "Social Anthropology and its Intersections with Education at Coming of Age on Earth: Legacies and next generation anthropology. IUAES Congress 2020. Croatia (online)

Dr. Reema Chaurasia and Dr. Maneesha Shukul presented a paper, "Ergonomics in Household Accidents at Humanizing Work and Work Environment-2020 (HWWE-2020)

Ms. Shumaila Naaz, Dr. Charu Gupta and Dr. Sunita Aggarwal presented a paper, 'Screening and Optimization of Natural Dye from Fungi at International E-Conference on Recent Trends in Textiles-A Paradigm for Innovation and Sustainable Fibres, Yarns, Fabrics and Garment Production, Processing & Designing Aspects organised by TIT, Bhiwani

Dr. Jyoti Aggarwal, Ms. Seepika presented a paper, "Exploring Methods of Integrating Conductive Yarns for Wearable Technology at International E-Conference on Recent Trends in Textiles-A Paradigm for Innovation and Sustainable Fibres, Yarns, Fabrics and Garment Production, Processing & Designing Aspects organised by TIT, Bhiwani

National / International MoUs Signed

With Indian / Foreign Companies / Industry With TRFED

Other Inter - Institutional Collaborations

The Director has a 6 country-5 cohorts project and this is training two PhD students of Nutrition to do dietary data analysis to build their capacity.

Wellcometrust -DBT Alliance has funded the Drector to receive training in Copenhagen, Cambridge and London on various aspects of her projects. Dr Trilok-Kumar has received he training in physical activity assessment in Copenhagen and in estimation of visceral adiposity from MRC centre in Cambridge.

The Fabric and Apparel Sciences department has conducted several training workshops in collaboration with TRIFED (Ministry of Tribal Affairs). An MOU is ready to be signed.

Placement Details

Number and percentage of student's details: 56 internships and 3 placements

Number of companies visited for campus: 130

Extension and Outreach Activities

Department of FN Four Community Outreach Activities (in online mode) on the following themes were conducted for adolescent girls and women in September 2020 to celebrate POSHAN Maah -Reading Food Labels – Simplified; Menstrual Hygiene; Anaemia; Importance of Millets.

Department of Physical Education in collaboration with Sports Committee and Department of Elementary Education organised a Community Outreach Programme in which IV -year students from El.Ed. attended an online International Workshop along with Dr. Namita Saini on "Sports and Physical Activities in Schools" These students then conducted online sessions on "Physical activities and Yoga" with unprivileged students of MCD schools for 2-3 weeks under the guidance of Dr. Namita Saini.

Department of Developmental Communication and Extension-This year (2020-2021), due to the ongoing Covid-19 pandemic, 102 students selected their own family members or close relatives to provided hands-on training on digital literacy to their learners to make them digitally literate or empowered as per the objective of National Digital Literacy Mission (NDLM) started by the Government of India, through a programme entitled 'Each One Enable One'.

The Department of Biochemistry organized an outreach program on "Basic understanding of Biosciences" for the students of class 11 and 12. Approximately 60 students participated in the webinars. The Department of Elementary Education organized a Community outreach program in which IV-year students from the department of El Ed attended an international workshop on 'Sports and physical activities in schools'. These students then conducted online sessions with underprivileged students of MCD schools through online mode to guide them towards yoga and physical activities for 2-3 weeks. In an attempt to sensitize the youth about their role in conserving the environment while being quarantined, the Department of Resource Managemnet along with Greenpeace, Environment & Community Outreach Committee, IHE has conducted a 'Virtual Plantation Drive' on 9th November 2020. Every student was encouraged to plant a sapling by utilising the waste such as using old containers/unused pots, empty water bottles, tetra pack cartons etc. After plantation, students looked after, maintained and nurtured the plant. Green warrior certificates were awarded to those students who have successfully maintained it beyond a month.

The NSS unit of IHE undertook the Tika/ Vaccine Utsav (11 to 14 April 2021): Various activities were conducted under 'Awareness Program on Corona Vaccination', like; Digital Poster Making activity; Covid-Vaccine Myth Busters Reel Pod; Webinar on 'Trust, Protect, Vaccine work'; Activity on 'Raise Awareness at Home- Close the Immunization Gap'. NSS along with Cultural Committee and Literary society also celebrated an event for Amrit Mahotsav and held a webinar on "Women and the Quest for Freedom in Independent India" on March 2021.

Library Development

The Institute can boast of a fully computerized library with adequate infrastructure and a rich collection of more than 25,000 reference materials in the form of text/reference books, journals, thesis and periodicals. The Institute subscribes to nearly 40 national, international and DU journals. A bar code system with smart cards and scanners is used for the circulation of books. Laptops are available to students for finding the location of books in library and accessing online resources made available by Delhi University.

Faculty Strength

Permanent Staff - 45 Ad hoc Staff - 46

Other significant Information

The Institute believes in overall personality development of its students and therefore, has many societies viz. Arts, Western Dance, Fashion, Classical Indian Music, Drama, Literary and Debating. Each of these societies have won accolades at various forums in the University and beyond.

JANKI DEVI MEMORIAL COLLEGE

Major Activities and Achievements

Despite the most difficult of circumstances due to pandemic COVID 19, the academic session was packed with events. Key achievements and major activities include the Establishment of Centres and committees within the college, such as: JDMC IQAC Research Centre, JDMC E-Resource and JDMC IQAC Centre for Career Counseling, Career opportunities and Skill enhancement and the JDMC IQAC Centre for Universal Ethics and Values. JDMC has offered 24 add-on courses in this academic session. The Counseling Cell has been active in organizing counselling sessions with experts to help students cope with pandemic induced anxieties and enhance their emotional well-being. JDMC is one of the few colleges to go "on-line" with our Annual Festival of the College, Symphony with the theme, *Candle in the Wind*. Several faculty members received awards, fellowships, medals and book contracts from renowned publishers. Five Faculty members were awarded doctoral degrees. There were over a hundred webinars and paper presentations and more than 60 publications across various departments of the college. Many faculty members and non-teaching staff members were promoted in this academic session. 84 faculty members promoted to various levels, including one to the professorial level. To commemorate JDMC's diamond jubilee, the college published a beautifully designed and conceptualized coffee-table book. Spread over seven carefully crafted chapters, the book takes you through JDMC's journey from the time of its inception.

Honours/Distinctions

Prof. Swati Pal, Principal, received the *Stree Shree-2020* award for exemplary contribution to women's empowerment, from the Adhyayan Evam Anusandhan Peeth, India (March 22, 2021) and *Legal Awareness Award* by Bhagidari Jan Sahyog Samiti and All India Confederation for Women Empowerment through Education, March 6, 2021.

Ms. Nirmala Muralidhar, awarded 'Best Teacher Coordinator Award' for the year 2020-2021, for Online Internship Programme conducted by Prachi Educational Society and Awarded with 'Distinguished Teachers Award' from Prachi Educational Society (September 5, 2020).

Ms. Debahuti Brahmchari, awarded the Women's Power: Veerta Puraskar 2021, for her selfless service under the Natiional Cadet Corps (March 9, 2021)

Dr. Abha Jain, Nominated as Co-chairperson, Women's Committee, *Football Delhi* (Delhi Soccer Association) and as Member, Selection Committee of Delhi State Junior Women's Selection trials underway for participation in *Junior Women National Soccer Championship* to be held in May 2021. She achieved a Gold medal finish in 100 Days of Riding organized by HDOR, a virtual platform for organizing international fitness activities and events (October 19, 2020- 26 January 2021).

Dr. Ruby Bhardwaj successfully supervised the M.Phil. thesis of Ms. Riya Sharma titled 'A Critique of Ethical Consumption: Values and Practices' (Awarded in November 2020).

Dr. Rajyalakshmi received an **award** on Women's day from CAIT, India for her community based work on empowering Women and Children (March 8, 2021).

Students with Distinctions

Aarushi Tibrewal (B.A. (Hons.) III Year), Ananya Joshi (B. A. (Hons.) II Year) and Osheen Sharma (B. A. (Hons.) II Year) worked as a National Team Member for UN75 Consultations Initiative under Confederation of Young Leaders (CYL) from August 8 - December 31, 2020.

Sherliey Sethi (B. A. (Hons.) III Year) is the International Services Director at Rotaract Club of Delhi Akash. She won the Prime Minister Special Scholarship Scheme (Rs 50,000 per semester).

Kashvi Chandok (B. A. (Hons.) II Year) was the country representative of India in the APFSD Youth Forum on March, 2021; nominated for the international Pushcart Poetry Prize 2020 in November, 2020 and became Indian representative in the United Nations women and UNHCR led series on Shrinking Democratic Space for Women Journalists in Asia from November, 2020 onwards. She was awarded with the Certificate of Appreciation from the Mexican Embassy on essay for "Indo- Mexican Trade Relations and Policies" in October, 2020 and received a special mention by Women's Rights Network in Pan South Asia Essay Writing Competition in August, 2020.

Diksha Sardana (B.Com (Prog.) III Year) won a gold medal in 21st Senior Sqay Martial Arts Championship held in Jaipur from February 25-28, 2021. She was awarded with a scholarship of Rs. 1.24 lakh from the Delhi Government for the same. She has also won 2 Gold medals in under 66 kg and 2 gold medals in under category 56 category of Junior Women in 21st Sqay Martial National Tournament held at Jaipur, Rajasthan from February 26-28, 2021; Won a gold medal in under 56kg category of Junior Women in Delhi Olympic Games in Sqay Martial event held in New Delhi from March 20-21, 2021.

Shreya Singh (B. A. (Hons.) III Year) was awarded with the *Dr. Indu Anand Award* for Environmental Awareness on March 10, 2021 and *Dr. Sharda Jain Scholarship* on July 30, 2020.

Publications

Sharma, A., Gaur, A. Energy of a Maximal Graph (2021). Palestine Journal of Mathematics, 10 (1), 69-77.

Charan, A., DSant, R. K. (2020). Coronavirus Disease, Global Recession and Migrants in Indian Economy. *International Journal of Advanced Science and Technology*, 29 (8), 191-202.

Jyoti (2021). Panini aur Vopdev ki Shaili ka Tulnatmak Adhyayan (Krit Pratyayon ke Sandarbh Mein. *ANANTA - An International Journal for Sanskrit Research* , 7 (1), 449-451.

Rajshree Chandra (2020). The Moral Economy of Cosmopolitan Commons. *Third World Approaches to International Law (TWAIL) Review, Issue 1.*

Saratchand, C., and Navpreet Kaur (2020). On Hegemonic Narratives and the Facts Regarding China's Response to COVID-19 Pandemic. *International Critical Thought*, 10 (4).

Arora, P. (2020). Vocal Apparatus and its Use by the Singers. *Naad Nartan Journal of Dance and Music*, *3* (2).

Gill, J, Sethi, N. (2021). Rediscovering Delhi (Ed.). Pinnacle. ISBN: 978-93-83848-68-3

Gupta, S. (2020). Lockdown Destitution: Delhi March 2020. *Gastronomica: The Journal for Food Studies*, 20 (3).

Nagpal, P., Narayan, S.A. (2020). "India." The Journal of Commonwealth Literature (JCL), 55 (4), 590-633.

Yonzon, B. (2020). Segmentation in the Indian World of Work. Sambodhi, 43 (3), 96-102.

Journals

Published by the College

One

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board:

Four

The English department has initiated a literary blog curated by students called *Lettered in Yellow* in November 2020. It allows literary submissions by students of the English Association, which includes poetry, prose, letters, podcasts, videos, and other fun activities.

Research Projects

Janki Devi Memorial College, 2018- ongoing, Title: The Awareness of Underage Crime and Juvenile Rights: A Study of 11th and 12th Standard Students of Delhi, Amount, Rs. 60,000, Faculty Involved: Dr. Renuka Singh, Mr. Zubeer Ahmed, Mr. Dinesh Ahirrao

Janki Devi Memorial College, 2019-, Socio Economic-Cultural Study of Rehabilitated Migrant Musicians from Rajasthan, Amount Sanctioned: Rs. 21,743, Faculty Involved: Dr. Sanjukta Naskar, Ms. Charu Kala

Arts and Humanities Research Council, United Kingdom, 2019-2022, Title: International Project on Forgotten Food: Culinary Memory, Local Heritage and Lost Agricultural Varieties in India, Amount Sanctioned: £ 20293, Faculty Involved: Dr. Saumya Gupta

PMMMNMTT (Pandit Madan Mohan Malviya National Mission for Teachers and Teaching) Teaching Learning Centre, Ramanujan College, 2018-, Title: Emotional Intelligence and its Impact on the Stress Level in Higher Education Institutions in India, Amount Sanctioned: Rs. 3.5 Lakhs, Faculty Involved: Ms. Vandana Madan, Dr. Sonal Jain, Ms. Meghna Surana

Seminars Organized

An International Webinar entitled 'Image Compression and Linear Algebra' by Prof. Rekha Thomas, Walker Family Endowed Professor in Mathematics, University of Washington, Seattle was organized by the Department of Mathematics on January 28, 2021.

An International webinar on the topic 'The Missing Goddess: Science and Religion in Contemporary Bangalore' by Tulasi Srinivas, Professor, Institute for Interdisciplinary Studies, Emerson College, Boston, Massachusetts was organized by the Department of Sociology on February 27, 2021

A National Webinar on 'Reflections on Higher Education, New Education Policy and Space of Philosophy' by Prof. R. C. Sinha (Chairman, ICPR); Prof. Rakesh Chandra (University of Lucknow) and Prof. Kumar Ratnam (Member Secretary, ICPR) was organized by the Department of Philosophy on February 8, 2021.

The History Department organized the 6th Dr. Vijay Nath Memorial lecture, on September 3, 2020. The lecture was delivered by Prof. P.K Basant, Department of History, Jamia Millia Islamia who spoke on the theme 'Reading *Manavdharamshastras*: Some Questions About our Past'.

A National Webinar on "Pandemic Crisis and Response: Union Budget 2021-22 in Context" by Prof. Surajit Mazumdar, Centre for Economic Studies and Planning, School of Social Science, Jawaharlal Nehru University was organized by the Department of Economics on February 24, 2020.

Conferences Organized

JDMC collaborated with the Indian Association for Commonwealth Literature and Language Studies(IACLALS) for an International Conference titled 'Utopias and Dystopias of our times' from 17 March 2021 to 20 March 2021.

Seminar/Conference Presentations

Dr. Amita Charan presented a paper, "Characterising social media contents for regulating hate crimes and cyber racism against marginalised and Dalits" in an *International Conference* on Computational Performance Evaluation (ComPE -2020), organised online by North-Eastern Hill University, Shillong and IEEE India.

Ms. Srijana Singh presented a paper, "A systematic review of management as well as marketing perspective of CSR: Future research agenda" in an *International Conference* on Sustainable Business Management Practices and Social Innovation.

Ms Sakshi Bansal presented a paper, "Implication of privacy laws and importance of ICTs to government vision of the future" in an *International Conference* on 'Innovation Computing and Communication ICICC20-21',

organised by Shaheed Sukhdev College of Business Studies with National Institute of Technology Patna and *University of Valladolid, Spain*.

Ms. Jaya Yadav presented a Paper, "The 'Aam Aadmi' in the Indian Graphic Novel: Reading Sarnath Banerjee's *Corridor* and *All Quiet in Vikaspuri*," at the *International Conference* on 'Refocusing Indian Comics' at Indian Institute of Technology, Delhi.

Ms. Jaya Yadav presented a paper, "Reading Conflict and Historiography through Literature: An Analysis of *Kartography* and *The Golden Age Saga*", as part of the *International Conference* on 'Multiple Dimensions of South Asian Literary Imagination: Classic to Contemporary,' by Yonphula Centenary College, Bhutan.

Dr. Tara Sheemar presented a paper, 'The Dangerous *Siddhi* of Female Religious Masters,' at an *International online Workshop* on 'Female Religious Leaders and Dynamics of Female Agency in Religious Settings in South Asia,' hosted by South Asia Institute, Heidelberg University, Germany.

Ms. Teena Kohli presented a paper, "On Discrete Time Wilson Systems" in an *International Video-Conference* 'Generalised Integration and Its Applications' (IVGIA2020),organised by Benemérita Universidad Autónoma de Puebla (BUAP) (Meritorious Autonomous University of Puebla), Mexico.

Dr. Jayanti P. Sahoo presented a paper in a one day *International Webinar* (as a part of ICPR Periodical Lecture) entitled "Vasudhaiva Kutumbakam with reference to Spiritualism of Advaita Vedanta and Buddhism", organised by Kishore Bharati Bhagini Nibedita College, Behala, Kolkata, West Bengal in association with Indian Council of Philosophical Research.

Ms Bijoyata Yonzon presented a paper, "Segmentation in the Indian World of Work" in Young Scholars' Webinar on 'Indian Economy:Theory and Policy',organised by Centre for Economic Studies and Planning(CESP), School of Social Sciences, Jawaharlal Nehru University.

Dr Sanjukta Naskar presented a paper, "Pandemic and Narratives: the Importance of Stories We Tell" at the Three-Day *National Webinar* on 'Multidisciplinary Approaches to Folklife: Challenges and Perspectives, Part II' in the Department of Modern Indian Languages and Literary Studies, University of Delhi.

National/International MoUs Signed

MoU with Hero Motocorp

A memorandum has been signed between the Department of Sociology, JDMC and Hero MotoCorp to conduct sensitization workshops on 'Road Safety Awareness Programme'. The sensitization programme started on the 7th December, 2020. The workshop has been conducted online for the entire students of JDMC. The practical training on riding two wheelers will be provided when the college reopens for physical classes.

LOU/MOU with WWF

As a part of the ECHO programme for the university students, JDMC signed a MOU with WWF India, assigning Dr. Abha Jain from their Environment Club, Avani as mentor (teacher coordinator) and nominated the four students as college representatives. As a part of the understanding forged with WWF, JDMC has been involved in implementing the project, 'World in our Palms' since November, 2020 for a period of six months.

Other Inter-Institutional Collaboration:

Janki Devi Memorial College collaborated with Mahatma Gandhi Govt. College, Mayabunder, Andaman and Nicobar Islands under Vidya Vistar Scheme.

Placement Details

Number of students placed- 19 Number of Companies visited for campus recruitment- 30(Online)

Extension and Outreach Activities

Covid Task Force

The NCC cadets were engaged in the creation of helplines and data bases both in the college and in collaborative ventures with organizations like Kranti, Milaap and the Government of Delhi. Their efforts facilitate relief for a large number of people. The NSS was also involved in similar ventures. Counselling committee provided emotional support through one-on-one as well as group sessions and webinars. 3 RT-PCR camps were conducted in the college premises. The most recent one was in collaboration with DU and TATA. The Fee Assistance committee aided many students. Individuals and well as departments assisted several students whose families had been affected. An oxygen concentrator was procured, which was donated a student in the United States. The students of the Department of HDFE (Human Development and Family Empowerment) celebrated this Valentine's Day in a unique way by distributing chocolates, snacks, food and clothes to the underprivileged children and their families; by visiting senior citizens, who live alone, in order to share homemade food and quality time with them. Some students also provided medication and required help to animals, others fed food to stray dogs and cows. For the past three years, the Department of HDFE is celebrating a "daan utsay" festival in the week of October. This year the Department planned and distributed different things like medicines, masks, sanitizers, biscuits, ration, chips, fruits, soaps, notebooks and so on, to the underprivileged children and senior citizens near the residential areas as well as in the following organizations:- Cherish Home; Nav Jeevan Prayas; Bhagwat Dham Old age Home; Love Care Foundation; Guru Vishram Vridh Aashram. The Department of HDFE collaborated with Robinhood Army in the Largest Food Relief Effort to provide staple food to the most affected people in the society from July 1 to August 15, 2020. They were able to raise a contribution of more than 1000 kilogram of ration with the help and support of the college Principal, Professor Swati Pal, faculty members, JDMC and other colleges, students, family members and friends. The College donated Rs. 7,33,902/- to PM CARE Fund during Covid 19 in the month of May - June, 2020.

The JDMC Covid task-force has been extremely proactive in taking various steps to combat the situation.

Library Development

The College Library is the hub of academic activities of the college. It is a trinity of the library staff, reading material and readers. It is a well-equipped and well stocked library with more than 95 thousand books and subscribes to 69 (National and International) journals/magazines catering to the needs of different courses being offered by the college and 14 newspapers (English and Hindi). The library has an air-conditioned reading hall and stack room. The College library subscribes to NList database though INFLIBNET. Our library is fully computerized using Web based Libsys Software (an integrated Library management system), where all the housekeeping jobs are performed through this software. The database of books and journals available is updated on day-to-day basis and several terminals are provided for students and teachers to search online documents. Internet access is also provided to the users. The library has 25 laptops with internet where members access to e-resources. All this is provided in attractive and comfortable conditions with adequate lighting and air conditioning. We are also sensitive to the needs of our visually challenged users. To provide them equal access, the library has installed a screen reading software NVDA. We also arrange Braille books and talking books. Online Orientation programme was organized for the students. Students were apprised of various e-resources and how to access those resources. They were also encouraged to get membership of Nlist database subscribed by the college and download the required material. For the betterment of services library provides feedback forms at the time of clearance for Final year student and M.A Final year students.

Collection Development (2020-21)

Text Books1052Reference Books100Journal/Magazine69Newspapers14

Faculty Strength - 142 + 27 (Sanctioned under 2nd Tranche by the UGC) **Financial Allocation and Utilization:**

Grant sanctioned : Rs. 47,82,31,90/-Utilized: Rs. 41,23,76,745/-

Other Significant Information

Dr. Rajshree Chandra has a book contract with Penguin Random House for her book titled- "Competing Nationalisms: The Scared and Political Life of Jagat Narain Lal". Release date is October 2021. This book has emerged out of her New India Foundation Fellowship (2018)

JESUS AND MARY COLLEGE

Name of the College: Jesus and Mary College, University of Delhi

Major Activities and Achievements

The academic year of 2020-21 was a well-balanced combination of achievements in both academic and non-academic activities. Given the current restrictions of the Covid-19 pandemic, a myriad of activities were conducted using online platforms. Webinars on burning issues of Health Sector's Preparedness to Deal with Pandemics in India, Employment Problem, Mental Health, Physical Fitness etc were organised in collaboration with IQAC across all departments. The Political Science department brought out its first issue POLITOSCOPE on the theme HUMAN RIGHTS. The Department of Mathematics released its bi-annual Newsletter, Algorithm with the themes 'A time for Atonement' and 'Fasten Your Seat Belts'. Hindi Department celebrated Hindi Diwas by organising many activities such as creative writing competition, Folk song singing competition, Research paper presentation competition on intra college level and at Inter college level. Students continued to excel in Sports at national and international level.

Honours /Distinctions

Dr. Vibha Mathur and Ms. Saloni Arora received First prize for paper presentation in 9th World conference on Applied Sciences, Engineering and Management (WCSEM 2020), Paris, France

Students with Distinctions

Riddhi Gupta (BCH) published research paper in International Research Journal of Management sociology and Humanities.

Neha Sam, Vidhi Vashisth, Yukti published Research paper titled 'Monofractal and Multifractal Analysis of Indian Agricultural Commodity prices' by Mathematics Department students.

Publication in Springer Nature Switzerland AG

Publications

Gandhi, Sapna (2021). Badalte samvaad madhyam", Sahitya aur samkaleen sarokar, 1: 6

John, J., Thomas, N., Jacob, M., Jacob N. (2021). A Study on Social Security and Health Rights of Migrant Workers in India. India: National Human Rights Commission. https://nhrc.nic.in/training-&-research/research-studies-&-projects/completed-projectss

Marwah, Reena (2020). Bertil Lintner, The Costliest Pearl: China's Struggle for India's Ocean", Sage Publications, 56 (4), *ISSN*: 00094455

Marwah, Reena (2020). Rationalizing India's Re-think on RCEP in the post pandemic world-Analysis", Eurasia Review, ISSN 2330-717X

Mathur, Vibha, Arora, Saloni, (2020). Digital Marketing", Delhi, PHI Learning, 978-81-948002-7-9

Sastry, Amrita (2020). The Power Game: A Case Study of a Private school in Odisha' in *Universal Secondary Education in India: Issues, Challenges & Prospects*, edited by Jandhyala B.G. Tilak, pp137-150. ISBN 978-981-15-5365-3 ISBN 978-981-15-5366-0 (eBook). Springer.

Sushila Ramaswamy. (2021). Elinor Ostrom's Prescriptions for a Community based Sustainable Development, *Jamshedpur Research Review*, Year IX, Vol III, Issue XLVI, May-June, pp. 81-90, (ISSN: 2320-2750).

Sushila Ramaswamy. (2021). The Women's Suffrage Movement: contradictions between Gender and Race, *Jamshedpur Research Review*, Year IX, Vol. II, Issue XLV, March-April, pp 89-97, (ISSN 2320-2750).

Tiwari, Amita (2020). Awadhi Bhasha ke lokgeeto mein stree vimarsh World Translation an International Multidisciplinary peer reviewed referred research journal, . 486

Tripathi, Archana (2021). Jai shankar Prasad ki aakhyanparak kavitao mein parampara aur aadhunikta ka dwand, Akshar varta patrika, 17:62

Journals -

E-Journal - 01

Number of College teachers serving as Editior/Member of Editorial Board- 3

Seminars Organized

Webinar, "Prof Dinesh Singh, Moderator- Dr Dinesh Adlakha on Life and Careers beyond Covid-19 Panelist- on 12/05/2020

Webinar on "Samkaleen Hindi Upanyas aur Vartman Sahitya" by Department of Hindi in collaboration with IQAC on 15 June, 2020.

Webinar titled "Impact of the Pandemic on the Metropolitan Middle-Class Indian Woman" organised by IQAC and Department of English on 12th June 2020.

Speakers

Prof. Debashis Bandyopadhyay, Professor of English and Coordinator of the Centre for Stress Management, Vidyasagar University, Midnapore, India.

Prof. Rukmini Sen, School of Liberal Studies and Director of the Center for Publishing, Ambedkar University Delhi.

An international webinar on the topic "How to stay Cyber safe in Covid-19 times" by Mr. Anup Kanti Deb, Director, Palo Alto Networks-Singapore was organized on 22nd June, 2020.

An interactive webinar on the topic "Sociology Beyond Boundaries: Forms, Knowledge & Imagination" by Dr. Dev Nath Pathak, an Assistant Professor in the Department of Sociology, South Asian University on the 10 of September, 2020.

Seminar/Conference Presentations

Dr. Reena Marwah, International Conference on Post pandemic world order; Navigating the new normal"; Nepal Institute for International Cooperation and Engagement (NIICE)

August 29-31,2020

Dr. Reena Marwah, "International Conference on 20 years of Mekong-Ganga Cooperation (MGC)", AIC-ICWA, Government of India, 5-6 November 2020.Dr. Vibha Mathur, "9th World conference on Applied Sciences, Engineering and Management (WCSEM 2020)", Paris, France, 17th December, 2020

Dr. Susan George "Björk's Hyperaesthetics and the Fate of Music Video" at the online international conference on

Globalization and New Terrains of Consciousness: Phenomenologies of the Global/ Local/ Glocal organized by

Department of English, Jamia Millia Islamia, New Delhi and Department of English and American Studies, University of Wurzburg, Germany on 8-10 February 2021.

Dr. Mahima Varma was invited as Guest Speaker at ITL Public School, Dwarka where she delivered a lecture – "Let's Talk Sociology: The Emergence, Nature and Scope of Sociology" on 13 May 2021.

Dr. Nivedita Ghosh, discussant at International Conference on Performative Traditions in Asia, organised by Department of Sociology, South Asian University, on 30 April, 2021.

Ms. Charu Sarin Arora, "9th World Conference on Applied Sciences, Engineering and Management (WCSEM 2020)", Paris, France; held virtually because of Pandemic, 17 - 18 December, 2020

Dr. Ruhi Ghai, "9th World conference on Applied Sciences, Engineering and Management (WCSEM 2020), Paris, France, 17th December, 2020

Ms. Kashnie Singh, "9th World conference on Applied Sciences, Engineering and Management (WCSEM 2020)", Paris, France, 17 December, 2020

Placement Details

Total Number of Students Placed – 91
Percentage of Placed Students – 30.13%
Total Number of Companies visited for campus recruitment – 71

Extension and Outreach Activities

NSS JMC organised a Diwali Donation Drive on November 15, 2020. Volunteers donated blankets and food to the underprivileged. NSS-JMC held a Donation Drive on Lohri on January 14, 2021. To celebrate National Road Safety Month, 2021 an Awareness Drive was organised by NSS, JMC on February 16, 2021 as a part of which some of our volunteers went door to door in their localities (while following strict COVID precautions and guidelines), while others made short informative videos to spread awareness about road safety in India. On International Women's Day, on the 8th of March 2021, NSS Unit organised a Menstrual Hygiene Awareness Drive. The volunteers made digital and handmade posters focussing on different facets of menstrual hygiene such as - use of menstrual hygiene products, busting myths around menstruation, menstrual hygiene tips, etc. NSS JMC volunteers made posters (both digital or handmade) to spread awareness about the different aspects of the COVID-19 vaccination drive such as the registration process, the rules to be followed at the vaccination centre, details of the vaccine, precautions to be taken before and after getting vaccinated, FAQs about the vaccine etc. NSS-JMC volunteers made videos focusing on the experiences of the people who have been vaccinated to encourage those not yet vaccinated. NSS in collaboration with other colleges under NSS, Delhi University joined the Anti-COVID Task Force. 40 NSS-JMC volunteers came forward to extend support, of which 14 were immediately involved in providing and collating information pertaining to the emergency and essential services required for dealing with COVID-19 including Hospital beds, Oxygen supplies, Ambulance and Consultancy services, Medicines as well as Food Resources. The NSS unit, provided an opportunity to its volunteers to help people in the current situation of the pandemic by collecting information about food services being provided by individuals and agencies all over India for Covid-19 affected patients and families. The volunteers actively worked towards contacting people in different regions and states, collecting information on the type of services being provided, the meals being offered, the areas they cover and their charges for the facilities being provided.

Library Development

The College Library is fully computerized with a database of around 55,409 books. A computerized catalogue is in use for easy and quick access to the resources in the library. The library has a very rich collection of books on various disciplines. It includes rare collection of reference books, general reading books, and latest fictions in English and Hindi. The Library acquired 330 books during 2020-2021. Total 95 Journals has been subscribed during the year out of which 79 are National Journals and 16 are foreign Journals. The total collection of the Library books has been augmented to 55409 books i.e. 49006 General Books + 4975 Donated Books + 1428 Book Bank. Library

also enrolled for N-LIST (INFLIBNET) Programme during the year where user can easily access 6000 e- journals and 97000 e-books with their individual passwords.

Faculty Strength

Permanent 65 Ad-hoc 61 Guest 7 Contractual 2

Financial Allocation and Utilization

Grant Sanctioned Rs. 43,16,07,429 Utilized Rs. 41,04,72,720

Other Significant Information

Dr. Meenakshi Kumar worked as Resource person and organized three PGT workshops of SCERT from 19/1/21-22/1/21. According to the United Nations, in these times of COVID, handling waste is an essential service, without which we can all get more ill. In order to reach out to a large section of waste pickers in Delhi, the Department organized a donation drive in May, 2020 in collaboration with Chintan Environmental Research and Action Group. The donation drive saw active participation from both students and teachers and was a great success.

This year during Ecovantage 2021 as a part of its social drive, the Department collaborated with an NGO- Project Clap for a donation drive with the aim of spreading awareness about menstrual hygiene and its importance; and being able to provide sustainable pads to people in need at subsidized rates. Under guidance of the Economics Department faculty, students from the Research Cell, Economics, worked on research projects on varied subjects. While working on the projects, students learnt various aspects of data cleaning, literature review, application of statistical tools, interpretation of results and policy implications.

Mary Michelle, Special Mention in THE WEEK Magazine as a part of JMC Education Programme https://www.theweek.in/theweek/cover/2021/03/18/age-of-heroes.html on 28 March 2021.

KALINDI COLLEGE

Major activities and achievements

Kalindi's motto of 'Gyanam Shilam Dharmashchair Bhushanam' that emphasizes on three key virtues of human life- Knowledge, modesty and sense of duty – the college aims to empower its students through holistic education. Academic session 2020-2021 has been extremely successful and satisfying in terms of accolades and accomplishments. During this coronavirus pandemic, our 54th Annual Day was celebrated on Virtual Platform. The college is offering a total of 21 courses in various disciplines at graduate level and 6 additional add on courses. Numerous academic accomplishments, Research Activities, Seminars, Conferences, Workshops, Lectures and Talks organized by all the departments, College Publications, various Sports and Cultural Activities, Social Welfare Projects, Community outreach activities of the students and staff members bear testimony to the outstanding success of various initiatives taken up by the college in this academic session. In terms of academics it's been a fruitful year we have had 55 publications, including books, chapters in books, international and national journals and content writing for Indira Gandhi Open University etc. A total of 49 faculty members across all departments have presented papers or were resource persons at various academic platforms. 68 faculty members attended online refresher courses, FDPs, short term courses for their academic growth. 3 of our faculty members have been awarded Ph.D. degree.

Honours/Distinctions

Dr. Anjula Bansal, former Principal Kalindi College, was awarded in the College Principals Category for her constant support and encouragement to conduct programs on Mahatma Gandhi.

Dr. Sangita Dhal, Conferred Gandhi Award, University of Delhi for promoting Gandhian values among the youth and fraternity in Colleges and Departments of Delhi University on 2 October, 2020.

Students with Distinctions

Shaily Mishra, B.A. (Hons.) Journalism secured 3rd position in the University.

Deepti Singh, B.Sc. Life Science (3rd year) received Nargis Sunil Dutt Girl of the Year.

Prial Taneja, B.Sc. Life Science received All Round Prize of Excellence (For Academics).

Divya Kaushal, B.A. Programme (2nd year) received Adarsh Kumari Jain Memorial Prize (For Debate)

Kiran, B.Com (3rd year) received Shiv Pal Goel Memorial Prize (For Academic Excellence)

Publications

Bassi, M. Bharadvaja, A., and Baluja, K.L. (2020). A study of electron scattering from 1-1 $C_2H_2F_2$ from 0.1 eV to 5 keV", *Eur. Phys. J. D* 74: 232 https://doi.org/10.1140/epid/e2020-10035-6

Charanda, M. (2020). Rajya Ke Neeti Nirdeskhak Sidhant' In :Bharat Mein Sanvidhanik Loktantra aur Shasan. Kaveri Books , ISBN No 978-81-74792-35-8.

Chauhan, R. (2021). "लिंग, जाति ,वर्ग आधारित भेदभाव और समानता", edited by Dr. Seema Mathur in आपके कानून आपके अधिकार ,ओरिएंट ब्लैकस्वान ,ISBN 978-93-5442-013-9 (2021).

Dhal, S. (2021). Evaluating Integrated Child Development Scheme [ICDS] through inter-governmental engagement in the Indian province of Odisha, In: Rekha Saxena [ed.], New Dimensions in Federal Discourse in India, New Delhi [South Asia Edition] Routledge Publishers, pp 162-185.

Hasija, N. (2020). Plight of Migrant Workers Amidst The Covid-19 Crisis: With Special Reference To Asia" *NIU International Journal of Human Rights*, (7).

Kumar, R. (2021). Study of Adsorption kinetics of pristine and SnO2 functionalized carbon nanotubes environment gas sensors for NO2 and NH3 gases", *Materials today proceedings*, DOI:10.1016/j.matpr.2021.04.546.

Kumari, K. (2021). Vedon me Vanaspati Vigyan -Aoushadhi Poudhon ke Vishesh Sandarbh me" *International Journal of Sanskrit Research 'Ananta*, 7(1),13-16.

Sahdev, S. (2021). Forest fire Severity Mapping of Humid Tropical Regions: A Geospatial Perspective, *International Journal of Aquatic Science*, 12 (02), 1420-1431.

Sharma, M. (2020). Ram Ki Ladai : Samvedna Aur Shilp (2020), Rachnakar Publishing House : Delhi, ISBN : 978-93-87932-30-2.

Tyagi, R. (2020). Sarvodaya: Gandhi ke Rajya-prashasan sambandhi drishtikon" in Lok Prashasan, *IIPA Publication*, 12 (2): 66-74.

Journals

Published by the College

One

Number of college teachers serving as Editor(s) / Members of Editorial Board Nine

Research Projects

Inter University accelerator centre (IUAC), Delhi , 2013-ongoing, "X-Ray Spectroscopy of Highly Charged Slow Ions with Atoms and Solids, Prof. Punita Verma

NASI, Delhi Chapter, **2020 (ongoing)**, "Investigation of metal contamination in environmental samples across various regions of Delhi using X-Ray Fluorescence, **Amount:** Rs. 26500, Prof. Punita Verma

DST- SERB, 2017 -2020, "Functional interaction between vasotocin and corticosteroids in catfish *Heteropneustes fossilis*, Amount: Rs. 23,07,201.00, Dr. Varsha Singh

Seminars Organized

International Webinar organised by Gandhi Study Circle, Kalindi College, University of Delhi on "Reimagining Economic Life in the Contemporary World: Gandhian Model of Trusteeship and Self Reliance" on 29 September 2020.

International Webinar, "Current Trends in Data Analytics" on 28 December 2020. National Webinar, "Reverse Migration and Rural Development in India" on 19 April, 2021.

International Webinar organised by Department of Sanskrit, Kalindi College "Relevant Philosophical, Scientific and Socio-Cultural aspects of Women Development", on 26 June 2021.

International Webinar Series organised by Under the aegis of IQAC, Department of Political Science, Kalindi College "India's Foreign Policy: New Directions, China and the Geopolitics of South Asia, Iran's Nuclear Program, Africa in the Emerging World Order, Demystifying the Belt and Road Initiative (BRI), Politics and Religion in the Middle East Today: Policy Implications for the Biden Administration, Leveraging Soft Power to Realize National Interest: Reflections on India's Foreign Policy Since Independence, India's East Asia Strategy", on 16 February 2021 to 20 April 2021.

Conferences Organized

National Conference organised by Department of Political Science, Kalindi College 'Mapping Governance Innovations in South Asia" on 9-10 April 2021.

Seminars/Conference Presentations

Monica Zutshi presented a paper, "Through a Mirror Darkly: Dystopic Estrangement as Contemporary Critique of the Economies of Power in Kazuo Ishiguro's *Never Let Me Go*" in IACLALS Annual International Conference (online) organized by the IACLALS on 17-20 March 2021.

Rachna Kumar presented a paper, "Fresnel's equations in transition from Single to Multiple interfaces and evaluation of optical parameters" in the First Online International Conference on "Continuity, Consistency and Innovation in Applied Sciences and Humanities" (ICCIASH-2020) organized by Department of Science and Humanities, St. Martin"s Engineering College, Dhulapally, Secunderabad, T.S, India on 13-14 August 2020.

Rachna Kumar presented a paper, "Study of Adsorption Kinetics of Pristine and Functionalized Carbon Nano Tubes for NH3 and NO2 gases" in Online National Conference on Recent Advances in Functional Materials (RAFM-2020) organized by ARSD (University of Delhi) on 5-6 November 2020.

Bindal, P. and Srivastava T., Presented a paper on "Curriculum for Multifaceted Development" in the 8th Annual Convention organized By Indian Association of Physics Teachers, Regional Council (Delhi & Haryana) held on 10-11October 2020.

Punita Verma presented a paper on NEP 2020 in the 8th Annual Convention organised by the Indian Association of Physics Teachers, Regional Council (Delhi & Haryana) on 10-11 October 2020 via Zoom Platform.

Seema Gupta presented a paper, "Fresnel's equations in transition from Single to Multiple interfaces and evaluation of optical parameters" in the First Online International Conference on "Continuity, Consistency and Innovation in Applied Sciences and Humanities" (ICCIASH-2020) organized by Department of Science and Humanities ,St. Martin's Engineering College, Dhulapally, Secunderabad, T.S, India on 13-14 August 2020.

Sangita Dhal presented a paper in the International IPPN Annual Conference, on 'Empowering Women Through ICT: The Changing Dynamics Of Gender Equations in Rural Odisha' organised by Bharati Institute of Public Policy, ISB and IPPN, 26-27 March 2021.

Meena Charanda presented a paper, 'Global Well-being and Ancient Indian Traditions" at the 3^{rd} International Webinar (IWBS-2020) organized by University School of Buddhist Studies and Civilization , Gautam Buddha University, 9-11 July 2020.

National/International (MoUs) signed

With Indian/Foreign Universities

Kalindi College signed a Memorandum of understanding (MOU) with Institute of Bioresources and Sustainable Development, Imphal, Manipur on 25 January 2017, to set up an IBSD-Kalindi Centre for Women Entrepreneurship in North East at Kalindi College.

Extension and Outreach Work

Under the concept of Service to Humanity, we are running NSS, Social Responsibility Cell, Eco club, Dr. B.R. Ambedkar Study Centre, SC/ST Cell, "North East, Frontier and Foreign Students' Cell", Equal Opportunity Cell, Gandhi Study Circle, Woman Development Centre, Anti-Tobacco Committee, NCC. College is successfully running Non-Collegiate Centre and School of Open Learning Centre. The Central Placement Cell "Kryptus" of Kalindi College is energetically working for the placement of students. We are also providing Counselling and Medical facilities to our students. The NSS unit of Kalindi College organized various events during the year 2020-2021 such as celebration of "World No Tobacco Day" on 31 May 2019, "Fit India movement" a week-long event observed between 25 -31 August 2020, Vigilance awareness week" from 27th October 2020 to 2nd November 2020. Constitution day" on 26th November, 2020 and National science day" celebration on 28 February 2021.

Social Responsibility Cell Activities and Achievements

Student Community Outreach Program - "Taking Gandhi Heritage To Student's"- organized by National Gandhi Museum and sponsored by NBCFDC, New Delhi on 12th January, 2021.

On 20th April'21, Kalindi College Students Union launched the "Mission Help" which was a covid relief programme run by the students of Kalindi College in association with KRANTII. The aim of the same was to help the people in need with the verified leads of resources like oxygen cylinders, hospital beds etc.

Library Development

The library resources have been enhanced during the year 2020-21 and the total collection of the library reached up to 84,970 books including Book Bank and Student Aided Fund books. The Library users have been able to enlighten themselves by going through the newly added books. At present library is subscribing to 67 magazines/journals and 14 newspapers in English and Hindi languages on different areas of interest for its readers. The library has a web center for access to e-resources, a separate reading room for consultation purposes, and a photocopying facility for the students and staff. The remote login access of e-resources through N-List, Delnet, and DULS (for faculty members and Post Graduate students) ID is also provided by the library. A large number of Open Access Print Journals, E-Books and E-Journals, previous year question papers, and links for useful educational resources are available on the college website. Journal Content Alert Service is also provided to faculty members through email and is uploaded on the college website also. Article alert service is also provided to faculty members. The library is also promoting the Green initiative and thus procuring recycled material in lieu of library waste paper. The facility of E-Books for the print disabled student is provided through DU Braille library and screen reading software i.e. NVDA and Hindi OCR are available in the library.

Faculty Strength

Permanent- 80

Ad hoc- 122

Financial Allocation and Utilization (in Lakhs) Data for Financial Year 2020-21

Grant Received Rs. 3878.94 (Salary and Non-Salary maintenance grant received from UGC and Delhi Admin) **Utilized** Rs. 4150.38(expenditure against Salary and Non-Salary maintenance grant)

KAMALA NEHRU COLLEGE

Name of the College: Kamala Nehru College

Major Activities and Achievements

It is a matter of honour that Kamala Nehru College since 2020 has been selected as the Mentor Institution under the 'Paramarsh' Scheme of UGC following the 'Quality mandate' in higher education. It is one of the four colleges in Delhi University to be awarded 'Paramarsh' for mentoring the mentee institutions to enable them to get NAAC accreditation by 2022. Under the Paramarsh Scheme of UGC, the college organised a series of workshopssuch as: Online Workshop on Policies and SOP on 26th December 2020; PO and CO Statements and Measuring Attainments on 30th December 2020; Bloom Taxonomy on 9th November 2020; 3-days Online Workshop on Understanding the Seven Criteria for the NAAC SSR from August 6th -8th, 2020; Summer Art Workshops in collaboration with Indian Institute of Crafts and Design, Jaipur; Understanding the NAAC Accreditation Process as per the Latest Guidelines on 15th July 2020. The 16th Dr. K.K Gorowara Memorial Public Lecture Series organizes Annual lectures with dynamic

personalities from different fields. The 2020 lecture was online on 29th September with Ms. Sminu Jindal, the Managing Director of Jindal SAW Limited, and Founder-Chairperson of Svayam, an initiative of Sminu Jindal Trust India's leading accessibility Rights organization. The RISE cell conducted an introductory lecture on "What is Research" in collaboration with Prof. Mohan Singh Panwar from HNB Garhwal University along with a three-day hands-on workshop on Data Analysis using Microsoft Excel. Another unique initiative of the college is **The Incubation Cell.** Established in September 2020, it is working towards developing and providing a platform for students wherein their innovative start-up ideas can be incubated and realized. The inaugural seminar on the topic Role and Risk of Angel Investing was conducted in September, 2020. The guest speaker for the session was Mr. Rajeev Kapahi, Director and Founder of BOMA, India. **An Entrepreneurship Development Program** in collaboration with Industrial Incubation of Entrepreneurship and Skill Training (IIEST) and NITCOIN, an Entrepreneurship Development Program based on Elements of start-up and funding was organized. In addition, Civil Services Forum was established in August, 2020 to provide a common platform for diligent and dedicated Civil Services aspirants of Kamala Nehru College.

Honours/Distinctions

Dr. Ritambhara Malviya was awarded the first prize for paper presentation in the International Conference on 'Revisiting Gandhi: Peace, Justice and Development' held on October 30-31, 2020 by Association of Asia Scholars.

Dr. Homolata Borah was awarded PhD degree from the Centre for the Study of Regional Development (CSRD), Jawaharlal Nehru University on 5/11/2020.

Dr Harsh Meena has been awarded with Ph.D. degree from University of Delhi (Department of Political Science) on 20 November 2020.

Dr Mangal Deo has been awarded with Ph.D. degree from University of Delhi (Department of Political Science) on 26 October 2020.

Publications

Aggarwal, S. (2020). Aadunik Isriyali Kavita, Garbhanal, Page 12, E Journal WWW.garbhanal.com ISSN 2249-5967

Israel, M. Gurunanak Ka Vyaktitv Or Unki Kavya Kala- *International journal of innovative social science and humanities research*- ISSN 2349-1876/2454- 1826 - vol VI: (215-217)

Malaviya R. (2020). Women, Conflict and Conflict Reporting: The Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the News Websites in India. In: N. Chowdhory & Deeply Gendered Discourse on the Rohingya Crisis in the Rohingya Crisis in the Rohingya Crisis in the

Malaviya R. (2020). Realism in International Relations. In Nirmal Jindal and Kamal Kumar (Eds.) International Relations: Theory and Practice. New Delhi: Sage.

Malik, V. (2020). Brahmanization of Popular Cults: Nagas in the Adi Parva of the Mahabharata. *International Journal for Innovative Research in Multidisciplinary Field* 6 (2).

Malik, V. (2020). Buddhist Concept of State and Humanitarian Values in Ancient Indian Polity," in NIU *International Journal of Human Rights*

Nanda, B., Ray, N., Mukherjee, R. (2020). Son-Preference, Security Concerns and Crime Against Women: Expanding Public Health Discourse in India, *Indian Journal of Public Health*, 64 (2).

Shahnawaz, M. G., Siddiqi, N. (2020). Muslim Gen Yers in India: A Qualitative Analysis. *Psychological Studies*. https://doi.org/10.1007/s12646-020-00576-6

Siddiqi, N. (2020). A thematic analysis of sexist Bollywood songs. Generos: Multidisciplinary *Journal of Gender Studies*, 9(2), 111-136. DOI: http://dx.doi.org/10.17583/generos.2020.4628

Siddiqi, N., Shahnawaz, M. G., Nasir, S. (2020). Reexamining construct validity of the short dark triad (SD3) scale. *Current Issues in Personality Psychology*, 8(1), 18-30. DOI: https://doi.org/10.5114/cipp.2020.94055

Jounals

Published One

Research Projects

SPARC Project (MHRD, Government of India), 2020- 'Yoga Consciousness in Mahābhārata and Bhagavadgītā: The Ethical Value for Societal/Political Well-Being'

Seminars Organised

Mr. Rajeev Kapahi, Director and Founder of BOMA, India, "Role and Risk of Angel Investing" September, 2020

Webinar on "Domestic Violence During Lockdown of Workforce - Concerns, Issues and Legal Remedies" in May 20203. Three eminent speakers – Mr Amar Nath Gupta (Advocate, Supreme Court of India), Dr Upma Gautam (Assistant Professor, University School of Law and Legal Studies, GGSIPU), and Dr Anita Tagore (Assistant Professor, Kalindi College, University of Delhi).

Dr Samrat Mondal, Department of Computer Science and Engineering, Indian Institute of Technology, Patna, 'Importance of Cyber Security in the World of Pandemics and Social Media' to brainstorm on the usefulness of cyber security in a changed world after Covid- 19.

Prof VK Kaul, Former Head and Dean Department of Business Economics, University of Delhi, 'Geopolitics of Corona Virus Pandemic: Re-Evaluating Globalisation and National Interest', May, 2020 An international webinar on "Re-thinking Social Change in South –Asia amidst Covid-19', in May 2020 with speakers from Nepal, Bangladesh, Sri-Lanka and India who came together in one platform and presented their views.

Seminar/Conference Presentations

Ms. Namita Paul invited as a resource person to deliver a lecture on 'Understanding Literature and Cinema' by the English Department of Ram Lal Anand College on 25 May 2020. Her presentation was on the topic "Romeo and Juliet: Issues and Adaptations".

Mr. Joseph Kumar Ravi invited as resource person in 'Environmental Management and Pollution Control – Strategies for Sustainable Development' on the Topic "Crowd-Source Data for Environmental Management: Integration of Environmental Stewardship with Local action & Course and Research Groups "At Department Of Civil Engineering, Sri Ramakrishna Engineering College, Coimbatore, Tamil Nadu held on 13August 2020

Mr. Anish Chakravarty presented a paper, "The Role of Suspension of Judgement in Resolving Ideological Conflicts" as an Invited Speaker in a national webinar on "ETHICS IN THE CONTEMPORARY WORLD" organised by Department of Philosophy, Eliezer Joldan Memorial College, University of Ladakh, Leh, India on 11 October 2020.

Mr. Anish Chakravarty presented a paper, "The Notion of Error and Negation in Ludwig Wittgenstein and in Agnosticism of Sanjaya Belatthiputta: A Comparative Analysis" online at the 5th Wittgenstein Conference of Wittgenstein Society Wittgenstein and Indian Theories of Language and Epistemology, organised internationally by Department of Philosophy, University of Lucknow, and sponsored by Indian Council of Philosophical Research (ICPR) on 29-30 December 2020.

Dr. Nupur Ray presented a paper, "Pandemic and Sex-Workers' Community: Marginalization of the Marginalized during the Faculty Development Programme on Gendered Contours of the Pandemic: Reinventing Public Policy and Leadership Transformation by the Department of Gender Studies and Sarala Devi Centre for Gender Research, Rama Devi Women's University and Policy Centre and Gender Lab, Miranda House, University of Delhi, on 31 August 2020.

Dr. Nupur Ray presented a paper, "Women, Agency and Bodily Rights: A Critique of Rights Discourse on Prostitution in India during an International Conference on 6th World Conference on Women's Studies (WCWS 2020) on 'Overcoming Women's Subordination: Socialization, Law and Structural Inequalities', 27-28 July, 2020.

Placement Details

Number of students placed: 35+ Number of companies visited for campus recruitment: 14

Extension and Outreach Activities

NSS in collaboration with Unicharm India, organised a Menstrual Hygiene Workshop in July 2020. A a webinar on 'Online Safety for Women' was organized by IAMAI with Rakshit Tandon as the speaker. In this session, major issues like Cyber Stalking, Cyber Bullying, Sexting, Blackmailing, Bank frauds etc. were discussed. Another webinar was organised in November on "Cancer Prevention and Clean Yamuna" in collaboration with Dharamshila Cancer foundation and research Centre. NSS, KNC also collaborated with Association for Democratic Reforms to conduct a webinar as part of Vigilance Awareness Week. The topic was: "Lack of transparency in Political Funding: A cause of corruption?". In collaboration with The Pink Initiative and Girl Up: Girl for Girl NSS organized an awareness webinar on Breast Cancer for the occasion of *Pink October*.

NSS volunteers started a Covid Care for Neighbours Campaign in May-June 2020 where they would be vigilant of their surroundings and neighbourhoods and made sure to take care of stray animals, provide essential items to those in need and even take time to provide children with equipment and supplies they needed for schools and online classes. On the occasion of International Yoga Day in June 2020, NSS volunteers with the help of guidelines from the Ministry of AYUSH, practised and preached the message of Yoga and encouraged their families to do the same especially during lockdown. NSS KNC worked in collaboration with EVP Blood Connect to create awareness on Blood donation and Plasma donation especially in the times of rising COVID cases. As a part of the collaboration NSS coordinated events like Poster Making Competition on Blood donation, Case Study Competition, and an awareness webinar on blood and plasma donation led by Harsh Chaudhary, EVP Operations Head. NCC cadets of the college also actively participated in the mission to clean and keep the nation and also importantly college surrounding neat under Swacch Bharat week along with active participation in poster making competition and tree plantation drive in their own areas constantly throughout the year.

Faculty Strength: 158

Other Significant Information

The Journalism Department organized a fact checking workshop conducted by Mr. Akhil Ranjan (Fact Checking reporter at AFP (Agence France-Press) and a Google Certified Fact-check Trainer) who took a session on how to verify photos and videos. A Print Production Workshop was organized for the thirdyear students of Journalism on in October. The full-day online workshop was conducted by Mr. Suman Ghosh, Assistant Art Director, Indian Express. An online workshop on Photoshop, photo-editing was organized for the second-year students in October. The workshop was conducted by Nazish, Assistant Professor, Department of Journalism, Bharati College, University of Delhi. Department of Physical Education organized a lecture-cum-practice session on "Yoga for Immunity" conducted by Yogacharya Lalit Madaan for all students, teaching, and non-teaching staff members in June 2020. The Book Club organised an event in collaboration with Expressions – the English creative Expressions organised a creative writing workshop in November 2020. Prof. Pankaj Challa, Jindal Global University explained important aspects of creative writing with examples from literature. In the month of September, Luminoso held two workshops - an online workshop with Ms Smriti Sangal on Clay Sculpting, and a Quilling workshop conducted by an ex-student Ms Geetanjali Wadhwa. Department of Geography became a member of the ambitious outreach training programs conducted by - Indian Institute of Remote Sensing, a constituent body of ISRO, Department of Space, GOI. Four such programs were conducted by the department for the students, using online learning platforms. The program envisaged live interactive session from the scientists along with e-contents and hand on exercises as complementary learning resources. The fifth edition of Crossfire's much awaited Annual Asian Parliamentary Debating tournament, Munaazrah was held in November 2020 using an online debating medium, Mixidea. A total of 32 teams from University of Phillipines, Delhi University, IIT, Christ University, St. Xavier's College, National Law Universities were among several others across the subcontinent participated in this event. Prospicio, the Placement Cell, took upon itself the responsibility to ensure that the students are prepared for their careers. For this purpose, they conducted various counselling and training sessions like: "Post Covid-19: Challenges and Opportunities for Employment" by Mr. Avadhesh Dixit in May 2020; "The Prospects of Careers in Public Policy and Leadership" by Moolya Foundation in June 2020; "How to Write an SoP" in association with SI-UK and the University of Bristol in August 2020; "Careers in Publishing", in association with the English Department, by Mr. Ambar Sahil Chatterjee, publishing consultant and Batch of 2015 KNC alumni, Ms Shubhali Chopra (Hatchette India) and Ms. Aishwarya Misra (HarperCollins India), in September 2020; and, "New Age Job Seekers and Branding of Self" by Batch of 2015 KNC alumna Ms. Aakanksha Agrawal (Google India) in September 2020.

KESHAV MAHAVIDYALAYA

Major Activities and Achievements

Keshav Mahavidyalaya has a stellar record of 26 years in academic and extracurricular activities and is among the best known off-campus colleges under University of Delhi. The NAAC committee has accredited the College as an 'A' grade institution in the year 2016. For the past one year, we all have been witnessing the most dreadful impact of Covid 19 pandemic which has caused so many fatalities, incurred a great loss to the economy and mandated periods of frequent lockdowns. During this crisis, every individual has tried to serve humanity to the best of their capacity. Our Principal Prof. Madhu Pruthi was inducted as member of the University Task Force for handling COVID-19. Dr. Harpreet Bhatia, Assistant Professor in the Department of Psychology, has been part of a team constituted for mental health counselling at the university level. She is also part of the three members committee who have offered tele-counselling through the counselling cell, Consulenza, at KMV to the students and staff members affected with stress and anxiety during COVID-19 times. During the second wave of COVID-19, our staff members volunteered for providing RT-PCR testing facilities at college with the help of Hon'ble Dy CM, Govt of Delhi, Chairperson GB, DM-NW, SDM-NW and CDMO-NW. It was a challenge to grapple with the adverse impact of the pandemic, but the college ensured that the light of learning spreads far and wide even in these dark times. Despite such gloom spread due to COVID-19, Our DU Administration ensured

grant to long awaited promotions to eligible faculty members. 24 faculty members have been promoted to Stage 3. Among these 05 Faculty members were further promoted to the position of Associate Professor.

Honours/Distinctions

Dr. Geetanjali Sageena, Assistant professor in Department of Environmental Studies, was awarded National STE Young Researcher Award in Faculty Category.

Dr. Vinita Jindal, Associate Professor in the Department of Computer Science, was awarded the Best Paper Award for her paper: 'Encrypted Traffic Classification using eXtreme Gradient Boosting algorithm.

Dr Vandana Gambhir, Assistant professor in Department of Psychology, was declared as a "Qualified Recognised Trainer" by Haryana Institute of Public Administration. She was also appointed as "Ethics & Standards Committee Chair" by the Asia Pacific Career Development Association (APCDA), USA for the year 2020-2021

Mr. Puneet Kumar and Mr. Yash Kashyap students of B.Sc. (H) Computer Science III year secured the first position in 'Data Unchained' event as a part of Elysium'20 a TechWeek organized by IEEE-IIIT Delhi.

Mr. Shubham Kumar Sah, B.Sc. (Hons.) Mathematics IIIrd year cleared IIT JAM, 2021 with AIR 1900 and got an admission offer letter from IIT Delhi for Program in PG Mathematics.

Publications

Arora, R. Gupta, K., (2020). An Algorithm for Piecewise Indefinite Quadratic Programming Problem. Croatian Operational Research Review. 11, 39-51.

Arora, R. Gupta, K., (2020). Fuzzy Goal Programming Technique for Multi-objective Indefinite Quadratic Bilevel Programming Problem. Archives of Control Sciences. 30, 683-699.

Arora, R., Aggarwal, A.G. (2020). Testing Effort based Software Reliability Assessment incorporating FRF and Change Point. *Yugoslav Journal of Operations Research*, 30(3), 273-288.

Bedi, P., Gupta, N., Jindal, V. (2020). "I-SiamIDS: An Improved Siam-IDS for handling class imbalance in Network-based Intrusion Detection Systems". Applied Intelligence, Appl Intell, 51(2021), 1133–1151.

Kapoor, D., Sardana, T. Sharma, D. (2021). Women as Leaders: A Systematic Review of Glass Ceiling and Organisational Development. *The International Journal of Indian Psychology*, 9(1), 572-591.

Kumar, P. (2020). "COVID-19: Challenges for Management -A study on Corona virus Challenges faced by Management", *Journal of the Social Sciences*, 48(2), 1919-1934.

Kumar, P. (2020), "An Empirical Study of Assessing the Impact of Decision Making Styles on Organizational Learning", *International Journal of Management Research and Development*, 1(2), 01-09.

Kumar, P. (2020). Systematic view of Organizational Structure, Adalya Journal Web of Science Group, 9(3), 736 - 745.

Mendiratta, A., Goel, K. Sondhi, S. (2020). Effect of Gunas on Stress and Mindful Eating. International *Journal of Indian Psychology*, 8(4), 1345-1353.

Nisar, S., Yousuf, P., Masoodi, T., Wani, NA., Hashem, S., Singh, M., Sageena, G., Mishra, D., Kumar, R., Haris, M., Bhat, A.A. & Macha, M.A. (2021). Chemokine-Cytokine Networks in the Head and Neck Tumor Microenvironment. *International Journal of Molecular Sciences*, 22(9), 4584.

Raj, P. (2020). Effect of Psychological Intervention on Specific Learning Disorder: an intervention study. *The International Journal of Indian Psychology*, 8(3), 961-969.

Ratti, P Sharma, D. (2021). Happiness: does it transform with age? *The International Journal of Indian Psychology*, 9(1), 960-979.

Sageena, G., Balwan, W.K. (2020). The Pandemic Inside The Pandemic: Avalanche of Misinformation. *Journal of Global Biosciences*, 9(7), 7667-7678.

Webinars Organised

IQAC organized various webinars to ensure faculty and students development such as "Strengthening Student Support and Progression', 'Importance of Infrastructure and Learning Resources in HEI', 'Provident fund management in HEI's' and "Criteria in revised assessment framework of NAAC" in collaboration with Sri Aurobindo College. IQAC also organized a webinar on the occasion of 'World Environment Day' with the Department of Environmental Studies on 'The Impact of Air Pollution during Coronavirus pandemic in NCT Delhi.' and another webinar on 'Physical and Psychological Wellbeing during COVID19 Times through Yoga and Meditation' with the Department of Physical Education.

Various departments organized different activities throughout the year such as Department of Computer Science and Blitz Society organized webinars on diverse topics such as 'Career Options in IT', 'Web Scraping', 'Android Development' and 'Ethical hacking'. The Computer Science department also organized a three day long online computer festival holding various competitive events such as 'Jung-E-Code' and 'Data Unknown's Battleground'; Department of Electronics organized a plethora of events such as 'Electronics Project Presentation', 'Circuitrix', 'Tech Mystery'; Department of Management Studies, Metamorphosis, organised the twelfth edition of the Annual Corporate Convention with the theme 'Re-entering Reality with a Virtual Backpack' and conducted Cognizance, the Inter-College Management Festival of the department; Department of Physics society, 'COSMOS', organized an online lecture on "What are Exoplanets made of? Molecular line lists to aid the characterization of Exoplanets." delivered by Prof. Jonathan Tennyson from University College London (UCL); Department of Psychology organized a series of eight Career Counselling sessions for the Second- and Third-year students, under the aegis of ANUBHAV: The Psychology Internship Cell.

Conference Presentations

Dr. Vandana Gambhir nee Chopra, presented a paper in Conference virtually "Inequality and India: The Upward Trajectory", International Sociological Association, Porto-Alegre, Brazil.

Ms. Disha Garg presented a paper on "A Research Perspective on Security in Fog Computing through Blockchain Technology" in the International Conference on Artificial Intelligence and Sustainable Computing for Smart Cities (AIS2C2: 2021) organized by Gautam Buddha University, Greater Noida.

Placement Details:

Number of students getting successful placements: 39 Number of companies coming for campus recruitment: 13

Extension and Outreach Activities

'Enactus', the Social Entrepreneurship Cell of our college is a branch of the internationally recognized student-run social entrepreneurship organization. It strives to build a better world by escalating enthusiastic students to become social entrepreneurs and giving them an opportunity to practically bridge the existing socio-economic disparities in a sustainable manner. The projects currently undertaken by the society are working to tackle various social issues, including but not limited to protecting the dying art of potters (Project Sahaayta); promoting jute bags while uplifting the women community (Project Pehel), spreading awareness about mental health in times of a global pandemic (Project Ekta) and eradicating plastic pollution through means of reduction and recycling (Project Ehsaas). All these projects tackle the problems by means of entrepreneurial action. It also organized the annual Enactus KMV flagship event - Envision 2021 which witnessed incredible participation with more than a thousand registrations. Also, a four-day series of informative webinars were also organised on the topic "How to start your Business", which aimed at enabling young entrepreneurs by teaching them the basics of starting a new venture.

Under the aegis of the NSS unit in our college, the students organised and participated in various activities like cleanliness drive, plantation drives, plogging events etc. Activities related to physical fitness and mental health were

organized under the 'Fit India Movement' during September, 2020. An online Swachchhata Pledge ceremony was conducted as part of the 15-day campaign of 'Swachchhata Pakhwada' under the Govt. of India. Furthermore, a multitude of webinars were organized by the unit in collaboration with other colleges and universities on myriad topics like -'Yoga and Holistic Well-being'; 'Demystifying the Notions of Healthy Eating'; 'Stress: Psychological Impact and Management Strategies for Positive Mental Health', and 'Myths and Facts about Covid-19 times' to name a few. Furthermore, the Nivesh cell of our college released the third edition of their e-magazine, 'Nivesh Express', on the day of Arthvyawastha, 2021 which included articles on current issues like 'Rise of Tesla', 'Suez Canal: Impact on Global Trade' and 'Covid Impact on Economy'.

Library Development

The College maintains a well-stocked double storey, spacious, fully automated library comprising of a large reading room. It is a web based Library. The data of Library is available on NIC Cloud through e-Granthalaya software. The library has various sections consisting of around 28800 books. It has a rich collection of text books, reference materials and encyclopaedias of various fields. Besides, it also provides facility of accessing about 30,000 e-journals and research articles provided by Delhi University Library System (DULS) through internet to staff members and students. Library provides various services to its users like Circulation Service, Technical Services, Reservation Service, Internet Service etc. A large number of dailies, weeklies, and periodicals of various subjects are being subscribed on a regular basis. Around 38 Magazines and 18 Newspapers are subscribed to by the library for the readers. The library has more than 740 CDs and DVDs which are issued to various departments of the college. During Covid -19 Period to facilitate its users through online mode, College becomes member of N-List Database. Various e - resources (e - books and e - journals) provided by N-List are available for users which they can access anywhere and at any time through online mode. During Covid -19 Period, a separate e- mail id 'library@keshav.du.ac.in' was created through which various queries of users were personally solved by the Librarian and get them updated with library's activities/information. Online Orientation was also given to the students during 2020-2021 to educate about library Rules, facilities and procedures.

Faculty Strength: 100 (Sanctioned)

Financial Allocation & Utilisation:

Grant Sanctioned : Rs. 25, 13, 75,608.82 **Utilized** : Rs. 24, 65, 37,069.18

KIRORI MAL COLLEGE

Major Activities and Achievements

Online Faculty Development Program, *Innovation in Scientific Research Methods* was organized (under the aegis of DBT Star College Scheme) from 14-18 October 2020. A Breast Cancer Awareness Campaign was conducted by BIOCENOSE- The Zoology Society from 17-19 October, 2020. An International webinar with Dr. Jemma Geoghegan, University of Otagoon 26 February, 2021 was organized on the topic Finding the Drivers of Viral Disease Emergence was organized by Department of Zoology. Appulse'2021, the three-day flagship event of The Commerce Society was organized on 17 and 19 February, 2021. FIC, KMC launched INVESTREET, the first ever Annual Finance E-Journal of the Finance and Investment Cell. The NCC Unit of Kirori Mal College celebrated the International Yoga Day. The National Cadet Corps, Directorate Delhi has planted over thousand of saplings on June 05, 2020 (World Environment day). Sahas, The Women Empowerment Wing of NSS-KMC unit collaborated with the Sexual Harassment and Law Compliance (SHLC) and organized a workshop on Understanding Safe Workplaces and Rights at Internships on 31 October, 2020. The Second International Symposium "Functional Nanomaterials in Industrial & Clinical Applications: Academy-Industry-Clinician Meet" was organized as a part of the UKIERI project in collaboration with UClan, UK, Department of Chemistry, University of Delhi and Kirori Mal College on 14-16 July 2020.

Honors / Distinctions

Dr. Pragya, Associate Professor in Hindi, Shivna Antrrashtriya Katha Samman for her novel *Dharampur Lodge*, 2020

Prof. Anita Kamra Verma, Department of Zoology, Teachers Excellence Award (2020-21) University of Delhi (Announced after 31.3.2021)

Publication

Bipin Singh Koranga (2020). Quantum Gravity Correction to Co-bimaximal Neutrino Mixings Boson J. of Modern Physics. Volume 7

Harish (2021), कोरोनासङ्क्रमण-कालमें अष्टाङ्ग-योगकीप्रासङ्गिकता, National Journal of Environment and Scientific Research, Issue-3/Volume-2, Page Nos.372-377.

Jain, V. P., Chaudhary, S., Sharma, D., Dabas, N., Lalji, R. S. K., Singh, B. K., & Jaiswar, G. (2021). Advanced functionalized nanographene oxide as a biomedical agent for drug delivery and anti-cancerous therapy: A review. *European Polymer Journal*. Volume 142, 110124, https://doi.org/10.1016/j.eurpolymj.2020.110124
Joshi, S. (2020), "COVID-19 and Glut in the Oil Market: What does it mean?" *Drilling and Exploration World (DEW) Journal*, 29 (8), June.

Lamichhane N, Sharma S, Parul, Anita K Verma, Roy, Tapas Sen (2021). Iron Oxide Based Magneto-Optical Nanocomposites for in vivo Biomedical Applications; Biomedicines 2021, 9(3), 288; https://doi.org/10.3390/biomedicines9030288

Poumai, Khole Timothy; Kaushik, S. Kr., (2020), Wavelet Frames in L2 (Rd), *Rocky Mountain J. Math.* 50, no. 2, 677–692.

Pragya, (2020). Kabeer Kendrit Natakon Mein Samajik-Sanskritik Drishti, Kathakram Vol.- Oct.-Dec. Page -93 UGC care listed, ISSN NO. 2231-2161

Sharma, N., Singh, R. K. (2021). Workplace spirituality and organizational effectiveness: exploration of relationship and moderators. *Journal of Management, Spirituality & Religion*, 18(1), 15-35. doi: 10.1080/14766086.2020.1829011

Singh, Poonam, Sarin Vandana, Midha, Neha (2020). Mixture Designs Generated by Orthogonal Arrays Developed Using Difference Schemes. *International Journal of Mathematical, Engineering and Management Sciences*, *5*(6), 1379-1391. https://doi.org/10.33889/IJMEMS/.2020.5.6.102

Research Projects

University Grants Commission, 2019-, NAAC PARAMARSH, Amount sanctioned Rs 3000000.

University Grants Commission, 2017-2020, UGC-UKIERI Thematic Partnership-2017, Amount Rs 3529260.

Department of Science and Technology, 2017-2020 Small molecule functionalized biopolymeric nanoparticles encapsulating SiRNA and targeted delivery to osteoblasts for managing bone disorders, Amount sanctioned, Rs. 9786200

University Grants Commission, 2019, Enterpreneurship Certificate Course on Startup, Amount sanctioned Rs 5000000

Department of Science and Technology, 2019-2022, Women Empowerment Atlas : Science & Technology Perspective, Amount sanctioned, Rs 4433000

Patents Filed / granted

Jai Prakash Chaudhary, DibyenduMondal, Sana KotrappanavarNataraj. Seaweed Polysaccharide Based Superhydrophilic Foam Membrane for Energy Efficient Oil-Water Seaparation. RamavatarMeena, Naresh DharmashibhaiSanandiya. US Patent No: 10688446, 23.06.2020.

Seminars Organised

Dr. Pragya - One Day seminar on Rachnatamak Lekhan – Prof. Arun Hota, Professor, Paschim Bengal State University, West Bengal, 'Rachanatmak Lakhan Katha Ke Sandarbh Mein', 23-03-2021. Shri Pankaj Subeer, Noted Novelist and Poet, 'Rachanatmak Lakhan Kavita Ke Sandarbh Mein', 23-03-2021.

Computer Science Society organized a webinar on Computer Vision on 25 January, 2021.

Workshop: Scientific and physical computing of the experiments with python organized by Department of Physics on 5 November to 4 December 2020.

Seminar, on Masters in Statistics and Industrial Application of Statistics, organized by Department of Statistics on 7 November 2020.

Conference Organised

3rd National Conference on Emerging Trends and Future Challenges in Chemical Sciences (ETFC-2021) was organized by Department of Chemistry on 4-5 March, 2021.

Two day workshop on Carbon Sequestration & Solid Waste Management by Prof. Lata Rani Nain & Dr. Ratul Baishya on 5 and 6 November, 2020 under DBT Star College Scheme.

Organized Webinar on "Innovative Solutions of Chemistry For Better Health Care", Department of Chemistry, Kirori Mal College, DBT Star College Scheme, 8 February, 2021

An international webinar has organized by the Department of Bengali on 26-27 March 2021 in collaboration with IQAC, Kirori Mal College and the International Society of Bengal Studies (ISBS) to celebrate the commemoration of the Golden Jubilee of Liberation of Bangladesh.

Seminars / Conferences / Presentations

Dr. Pragya, Lecture at Webinar on Nasira Sharma Kikahaniyan organized by VikalpTishurKerla 11 Oct 2020. Dr. S.K. Kaushik presented a paper on, "Some Applications of Frames in the Two Day National Webinar on \Wavelets, Frame Theory and Its Applications held at MGU, Nalgonda, T.S, sponsored by UGC from 13-14 October, 2020.

Ms. Nidhi Sharma presented a paper, 'Mediating role of select work attitudes on the relationship between workplace spirituality and organizational effectiveness' presented at International E-Conference on Advances in Business and

Management organized by Department of Commerce, Shaheed Bhagat Singh College, University of Delhi during 4–6 March 2021) and received best paper award.

Dr. Kalid Ashraf presented a paper, "Gharanghanka Shair JaanNisar Akhtar" as a Article Writer in the seminar/workshop/conference sponsored by Government Rajasthan and organized by Rajasthan Urdu Academy held on 28 Feb - 1 March 2021.

Dr. Sangeeta D. Gadre invited as a Panelist for Global Minds Debate on Coronavirus and Agenda 2030, Sustainable Development Goal organized by World Association for Sustainable Development and Sudan Knowledge on April 14, 2020.

National / International MoUs Signed

K.M. College has signed MoU with following Institutions in 2020-2021 Mata Sundri College for Women, University of Delhi, Delhi – 110007 Mizoram University, Aizawl, Mizoram

Other Inter - Institutional collaboration

UKIREI

Placement Details

Number and percentage of students placed 138 students (34.41%) Number of companies visited for campus recruitment 135 companies

Extension and Outreach activities

Outreach program "Interdisciplinary Science Workshop" for Maharaja Agrasen Public School, New Delhi under DBT Star Scheme on 19 March, 2021.

Outreach program by Department of Botany at Shaheed Raj Guru College of applied science for women from 16 -17 Feb. 2021

Library Development

 Summary of Expenditure
 Rs. 309998.70

 I-Card
 Rs. 15,370/

 Total Budget
 Rs. 15,20,000/

Number of Books added =1528

Total Books = 1,54,167/-

Total Book Bank Collection = 5968

Total: 69 Angels, 81 notebook for visually impaired.

Faculty Strength:

Permanent: 130 Adhoc: 69

Financial Allocation and Utilization

Grant sanctioned Rs.873677085.32 Utilized Rs.738838499/-

Other Significant information

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LADY IRWIN COLLEGE

Major Activities and Achievements

The college was rated at A+ by NAAC in 2018 and held All India Rank among colleges at 21 and 32 by NIRF in 2019 and 2020 respectively. A research project on "Strengthening Life Science and Biotechnology Education Training at undergraduate level" was funded by the Department of Biotechnology, Ministry of Science and Technology for Twenty five lakhs for three years for BSc (Hons) Food Technology (2020 to 2023). A study on "Micronutrient Status of COVID-19 Hospitalised patients" funded by International Life Sciences Institute-India has been undertaken. Lady Irwin College has been recognized as State Level Technical Institution (SLTI) for Delhi State. for the Pradhan Mantri Formalisation of Micro Food Processing Enterprises (PMFME) Scheme under Atmanirbhar Bharat Abhiyan by Ministry of Food Processing Industries (MoFPI) GoI, Department of Food & Nutrition and Food Technology. MOU with Sector Skill Council: Food Industry Capacity & Skill Initiative (FICSI) for capacity building, training and job opportunities. UNICEF Project to develop the content for a resource kit on responsive parenting for children from birth to 6 years (Nov 2019-2021): Collaboration between Dept of DCE and HDCS. An infrastructure development project on "Creation of Infrastructure facilities for Food Technology degree course" was funded by the Office of Commissioner of Industries, Delhi Government from 2019 to 2021. The project involved purchase of different analytical equipment for different laboratories of the Department. Funding was for 1 Crore rupees.

Honours/ Awards/ Distinction

Dr. Sushma Goel – Mentorship of two groups of students (three in each batch) for the *Atmanirbhar Bharat* Innovation Challenge (Create a toy-Based Game Reflecting Indian tradition or Culture), a National level Competition - Toy Hekathon, held in January 2021. Both the groups were selected (among top 100 out of more than 1.8 lakh entries) for commercialization of their toy Designs (*Vega* Wheel & *Jantu*) in February 2021.

Best Poster Presentation award to Hema Singh and Sangeeta Goomer on the topic 'Arsenic in Rice Bran – Understanding A New Poison for Humans' at 4th AMIFOST 2020 organized by Amity Institute of Food Technology on 21st December 2020

Best Oral Presentation Award for the paper, Akshay, P. and Anand, S., First 1000 days of opportunity and vulnerability: Glimpses from Mewat, Haryana, India, National Webinar on Paradigm Shift in Home Science Education, 2021, Home Science Association of India (Kerala Chapter)

Best Oral presentation award for the Paper, Zingkhai, M and Anand, S, Women Food Vendors of Tribal Manipur: Small Scale Agricultural Marketing, National Workshop on Gender Issues and Atma Nirbhar in Agriculture, 2020, October IDP-NAHEP Central Agricultural University, Imphal.

Awarded Best Poster to Arushi Srivastava and Aparna Khanna for presentation of a study titled 'Role of Mohalla Clinics in providing primary health care: A study in Delhi' at the National webinar on Paradigm Shift in Home Science Education organised by the Home Science Association of India, (Kerela) on 20 February 2021.

Students with Distinction

Shweta Anand received Anupa Sahi Siddhu Gold Medal for excellence in doctoral work in Lady Irwin College (2020)

Manisha Joshi received Sumitra Gurudutt Gold Medal for Ist Position in B.Ed. (Home Science)

Shweta Kampani received Sushma Sharma Prize For Highest Marks in Dissertation in Food & Nutrition

Mahima Madaan received Indravati Pasricha Award For the 1st Position in PG-DDPHN

Bhawna Mutreja received Smt. Leela Malhotra Gold Medal For 1st Position in B.Sc. Home Science (Honours) (Food and Nutrition)

Webinars/Workshops/Conferences/Training/Special Lectures

Dr. Shavika Gupta (Public Health Consultant) on, "Dietary Diversification: Imperative for Attaining Good Health and Immunity" on 23 July, 2020.

Dr. Sonam Chawla, Assistant Professor, Dept. of Biotechnology, Jaypee Institute of Information Technology, "Anti-ageing realm-Tapping molecular mechanisms for development of nutraceuticals" on 28 July 2020

Dr. R.K.Jain, Technical Expert, United Nation Industrial Development Organisation, Former Director& Scientist G, Central Pulp & Paper Research Institute, "Packaging of Food: Trends and Prospects" on 30 July, 2020.

Dr. T.S.R. Murali (Founder and Head, Urjita Food Business Consultant), "Innovations in Food and Dairy Business": Opportunities for Food Technologist" on 31 July, 2020

Dr. Munesh Kumar Tyagi (Consultant Excell Foods), "Scope of Food Technology in Emerging Industries" on 4 August, 2020

Ms. Ritika Samaddar (RD, Regional Head-South Zone, Max Super Speciality Hospital, New Delhi) "Electronic Diet Management in Hospitals" on 6 August, 2020.

Dr. Som Nath Singh (DIPAS, DRDO), "Nutrition Requirements in extreme climatic conditions" on 7th August, 2020.

Ms. Richa Jaiswal (AIIMS), "Nutritional Management of COVID 19 Patients at Multiple Stages of Disease" on 27 August, 2020.

Dr. Ashish Joshi (Senior Associate and Dean of Academic and Student Affairs, City University, New York Graduate School of Public Health and Health Policy, Founder of "Foundation of Healthcare Technologies Society") "Informatics: Relevance and Research Scope in Public Health and Nutrition" on 29 August, 2020.

Dr Suparna Ghosh-Jerath (Public Health Foundation of India), on, "Food and Nutrition Challenges Faced by Indigenous Communities in the COVID Crisis." on 31 August, 2020.

Ms. Anuja Agarwala AIIMS, "Challenges In Facility Based Care Management of Children with Severe Acute Malnutrition" on 22 September, 2020.

Dr. Praveen Kumar ,Lady Hardinge Medical College, "Identification and Management of Severe Acute Malnutrition" on 26 September, 2020 presented by Dr. Praveen Kumar (Lady Hardinge Medical College).

Dr. Ashutosh Upadhyay, Professor, Department of Food Science & Technology and Dean Academic, NIFTEM, "Traceability and Recall in Foods" on 1 October, 2020.

Dr. H N Mishra Professor I/C & Nodal Officer, Agri Business Incubation Centre Professor of Food Technology, Agricultural and Food Engineering Department, IIT Kharagpur on, "Green Perspectives in Food Processing" on 15 Oct, 2020.

Dr. Ninad Jhala, Principal of Anand Institute of Social Work, Anand Gujarat, "Extension Work: Possibilities in the Pandemic" on 17 July.

A series of nine CSR Lectures was organised in collaboration with the Business & Community Foundation from 23 February to 3rd March 2021. The lectures were attended by around 30 participants which included Masters students and PhD scholars. The sessions were conducted under the themes – CSR Law & Amendments, Business Responsibility reporting, CSR implications, Environmental Accountability, National Guidelines for Business & Human Rights, Case studies – PVR and Sterlite. Experts and resource persons were Dr Amita Joseph (BCF), CA Mr S Mittal, Mr Pradeep Narayan (Praxis), Mr Dheeraj (Praxis), Mr Mathew Cherian (Formerly with Helpage India), Advocate Lara Jesani (Mumbai High Court), Ms Deepa Menon (PVR) and Mr Viraf Mehta for the sessions.

Pratibimb, the Film Club of Department of Development Communication and Extension, screened the most remarkable and unsettling Documentary 'The Social Dilemma'. The film was directed by Jeff Orlowski. This documentary-drama hybrid explores the dangerous human impact of social networking, with tech experts sounding the alarm on their own creations.

The Department of Development Communication and Extension organized its Orientation Program for the new batch of Masters of 2020. The event was spanned across 3 days and oriented students to the department, faculty and the curriculum. On 7th January, 2021, Alumna of the department were invited and they interacted with the students. On 12th January, A Webinar with Saumya Baijal, Advertising Woman, Writer and Poet was organized on the topic, "Gender, Popular Culture & Mass Media". On January 13th a webinar with Prof P V K Sasidhar, School of Extension and Development Studies, IGNOU was organized on the topic "Introduction to Research in Communication and Extension".

Taking on the challenge of COVID-19 and lockdown, the virtual tour of Yuva Shakti Mela was recreated digitally. The Virtual Yuva Shakti Mela 2020, an annual event by the Department of Development Communication and Extension, Lady Irwin College (University of Delhi) on the theme 'Disaster Management' was inaugurated during the Orientation programme held on 7 January 2021.

Ms Neha Arora, Founder, Guidance for Future Education on How to Write a Resume, 18 July 2020

Department of Human Development & Childhood Studies organized a Webinar: Nurturing Social-Emotional Learning in Early Adolescence by Dr. Pranalee Sharma on 25th July 2020

Department of Human Development & Childhood Studies organized a Webinar: Science and Ethics in a Post-Colonial Society: Students Responsibilities for a Better Future, , 27 July 2020

Dr. Nandita Chaudhary, Senior Consultant, HDCS on, Expressive Art and Learning by Ms. Shaloo Sharma, Founder, Evoluer Solutions, 29 July 2020

Ms. Mamta Saikia, CEO, Bharti Foundation, Working with Children and Youth: Preparing Young Professionals for Education and Development Sector, 30 July 2020

Publications

Aggarwal D., Anand S. Mishra D. (2020). Detection of Pesticide Residues in Milk and Milk Products. Chapter 9 in "Biological and Chemical Hazards in Food and Food Products: Prevention, Practices and Management", Apple Academic Press, Taylor and Francis Group, CRC, Boca Raton. Volume: 36 ISBN No: 9781774637135

Agrawal, A., Chopra, Sheetal. (2020), Sustainable dyeing of selected natural and synthetic fabrics using waste teak leaves (*Tectona Grandis L.*), *Research Journal of Textile and Apparel*, 24 (4), pp. 357-374. https://doi.org/10.1108/RJTA-05-2020-0046, ISSN: 1560-6074

Ansari, G., Jain, S., Kaul, N. B. (2020). Association of Maternal Dietary Diversity and Nutritional Status with Child's Dietary Diversity and Nutritional Status (2-5 years) in India. *World Nutrition*, 11:1-19. DOI: https://doi.org/10.26596/wn.2020111110-128. ISSN: 2041-9775

Arora S., Mathur P. (2020). Food and Nutrient Intake Pattern of Three Generations Living Together in Middle Income Households of Delhi, India. *J Hum Ecol* 72 (1-3): 309-319. Print ISSN 0970-9274 Online: ISSN 2456-6608 DOI: 10.31901/24566608.2020/72.1-3.3294

Bansal, S., Mital, M., Gupta, P. (2020). Skill gap, education and employability. *International Journal of Research and Analytical Reviews (IJRAR)*, 7(3), 449-455, E-ISSN 2348-1269, P- ISSN 2349-5138

Bhamrah, A., Rangila, D. (2020). Visually Impaired Person's Experiences of Social Inclusion. Indian Journal of School Health & Wellbeing, 6(1), 23-30.

Bhatia K, Bhagat S., Suri M., (2020) Effect of Fabric Construction on the Longevity of Aged Cotton Fabric, *International Journal of Engineering Research & Applications (IJERA)*, Sept 2020, Vol 10, Iss 9, ISSN No. 2248-9622

Bhatnagar, A., Jaiswal, N., Lal, P. R. (2020). Protein Supplements Intake by Recreational Gymnasium Users—A Review. *Int. J. Health Sci. Res*, 10, 167. ISSN: 2249-9571

Chitkara, S., Goel, S. (2020), Assessing Eco-Efficiency in Production of Polymer Packaging, *International Journal of Innovative Science, Engineering and Technology* (ISO 9001:2015 Certified7 (11), 275-282, DOI:10.14299/000000,

Chopra, M., Kaur, N., Singh, K. D., Maria Jacob, C., Divakar, H., Babu, G. R., Hong Nguyen, P., Bhanot, A., Sabharwal, M., Deb, S., Baswal, D., Louise Killeen, S., McAuliffe, F. M., Hanson, M. A., & Sethi, V. (2020). (2020). Population estimates, consequences, and risk factors of obesity among pregnant and postpartum women in India: Results from a national survey and policy recommendations. *International Journal of Gynecology & Obstetrics*, 151, 57-67. ISSN:1879-3479 https://doi.org/10.1002/ijgo.13319

Jain, S., Ranjan, S. (2020). Evidence that maintaining optimal nutrition status for well-functioning immune system might promote recovery for mild COVID-19 patients. *World Nutrition*, 11(4), 66-93, ISSN: 2041-9775

Joshi, P. (2020). Transition to inclusion in a rural special school: A case study. *Indian Journal of School Health and Wellbeing*, 6(1), 1-4. ISSN 2349-5464

Kohli, S. & Chadha, R. (2020). Counselling skills of Accredited Social Health Activists for promotion of optimal Infant and Young Child Feeding practices. *Indian Journal of Community Health*.32(1):137-144. ISSN-0971-7587/2248-9509

Makol, N., Mital, M, Syal, Gupta, P. (2020). Government Initiatives for Solar Home Systems for Rural Electrification in India: Outlook and Challenges. *International Journal of Home Science* (IJHS), 8(3), 32-38, ISSN - 2395-7476.

Sharma, V. & Chadha, R. (2020). Assessment of Portion Sizes of Food items commonly consumed by Urban Indian Adults: A Preliminary Study *Curr. Res. Nutr Food Sci Jour.* 8(1):182-196. ISSN-2347-467X/ 2322–0007

Sinha S, Verma, L & Nigam, S. (2020). Comparison of Anthropometric Indices with Bioelectrical Impedance Analysis (Bia) Method To Assess Overweight And Obesity In Indian Women: Need For More Appropriate Index. *The Indian Journal of Home Science*: 32(2). ISSN 0970 2733

Library - Due to the pandemic, this year the same number of journals were continued as last year and added approximately 20 new books to the library collection. However, access to numerous e-journals and e-books were provided remotely via DULSand N-List. Library offered two webinars for students and faculty on the topics "Plagiarism: what is it and how to avoid it?" and "Reference Management Tools" These were attended by more than 200 participants.

Number of M.Phil/ PhDs awarded: NINE

LADY SHRI RAM COLLEGE FOR WOMEN

Major activities and achievements

Despite the pandemic raging through the country, LSR remained a very active space. and conducted many activities. LSR was proud to host the Vice Chancellor of the University of Delhi, Prof. PC Joshi, Director of South Campus, Prof. Suman Kundu and the Dean of Colleges, Prof. Balaram Pani on the 22nd of February 2021.nThe Department of Psychology hosted its *Annual Paper Presentation Competition* on 6th March 2021. The IQAC cell organised an interaction with the alumnae of the institution on 20th March 2021. Alumnae were requested to fill a feedback form sharing how College had shaped their lives and their career decisions. Many interesting anecdotes and inspiring stories emerged from the discussions. The Department of Elementary Education organized an online workshop for school mathematics teachers- *Pedagogical Opportunities for Technology Enabled Explorations in the Mathematics Classroom*- in collaboration with IQAC-LSR, from 22nd to 26th March 2021.

Honours/distinctions

LSR participated in the 63rd Flower Show organized by the University of Delhi on 5th March 2021 and was awarded the prestigious 'Green Cup' for greenery and cleanliness in the college campus. The Rock garden of LSR was recognized as the best among all colleges of the University of Delhi for which the college was awarded the 'Delhi College Cup'. LSR was also awarded the 'A.C. Janaki Amma Cup' for the best border of mixed flowers in gardens and the prestigious 'Deshbandhu Cup' for having the best lawn among all other colleges of the University of Delhi.

Students with distinctions

Swasti Arya and Mihika Chitranshi, 3rd year students from the department of Mathematics, presented a paper titled, "Analyse Women Suicides using Multi-Criteria Decision Making" in the National Conference on Application of Mathematical Tools in Social Sciences and Sciences. The paper has been accepted for publication in the Conference Proceedings.

Simran Kaur Saini, 3rd year student from the department of History, won 2nd Prize in the Undergraduate Category for Best Presentation under Session 7 "Archaeology of Scapes: Diversity in Environment and Perspective" at the Cambridge Annual Student Archaeology Conference 4(2020/21) held on 17th January 2021. She presented the paper titled "Step Wells and the Shifting Scapes: Adaptive Reuse of Baolis of Delhi".

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Paridhi Khanna, 3rd year student from the department of History won the 1st position in the live Quiz competition and 3rd position in Article writing competition organized by the India- Chile Youth forum. She also won a certificate of appreciation for the Digital Art Contest organized by India-Chile Youth forum.

Ananya Thakur, a 2nd year student of the department of English won the Bronze medal in the Women's Singles at the Punjab State Table Tennis Tournament and the Youth Singles Silver medal at the same tournament.

Palomi Gupta, a 2nd year student of the department of Journalism, won the award for Best Speaker at the English Debate Competition of the India-Germany Youth Forum in collaboration with the India-Mexico Youth Forum in October 2020 and the 2nd position at the English Debate Competition by Global Youth in March 2021.

Publications (Total numbe 48)

Bansal, P. (2021). Big and small stories from India in the COVID19 plot. Integrative Psychological and Behavioural Science, 55, 47-72.

Dhillon, M., Mishra, V. (2020).Life in lockdown: The psycho-social impacts of the COVID-19 pandemic on young Indians. Indian Journal of Health and Well-being 2020, 11(7-9), 324-330

Gupta, A., Gupta B. (2020). On *k*-composition and *k*-Hankel composition operators on the derivative Hardy space. *Banach Journal of Mathematical Analysis*, *14*,1602–1629.

Juneja, A., Juneja, A., Jawa, S. (2020). Exploring the quality of life of couples whose children are settled abroad. *Journal of Geriatric Mental Health*, 7(2), 94-99.

Kaur, B., Kumar, D., & Chauhan, S. (2020). <u>A study of small perturbations in the coriolis and centrifugal forces in RR3BP with finite straight segment</u>. *Applications and Applied Mathematics: An International Journal*, 15(1).

Khurana, D., Ahuja, K. (2020). The green-eyed monster: Is jealousy healthy in dating and married relationships? *The International Journal of Indian Psychology*, 8(2).

Padi, T.R., Paidipati, KK., Oram, M. (2020). Optimal land allocation programming problems for agricultural revenue maximization in Andhra Pradesh. *Agricultural Science Digest*, 40, 275-279.

Sahgal, S., (2020). Evolving dharma consciousness of Dharmaputra Yudhishthira within the Mahabharata, *Advances in Social Sciences Research Journal*, 7(12),14-26.

Sahgal, S., (2020). From violation of perceived animal rights to prevention and protection of the same: A study of ritual shifts within bull cults of early India, *NIU Journal of Human Rights*, 7, 67-80.

Sharma, H. (2020). Pakistan: A state in search of national identity. *Political Discourse*, 6(2), 190-199.

Journals

Published by college 13

Number of college teachers serving as Editors(s)/ Members of Editorial Board: 2

Research projects

Ministry of Minority Affairs Project - Jiyo Parsi Phase - 2 going into Phase 3, 2020-21 Health of the Community Project. Dr. Shernaz Cama PI & Director, as National Director UNESCO Parzor.

Cultural Heritage, Migration and the Indian Diaspora: Weddings and Marriage amongst Tamil and Parsi women in diasporas in India and the UK-- 2020- 2021. International Research Project – Major. Role - Advisorto the Exeter University, UK, Dr. Shernaz Cama

ICSSR (IMPRESS Scheme), "Study of the condition of women inmates and their children in Indian Prisons and their communication needs with special reference to Uttar Pradesh", Dr. Vartika Nanda

'The development and evaluation of a comic book based-programme to improve body image among adolescents in rural India' with UNICEF and Center for Appearance Research, University of West England, UK, Dr. Megha Dhillon

Seminars organised

Dr. Mudita Rustogi, Marital and Family Therapist, Illinois, USA, Dealing with COVID stress on 12 May 2020.

Dr TV Venkateswaran, Scientist in Vigyan Prasar, Department of science and technology, Behind the screen warriors: Indian Scientists & Covid 19 pandemic, on 23 May 2020.

Professor Siddhartha Chakrabarty, Professor, Department of Mathematics, IIT Guwahati, 'Financial Mathematics: Pedagogy and Career Perspectives' during 27-31st July 2020.

Mr. Manish Khandelwal, Vice President, Quality and Efficiency, Sleepwell, Career Options After Graduation on 24 September, 2020.

Mr. Abhishek Saraf, AIR 18, CSE 2019 & Ms. Ruchika Bhardwaj, Faculty, Next IAS, Preparation Strategy for UPSC Civil Services Examinations on 25 September, 2020.

Prof Avijit Pathak, Centre for the Study of Social Systems (CSSS), School of Social Science, JNU, New Delhi, "Towards a meaningful engagement with M.K. Gandhi' on 30 September, 2020.

Mr. Bharatendu Verma, Consultant at McKinsey &Co., IIM Ahmedabad, SRCC alumnus, Cracking Placement Interviews, 4 october 2020

Dr. Dipankar Ghosh, Assistant Professor, Department of Mathematics, IIT Hyderabad, "Linear Algebra and its Applications' on 7 October 2020.

Ms. Chhavi Gupta, Consultant at BCG, IIM Ahmedabad, IIT Delhi alumna, "Case Solving Workshop on 10 October 2020.

ICON, Consulting Club, IIM Bangalore, "Case Solving Workshop on 11 October 2020.

Prof. Molly Andrews, Feminist political psychologist, "Narrative Psychology on 21 October 2020.

Nidhi Singh, Assistant professor at Patna University, Registered clinical psychologist with the RCI, "Handling rejections and failures in life on 22 October 2020.

G D Veerappa Gowda, Former Professor and Dean, Centre for Applicable Mathematics, TIFR Bangalore, 'Applications of Hamilton-Jacobi Equations in Shape from Shading' on 6 November 2020.

Mr. Sandeep Das, Director at PwC, IIM Bangalore alumnus, "Storytelling in Business Leveraging from the World of Movies, 24 January 2021.

Mr. Sudhanva Deshpande, Actor, writer and director with Jana NatyaManch, Delhi, "Safdar Hashmi: Mapping the Contours of Art and Politics" on 28 January 2021.

Professor Gurpreet Mahajan, Centre for Political Studies, JNU, "'Understanding the nature of Political Science' on 4 February, 2021.

Ms. Dhwani Kachru, Talent and Outreach Program, Google India, LSR alumna, "Encouraging Women to Excel in the Corporate World" on 10, 11, 17 February 2021

Dr. Ruchi Mundeja Associate Professor in the Department of English at Lakshmibai College, University of Delhi, "Eastern Allusions' and 'Goblin Sounds': The Question of Gender in Jane Eyre, on 11 February, 2021.

Dr. Yamini Gautam, Former Professor, Maitreyi college, University of Delhi, "SANSKRIT SCRIPTURES: A Way to enhance concentration among students" on 11 February, 2021

Ms. Nayana Mitter, Partner Business Consulting, EY, "Skills that will Matter- Post Pandemic World" on 13 February 2021

Ms. DravishaKatoch, Founder Learn for Less, "How to Land a Well-Paid Summer Internship? On 18 February 2021

Dr.Sahana H. Balasubramanya, Postdoctoral Research Associate, Cluster of Excellence Westfälische Wilhelms, University of Munster, Germany, 'Career Prospects in Mathematics' on 17 February 2021.

Dr. Manisha Priyam, Associate Professor NIEPA, 'Deepening Democracy In India: Some Reflections From the Urban Peripheries' on 18 February 2021.

Ms. Manvi Sehgal, Deloitte India, LSR alumna, "Resume Building and Cover Letter Writing, 6 March 2021.

Vaishnavi Kanugula, Brand Manager and Media Consultant for Koo, "Navigating Spaces for Women in Media Work Culture" on 6 March 2021.

Ms. Smriti Mishra, IFS officer, SRCC alumna and Dr. S.B. Singh, IAS mentor, "Forging a Career in Civil Services: Strategies for Cracking the UPSC Examinations, 7 March 2021.

Mr. Saurabh Mithal, Founder Passionately Curious, FMS alumnus, ex-IB at J.P. Morgan Stanley, "Aptitude Tests for Placements and Internships on 7 March 2021.

Ms. Saniya Mohapatra, MBA candidate at INSEAD, ex-consultant at Deloitte London, "Guesstimates on 10 March 2021.

Ms. Simran Massey, Member of Harvard Business Review's Ascend Select, Editor in Chief of the Journal of Intersectional Analysis, "Care Economics: From a Gender Perspective on 11 March 2021.

Ms. Yeesheshvi Bhadana, Business Analyst at McKinsey and Co., LSR alumna, "How to Open, Analyse and Close Cases", 13 March 2021.

Mr. Priyank Ahuja, Consultant at Accenture, ISB alumnus, "Profitability Cases on 14 March 2021.

Nidhi Tuli, Screenwriter and filmmaker, "Ethnographic Filmmaking" on 18 March 2021

Ms. Ann Mason, Technology Chief at the Economic, Environment, Science & Technology section of U.S. Embassy in New Delhi, "U.S.- India Relationship" on 18 March 2021.

Ms. Serena Nanda, Associate at McKinsey and Co., LSR alumna, "Mergers & Acquisitions, Unconventional Cases", 21 March 2021

Conferences organised

'Envisioning Constructivist Science Classrooms' by the Department of Elementary Education during 2-10 January, 2021

Pedagogical Opportunities of Technology Enabled Explorations in the Mathematics Classroom" by the Department of Elementary Education during 22-26 March, 2021.

Seminar/conference presentations

M. Dhillon presented a paper, "Food is important for my wellness": A photo-voice based study of food consumption and production practices among working and non-working women in the 56th National and 25th International Conference of the Indian Academy of Applied Psychology (IAAP) on "Actualizing Human Potential". Department of Psychology, Punjabi University, Patiala, 18-20 February, 2021

M. Dhillon presented a paper, 'Coping with Covid-19: The Perspectives of Indian Doctorsat 30th Annual Convention of National Academy of Psychology hosted by Indian Institute of Technology Kanpur from 19-21 March 2021.

M. Dhillon, M. presented a paper, 'I have been doing my karma, My duty, nicely. So I know God will protect me": Police Officers' Lived Experiences of the Pandemic at 30th Annual Convention of National Academy of Psychology hosted by Indian Institute of Technology Kanpur from 19-21 March 2021.

V. Jain presented a paper, "Influence of BPC on workplace deviant behaviour: Mediating Role of Moral Disengagement in Sustainable Development and Business: Managing organizations of tomorrow, organised by PGDAV College, University of Delhi on 18 August 2020.

K. Kumari presented a paper, "Shrimad bhagavad gita mein Bhakti ka Swaroop in Relevance of Karmic and Indic Studies to Contemporary Education Conference, by the Amity University, Haryana, 24-25 December 2020.

V. Nand presented a paper, 'Sanchar Madhyamkeroopmein Agra Jail Radio kee Prasangiikta in Literature, Language, Society, Politics and Philosophy, FDPorganised Ramanujan College, University of Delhi, 8 January 2021 (National)

S. Sahgal presented a paper, 'Bull as Power: Exploring Mythical Representations of Masculinity, Authority and Cosmic Reality, in Digital Annual Conference in the Panel, 'Interlinkages of Linkages of Religion, Power and Gender: Exploring Textual Traditions in Early India, Bologna, 8 August, 2020.

Smita Sahgal, Smita presented a paper, 'Dharma Consciousness of Dharmaputra Yudhishthira within the Mahabharata', in Digital Conference of Dayalbagh Science of Consciousness, in collaboration with University of waterloo, Canada, on 23 May 2020. (International)

Smita Sahgal presented a paper, 'From Sacred to Release: Ritual Shifts within Bull Cults of Early India', in 4th International Conference of IASR (Israeli Association for Study of Religions) on Cults and Rituals, Haifa University, Israel, on 28 February, 2021.

Smita Sahgal presented a paper, 'Non-Normative Gender Constructions in Textual Traditions of Early India', in an international Conference at Sardar Vallabh National Institute of Technology, Surat, titled Gender Equity: Challenges and Perceptions, November 25-27 2020.

National/International MoUs Signed

With Indian/foreign universities: MOU signed with National University of Singapore for Student Exchange Programme

Students under Exchange program

Inbound: 4 students had joined Lady Shri Ram College from January to May 2020. They had to leave due to the pandemic but 3 continued online classes and completed their course in June 2020.

Outbound: 6 students were selected but only 2 could complete the exchange in an online form

Placement details

Number and percentage of students placed - 181, Percentage of students placed - 46% approximately Number of companies visited for campus recruitment-158

Extension and outreach activities

The REACH society of college collaborated with the MUN society to collect pads free of cost for distribution to the sections of the society that need them. This was accompanied by educational campaigns by REACH and

MUN where they sought to remove the stigma around menstrual hygiene and also explored the intersection between disability and menstrual hygiene management.

On 21 June 2020, NSS LSR organised a fulfilling session to commence the International Yoga Week that saw an immense participation by the students who performed various 'asanas' to not only ease muscles and relieve themselves of body tension but also kick start their day with positivity, energy and calmness. The session was facilitated by Yogacharya Kajal Chaudhary. A month-long campaign "National Road Safety Month" was observed nationally from 18th January 2021 to 17th February 2021. The theme for this year was, "Sadak Suraksha-Jeevan Raksha." Covid Safety Pledge was taken by NSS-LSR to abide by the governmental norms and precautions. The main elements included were - wear masks, follow social distancing and ensure sanitization. The pledge was taken by every individual to educate themselves about the virus, ongoing pandemic and take every requisite precaution. NSS LSR observed Vigilance Awareness Week 2020 from October 27 to November 2 to encourage all stakeholders to collectively participate in the prevention of, and the fight against corruption and to raise public awareness regarding the existence, causes, and gravity of and the threat posed by corruption. To commemorate the adoption of the Constitution of India - this landmark day in our country's history, NSS LSR held a session for reading the Preamble of the national Constitution. The preamble plays a very important role in shaping the destiny of the country. To celebrate 72nd Republic Day, NSS Research Team organized the event which was packed with fun along with being informative as well. Various activities like pictorial quiz, word association game, flag making, documentary screening, pledge taking ceremony and discussions were carried out.

Owing to the pandemic, Nexus was conducted online by NSS-LSR. With Human Rights as this year's theme, theme, Nexus'21 witnessed a virtual grand opening on 26 Feb 2021. The Chief Guest for the event was Dr. Rumki Basu, professor at Jamia Millia Islamia and a renowned academician. Valentines for Unheard (V4U) is an annual event organised by the Animal Welfare Projects of NSS LSR. It is organised during the first week of February to showcase love, appreciation and support for those 'furry friends' who cannot speak for themselves. This year V4U was held online, with a plethora of events, activities and competitions. The event was open to all colleges and aimed to spread awareness about the importance of animals in one's life and the need to protect their rights and ensure they are treated in a dignified manner.

Library development

During the period April, 2020 to March, 2021 the whole world faced the unprecedented crisis due to pandemic. During this period Library moved many steps ahead to serve the readers at their doorsteps through internet along with completing all the routine tasks within the time limits with many constrains. Library has extended online services by providing the access to the journals and e-books to the readers through N-List and DU databases, generated the passwords online and provided to the faculty and students to access the N-List, provided bibliographical services on request and provided the access to newspapers and magazines Library has worked hard to create the space to accommodate new books on shelves by doing major shifting of books. Library as in continuation to its routine process procured and processed approximately 800 new books and provided the access to faculty. All subscribed journals were also procured and indexed. During this period Library has upgraded its available resources through maintenance and replacement process of computer systems. To provide the access to the students after having the meetings with Library committee and COVID Committee Library has started issuing the books to the final year students. To maintain the COVID protocol, students were requested to fill a Google form and through which a time slot was provided to the students to visit the Library. Library professional staffs were trained in handing the online quires of the readers. Learning from the situations Library is in process of converting its OPAC system to Web OPAC so that readers can access the availability of Library resources from their end. Also Library is planning to develop an e- resource center and procure e-books along with other online databases.

Faculty strength

Total 82
Assistant Professor 48
Associate Professor 33
Professor 01

Financial allocation and utilization

Granted sanctioned: Rs. 43,04,29,000

Utilised: Rs .48,48,78,707

Other significant information

The department of Psychology conducted an Online Short-term Certificate Course titled 'COVID-19: The Psychology of Human Behaviour' from 14-31 July 2020. The various sessions of the course were facilitated by faculty members of the psychology department on topics such as Pandemics, Psychology and Society, Impact of Covid-19 on interpersonal relationships, Covid-19 and Mental Health, Covid -19 and Labour Migration. The Faculty and students of LSR College had participated in the IIC Online Sessions conducted by Institution's Innovation Council (IIC) of MHRD's Innovation Cell, New Delhi to promote Innovation, IPR, Entrepreneurship, and Start-ups among HEIs from 28th April to 22nd May 2020 during COVID-19 nationwide lockdown. The sudden shift to online classes due to the unprecedented pandemic situation has created serious challenges to many students of LSR, especially students belonging to the vulnerable sections of the society. As students were facing problems due to lack of devices and network, the college constituted a Committee to facilitate inclusive education. The committee undertook the task of identifying the students and facilitating digital devices to them. The committee contacted many alumna groups who readily extended their support in providing the laptops. The committee closely worked with DI group of Alumna (Digital inclusion group of alumnae). To date, 220 laptops have been provided to the students to their doorstep across villages and cities in India from Manipur to Kerala. All these laptops have been provided to students on non-returnable basis.

LAKSHMIBAI COLLEGE

Name of the College: Lakshmibai College

Major Activities and Achievements

We have been through the most unprecedented times during past one year. AEPIC initiative of distributing laptops with uploaded study materials; a drive for donation of mobile phones; launch of The Young Researchers' Forum (YRF); launch of Bhartiya Bhasha Mandal are the major academic accolades for this year. Certificate Course in Translation in collaboration with Bhartiya Anuvad Parishad and in house MOOC development are the works in pipeline. As part of our social responsibility, an initiative to feed 50-60 hungry people in JJ Colony Wazirpur near Lakshmibai College and Reusable Cost-Effective Sanitary Pad were sustainable initiatives amidst COVID 19 outbreak by Lakshmibai College. We were able to develop our infrastructure by building Health & Wellness Centre

- 'Aarogyam'. new parking area, Eco-Park, well-furnished reading room in the library, new furniture in the canteen, construction of new gates with more security and overall renovation of classrooms and college buildings.

Honours/Distinctions

Dr Anita Malhotra nominated as member of the national Policy Groups 'Non Communicable Diseases (NCD), Overweight and Obesity, Chronic Kidney Disease (CKD)' and 'Early Childhood Development, Anthropometry and Hand Grip Strength and Adolescent Nutrition' constituted by Ministry of Health and Family Welfare. Govt of India, for in-depth review/analysis of Comprehensive National Nutrition Survey (CNNS), 2020-present

Dr T K Janaki Received International Faculty Awards 2020 And Faculty Excellence Awards 2020 from Amaravathi Research Academy, Hyderabad — Best Faculty Teaching Award On 13 September 2020

Ekta Singh of B.A. (P) 3rd year won the Silver medal in the Khelo India National Winter Games in 400m. Sprint in the Senior Women category held at Gulmarga from 26 Feb.- 2 March 2021.

Khushboo Gupta and Gulifsha Chaudhary represented Delhi State in the Senior National Volleyball Tournament held at Odisha.

Jigyasa has been selected to represent Delhi State in Jr. National Archery Competition to be held at Dehradun in March 2021.

Kanika Singh of History (Hons.) 2nd year secured the Gold medal in the North Zone Open Judo Championship held at Jammu in February, 2021.

Gulifsha Chaudhary, Khushboo Gupta, Khushi, Bharti Ahlawat and Sheetal won the 1st position in Senior Delhi State Volleyball Championship held at Laxmi Public School on Feb. 26-28, 2021.

Publications

Ahuja, D. (2020). Sustainable Movement: Atmanirbhar (Self Reliant) Delhi Metro Rail Corporation. *ASPIRARE*" *An International Journal of Commerce and Management*, 7.

Deo, M. (2020). The Dynamics of Crime and Wajabi: Charans of Western Rajasthan. *International Journal of Historical Insight and Research*, 6(2).

Harneja, D. (2021). Growth Of Digital Insurance 2000 And Beyond. *International Journal of Research and Analytical Reviews*, 8(1), 837-842.

Malhotra, D. (2021). Gluten content in labeled and unlabeled gluten-free food products used by patients with celiac disease. *European Journal of Clinical Nutrition*. doi:10.1038/s41430-020-00854-6

Malhotra, D. (202). Predictors of successful weight loss outcomes amongst individuals with obesity undergoing lifestyle interventions: A systematic review. Obesity Reviews. *Wiley journal*, 22(3).

Tripathi, D. K. (2020). Citizenship and Marginality in India's 'Global Cities': Bawana Slum Resettlement Colony in Delhi . *Urban India*, 40.

Vatsala, D., Ms. Pramila. (2021). "Ekasvi Sadi ke Bharat me Gandhi Chintan ki Prasangikta". New Delhi: genNext Publication.

Vatsala, D., Sharma, D. (2021). "Media aur Loktantra". New Delhi: Kalpaz Publications.

Zafir, D. (2020). Premchand's Legacy and the Dalit Rewrite'. (G. Prasad, Ed.) *Journal of the School of Language, Literature and Culture Studies (JSL), New Series* 22.

Journals

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board: 2

Research Projects

National Project Implementation Unit(NPIU), June 2019- Sep.2020 (now extended due to Covid 19 Pandemic), "Computational Techniques solving PDEs with Appliance Engineering Problems", INR 3,48,000 {Dr. Talat Sultana(Co-PI)}

Department of Science and Technology (DST_SEED), 2020-2022, "Development and Evaluation of a Womencentric Comprehensive Weight Management Module", INR 34,28,560 { Dr. Anita Malhotra (Co-PI)} ICSSR, 2020-2021, "Political Ethos of Delhi - Making a Case for Gender Inclusive Governance", INR 8,00,000 { Dr. Ritu Goysl (PI)}

Indian Council of Medical Research (ICMR), March 2018-20, Completed Research project on "Estimation of Gluten Content in Food Products", INR 22,00,000 {Dr. Anita Malhotra (Co PI)}

Institute for Social & Economic Change (ISEC), Bengaluru, Oct.2019- Feb.2020, Completed project on "Mapping Civil Society Movements Intersectionality: Dalit, Women's and Environmental Movements in Contemporary Karnataka", INR 50,000 {Dr. Ambuja Kumar Tripathy}

Seminars Organized

Dr. Shiva Kanaujia Sukula, Dy. Librarian, Dr. B. R. Ambedkar Central Library, Jawaharlal Nehru University, New Delhi, Webinar on "Open Education and OERs", 17th April 2020

Mr Mukesh Kumar, Head IT, DPS R K Puram, New Delhi, Webinar on "ICT Tools for Effective Teaching and Learning", 18 April 2020

Dr. Priya Bir, Associate Prof, Aditi Mahavidyalaya and Ms Aakanksha Bhatia Visiting Faculty Aditi Mahavidyalaya, Webinar on "Mental well Being of Students: Teacher Mentors as First Responders during Covid-19 & Beyond", 29th April 2020

Dr. Rajesh Sagar, Professor in Psychiatry, AIIMS, New Delhi, "Mental Health Challenges During COVID-19 and Beyond", 1st May 2020

Dr. Pankaj Mittal, Secretary General, AIU, Prof. Virendra Vijay, National coordinator, Unnat Bharat Abhiyan, Prof. Neera Agnimitra, HoD Social Work, University of Delhi and Mr Manash, Life Worker, Vivekanand Kendra Kanyakumari, Webinar on "Fostering Social Responsibility and Community Engagement in HEI,UGC Quality Initiative and a Global Call", 2nd May 2020

Conferences Organized

Content Management System To Learning Management System", 4-8 Aug 2020, IQAC, Lakshmibai College Online Training Program for "Peer Learning Group", 11-21 Aug 2020, IQAC, Lakshmibai College

"Hindi Ka Vaishvik Pridrishya Chunautiyan Evam Sambhavanayein", 29-30 Sept 2020, Department of Hindi, Lakshmibai College

Seminar/Conference Presentations

Ms. Uma presented a paper, "The post covid 19 economic scenarios in South Africa and India: Where are female labour force"?" in the National Webinar on, "Managing the post COVID 19 Pandemic: Global and Local Challenges and Opportunities for India" organized by Society for Social Empowerment and Chaudhary Bansi Lal university, Bhiwani, Haryana, New Delhi on 25th May, 2020.

Ms. Uma presented a paper on," Doubly unorganized: A Comparative Study of Working Women in Unorganised sector in India and South Africa," in the National Conference on, "Working Women in Unorganized Sector: Issues and Challenges in Contemporary India" organized by Department of Commerce, Aligarh Muslim University, Aligarh and sponsored by National Commission for Women, New Delhi, on 27 February, 2021.

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Ms. Mercy Jill Jill presented a paper, "An analysis of Theyyam as a Folk-art form of Liberation and Protection in North Kerala", National Webinar Contemporary Approaches to Folklife Challenges and Perspectives, November 2020.

Ms. Jaishree Kapur presented "Response to the Reception of Samskara: A Critical Journey" during a Conference titled, "Connections/Disconnections: Literary Traditions, Continuities & Disruptions"

Ms. Jaishree Kapur presented Research Paper, "From Words to Images: Satyajit Ray's Re-interpretation of Premchand's Sadgati" presented in International Webinar on South Asia in Alternative Cinemas organized by The English and Foreign Languages University (EFLU) Hyderabad in collaboration with Department of English, Shivaji University. Maharashtra from 30 October - 1 November 2020.

Dr. Sabrina Sareen Presented paper entitled, "Sustainable Menstrual Practices through Development of Reusable Sanitary Napkins" at International E-conference at Maitreyi College, Delhi University on 24 February 2021 Ms. Uma presented a paper under the theme, "China as a Major Partner of Africa: Burden of Financial Imperialism" in the 10th Annual Young Africanist International Meet on "Options of Africa in Corona Crisis Under AFRICOM and Financial Clout of China: Comparative Challenges and Opportunities of Engagement with India and Global South" organised by Young Africanist of ASA on 5 June 2020.

Ms. Uma presented a paper in the International Webinar on, "India-China Relations And The Neighbourhood: Evolving Paradigm And Security Challenges" organized by Society for Social Empowerment and Chaudhary Bansi Lal university, Bhiwani, Haryana, New Delhi on 19 June 2020

National/International MoUs Signed

College has established linkages with following colleges for academic cooperation and mutual sharing of expertise and resources under Vidya Vistar: Patkai Christian College and Dibrugarh Hanumanbax Surajmall Kanoi College {We are in the process of getting MoUs signed}

Other Inter-Institutional Collaboration

AEPIC Lakshmibai College announced registrations for **Certificate Course in Vedic Mathematics** in collaboration with *Shiksha Sanskriti Utthan Nyas*, New Delhi.

AEPIC has launched its new initiative, a Certificate Course in Translation which is being devised and is in process of being launched in collaboration with Bhartiya Anuvad Parishad.

A Thirty Hours certificate course on "Storytelling", in collaboration with Udaan (Unfolding Drama and Acts to Awaken Nation)

A Sixteen Hours short term media course in collaboration with News 24 (ISOMES) has been announced keeping in mind the ready employability of the career avenues like T.V Anchoring and Reporting, Radio Jockeying, Mobile Journalism and Cinematography.

Placement Details

Number and percentage of students placed: 14 Students. Number of Companies visited for campus recruitment: 40 Companies

Extension and Outreach Activities

College students continued their best efforts in NSS and NCC. They brought different accolades to the college by participating in various activities at National Level. A novel initiative of Lakshmibai College, WISHVAS project is having its fourth successful year. In this project, undergraduate students, NSS and other students of the college participate to spread awareness about women's hygiene, educating children of remote areas of Delhi. During COVID-19 our WISHVAS project was working online and when the conditions were under control, we started our work in Wazirpur village. This year the team extended the area of the project to other areas like Timarpur Village (every Friday), Sarai Rohilla (near Railway Station). Besides teaching and educating the kids of the area, our volunteers try to improve their skills in different ways like providing fine arts classes and self-defense training to girls of the area etc. As a Community Awareness Initiative, the 'Aatmraksha Shivir' aimed at empowering participants to equip themselves with the basics of fitness, gymnastics, judo and karate to be able to feel physically and mentally strong enough to handle any unwanted situation. The camp activities comprised of basics of Fitness through jogging, running, jumping, hopping, exercising; basics of Gymnastics and Karate. Keeping NEP in view, Bhartiya Bhasha Mandal was launched under

the aegis of AEPIC to encourage the exchange of linguistic knowledge between students coming from diverse ethno-cultural background. BBM strives to eliminate linguistic boundaries while celebrating linguistic difference. The unprecedented and never before seen catastrophe of the global pandemic, the fact that the teaching-learning process shifted online, and the recognition that access to this might not always be evenly distributed or possible for all was the guiding thought behind the AEPIC initiative of distributing uploaded laptops with study The college has initiated a Mentor-Mentee program which includes the interaction of teachers and students in which diverse issues are discussed ranging from academically inclined queries of students, stress management of students, discussion on current issues related to their subjects. The Young Researchers' Forum (YRF) was initiated in a time when along with the rest of the world, the academic endeavour too was facing a crises in a Pandemic driven world. The forum has successfully conducted four Webinars and recently conducted a review of the research proceedings with the faculty mentors and the students. This endeavour to extend the intellectual faculties has yielded remarkable results in the form of "Tatva" and "Stree" (Department of Food Technology and Apparel Design and Construction). "Tatva", is a completely organic, cruelty free and a successfully completed research product, created by the student of the Department of Home Science.

Library Development

As the issue and return of library books for the students were not operational till 16th February, 2021, due to mandatory restrictions and modalities to be followed in the pandemic situation, the committee made provisions of distributing photocopied study material to all the students by creating a study material desk in the library. A google form was shared to procure data from the students of the economically weaker section of the society with necessary proofs of their parents' income so that these materials could be distributed among them for free of cost. The outstation students, who needed material, were provided the required study material by post. The Fine Box of the library was opened after many years and the amount collected was deposited in the bank. A new digital fine collecting system was introduced in the library. A workshop on KOHA software was organized in the library for all the library staff on 8th March, 2021, to enhance the functioning of the library.

Faculty Strength

153

Financial Allocation and Utilization

Grant sanctioned: Rs. 44,83,20,000

Utilized: Rs. 42,67,80,400 (Provisional)

MAHARAJA AGRASEN COLLEGE

Name of the College: MaharajaAgrasen College

Major Activities and Achievements

The academic year 2020-21 will be remembered not only for the challenges and hurdles necessitated by the pandemic, however, every challenge became an opportunity to ideate and innovate and this annual report is a testimony to the innovative practices of the college administration and teaching faculty as they negotiated the shift from classroom to online teaching. The entire academic year of 2020-21 was vibrant with webinars and workshops, special lectures, and competitions. Students continued to benefit from the experience of industry experts and guidance from alumni, they were enriched by the rich cultural heritage of our nation in events conducted online by SPICMACAY and their skills were honed by competitions in the virtual space. Besides academics, continuation of extracurricular and other activities was ensured by committees and departments for students' holistic development. The long-standing demand of girl students to start an NCC 2GDDN unit at Maharaja Agrasen College was realized through inducting 54 girl cadets in the first batch out of total allocated strength of 160. A large number of faculty

members participated in faculty development programs, presented papers in seminars and conferences, contributed research papers in journals and wrote and edited several books. More than 30 faculties were promoted, and 20 promotions are under process to the next scale. Furthermore, 12 new postgraduate and undergraduate courses were finalized for approval by the competent authority. The improved all India rankings in NIRF and MDRA India Today are also testimony that the college is moving in the right direction. In its commitment to serve the society and the nation, Maharaja Agrasen College successfully ran a Quarantine Centre with the support of Government of NCT of Delhi from May to September 2020 in which around 1000 persons from 8 different countries stayed for 7 days each and availed home like facilities away from their home.

Publications

Chawla, G. (2020). Psychological, behavioural and interpersonal effects and implications of covid-19 pandemic, *International Journal of Current Research*, 20(6), ISSN 0975-833x, 2020.

Gupta, I. D. (2021). 'Women and Statecraft: Reading Meenakshi Reddy Madhavan's Novels in the Series 'Girls of the Mahabharata" in the book Indian Popular Fiction: New Genres.Novel Spaces, Eds. Prem Kumari Srivastava and Mona Sinha, Aakar, Delhi, ISBN 978-93-5002-703-5.

Jaidev, A. (2021). Political Exceptions and the Imperatives of Political Dissent: A Reading of I S Jauhar's 1975 Emergency Spoof 'Nasbandi' in Indian Popular Fiction: New Genres, Novel Spaces, Eds. Prem Kumari Srivastava and Mona Sinha, Aakar, Delhi, ISBN 978-93-5002-703-5.

Kumari, V. (2020). Gate Stacked Dual-Gate MISHEMT with 39THz·V Johnson's Figure of Merit for V-band applications, *Journal of Computational Electronics*, 20, 556-567.

Maneesha, Pandey,P.K. (2021). An Improved Terrain Profiling System with High-Precision Range Measurement Method for Underwater Surveyor Robot, Advances in Intelligent Systems and Computing, Vol 1166. Springer,https://doi.org/10.1007/978-981-15-5148-2_9.

Parthasarthi, (2021). The Role and Impact of Social Media on Online Social Movements: An Analysis of 'ALS Ice Bucket Challenge' in India, *Journal of Media Research*, 14,(1),102–119.

Pathak, N.K., Parthasarthy, (2020). Thermoplasmonic properties of noble metal-nanoparticles and its application's in Recent trends in Materials Research, Narosa India Pvt Ltd.

Sethy, P. (2020). Kabir: An Indian Mystic Saint' Ancient and Medieval Indian Thought: Themes and Traditions, Eds. Ankit Tomar and Suratha Kumar Malik, Sage Publications India Pvt. Ltd. New Delhi, ISBN 9789353882310.

Sethy, P., Sukraniti (2020). A Political Treatise' in Ancient and Medieval Indian Thought: Themes and Traditions, Eds.AnkitTomar and Suratha Kumar Malik, Sage Publications India Pvt. Ltd.New Delhi, ISBN 9789353882310.

Tulsi, G. (2021). Sikh Periodicals and Popular Literature: Framing Community Consciousness, in Indian Popular Fiction, in Redefining the Canon, Eds. Gitanjali Chawla and Sangeeta Mittal, Aakar, Delhi, ISBN 978-93-5002-690-8.

Yadav, S. (2021). Magnetic field effect on double- diffusion with magnetic and non- magnetic nano fluids, *International Journal of Mechanical Sciences*, Elsevier, ISSN 0020-7403

Journals

Published by the college: **01**

Number of college teachers serving as Editor(s)/Member(s) of EditorialBoard: 06

Seminars organized

Padma Shri awardee, Professor Anvita Abbi, Visiting Professor of Indian Studies, Simon Fraser University, Professor, Field Linguistics in the Department of Linguistics delivered a special lecture titled 'Preserving Languages and Resisting Cultural Amnesia-An Inquiry into Creation Tales' on 29 January 2021.

Professor Shanta Laishram, Professor of Mathematics in the Theoretical Statistics and Mathematics Unit (Stat-Math Unit) at Indian Statistical Institute (ISI), Delhi Centre, New Delhi, India delivered a special lecture titled 'The World of Prime Number' on 24 December 2020.

Prof Prasenjit Sen, Professor and former Dean, School of Physical Sciences, JNU delivered a special lecture titled 'Relocating Laboratory Research to the Market: An Opportunity Among Failures' on 8 February 2021. Prof. Sidharth Mishra, Chairperson VSJMC & VRC, Vivekananda Institute of Professional Studies, GGSIPU, Delhi delivered a special lecture titled 'Covid-19: Crisis of Credibility in Indian Media' on 8 June 2020. Mr. Miguel Molina, senior trainer for BBC World Service and Communications Coach and Lecturer at United Nations and University of Geneva delivered a special lecture titled 'Art of Audio Narrative' on 12 September 2020.

Prof. Ujjwal Kumar Singh, Department of Political Science, University of Delhi delivered a special lecture titled 'A Life of Contradictions: Constitutional Democracy in India' on 13 February 2021.

Prof. Rekha Saxena, Department of Political Science, University of Delhi delivered a special lecture titled 'Indian Federalism: Continuity and Change' on 19 February 2021

Dr Sandeep Sharma, Post Doc Fellow, Chang Gung University, Taiwan delivered a special lecture titled 'Higher Education and Career Opportunities for Science Students in Taiwan' on 26 November 2020.

Mr. Miguel Molina, senior trainer for BBC World Service and Communications Coach and Lecturer at United Nations and University of Geneva delivered a special lecture titled 'Art of Audio Narrative' on 12 September 2020

Ms. Ksenia Kondratieva, a senior Russian Journalist and editor delivered a special lecture titled 'The issues and challenges faced by cubs in network society era' on 27 January 2021.

Professor Govind Singh, Indian Institute of Mass Communication delivered a special lecture titled 'Importance of research in news gathering process' on 20 February 2021.

Paresh Gupta (CA), a graduate of the London School of Business, an entrepreneur, a Startup mentor and a six times TEDx speaker delivered a special lecture titled, 'Startups: Ideation, Funding and growth' on 11 February 2021.

Conferences organized

5th Interdisciplinary National Conference on 'Representation of Disability in Literature and Cinema' between 15-20 June 2020

Seminar/Conference Presentations

- N.K. Pathak presented a paper, "Plasmonics fundamentals & its applications, International Webinar (SCI WIDE) 'Laser, Optics and Photonics Virtual' held during 5-6 April 2021.
- A. Jaidev presented a paper." Reading Popular Reading: The Case for Imperative Literacies in Virtual conference on 'Contemporary Trends in Language, Literature and Literary Theory'RIMT University, Punjab's held on 18 December 2020.
- G. Chawla and Pop Jugni presented a paper,"Redefining Gendered Narratives, Women's Development Cell Collaboration with IQAC, PGDAV College on the occasion of Women's Day on 8 March 2021.
- G. Tulsi presented a paper," Interrogating Colonial Historiography: Traditions of 'Vernacular' and the Case of Sikh Periodicals (1900-10), International Conference on 'Language Ideologies and the Vernacular in South Asian Colonial and Post-colonial Literature(s) and Public Spheres', Department of English, Jamia Millia Islamia, New Delhi in collaboration with South Asia Institute, Heidelberg University, Germany under MHRD-SPARC Project held from 15-17 March 2021.
- I.D. Gupta presented a paper,'Reading Memory and Charting the Horizons of Possibility in Dystopian World of Priya SarukkaiChabria's Novel Clone, Annual International Conference (Online) Utopias and Dystopias of our Times organized by IACLALS in collaboration with Janki Devi Memorial College, University of Delhi, 17-20 March 2021.
- M. Sinha presented a paper,"Disability and Spectacle: Case Studies from Reality Television in India, National conference on Representation of Disability in Literature and Cinema, Maharaja Agrasen College, Delhi University, 15 20 June 2020.
- P.K. Srivastava presented a paper , "COVID 19: An Era of Transformation in Education and Learning Ecosystem, International webinar titled 'COVID 19: An Era of Transformation in Education and Learning Ecosystem: Higher Education Perspective' DataIQ School of Analysis and Go Digital SA Foundation (A Joint Initiative by India and south Africa) on 28 April 2020.
- S. Yadav presented a paper,"Periodically Forced Non-Linear Oscillations and Resonances in the Motion of Geo-Centric Satellite including the effect of Earth's Equatorial Ellipticity, International Conference (online) on

Recent Trends in Mathematics and Its Applications to Graphs, Networks and Petri Nets (ICRTMA-GPN-2020), 20-24 July 2020.'

S. Rajwar presented a paper, "Indian and other Diasporas in Post-pandemic World: Emerging Research Agenda in Diaspora Studies, 7th ODI Young Scholar Diaspora Conference on 'Indian Diaspora in Africa and Other Parts of the World under COVID-19: Comparative Perspectives on their Challenges, Post Pandemic Options and Emerging Research Agenda in Diaspora Studies, Centre for African Studies, SIS JNU and Diaspora and Migration Programme (DIMP), 25 July 2020

I.D. Gupta presented a paper, "Re-inscribing the World: Reflections on Sense-Making and Navigating the Networks of Global Capitalism, International Conference Globalization and New Terrains of Consciousness: Phenomenologies of the Global/Local/ Glocal organized by Department of English, Jamia Millia Islamia, New Delhi in collaboration with University of Wurzburg, Germany under MHRD-SPARC Project during 8-10 February 2021.

R. Saini presented a paper, "Effect of exponentially varying non-homogeneity on the transverse vibration of orthotropic rectangular plates, JECRC University, Jaipur, 7-9 August 2020.

V. Kumari presented a paper, "TCAD Investigation of Gate – Lag Measurements on Conventional and π – Gate AlGaN/GaNHEMTs, IEEE 20th International Conference on Nanotechnology (IEEENANO), 29-31 July 2020.

Placement Details

Number of companies: 8+

Moreover, the cell has successfully placed and provided internships for over 70 students in the time span of the last 10 months. Multiple organizations such as Wipro Technologies, BYJU'S, Planet Spark, Aon, TresVista, and Alpino, and many others, have been invited by the cell for placement drives in the college. 22 students have been placed out of 91 and the result of few students is awaited.

Extension and Outreach Activities

In its commitment to serve the society and the nation, Maharaja Agrasen College successfully ran a Quarantine Centre with the support of Government of NCT of Delhi from May to September 2020 in which around 1000 persons from 8 different countries stayed for 7 days each and availed home like facilities away from their home.

Library Development

The library of Maharaja Agrsen College, University of Delhi is well established with a good collection of more than 43734 books and 47000 National and International e-journals and other important e resources related to Science & Technology, Social science, Arts and Humanities. The library is well equipped with latest information & technologies managed by the qualified & dedicated library staff. Library services are managed by ALICE FOR WINDOW (library Automation software).

Faculty Strength

Permanent faculty: - 62; Adhoc faculty: - 55; Temporary faculty: - 01

Financial Allocation and Utilization

Grant sanctioned: Rs. 27.14 Crore Utilized: Rs. 27.58 Crore

MAHARSHI VALMIKI COLLEGE OF EDUCATION

Major Activities and Achievements

The Covid 19 pandemic having altered the conventional paradigms of the teaching learning process, the Academic Session 2020-21 started with an online Orientation programme for the B.Ed. II year students wherein all the aspects

of their curriculum were addressed. To ensure the resumption of educational activities and discourses, the morning assembly was conducted as always but in the online mode. The School Experience Programme started with a two day online Orientation focusing on the transition into the digital classroom with appropriate pedagogical adaptations. The Resource persons invited to interact with the students were Dr. Reetu Chandra, NCERT (Topic-Cyber Security in Online Teaching) and Dr. Deepty Gupta, CIET, NCERT (Topic - ICT in Teaching Learning: Content Development and Assessment).. The B.Ed Ist Year students were oriented to all the aspects of the B.Ed. course in a two day online Orientation programme on 14-15 December 2020. National Vigilance Awareness Week was celebrated from 27 October to 2 November 2020. Special Assemblies occasions were organized in online mode on Teachers Day, Republic Day, Women's Day etc. Despite the limitations of connecting on a virtual platform, the ideas of freedom, nationalism and women empowerment were presented beautifully by the students. The college celebrated its 25th Foundation Day with a Panel Discussion on 'School Education: Visions and reflections' drawing resource persons predominantly from its alumni.

Students with Distinctions

Sukoon Fatima Mirza secured first position in the University and was awarded the University medal for securing the highest marks in B.Ed Examination held in 2020.

Publications

Dubey, R. (2020). *Geeta ka Pratipadya: Ek Manovaigyanik Vivechan*. In Bhartiya Manoviyan Ka Samsamayik Adhyayan, (Ed Gyanendra Kumar, Rakesh Kumar), 218-238, Delhi. Bookman.

Nisha and Kumar, N. (2020) "Adulting is Hard": Towards Theorising the process of identity development of women during the transition phase from adolescence to adulthood. *International Journal of Social Sciences Review*. 8(10-12): 413-419.

Prapanna, R. (2020). Alpsankhyak Gyanmimansa ke Prashan aur Vidyalai Hindi. Human Right Intiative. 12(24).

Seminar/Conference Presentations

Dr Jyoti Kohli, Resource Person for, 'Developing materials for in-service teachers to promote mentally healthy gender attitudes among middle school students', Department of Education, University of Delhi, March 2021

Dr Vandana Gupta_presented a paper entitled, 'Water Management and Sustainability: Issues and Solutions', during the UGC funded National Conference organized by Aditi Mahavidyalaya, University of Delhi on 09March 2021.

<u>Dr Raghavendra Prapanna</u>, presented a paper entitled, 'Dalit evam Narivadi gyanmimansha me Aalok me Vidyalaya Hindi', co-authored with Dr Ritu Bala, 21/12/2020, International Conference on Innovative Research in Arts, Culture, Language, Literature, Education, Philosophy and Religious Studies, The Gyan Bindu Educational Society, venue: Jawaharlal Nehru University, New Delhi

<u>Dr Raghavendra Prapanna</u> presented a paper entitled 'Anushasnatmak Gyan, Vichardhara evam shikshanshastra ke Dwand ke Madhya Samajik Vigyan' in National E Conference on Content Development of Pedagogy of Human Rights Education, Organised by Department of Education (CIE) University of Delhi, on 12 - 13 March 2021

Dr Raghavendra Prapanna presented a paper, 'Rajnaitik Chetna ka Nirman evam Shiksha', 27/9/ 2020 on Shiksha Sarokar Manch, Jaipur, Rajasthan,

Dr Raghavendra Prapanna presented a paper, 'Skoolee Gyan ka Loktantra our Haashiya', 9/8/2020 on Jain sarkar Manch, Tonk, Rajasthan

Faculty Strength

The College had 14 faculty members on its strength on regular basis and 04 faculty members were engaged on adhoc basis.

Financial Allocation and Utilization

Grant sanctioned: Rs. 8,87,82,436/-Grant Utilized: Rs.6,39,20,601/-

Other Significant Information

In order to enable the students to adapt to the myriad perspectives of online teaching and the associated technological requirements a number of webinars were conducted by Dr Jyoti Kohli and Ms Minu Talwar for the English and Maths pedagogy students respectively of B.Ed. II year, prior to the commencement of the School life Experience programme. For the B.Ed. First year students, various technology oriented activities as part of their Practicum Paper Enhancing Professional Capacities 2: Critical Understanding of ICTs in Education, were organised. They were provided learning experiences to explore ICT tools and acquire advanced skills to develop ICT based teaching learning material.

MAITREYI COLLEGE

Major activities and achievements during the period

Maitreyi College retained its excellence in academics. A total of 1034 students appeared in final year examination; overall pass percentage was 93.84%. Nine students secured merit positions (I-IX rank) in Delhi University. Maitreyi College has adopted the five villages of Gautham Budha Nagar as a participant in the Unnat Bharat Abhiyan. Maitreyi is one of the very few colleges that have taken the initiative to compute the carbon footprint to identify key sources of GHG emission. The college gardens earned laurels in all the categories the college had applied for and won Best Herbal Garden Meenakshi Gopinath Cup, the Best Garden Persian Cup and second prizes for Lawn, 'Clean and Green Campus', 'Border of Flowers' and 'Trees, Shrubs and Climbers'. Under the Summer Internship Program 68 Faculty members and 155 students were involved in 53 research Projects and 13 projects were initiated under 'Annual Research Projects' scheme for 2020.

Honours/Distinctions

Dr. Mala Kapur Shankardass received Swaavlambika Samman Award 2021 for leadership and excellence in Gerontology and Elderly Care at a national level initiative of Women Achievers Fiesta 2021.

Dr. Renu Gupta received 'Women Scientist Award (Discipline: Applied Zoology)' at International Conference on "Novel Aspects in Medicine, Allied Sciences and Technologies in Developing new Era- 2020 (NAMASTE-2020)", organized by DNA Labs- A Centre for Applied Sciences (DLCAS), Dehradun- U.K. in collaboration with Uttarakhand Science Education and Research Centre (USERC), DST, Government of Uttarakhand on 10-12 September 2020.

Dr. Pardeep Rai, received recognition as Best Academic Librarian in Gidwani Deshpandey Best academic Librarian award 2019 awarded in February 2021.

Students with distinctions

Bhumika Papnai, B.Sc. (H) Mathematics, I Year secured Ist position in the University. Mahak Kohli, B.Sc. (H) Chemistry, III Year Semester secured 2nd position in the University

Publications (Total number of publications- 42)

Chilana, R. (2021). Language, Politics and Practice of Purdah in Twentieth Century Indian Women Writers. *Journal of Comparative Literature and Aesthetics*. 43, 157-165.

Choudhary, A. (2020). Recent Advances in the Exploitation of Kojic Acid in Multicomponent Reaction. *Current Organic Chemistry*. 24, 1643-1662.

Ghuriani, V and Wassan, J.T. (2021). Analyzing the Effect of Environmental and Demographic Factors on COVID-19 Spread in India Using Statistical Methods: A Case Study. *Applied Ecology and Environmental Sciences*. 9, 177-185

Gupta, R. (2021). Characterization of two new species of Euplotes and description of Indian population of *E. aediculatus* and *E. woodruffi. European Journal of Protistology*. 79, 125779.

Jyotsana and Neha (2021). Economic Integration of India and BIMSTEC Countries Current Emerging Challenges. Unnayan-International Bulletin of Management and Economics. *Unnayan-'International bulletin of management and economics'*. Vol-XIII, issue I, 37-51.

Kataria, N and Varma, N.S (2020). Understanding the relation between HDI and inclusive growth in Indian perspective since Globalization. *Zeichen Journal*. 11, 139-150.

Khorwal, P. (2020). Dalit Jiwan Ks Aaina -Om Prakash Valmiki Ki Kahaniyan. *Bohal Shodh Manjusha*. 3-4, 136-139.

Lumb, S., Talwar. (2020). Generation of charge currents and magnetic pulses. *Journal of Physics B*. 53, 205002 (1-12).

Pawan Kumar (2021). Existence of fixed point of meir keeler type contractive condition in fuzzy metric spaces. *Electronic Journal of Mathematical Analysis and Applications*. 9 (1), 216-225.

Rani, A. and Baweja, P. (2020). Lichens as Bioindicators and Biomonitoring Agents. *Environ. We Int. J. Sci. Tech.* 15, 131-144.

Journals

Published by the College Number of College teachers serving as Editor(s)/ Member(s) of Editorial Board: 12

Research Projects

DBT, Understanding Signaling mechanism of inflammation of fish *Channa punctatus*, amount Rs 2,061,273.90

Seminars organized

International Webinar on 'Vector Borne Diseases (How to Google Map the cell)' organized by Zoology Department from 30 June- 1 July, 2020.

Invited Speakers with Affiliation:

Dr Ines Vasconcelos Miranda- Santos Research Scientist, Centre for Neuroscience and cell biology, University of Coimbra, Portugal

Dr Himmat Singh, Scientist D, ICMR- National Institute of Malaria Research

National Webinar on 'Disability, Teaching and Learning Accessibility during Covid-19' organized by Equal Opportunity Cell (EOC), Maitreyi, in Collaboration with the Indian Library Association (ILA), New Delhi and Association for the Rights of Disabled Persons (ARDP), New Delhi on 24 May 2020.

Invited Speakers with Affiliation:

Dr Dewendra Kumar Singh, Librarian Banaras Hindu University, Varanasi

Shri Shailendra Pathak, Assistant Director (Personnel) NYKS, Ministry of Youth Affairs and Sports, Government of India

Dr Renu Malaviya, Chief Editor, 'International Journal of Disability Studies, Special Education and Rehabilitation' online, Associate Prof, Department of Education, Lady Irwin College, University of Delhi

International Webinar on 'Ageing Issues: Indian, Regional and Global Contexts' organized by Sociology Department in collaboration with International Institute on Ageing United Nations - Malta (INIA); Development, Welfare and Research Foundation, New Delhi and IQAC, Maitreyi College from 16-17 January, 2021.

Dr Guran Manciu Liliana, Western University of Arad Romania, Webinar Title: International Webinar on 'Fixed Point Theory and its Applications' organized by Mathematics Department on 5 February, 2021.

Webinar Title: Webinar on 'Unraveling the Mysteries of the Universe with Experts' organized by Physics Department on 4 March, 2021.

Conferences organized

A Three Day International e-Conference on 'Contribution of Modern Poets in Sanskrit Literature' was organised by the Department of Sanskrit, in collaboration with the RBS College, Mau, UP, from 28-30th November 2020.

A one-day International e-Conference was also organised under the aegis of academic fest Avgaahan 2021, 'Sustainable Future for Humanity: The New Learning Curve', on 24th Feb for under-graduate, postgraduate and research scholars.

Seminar / Conference Presentations

Total number of presented papers: 116

Dr Mala Kapur Shankardass, delivered a talk in the International webinar on Observance of World Elder Abuse Awareness Day on 'Elder Abuse: Trends, challenges and ways forward' organised by Department of Social work, Bharathidasan University on June 15, 2020.

Dr Jaspreet Kaur presented a paper in online International Conference on 'Role of Management, Education and Social Sciences in Responsible Research and Innovations: Challenges and Realities' organised by The London School of Management Education August 19-20, 2020

Dr. Richa Chilana presented a paper in Re-Thinking the Postcolonial: Texts and Contexts" New Literaria: An International Journal of Interdisciplinary Studies in Humanities in collaboration with Department of English, Assam University held on 25-27 September 2020.

Dr Sonal Babbar, presented a paper in First National Conference "Application of Mathematical Tools in Social Sciences and Sciences (Online)" organised by Zakir Hussain College held on 17-18 October 2020.

Dr Pramod Kumar Singh, presented a paper in Three day International conference on Contribution of Modern Poets in Sanskrit Literature jointly organised by Department of Sanskrit, Maitreyi College, University of Delhi & Department of Sanskrit, Rambachan Singh Government Girls Degree College, Bagali Pijara, Mau, UP held from 28-30 November 2020.

Dr. Poonam Juneja, panel discussion - on topics related to 'Women in STEM education and research under the banner: Each for Equal' organised by Vigyan Prasar (VP) an autonomous organization of the Department of Science and Technology (DST), Govt. of India on 29 January 2021.

Ms Nikita Audichya, presented a paper in 5th National conference on Family laws: Contemporary challenges & Solutions. organised by Chaderprabhu Jain college of higher studies & school of law held on 30 January 2021.

Dr. Pradeep Kumar, Librarian, Maitreyi College, delivered a talk on 'Status of Academic Librarians in India' at 65th ILA Conference organized by Maharashtra University and College Librarians Association and Indian Library Association on 27 February 2021.

Dr. Anamika Singh, presented a paper, 'Antibiotics and Antibiotic Resistance'8th World Congress and Exhibition organised by Conference Series LLC Ltd UK held on 8 March 2021 on Medicinal value of weeds-A descriptive analysis.

Dr. Shikha Badhani, presented a paper in International Conference on Computing for Sustainable Global Development (INDIACOM-2021) organised by BVICAM, New Delhi held on 17-19 March 2021.

National/International MoUs signed With Indian/Foreign Universities

MoU signed with Research Department for Limnology, University of Innsbruck, Austria

With Indian/Foreign Companies/Industry

MoU signed with

"Jaagruti" Waste Paper Recycling Services

Netball Federation of India, New Delhi

Youth for Seva, New Delhi Special Olympics Bharat, New Delhi Datastrom INC., New Delhi WWF-INDIA (aqar Excel) ICT Academy, New Delhi Translational Health Science and Technology Institute (THSTI), Faridabad New Delhi District Legal Services Authority, New Delhi Agile Group

Students under Exchange Programme Inbound/Outbound

Maitreyi College in association with Translational Health Sciences and Technology Institute (THSTI) organises "Shadow a Scientist Program" this year on December 16-27, 2019. Under this head, college had sent 2 third year students from Botany (Hons) to learn different techniques of different areas of interest.

Placement Details

Number of companies: 65 180 students got into their desired Internships. 54.66% (out of registered students) got placed in their desired companies.

Extension and Outreach Activities

NSS wing of Maitreyi College organized various webinars and workshops .such as an International Webinar on Musical Meditation on International Yoga Day, NSS Maitreyi successfully conducted the annual Diwali Mela-'UMANG 20' which received national level participation from over all age groups. Maitreyi College in Collaboration with YFS NGO organised two days successfully - Online Webinar on 'Women Health Awareness Session'. NCC Maitreyi College organized blood donation camp on 11 June, 2020 to help covid patients. 'Tree Plantation pakhwada' was observed from 13-28 July, 2020. Everyday cadets were asked to plant trees and send photographs. 33 cadets participated in the event. Health and hygiene committee organized organised several national webinars in the academic year 2020-21 to create awareness about health issues on the topics 'Immunity through nutrition' (22 May 2020) 'Online Teaching – Learning and Eye Care' (6 September 2020), 'Orthopaedic Care and Precautions' (23 December 2020), 'Breast Cancer: Prevention and Early Detection' (26 December 2020), and 'First Help in Medical Emergency' (27 December 2020).

The major flagship programmes under the Centre for Research (CFR), Maitreyi include Summer Internship Programme and Annual Research Projects. This year the orientation programme was organized on 4 March 2021. All the projects were carried out in online mode. Enactus Maitreyi aided rescued sex workers through the project Misbah by teaching them candle making through online training sessions. Some initiatives in the session 2020-2021, comprise- 'Online Mental Wellness Sessions' with Fortis, The Psyk life organization, Sukoon and Ministry of Social Justice and Empowerment; Launch of New Spotify Range with the label that can be scanned for mood specific playlists. Enactus Maitreyi also helped by posting updates and stories on various topics of importance like- Home remedies; Home isolation; Precautions for primary caregivers; Ways to increase oxygen levels; Foods to avoid; Plasma donation etc. Short Term Courses Committee conducted 14 courses for which 388 students from various courses of different colleges enrolled. Certificate, Diploma and Advanced Diploma courses in Spanish and French and IIRS-ISRO certificate courses (under IIRS Distance Learning Programme) were offered during the session. In addition to these, online Certificate courses in 'Vidhi Gyan' by the Delhi State Legal Services Authority (DSLSA) and Certificate course in '(Meta) Genomics and Bioinformatics' in collaboration with PhixGen Pvt Ltd. (under MoU) were conducted with participation of students from all over India. 3 International Short Term Online courses were conducted in association with Indian Astrobiology Research Foundation (IARF) with the participation of 25 (COP+26, International Climate Action Course), 22 (Rio+ United Nations Water Action Course) and 18 students (International Plant Wealth Initiative; IPWI) respectively EOC, Maitreyi has renewed Writer and Reader's Bank in October 2020, which was developed as per the new examination policy of Delhi University for Persons with Disabilities. This bank helps the students as well as faculty members belonging to the PwD category whenever required. The EOC has conducted India's Two Week Faculty Development Program/ Refresher Course on 'Emerging Accessible Technologies for Teachers in Higher Education' from 20 March to 3 April 2021.

Meraki, the Entrepreneurship Cell organized a series of Webinars, Campaigns, Start-ups, Projects, Competitions and the much-awaited 'The Annual E-Summit Entrescope'21. A new 'EDU LIBRARY' startup that caters to students' educational and vocational training was added in this session. Meraki collaborated with Urja, the Commerce Society of Guru Gobind Singh College of Commerce, for Coursera skill enhancement courses.

Library Development

The College Library acquired 744 books during 2020-2021. It subscribes to 57 Journals, including popular magazines, and a collection of 23 Newspapers in the library. The total collection of the library has been augmented to 99307 print books and 678 CDs. The library subscribes to the N-LIST Consortium, which covers 6,000+ e-journals and 1,64,300+ ebooks under N-LIST and 6,00,000 ebooks through NDL. The College Library continues to be a member of DELNET (Developing Library Network), which specially caters to our needs through InterLibrary Loan. The library has created its Institutional repository using DSPACE software which is accessible in the library only. Library users can access the previous and current year syllabus and Question Papers through Maitreyi College Library Repository and the college website. The college library has conducted an Information literacy program (online) on the ZOOM platform for the students admitted in 2020. Besides this, in this pandemic situation, various services provided by e-mail (e-resources = free online-links, question papers, syllabus) were sent to faculty and students for academic purposes.

Faculty Strength

Permanent + Adhoc = 160 + Guest Lecturers

Financial Allocation and Utilization

 Grant received from UGC 2020-2021
 Rs.57,01,25,000.00

 Grant received from Delhi Admn. 2020-2021
 Rs. 63,00,000.00

 Total grant received during the year 2020-2021
 Rs. 57,64,25,000.00

 Total expenditure during the year 2020-2021
 Rs. 51,74,60,100.58

Other Significant Information

Maitreyi faculty members authored 09 books, contributed 35 chapters in edited collections, and published 44 research papers. The expertise of Maitreyi faculty has been recognised at various national and international platforms. 14 faculty members were invited to deliver talks at various events. 30 faculty members presented their research papers in 11 Conferences, and 24 faculty members developed eresources/ modules in workshops and short term courses. As a college, we provide ample opportunities and platforms to our teachers and students to enhance their knowledge and learning process and inculcate research orientation. This year our college organized 2 International e-Conferences, 45 International and National Webinars, 9 National Workshops, 1 FTP, and 2 FDPs.

The college invited 108 esteemed national and international speakers through these conferences, workshops and webinars to enlighten our faculty and students with their knowledge, views and experience.

MATA SUNDRI COLLEGE FOR WOMEN

Major Activities and Achievements

The College organised 6 Faculty Development Programmes, in collaboration with various Teaching Learning Centres, under the PMMMNMTT Scheme. Approximately 2000 participants from all over India attended these programmes.16 Short-term courses, Practical Sessions to maintain Academic Integrity in Distance Learning, Research Mentoring Programmes, Peer Mentoring, National and International Counselling Sessions etc. were organised for teachers and students. In order to meet the challenges of online education, many workshops were conducted for students and faculty, to help integrate ICT into Teaching-Learning. A Research Board and an Entrepreneurship Cell were also established this year. The College organised many conferences, seminars and

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webinars on a range of themes. Initiatives for Skill Development among students were initiated this year. Online workshops and lectures by renowned experts were organised for the benefit of the students.

Students with Distinction

Ms. Muskan Tyagi from B.El.Ed. III Year, Ms. Simran Kalra B.El.Ed. IV Year secured 1st position, at the university level for the academic session 2019-2020.

Students form the Western Dance Society stood 1st at competitions organised by IIM Kashipur, IIM Nagpur, and SPPSPTM, Mumbai..

Neha stood 1st in Athletics (400 m) at the 80th Delhi State Annual Athletics Championship held at J.L.N. Stadium, New Delhi.

Publications

Kaur, H. (2020). Celestial Gems from the Sikh Legacy. New Delhi: Manpreet Prakashan. ISBN: 8187654023

Kaur H, Vatsa L., Krishnani H. & Tripathi G. M. (Eds.). (2020). *Professional Ethics: Theory and Practice*. New Delhi: Shri Sahitya Prakashan.

Kaur, J. (2020). The Multidimensionality of Water Scarcity. In M.Y. Younus, H. Roy, M.S. Bhatt (Eds.), *Energy Economics and the Environment*. pp.281–303. Delhi: Sage Publications.

Mishra, P. (2021). Feminist Reclamation of Ambedkar in Indian Discourse. *International Journal of Advanced Academic Studies*..

Nassa, P. (2021). Risk Management in Banking Sector. *International Journal of Finance and Commerce*. 3(1): 4-7. Pahuja G., Kaur H., Dhaliwal S. (2020). Antecedents of low-fit brand extension evaluation: a review and research agenda. *International Journal of Research and Review*. 7(10):.446-453.

Sekho, R. (2021). Democratic Tools to Constitutionalism in Indian Context (Exploring Social Democracy: Myth or Reality. *International Journal of all Research Education and Scientific Method*. 9(4). pp. 2499-2503.

Sharma, N. (2020). More than Two Decades of Political Matrimony Divorce or Separation Ahead (Understanding Impact of SAD-BJP combine on Punjab Politics). *International Journal of Research and Analytical Reviews* .7 (4): 308-316.

Verma, R, H.K. Dass & R. Verma. (2020) Introduction to Engineering Mathematics Vol. II. New Delhi: S. Chand & Co. Ltd.

Virdi, I. (2020). Impact of Perceived Deception on Consumer Behaviour: The case of Detergent Powder. *AIMS International Journal of Management*, ISSN: 1939-7011, 14(1).pp. 11- 42. (DOI: 10.26573/2020.14.1.2 http://aims-international.org/AIMSijm/14-1.asp#)

Research Projects

ICSSR-MHRD (IMPRESS)-scheme, 2019-21, 'Baccho ka dainandin gyan aur vidyalaya shiksha ki parasparikta' Amount sanctioned Rs. 12,00,000/- (12 lakh), Dr. Ravneet Kaur

Patents filed/granted-

Patent No. 328854 granted on 2 January 2020. Pardha-Saradhi P., Sharmila P. and Singh. K. 2015. Synthetic merB gene for apt expression in plants to detoxify organomercurials. Indian Patent official journal. Issue No.03/2016; dated 15/01/2016 pg. 13.

Seminars Organised

Dr. Namrata Chaturvedi, Associate Professor, School of Language, Literature and Culture, SRM University, Sikkim "Indian Classical Literature: Pedagogic and Research Dimensions", July 2020.

Ms. Aarushi Mehra, an art conservator and restorer at Maharaja Lakshmeshwar Singh Museum, Darbhanga, Bihar, "Heritage Conservation" on 31 October 2020.

A webinar on "ABC of Cyber Footprints" on 5 November 2020. Ms. Pooja Malhotra, writer and expert on cyber security and Mr. Sangam Singh Kochar, Advocate at the Supreme Court of India and Delhi High Court were the invited speakers for the occasion.

A webinar, Dr Rajender Singh, "Water Conservation and Sustainability", 30 March 2021

Conferences Organised

An international conference was organised to commemorate the International Yoga Day on 7 July 2020. The online conference was themed, "Yoga: Philosophical Reflections". The distinguished speakers of the day were Prof. Pradeep Gokhale, former Dr. B.R. Ambedkar Research Professor, Central University of Tibetan Studies, Sarnath and former Professor of Philosophy, Savitribai Phule Pune University, Pune; Dr. Aditya Kumar Gupta, Assistant Professor, Department of Philosophy, University of Delhi; and Dr. Karen O'Brien-Kop, Lecturer in Asian Religions and Ethics, Department of Humanities, University of Roehampton, London. The concluding remarks were delivered by Prof. Balaganapathi Devarakonda, Professor and Head, Department of Philosophy, University of Delhi.

A two-day international conference was organised by the Department of History on the topic "Histories and Heritage: Journey through Archives, Museums and Arts" from 27- 28 November 2020. On the first day of this webinar, Dr. Nina Janz, from *Universite Du Luxembourg*, delivered a lecture on the topic "Making of Archives and Research Prospects". Secondly Dr. Rumbie Forget, Paris- Sorbonne University, Abu Dhabi, spoke on the topic "Conservation of Museum and Archival Heritage". On the second day, Dr. S.P. Singh, former Director, Conservation, National Museum delivered a lecture on "Heritage Conservation: Challenges and Opportunities." Dr. V Kalyani, Dean, National Museum Institute of History of Art, Conservation of Museology also delivered a lecture on Museum and Heritage in the same session.

Seminar/Conference Presentations

Dr. Pooja Wadhawan presented and received the Best Paper Award for the paper titled, "To keep the higher education system ALIVE –Awareness, Learning Strategies, Innovation, Value-added and Engaging Students" at an online National Seminar on *Reshaping Education amidst Corona: Psychological Concerns* held on 30 June 2020, organized by Department of Psychology of PGGCG, Chandigarh.

Dr. Harpreet Kaur and Dr. Harleen Kaur presented a paper and received Best Paper Award for "Social Implications and Community Engagement during COVID-19: Scale Development and Propositions." in Panel 3 –*Social Policies, Labour Market and Gender Equality* of the First International E-Conference of Jindal Centre for the Global South (JCGS) on "Financing for Development, 2030 Global Agenda and Post Covid-19 Challenges" held from 16-19 December 2020.

Dr. Gurvinder Kaur presented a paper, "Workplace Spirituality and Well-being among Academics: Empirical Insights on Commitment as Mediator" at the 30th Annual Convention of the National Academy of Psychology (India) organized by Department of Cognitive Science, IIT Kanpur held from 18-20 March 2021.

Ms. Ishleen Kaur Rekhi presented a paper, "Drivers of Consumer Engagement in Social Media Embedded Brand Communities: Community Engagement as Mediator" in 3rd ICDE, 14th ISDSI Annual Conference, organized by Centre for Digital Economy, Indian Institute of Management, Raipur held from 27-29 December 2020.

Ms. Priyadarshani Bhattacharya delivered a lecture titled, "Cinema as the Cultural Archive of a City: Tracing the history of Calcutta through Bengali Films" in the Refresher Course on "Languages, Literature and Cultural Studies," jointly organized by Rani Durgawati Vishwavidyalaya, Jabalpur, Madhya Pradesh and Mata Sundri College for Women, University of Delhi held from 8-20 March, 2021.

Dr. Uzma Nadeem presented a paper, "Local operator system structures and their tensor products" on 29 May 2020 at the 48th Canadian Operator Symposium organized by the Fields Institute in online mode. http://www.fields.utoronto.ca/talks/ROOM-TWO-Local-operator-system-structures-and-their-tensor-products

Dr. Preeti Luthra presented a paper, "Local operator system structures and their tensor products" on 29 May 2020 at the 48th Canadian Operator Symposium organized by the Fields Institute in online mode. http://www.fields.utoronto.ca/talks/ROOM-TWO-Local-operator-system-structures-and-their-tensor-products

Dr. Amarjeet Kaur presented a research paper titled, "*Punjabi Sahit meh Ramkatha*", at the national seminar, *Indian Council of Historical Research*, organised by Ministry of Education, New Delhi & Swami Shraddhanand College, University of Delhi, on the 19-20 March 2021.

ix. Dr. Kuldeep Sehgal delivered a lecture as a Resource person on the topic, "वेदोपकारकं वैदिकसाहित्यम्", at a seminar organised by St. Stephen's College, University of Delhi on 5 February 2021.

Dr. Subhneet Kaur Kharbanda presented a paper, "On Monsters and Giants in Children's Literature: Reading Roald Dahl's *The BFG* through a Posthumanist Perspective" on the sub theme "Reframing Monstrosities in Children's/YA Culture" at the PCA 2021 Annual Conference, organized by the Popular Culture Association, Boston, America held online from 2-5 June 2021.

National/International MoUs signed

The following national and international MoUs were signed:

Al Zahra College for Women, Muscat, Oman.

Mahatma Hansraj Faculty Development Centre, University of Delhi (3 MoUs).

Teaching Learning Centre, Ramanujan College, University of Delhi.

Teaching Learning Centre, Dr. Hari Singh Gour University, Sagar (MP).

Rani Durgawati Vishwavidyalaya, Jabalpur (MP).

Bhartiya Anuvad Parishad.

Forum for Democracy.

Kirori Mal College, University of Delhi.

Meghna Desai Academy of Economics.

The Wise Foundation and Danish Water Forum.

White Swan Counselling Group.

Inner Happiness Index.

RATH NGO.

9Ledge Pro-Microsoft Partner Network (2 MoUs).

Girlscript Foundation.

Sri Guru Nanak Dev Khalsa College.

Golden Signatures Research and Consulting (GSRC).

Other Inter-Institutional Collaboration

Several inter-institutional collaborations were undertaken this year. Some of the notable ones are as follows:

A one week, interdisciplinary FDP on "National Education Policy and Discourse on Indian Languages" was organised from 5 -11 September 2020, in collaboration with TLC, Harisingh Gour University, Sagar, Madhya Pradesh

A 14-day FDP on "ICT Based New Paradigms of E-Teaching and E-Learning: Digital Pedagogy" was organised by Department of Computer Science from 15-30 September 2020, in collaboration with TLC, Ramanujan College, University of Delhi.

The Department of B.El.Ed. organised a seven-day FDP on "*Teacher, Teaching and Teacher Education: Processes, Concerns and Prospects*" in collaboration TLC, Dr. Harisingh Gour Vishwavidhyalaya, Sagar (M.P.), from 18-23 October 2020.

The seven-day FDP on "Exploratory Data Analysis using Statistical Software R and SPSS" was organized by the Department of Statistics in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi, from 7-13 January 2021.

The week-long FDP on "Emergent Aesthetics of Translation: Theory and Praxis" was organised by the Department of English in collaboration with Mahatma Hansraj Faculty Development Centre, from 19-25 February 2021.

"Entrepreneurial Idea Development and Skill Enhancement", a short-term course was conducted by *Uddham*, The Entrepreneurship Cell, Mata Sundri College in collaboration with UGC NSQF Skill Development, Kirori Mal College from 5-15 February 2021.

A course on "Graphics Designing & Front-End Web Development" was organised by the Department of Computer Science in collaboration with GirlScript Foundation from 2 January - 4 February 2021.

Four counselling sessions were organised by the IQAC for students and faculty members of Al Zahra College, Muscat, Oman. The sessions spanned a wide range of relevant and critical issues, viz. Online Teaching Learning, Handling Pressure of Online Examinations, Mechanisms for Implementing Students' Practical Sessions, Maintaining Academic Integrity in Distance Learning. The sessions were organised from 22 -26 November 2020. Resource persons from Mata Sundri College for Women addressed students and faculty from Al Zahra College.

Placement Details

Number of students placed-

Library Development- 2732 books were added this academic year. The college subscribes to 37 Journals and Magazines and 17 newspapers.

Faculty Strength-

Permanent 76 Ad-hoc 88

.Financial Allocation and Utilization

Grant sanctioned: Rs. 348194000/-

Utilized: Rs. 378015951/-

MAULANA AZAD INSTITUTE OF DENTAL SCIENCES

Major activities and achievements

The COVID year 2020-21 has been challenging and M.A.I.D.S has evolved to accommodate the situation and cater not only the dental services but also COVID related services. The setting up of pre-screening center and sampling center had streamlined the services along with flow. Phase 2 building which is the extension of original building was used for COVID services by Govt. NCT of Delhi. Various manuals and SOP's were developed to maintain the services without patient inconvenience. The institute has been Ranked number one college in India by NIRF and the Magazines Outlook, India Today and The Week Dental Colleges Survey -2021. The institute was awarded by FICCI for outreach services. Under the NIMTLI Dental Implant project first indigenous dental implant system has been developed.

Honours/Distinctions

National Institutional Ranking Framework by MHRD has ranked MAIDS as number one Institute in India in Dental Colleges category. The institute has been judged as the best dental college among all the Dental Institutes in India by the The India Today Survey on Best Dental Colleges 2019 and The Week Magazine best Dental colleges Survey 2019 for exalted in the categories of research, patient work and infrastructure.

The institute was awarded 12th FICCI Health Care Excellence Awards- Excellence in Social Initiative" FICCI Heal on 29 September, 2020.

Dr. Sangeeta Talwar was appointed as Nodal officer for workforce- Dental faculties/PG students of Delhi state/UT to fight against Covid-19 by Dental Council of India on 22 April 2020.

Dr. Sunita Gupta won the Delhi Star Award 2019 for Exemplary Contribution in the field of Dentistry in the year 2020.

Dr. Mridula Goswami was awarded "Distinguished Women's Award" by ISPPD on the occasion of International Women's Day in March 2020.

Dr Gyanendra Kumar was awarded Fellowship by International Medical Sciences Academy in July 2020.

Publications

- Bhutiani, N., Tripathi, T., Verma, M., Bhandari, P. S., & Rai, P. (2020). Assessment of Treatment Outcome of Presurgical Nasoalveolar Molding in Patients With Cleft Lip and Palate and Its Postsurgical Stability. *The Cleft palate-craniofacial journal: official publication of the American Cleft Palate-Craniofacial Association*, 57(6), 700–706. https://doi.org/10.1177/1055665620906293
- Ghosh, S., Garg, M., Gupta, S., Choudhary, M., & Chandra, M. (2020). Microcephalic osteodyplastic primordial dwarfism type II: case report with unique oral findings and a new mutation in the pericentrin gene. *Oral surgery, oral medicine, oral pathology and oral radiology*, 129(2), e204–e211. https://doi.org/10.1016/j.oooo.2019.08.019
- Goswami, M., Kumar, G., & Sharma, S. (2020). "Dental Stem Cells": Awareness, knowledge, and attitude of dental professionals-A cross-sectional study. *Special care in dentistry : official publication of the American Association of Hospital Dentists, the Academy of Dentistry for the Handicapped, and the American Society for Geriatric Dentistry, 40*(1), 90–96. https://doi.org/10.1111/scd.12442
- <u>Lamba AK, Tandon S, Faraz F, Garg V, Aggarwal K, Gaba V. (2020). Effect of periodontal disease on electromyographic activity of muscles of mastication: A cross-sectional study. *J Oral Rehabil.* 2020;47(5):599-605. doi:10.1111/joor.12943</u>
- Mehra, R., Mohanty, V., Balappanavar, A. Y., Kapoor, S. (2020). Bacterial contamination of packaged smokeless tobacco sold in India. *Tobacco Prevention & Cessation*, 6(February), 11. https://doi.org/10.18332/tpc/115064
- Narayan, B., Urs, A. B., Augustine, J., & Singh, H. (2020). Role of phosphatase and tensin homolog in pathogenesis of ameloblastoma: An immunohistochemical study. *Journal of cancer research and therapeutics*, 16(3), 513–516. https://doi.org/10.4103/jcrt.JCRT_528_18.
- Nangia, D., Nawal, R. R., Yadav, S., & Talwar, S. (2020). Influence of Final Apical Width on Smear Layer Removal Efficacy of Xp Endo Finisher and Endodontic Needle: An Ex Vivo Study. European endodontic journal, 5(1), 18–22. https://doi.org/10.14744/eej.2019.58076.
- Pruthi, P. J., Nawal, R. R., Talwar, S., & Verma, M. (2020). Comparative evaluation of the effectiveness of ultrasonic tips versus the Terauchi file retrieval kit for the removal of separated endodontic instruments. *Restorative dentistry & endodontics*, 45(2), e14. https://doi.org/10.5395/rde.2020.45.e14.
- Tripathi, T., Kalra, S., & Rai, P. (2020). Management of skeletal Class III with facial asymmetry using skeletal anchorage: 4-year follow-up. *Dental press journal of orthodontics*, 25(2), 24. https://doi.org/10.1590/2177-6709.25.2.24.el-9.onl.
- Vpk, V., Mohanty, V. R., Balappanavar, A. Y., Juneja, M., Gupta, V., & Kapoor, S. (2020). Effectiveness of different parenting interventions on oral hygiene of cerebral palsy children: A randomized controlled trial. *Special care in dentistry : official publication of the American Association of Hospital Dentists, the Academy of Dentistry for the Handicapped, and the American Society for Geriatric Dentistry*, 40(4), 335–343. https://doi.org/10.1111/scd.12481

Journals

Published by College: MAMC Journal of Medical Sciences

Number of college teachers serving as Editor(S)/Members(s) of Editorial Board: 31

Research Projects

Funded by Council of Scientific & Industrial research (CSIR) ,2013 to 2020, "Designing & manufacture of indigenous dental implants under the New Millennium Indian technology leadership initiative (NMITLI)", Amount Sanctioned - 472 Lakhs.

Funded by Department of Science and Technology (DST), 2018-2021, "Design And Development Of Indigenous Instrument Retrieval Equipment For Removal Of Broken/ Separated Files During Endodontic Therapy", Amount Sanctioned – 86.2 Lakhs.

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Funded by Department of Science and Technology (DST), 2019 to 2021, "The Impact of Endodontic Microscope On The Outcome Of Of Root Canal Treatment On Deciduous Molars", Amount Sanctioned – 39 Lakhs.

Funded by Department of Health Research (DHR), 2018-2021, "Evaluation of Dimensional Changes In The Alveolar Ridge Following Tooth Extraction with or Without Using Indigenously Prepared Decalcified Freeze Dried Bone Allograft – A Clinical Study", Amount Sanctioned –30 Lakhs.

Funded by Department of Health Research (DHR), 2018 to 2021, "An evaluation of psychosocial, morphological and functional benefits of Nasoalveolar moulding in infants born with Cleft Lip and Palate", Amount Sanctioned – 51.86 Lakhs.

Patents Filed/Granted

Five national patents viz.,Development of Dental implants, a pit and fissure sealant composition, Non contact type ultrasound approach to detect separated instrument in the tooth during root canal therapy, Dental care tips for hearing impaired -Indian sign language and Cerebral palsy and oral health have been granted.

One international patent for "Development of Dental implants" has also been granted.

One collaborative patents-Industry patent on "Development of Dental implants" has been granted in association with IIT, Delhi.

Seminars Organized

International

Shahed Al Khalifah gave a Talk entitled "Indirect Cusp Replacement: A Conservative Esthetic Approach" on 5 July 2020.

Mamata Hebbal delivered a talk entitled "Formulation of Clinical Based Question in Evidence Based Practice", on 1 May 2020.

Mamata Hebbal delivered a talk entitled "Integration of Dental Healthcare Professional in Disaster Management", on 3 December 2020.

National

Pradnya Kakodkar delivered a talk entitled "Look Beyond p-value "Statistical Significance vs Clinical Significance", on 23 April 2020.

Aruna DS gave a talk entitled "Mobilise 5A and 5R brief tobacco cessation intervention in tobacco cessation in dental practice",on 13 April 2020.

Vaibhav Kumar delivered a talk entitled "Demystifying Intellectual Property Rights in Biomedical Sciences" on 27 April 2020.

Conferences Organized International

18th National Triple O Symposium, 6 - 8 March 2020, Funding agency support – International Congress and National Symposium & MAIDS.

5th and 4th International Oral Pre-cancer & Cancer Congress 2020 - Conference & 1st Asian Hard and Soft Tissue Symposium, 6 - 8 March 2020, Funding agency support – International Congress & MAIDS.

National

Webinar Confluence 2020 on "Management of Complex malocclusions and Dentofacial Deformities" 11^t September 2020, Funding agency support –MAIDS.

Seminar/Conference Presentations International

Sangeeta Talwar and Ruchika R Nawal presented a poster on "Evaluation of Interleukin 8 in Human Dental Pulp" at Virtual Congress of 68th Annual Meeting of Japanese Association for Dental Research on 7 November 2020.

Ruchika R Nawal delivered a Keynote lecture on "Decoding Root Resorptions : Diagnosis to Management" at International Webinar series, World Dental Association on 5 August 2020.

Tulika Tripathi delivered a Keynote lecture on "Guest Lecture – Class III management in craniofacial anomalies-challenges & solutions" at International College of Dentists in the year 2020.

Gyanendra Kumar delivered a Keynote lecture on "Save The Sixes" ICD and Myanmar Dental Association in the month of June, 2020

Gyanendra Kumar delivered a Keynote lecture on "Er:Cr:YSGG LASER" at UCLA, USA in the month of August, 2020.

Number and name of Domestic/International (MoUs) signed with partners

Three Intenational MoUs have been signed with Foreign Universities viz., Maurice H. Kornberg School of Dentistry, Temple University, Philadelphia, Pennsylvania, USA, Hebrew University, Israel and Henry M. Goldman School of Dental Medicine, Boston University, USA. Another international MoU has been signed with Dental Recycling International, Inc. (Dri) also. The institute also has collaboration with national institutions like Council of Scientific & Industrial Research, *Indian Council of Medical Research and* IIT Delhi.

Placement details

Number & percentage of students placed: 65% of UG students have got post graduate seats. 14% are in private practice. 16% are working as Junior residents in different hospitals. The college had 18 (100%) placement for post graduates passing out from institute.

Number of companies visited for campus recruitment: One

Extension and Outreach Work

The institute runs eight satellite centers where 1735 patients have been treated in the current year. It has 3+3 school centers, catering to 556+2641 patients. It organized 56 dental camps throughout the year. It runs Four national programs viz., The institution provides Mobile dental clinic project services. This project consists of six dispensary services, three school services and the ASHA services. It has benefited 23401, 56 ASHA`S patients in this programme.

Library development

The library is well equipped with 6 desktops, 6727 books, 109 international and 24 Indian journals presently in the library. There are 59 online books and 44 online journals. The library has 6 compacters. The state of the art e- library is being developed along with reading room, Wi-Fi facility with ergonomic chairs spread over 17,600 sq ft.

Faculty Strength

Permanent = 31, Adhoc-26

Financial allocation and Utilization

Grant sanction in Rs. – 49 Crores Utilized in Rs. – 43.96 Crores

Any other significant information (Paragraph format):

The Phase II building of MAIDS is ready to move in and procurement of equipment is in process. An Advanced Continuing Dental Education Lab has been established on the seventh floor of the Institute. State of the art Dental Simulation Systems, Digital Control system, Education Software and Electronic Transmission and Projection system for Live Demonstration will be installed. This lab will be a next level of exposure of teaching for faculty and students with a Video Conferencing Facility. Under the NIMTLI

Dental Implant project a CONE BEAM COMPUTED TOMOGRAPHY (CBCT) was installed. The Department of Periodontics aims to combat the limited availability and exorbitant cost of high quality tissues for grafting purposes, through the establishment of a world-class Tissue Bank, the first of its kind in the capital. The addition to the department of Oral Pathology has been the establishment of a polymerase chain reaction (PCR) laboratory. This state of the art laboratory enables us to harness and assess the genetic aspects of maxillofacial pathology. All the departments of the Institute are having postgraduate teaching with 2 seats in each department recognized by Dental Council of India and approved by Ministry of Health & Family Welfare. Setting up of satellite center of MAIDS at Kantinagar hospital with 5 dental chairs in process. Setting up of 4 MAIDS like centers in Delhi is in process. MAIDS building was utilized during lockdown for housing the staff of LN Hospital engaged in COVID duty. MAIDS also provided space for establishment of COVID vaccination centre. The institution was fully functional during the COVID period and despite dental services being at high risk because of aerosol generating procedures there was no laxity in providing patient care even during the peak of corona virus's both waves.

MIRANDA HOUSE

Major activities and achievements:

Miranda House was awarded All India Rank One amongst colleges under the National Institutional Ranking Framework (NIRF) 2020 for the fourth consecutive year. It was also ranked amongst the top five colleges in the Science Stream and Arts & Humanities Stream in the India Today Best College Survey 2020. This strengthened its reputation as a college accredited with A+ by NAAC and granted the Star College status by the Department of Biotechnology. Established on 7 March 1948, the college celebrated seven decades of sustained excellence. Policy Centre & Gender Lab (PCGL) organized action research programme related to the pandemic and its impact on women and girls; Online certificate courses emphasizing on social work and community health titled (Community Outreach Programme: *Together We Can*) organized by Unnat Bharat Abhiyaan Cell of the college; IQAC organized a significant conference on "Challenges and Opportunities of Online Education during the Global Pandemic COVID 19" with eminent scientists and policy makers including Dr. Vinay Sahasrabuddhe, MP Rajya Sabha, Dr. Pankaj Mittal, Secretary General, Association of Indian Universities, Dr. Narasimhan Subramanian, Director, Apollo Hospital, Regional Advisor South East Asia, WHO, Dr. Rajesh Mehta. The College won the Vice Chancellor's Cup at the 63rd Annual Flower Show and swept seven other awards consecutively for the fourth year.

Honours/ Distinctions:

Dr. Bijayalaxmi Nanda and Dr. Hena Singh were felicitated by the Ministry of External Affairs on the occasion of International Women Day, 8 March 2021.

Dr. C. Suvasini was appointed as Associate Research Fellow at Centre for International Education, University of Sussex, December 2020.

Dr. Bhupinder Kaur, Best Presentation Award 'Farm Business Income and Net Household Income of Farmer Households in Punjab-A Comparative Study' organized jointly by Department of Economics, Punjabi University, Patiala and Punjab Agriculture University (PAU), Ludhiana on 22 June 2020.

Dr. Smriti Sharma received best oral presentation award at 'International conference on molecular structure and instrumental approaches', sponsored by Gujarat council of Science and Technology, Government of Gujarat at RK University, Rajkot Gujarat-India held from 26-27 November 2020.

Dr. Poonam was recognized as Adjunct-Assistant Professor, Department of Medicine, Loyola University Medical Centre, Health Sciences Division, Chicago, IL-60153, USA. 1 May 2019 – 2 February 2021.

Dr. Poonam was recognized as Adjunct-Visiting Senior Researcher, Laboratory of Computational Modelling of Drugs, South Ural State University, Chelyabinsk, Russia-454080. July 2018 - December 2020.

Students with Distinctions

Tanya Jain, B.A. Programme III Year, secured I position in the University.

Deepakshi, B.Sc. (Honours) Physics III Year, secured I position in the University.

Akasmika Priyadarsini, B.Sc. (H) Zoology III Year, secured I position in the University.

PreetilataPati, B.A. (Honours) Bengali III Year, secured II position in the University.

Aditi Arora, M.Sc. (F) Chemistry, secured II position in the University.

Smriti Barnnali, B.A. (Honours) Philosophy III Year, secured III position in the University.

Divya Joshi, B.Sc. (Honours) Mathematics III Year, secured III position in the University.

Reeya Arora, M.Sc. (F) Botany, secured III position in the University.

Publications

Publications: 120 Journals, Books 06

Nanda, **B**., Ray, N. (2020). Gender discrimination and sex-ratio imbalance: A qualitative analysis. Indian Journal of Community Health, 32 (4), 746-750.

Devi, S., Tyagi, A., Prasad, V. (2020). Thermal behaviour of hindered rotor in static electric and laser field. SpectrochimicaActa - Part A: Molecular and Biomolecular Spectroscopy, 240, 118538.

Jain, S., Paliwal, A., Gupta, V., **Tomar, M**. (2020). Refractive index tuning of SiO2 for Long Range Surface Plasmon Resonance based biosensor. Biosensors and Bioelectronics, 168, 112508.

Kumar, D., Jain, D., Mahajan, S., Mukherjee, A., **Rani, N**. (2021). Constraining cosmological and galaxy parameters using strong gravitational lensing systems. Physical Review D, 103 (6), 063511.

Kumar, S., Goicoechea, S., Kumar, S., Pearce, C.M., Durvasula, R., Kempaiah, P., Rathi, B., &**Poonam** (2020). Oseltamivir analogs with potent anti-influenza virus activity. Drug Discovery Today, 25 (8), 1389-1402.

Kumar, S., Sharma, P.P., Shankar, U., Kumar, D., Joshi, S.K., Pena, L., Durvasula, R., Kumar, A., Kempaiah, P., **Poonam**, Rathi, B. (2020). Discovery of New Hydroxyethylamine Analogs against 3CLproProtein Target of SARS-CoV-2: Molecular Docking, Molecular Dynamics Simulation, and Structure-Activity Relationship Studies. Journal of Chemical Information and Modeling, 60 (12), 5754-5770.

Sharma, D., Singh, A., **Pathak, M**., Kaur, L., Kumar, V., Roy, B.G., Ojha, H.(2020). DNA binding and antiradical potential of ethyl pyruvate: Key to the DNA radioprotection. Chemico-Biological Interactions, 332, 109313.

Singh, P. (2021). Politics of Knowledge in Development: Explorations in Seed Sovereignty. Studies in Indian Politics, 9 (1), 105-117.

Sharma, S., Bhatia, V.(2021). Nanoscale Drug Delivery Systems for Glaucoma: Experimental and In Silico Advances. Current topics in medicinal chemistry, 21 (2), 115-125.

Uma, S., **Pal, M**.(2021). All work, no pay on valuing women's housework. Economic and Political Weekly, 56 (17), 31-34

Journals/ Magazines Published by the College

Each department brings out its own creative journal/ magazine that has an Editorial Board with adequate representation of students and faculty. These include well researched contributed as well as invited articles, papers and news items. These are:

Pehchan, Department of Hindi

Rasayani, Department of Chemistry

Aapoorti, Department of Economics
Geographica, Department of Geography
Mulakhab, Department of History
Vox Populi, Department of Political Science
Light House, Department of Sociology
Dimensions, Department of Physics
Miranda, the College Magazine
The Guidepost, Placement Cell
M.Etch, Department of Engish

Adazine, Department of Computer Science
Evolvere – the Unfolding, Department of Zoology
Quisqualis, Department of Botany
Vignite, Society for Life Sciences Programme
Mathletics, Department of Mathematics
Grimoire, the Hostel Magazine
Santulan, The Consumer Club
Madhuban, MH Vatavaran

Research Projects

Projects: 12 ongoing with total grants of about Rs. 8Crore (Rs.822.88 lakh).

Dr. Monika Tomar. Fabrication of Lamb Wave Devices on SiO2/Si Membrane for strategic applications; DRDO; March 2019-2022; Rs. 428.03 Lakh.

Dr. Monika Sharma, Dr. Sadhna Sharma. A study of macrophage apoptosis and mitochondrial integrity in response to PE/PE_PGRS family proteins of Mycobacterium tuberculosis; DST; March 2018-2021; Rs. 68.37 Lakh.

Dr. Poonam. Development of Nanoantenna Sensors for Infrared Detection; DST; (2019-2021); Rs. 63 Lakh.

Dr. Monika Tomar. Realization of MEMS-based Dual Energy Harvester using ferroelectric and ferromagnetic thin film layered structures; DST; (2019-2022); Rs. 51.48 Lakh.

Dr. Poonam. Sustainable route for pesticide management using nano based efficient pesticide formulation technique to enhance crop productivity; DST; 2019-2021; Rs. 49.5 Lakh.

Dr. Poonam. Lead Optimization of Potent Multistage Antimalarials; DST-SER; (2020-2023); Rs. 46.5 Lakh

Dr. Monika Tomar. Fabrication of Laser MBE grown GaN thin films based blue Light Emitting Diodes (LED); Faculty Research Program Grant, IoE, University of Delhi; December 2020-March 2021;Rs. 5.0 Lakh

Dr. Hena Singh. Sexual Violence Along the War and Peace Continuum; School of Global Studies, University of Gothenburg, Sweden; (2020-2023); Rs. 60 Lakh.

Dr. Hena Singh. Comparative research and consolidation project on understanding the impact of COVID 19 on sexual violence and post-rape care services on the adverse health effects of sexual and gender-based violence (SGBV) across contexts in Kenya and India; Instituted at the Institute of Advanced Studies at the University of Birmingham; (2020-2022); Rs.20 Lakh.

Dr. Hena Singh. Addressing Sexual Assault and Harassment of women when travelling in India; Instituted and Funded by Gender and Inequality Research strand of the Institute of Advanced studies at the University of Birmingham UK; (2019-2020); Rs. 8 Lakh.

Dr. Bijayalaxmi Nanda, PD, `Declining Child Sex Ratio and Violence Against Women: Examining Girl-Child Discrimination in India'; ICSSR - CSDS; 2018-2020; Rs. 15 Lakh.

Dr. Kalawati Saini. Air Quality of Surrounded area affected by presence of pollutants in Nala Passing through Kingsway Camp behind Sri Guru Tegh Bahadur Khalsa College, University of Delhi; DBT sponsored; 2018-2020; Rs. 8.0 Lakh.

Patent Filed/ Granted

National Patent: 05

Indian Patent (Published on 27 August 2020): A novel highly sensitive and reliable LRSPR biosensor for detecting uric acid and fabrication thereof, Vinay Gupta, Monika Tomar, Ayushi Paliwal, and Surbhi Jain. (Application No. 201911006783).

Indian Patent (Published on 27 August 2020): Electric field assisted low power consuming conducto-metric gas sensor, Vinay Gupta, Monika Tomar, Anjali Sharma, and Avneet Singh. (Application No. 201811006329).

Indian Patent (filed on December 29, 2020): Hydroxyethyl amine based piperazine compounds and methods of producing and using the same for treating disease; Brijesh Rathi Prakasha Kempaiah, Agam P. Singh, Snigdha Singh, Yash Gupta, Neha Sharma, Poonam, Ravi Durvasula. (Application No. 202011056923).

Indian Patent (Applied):SPR based DNA biosensor for the detection of Pucciniastriiformis f. tritici, causal agent of yellow rust in wheat, Neelam R. Yadav, Rizwana Rehsawla, Surbhi Jain, Savita Sharma, Monika Tomar, Vinay Gupta. (Application No.- TEMP/E-1/24707/2020-DEL and Reference No. 202011022741).

Indian Patent (Applied): Electrochemical based genosensor for the detection of Pucciniastriiformis f. tritici, causal agent of yellow rust in wheat, Rizwana Rehsawla, Neelam R. Yadav, Nidhi Dhull, Savita Sharma, Monika Tomar, Vinay Gupta. (Application No.- TEMP/E-1/30053/2020-DEL and Reference No. 202011027298).

Seminars Organized

More than 168 lecture seminars/ webinars/ workshops were organized including about 14 International speakers.

Department of Chemistry organized a webinar on the topic 'Chemistry – the Catalyst for Change 'The inspiring lectures were delivered by Dr Jyoti Marwah , Dr N Kaushik , Prof. Ramesh Gardas and Dr Phalguni Rath on diverse topics ranging from science as a tool for empowering communities, plasma bioscience and medicine, ionic liquids as environmentally benign solvents and *CRISPR* mediated gene splicing.

Online Add-on Legal Literacy Course organized by Department of Political Science in collaboration with Delhi State Legal Services Authority (DLSA) through 10 sessions inviting eminent personalities as Sh. Gautam Manan, Ms. Namrita Aggarwal, Dr. K. B. Rai, Sh. Harjeet Singh Jaspal, Ms. Monica Saroha, Sh. Ritesh Kumar, Sh. Vinod Kumar Meena, Sh, Sumeet Anand, and Ms. Neeti Suri Mishra. (all national speakers).

Department of Zoology organized the lecture on topic "The identification of poisonous and non-poisonous snakes, bite treatment and its conservation efforts" by Dr. Ashish Tripathi (President, International Association of Zoologists). He shared his insights on the diverse assemblage of snakes found in India, most of them being non-poisonous. The identification of common poisonous snakes of India like Cobra, Krait, Russel's and Saw scaled viper was also shared with the students.

Department of Economics organized Zenith, the Annual Economic Conclave with four eminent speakers: P. Sainath, Prof. R. Ramakumar, Prof. Jayati Ghosh, and Prof. Richard Wolff.

The Department of Computer science celebrated Ada Lovelace Day by organizing a Fire Side Chat with Ms. Vandana Agarwal, who is currently working as Sr Data Governance Leader at Sony PlayStation in San Francisco Bay Area. She is an ex-faculty Miranda House (1990-1993). The Chat was titled *Discovering Knowledge from Enterprise Data Sources*. A Coding Competition was also organised to enthuse the students after the chat.

Department of Philosophy organized a webinar on World Philosophy Day (19 November 2020) with Dr. Raghawendra Pratap Singh and Dr. Anand Jayaprakash Vaidya (national & international speaker respectively).

Department of Geography organized a webinar on "Tourism and Rural Development" on World Tourism Day (27 September 2020) organized by Department of Geography with Mr. Mohd. Arman from Jamia Milia Islamia University invited as eminent speaker.

Department of Geography organized a national web colloquium on "Covid-19 Vaccination and Disaster Resilience - Demystifying fears" in collaboration with the National Institute of Disaster Management, Ministry of Home Affairs, GoI on 22 January 2021 with participation from more than 40 Professors and 300 Students all over the country.

Department of Political Science organized a national webinar on "Identity of Diversity and Inclusivity Rights" on 22 October 2020 with Prof Ashok Acharya & Prof Asha Hans (both national speakers).

Conferences organized

Virtual Conference *Chemistry - the Catalyst for Change*; 19-20 February 2021; organized by Department of Chemistry.

International Conference/ Webinar on *Empowering Diversity in Science*; 12 February 2021; GWB - IUPAC 2021; Department of Chemistry.

Policy Conclave 2021 *Policy Jenga - Deconstructing the Indian Public Policies*; 6 April 2021;organized by Department of Political Science.

Triumphs in Physiology: A Conference/ Colloquium series on the *Nobel Prize Winners in Physiology and Medicine* and their work that changed humanity; September-October, 2020; organized by Department of Zoology.

Web colloquium on *COVID-19 Vaccination and Disaster Resilience- Demystifying fears*; 22 January 2021; collaboration with the National Institute of Disaster Management, Ministry of Home Affairs, Govt. of India; organized by Department of Geography.

Online conference / Colloquium on *Recent Breakthrough in Ecological Concepts and Principles*; February 8 and 10, 2021; organized by Department of Zoology, Miranda House under the aegis of IQAC.

Seminar / Conferences Presentations

Dr. Bijayalaxmi Nanda, Department of Political Science, invited panelist on the Theme: Covid-19 How to Safeguard the Health and Rights of Women and Girls Now? Organized by Institute of Economic Growth (IEG) in collaboration with the Indian Association for the Study of Population (IASP) is hosting a webinar event for World Population Day, 11 July 2020.

Dr. Bijayalaxmi Nanda, Department of Political Science, invited talk, "Reconceptualising Sexual Harassment with the rise of the virtual workplace". In the webinar "Online spaces and harassment of Women" organized by Indian Institute of Technology (IIT) Bhubaneswar on Fri 03 July 2020.

Dr. Reema Bhatia, Department of Sociology, presented, 'Feminist Movements' on 1 March 2021, as an invited speaker at the 13th Indo-Dutch Collaborative Program jointly organised by Miranda House and the Hogeschool University of Applied Sciences, Utrecht, The Netherlands.

Dr. Kannojiya Reena, Department of Philosophy participated in an International Webinar on "Transforming and Repackaging Library Services During Covid-19 Pandemic", organized by Springer Nature and Delhi University Library College Forum on 14 August 2020 (international).

Dr. Namrata Singh, Department of Political Science, presented a paper on Gender and Disaster: Policy Interventions, Faculty Development Programme on 'on Gendered Contours of the Pandemic: Reinventing Public Policy and Leadership Transformation During Pandemic in collaboration with P.G. Department of Gender Studies and Sarala Devi Centre for Gender Research, Rama Devi Women's University In collaboration with Policy Centre and Gender Lab of Miranda House, University of Delhi, 26 August 2020 (national).

Dr. Reema Bhatia, Department of Sociology, presented paper in a National webinar on "Feminist Movemements" as an invited speaker at the 13th Indo-Dutch Program on 1st March, 2021 (national).

Dr. Bhupinder, Department of Economics, presented paper on "Farm business income and net household income of farmer households in Punjab: A comparative study" presented in the 6th National Seminar (WEBINAR) organized jointly by the Department of Economics, Punjabi University, Patiala and The Society of Economics and Development, Ludhiana on 22 June 2020.

Dr. Sadhna Sharma, Department of Zoology, Delivered a talk on, "Principles, Tools and Techniques for Effective Research Report Writing" in Workshop - cum - Training Program on "Proposal writing and Ethical issues in Biomedical Research" at VPCI on 11March, 2021.

Dr. Anindita Sarkar, Department of Geography, presented a paper on 'Commercialization of Water and Shift from Traditional to Modern Technologies: Evidence from Water Insecure Western Rajasthan', in the International Conference on "Exploring the Application of Solidarity Approach in Geography", University of Delhi, 05-06 April 2021. Received best paper presentation award for it.

National/International MoUs

International: These include MoUs with Hoge School Utrecht University of Applied Sciences the Netherlands; Lynchburg College, USA; University of Birmingham, Ontario University, University of Wisconsin.

National: These include MoUs with Rama Devi Women's University, Bhubaneswar, Odisha; Use google apps for education; Weekendr (Mobiquel); Dhananjayrao Gadgil College of Commerce, Satara, Maharashtra.

Other Inter-InstitutionalCollaborations

Miranda House has linkages with a vast network of academic institutions, social organisations; corporate entities and eminent citizens at large. This year college hosted those from Institutions cited above. The college initiated the prestigious Vidya Vistaar scheme of the University of Delhi by its Memorandum of Understanding with Government Girls' College, Ajmer, Rajasthan.

Students under Exchange Programmes

International programme organized in collaboration with HU Work Institute Utrecht, University of Applied Sciences, Utrecht, The Netherlands. 13th Indo-Dutch collaborative programme organized from 22 February – 25 March 2021 on the theme *Diversity and Cultural Contexts*. 15 students from across all disciplines taught at Miranda House were selected to attend.

Placement Details

Miranda House Placement Cell had a very active and fruitful year. Companies which include DE Shaw Co., TresVista, NIIT, Dell Tech, Accenture, Nation with Namo, Kaidoko, etcheld a recruitment drive; more than 400 students appeared for the process, 20 students were finally deemed to be placed through the Miranda House Placement Cell. More than 150 students bagged internship programs in 600+ companies which include Youth Delhi Foundation, Skill Arena Technologies, Eigo Paathshala and more. The Placement Cell managed to bring a total of 37 internships to the student community of Miranda House. The Placement Cell, Miranda House, organised the Education and Career Fair in a virtual mode. About 30+companies like Daurcom, EatMyNews, Mahika Mishra Foundation and 1000+ students across India to come together to explore professional aspirations.

Extension and Outreach activities

Miranda House encourages all students to participate in extension work, community engagement and outreach.

Policy Centre and Gender Lab (PCGL): The efforts of Policy Centre & Gender Lab (PCGL) are oriented towards generating awareness on gender issues and conducting research on policy and gender interconnections. The lab launched research infographics on "mental health challenges and mitigation". PCGL presents Myths and Facts on "International Day Of Girl Child" in a series Women And Poverty of five vibrant, informative posters on the various social media. Policy Centre and Gender Lab in partnership with Her-World and Curious For Law organised a webinar - How law protects women? The PCGL and Her-World India initiated a series of Saturday talks highlighting gender issues associated with health, education and other relevant matters.

Unnat Bharat Abhiyan: The Unnat Bharat Abhiyan (UBA), a flagship program of MHRD, Government of India, with IIT Delhi as the National Coordinator, envisages participating institutes to adopt five villages and draw up a plan of action termed village development plan (VDP). UBA cell conducted an online certificate course on 'Community Outreach Program: '*Together we can*'. Webinar was organized on National Education Policy 2020: beginning of a new era in education. A workshop was conducted on Science communication to non scientific communities, art of story-telling in science.

Clean Environment Drive: SwachtaPakwada was conducted with the main goal of spreading the awareness for cleaner tomorrow and encouraging people to inculcate efficient environment friendly lifestyles. The program included various events like swachta pledge, domestic waste segregation, composting, plantation drive, cleanliness drive (inside the house), plog run, etc.

MH Vatavaran: MH Vatavaran has been collaborating with WWF for Project ECHO (Environment Conservation Heroes). The team launched a competition named 'Old is Gold' with an aim to revive traditional eco-friendly recipes. Walkathon conducted in collaboration with HPCL. The participants walked from the college campus to the HPCL Petrol Pump at Khyber Pass. Realizing that 'cleaner fuels' is a goal and that the future is electric cars, HPCL is setting up electric charging ports at their petrol pumps.

SPIC MACAY: The society organised a Sarva Mangal Yoga Series was organized by Spic Macay National Chapter. The Kathak workshop with Smt. Gauri Diwakar Ji was moderated by Vanshika Singh. VIRASAT'21 organized a Talk Session with Mr. Sanchayan Ghosh on the topic - Installation Art: Conversations around Site, Memory, Ephemerality and Virtual Heritage Walk to the National Gallery of Modern Art.

Laskshita, the Enabling Society: The Enabling Unit organised an inspiring and motivational session on the topic 'Chunautiyaaur Nayi Rahein' / 'Challenges and New Ways'. A two-day webinar on 'Opportunities in Higher Education & Tackling Challenges at Workplace' was conducted in collaboration with the Mitra Jyothi Trust, Bangalore. A three-day workshop was conducted on the theme of 'Disability & Sexuality' organized in collaboration with Rising Flame.

TULA: TULA-Miranda House Consumer Club commenced this Academic year with all the enthusiasm to spread the word of consumerism around. TULA, which stands strong with its values and determination, The Vigilance Awareness Week Programme was conducted by TULA-MHCC in collaboration with the Department of Political Science. TULA conducted the 16th 'Annual Workshop on Consumer Affairs'.Celebrated National Consumers Day on the 24th December 2020.

Women Development Cell: The society organized a series titled 'Education: How much of an equaliser?'; A workshop was organized on financial literacy for women; an online photography exhibition was organized on the theme- Gender and Pandemic. A webinar titled "Gendering the Digital Domain" was organized to understand the role of patriarchy in the virtual world.

Miranda's Green Initiatives and Actions (MGIA) is an initiative taken by the Department of Geography in collaboration with UNEP- nudges, which adopts green nudging as a strategy to spark sustainable behavior on the college campus. This initiative aims to bring behavioral change to the Miranda community by switching to green habits.

Library Development

The total sanctioned Library Budget was Rs. 21,36,900/-for the year 2020-21. In the academic year 2020-2021, 761 volumes of books were added.

Faculty Strength

Permanent: 126, Temporary: 02, Ad hoc: 66

Financial Allocation and Utilization

Grant sanction in 2020-21: ~ Rs. 58Crore (Rs. 58,85,00,000) Utilization 2020-21: ~ Rs. 58Crore (Rs. 58,85,00,000)

Other Significant Information

No. of faculty who are Ph.D. guides is 16; students registered for Ph.D. under them is 25. This promotes research culture. Students have been selected for internships in the best institutes. More than 350 students involved in student research projects. Summer Workshops for Undergraduate Science Students, Flavour of Research: Investigative Projects in Multidisciplinary Contexts. More than 400 students participated in these DSKC workshops and carried out projects in interdisciplinary fields.

Books written by faculty

Sahu, S. 2020. Gender, Violence, and Governmentality: Legal and Policy Initiatives in India, Taylor & Francis Group, Routledge, ISBN 9780815351092, 0815351097.

Bhatia, Reema 2021. Gender: A Sociological Understanding, Pearson India Education Services Pvt. Ltd., Noida.

Mehta, K. 2021. Social Media- Virtual se Vastvik, Setu prakashan, ISBN 978-93-89830-63-7.

Jagannathan, B. 2021. A Spoonful of Curds, Harper Collins Publishers India.

SenguptaS. 2021. Mutating Goddesses: Bengal's Laukika Hinduism and Gender Rights, Oxford University Press India, ISBN: 9780190124106

Faculty Development Programme

One week online Interdisciplinary faculty development program on "Applications of Mathematics in Business and Social sciences" We invited speakers from different disciplines such as Geography, political science, Mathematics, Commerce, Economics. Participants were the faculties in different disciplines from all over India.

One week national online Faculty Development Program on 'Application of ICT in Teaching and Chemical research' organized by jointly organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD and National Education Society(R) Jawaharlal Nehru New College of Engineering, Shivamogga.

Faculty Development Programme on 'Gendered Contours of the Pandemic: Reinventing Public Policy and Leadership Transformation During Pandemic in collaboration with P.G. Department of Gender Studies and Sarala Devi Centre for Gender Research, Rama Devi Women's University In collaboration with Policy Centre and Gender Lab of Miranda House, University of Delhi.

MOTILAL NEHRU COLLEGE

Major Activities and Achievements:

English Association of Motilal Nehru College hosted Lit Celebrate on 5-6 February 2021. This year the fest witnessed many high spirited competitions and numerous participants not only from India but internationally. On the first day, the Association launched the first virtual edition of its annual magazine known as LOGOS. The activities of two days fest are A Minute To Win It Pen a Paper Shot V.Shot, Poetry Slam, Memecraft, Turncoat Debate ,Design A Book Cover, Say It Solo, Verse Flow. The Department of Mathematics of Motilal Nehru College conducted various events in the year 2020 despite of the fact that colleges were closed due the Pandemic. Department of Mathematics organised its Semi Annual Fest i.e. **AAYAM 2.0** on 27 and 28 October 2020. Students of different colleges across "The University of Delhi" showed their mindful participation in both events. On 18 November 2020 Department of Mathematics organised an Orientation Programme for the first year students and introduced them with the department starting with the faculty and then with the course.

Honours/Distinctions

Dr. Anu Pandey, Associate Professor, Department of Commerce was awarded "Hero To Animals" Award from PETA India for continuous contribution in the field of animal welfare.

Dr. Pawan Sinha, Associate Professor, Department of Political Science was honored for outstanding contribution to the dissemination of Gandhi –Thoughts as Convener of Gandhi Study Circle, Motilal

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Nehru College on the occasion of Gandhi 150 Valedictory programme, 2 October 2020 by **Gandhi Bhawan**, **University of Delhi**.

'Shiksha ke dwandwa' book won Daulat Singh Kothari Puraskar 2019 by Uttar Pradesh Government in 2020.

Publications

Singh, Deepti (2020) Impact of herding on the returns in the Indian Stock market: an empirical study in *Review of Behavioral Finance*, Co-author, ahead-of-print in, published by *Emerald Publishing Limited* Issn no: 1940-5979, https://doi.org/10.1108/RBF-01-2020-0017

Singh Deepti (2020) Does CSR Committee Composition affect CSR Disclosure: A Study of Indian Companies co-author, published in Corporate Governance Insight, 2, 63-79.

Singh, Deepti (2020) Green HRM: An organizational Commitment" co-author, published in 8M- The Journal of Indian Management and Strategy, 25 (1) .14-18.

Jarwal, Devender (2020) "Limited Liability Partnerships: A Business Model to Achieve Entrepreneurial Efficiency" published in JIMS8M: The Indian Journal of Management & Strategy. ISSN 0973-9335.

Jarwal, Devender (2020) "Entrepreneurial Development among Dalits: A mixture of State Interventions and Personal Capabilities" The IUP Journal of Entrepreneurship Development ISSN 0973-2659.

Jarwal, Devender (2020)A Multifaceted Model to Achieve Prosperity"SHANLAX International Journal of Economics , ISSN 2582-0192

Sinha, Pawan (2020). *Hashiye par Rahne Wale Bachche – Vyaktitva aur Astitva ki Talash*. Prathmik Shikshak, NCERT, 44(4), October, 2020, 5-16

Sinha, Pawan (2020). *Rashtriya Shiksha Niti aur Shikshak*, Bhartiya Adhunik shiksha, NCERT, 41(1), July, 2020, 120-128

Kumar, Sunit (2021). An EPQ model with two-level trade credit and multivariate demand incorporating the effect of system improvement and preservation technology, 9(1)438448

Kumar, Sunit (2021). EPQ model under imperfect production process with customer return and partial backlogging: Malaya Journals of Matematik, 9(1)648-654

Seminars Organized

Department of English organized a national seminar on Narratives of Discrimination: Interrogating Caste, Sect, and Race on 4-5 March 2021, Prof. Raj Kumar, Head, Department of English was keynote speaker. Dr Brahma Dutta, Department of English, Motilal Nehru College was Convenor of the seminar

Seminar/Conference Presentations

Ms. Ruchita Machal presented paper (5-7 November 2020) on The Mythical Twist in Indian Speculative Fiction at 5th International Science Fiction Conference (ISFC 2020), Bangalore University, Bangalore, Karnataka, India.

Dr. Pawan Sinha, Associate Professor, Department of Political Science delivered Lecture in National Webinar on 'New Education Policy 2020' organised by Rishikulshala, An Initiative by Paavan Chintan Dhara Ashram, Ghaziabad, Uttrar Pradesh, on 16 August, 2020

Delivered Key Note address in International Webinar on 'Understanding Educational Systems of US and Denmark' organised by Rishikulshala, An Initiative by Paavan Chintan Dhara Ashram, Ghaziabad, Uttrar Pradesh, on 17 October 2020

Delivered Lecture in National Webinar on 'Challenges Before Teachers with reference to New Education Policy' organised by Rishikulshala, An Initiative by Paavan Chintan Dhara Ashram, Ghaziabad, Uttrar Pradesh, on 11 September 2020

Delivered Lecture on '**Teachers in 21**st Century' organised Telecom Training Centre. by Shikshak Kalyan Fund & High Quality ICT Training Kendra (BSNL) on 5 September, 2020

Delivered Lecture in Webinar on 'Indian Economy, Covid -19 and Policy Redressal of Revival' organised by Motilal Nehru College, Delhi University on 19 May 2020

Delivered Lecture International Webinar on 'Takniki v digital sampreshan ki Duniyamein Hindi Sahity ke badhate kadam' organised by Hindi Hain Ham vishva Maitri Manch, Hyderabad on 1 June 2020

Delivered Lecture International Webinar on 'Linguistics and Indigenous Communities' organised by Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh on 6-7 July 2020

Delivered Lecture in online Seminar on 'Environmental Protection and Sustainable Development' Education' organised by Indira Gandhi National Tribal University, Amarkantak, Madhya Pradesh on 5-6 June 2020

Delivered Lecture in online National Seminar on 'Teaching and Learning: Post Covid -19 organised by S.N. Sinha College, Jehanabad, Bihar on 6 June 2020

Delivered Lecture in International Webinar on 'The Global Impact of Covid-19 on Teacher Education: Transforming Challenges into Opportunities' organised by Raja Balwant Singh College, on 28-29 June 2020

Placement Details

Number and percentage of students placed – 55 Students were placed Number of Companies visited for campus recruitment – 27 Companies

Library Development

Library started this year with a total 118866 volumes. During the current year 230 volumes with Rupees 108627 were added bringing the total 119096 volumes. The library is presently subscribing to about 98 Journals, Magazines, News Papers of Library, Scientific and General Interest. Library is functioning under fully computerized environment and using 'NETLIB' software. Library continues to follow the Open Access System which affords greater convenience to the students and Faculty. Now we ensure uninterrupted book issue/return to students and staff members. The Library has Audio-Visual Room with New Projector with Good Quality Sound System. Internet Access facility are also available for the Library Members. The students and faculty members are getting greatly benefited from this extended facility. The Library now has of two computer stations with specialized software for visually challenged students. Library has three reading hall fully air conditioned with seating capacity 98 persons.

The Library has an up-to-date on line catalogue (OPAC) of its holding for all users. UGC is facilitating the availability of E-books in the colleges through the "National Library and information services infrastructure for scholarly content (N-LIST)" Programme funded by MHRD, Government of India. The Programme

facilitates access about 97000 + e-books and 6000 + e-Journals to those who access that Programme in the college Library. The Library is giving resource sharing facility through DELNET to its Members.

Faculty Strength -140. 80 Permanent and 60 Ad-hoc

Financial Allocation and Utilization

Grant sanctioned in Rs.383837000 Utilized in Rs.422989906

MOTILAL NEHRU COLLEGE (EVENING)

MOTILAL NEHRU COLLEGE, EVENING

Major Activities and Achievements:

The college made best efforts to navigate through the challenges posed by Covid19 Pandemic. It collaborated with Motilal Nehru College (Morning) for a Two-Days Faculty Development Programme on 'Application of ICT tools in Higher Education'. The college was also quick in adopting Microsoft Teams institutional Platform for enabling Online Teaching at the start of the new session (2020-2021), and conducted training programmes for the faculty to equip themselves with the new technology. The college signed a MoU with Ramanujan College, University of Delhi to successfully conduct a Two-Weeks Online Faculty Development Programme on "Learning Advanced E-tools for MOOCs Development & Research" from September 1-14, 2020. This programme was attended by more than 700 undergraduate and graduate level professors and research scholars from across the country, and received wide media coverage. The college conducted more than 30 webinars in this period, including a Four-Days International Webinar. Moreover, its collaboration series with The Legal Lens saw participation of more than 300 academicians, legal practitioners and social activists on all the three days.

Honours/Distinctions

Dr. Rakesh Sinha is a nominated member of Rajya Sabha.

Dr. Priya Bhalla was awarded 'Third Position for the Best Paper' for her paper titled "Gandhian Solutions in Times of Corona Crisis: An Economist's Perspective" at the International Web Conference on Contemporary Issues in Business Management and Information Technology 2020, organized by Amity Business School & Amity College of Commerce and Finance, Amity University, Patna, Bihar, June 22-23, 2020.

Debasish Parashar became the Youngest Indian Poet ever to have represented India at the Alternative Nobel 'Right Livelihood Award' winning literary summit 'Medellin International Poetry Festival' (Colombia) in its 30th digital version in 2020.

Debasish Parashar's won the Special Award of the 'Festival Charter for Interpretation' for cinematic poetry video 'Fundamental Right to Dream' at the Inđija PRO POET 2020 International Literary Festival, Serbia.

Publications

Bhalla, P. (2021). Principles of Economics and Gospel of Gandhian Economics: Where and where not the twain meet?, *NMML Papers in Indian Development*, New Series on 21 September 2020, ISBN No. 978-93-84793-35-7.

Hansraj. (2020). अमरावती अभिलेख. Vaak Sudha, 2347-6605.

Meena, K. (2020). लोकप्रिय साहित्य में 'उपन्यास'का बदलता परिवेश एवं भाषा. *दृष्टिकोण*, 0975-119.

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Kler, R. (2020). Modeling Circular Economy Dimensions in Agri-Tourism Clusters: Sustainable Performance and Future Research Directions. *International Journal of Mathematical, Engineering and Management Sciences (IJMEMS)*, Vol. 5, No. 6, 1046-1061, 2455-7749.

Kumar, A., & Neelu, G. (2020). Harmonizing Work and Life: Challenges Confronting Nursing Staff Employed In Government Hospitals of Delhi. *Wesleyan Journal of Research*, 0975-1386.

Kaur, B., Shipra, C., Sumit, K., Dinesh, K. (2020). Stability Analysis of Circular Robe's R3BP with Finite Straight Segment and Viscosity. *Appl. and Appl. Maths.: An Int. J. (AAM)*, 1932-9466.

Kumar, B. (2020). साहित्य, सिनेमा और भूमण्डलीकरन, Bhasha, 0523-1418.

Kumar, P. (2020). Why India's deprived fail to unite like the African Americans. Forward Press, 2456-7558.

Parashar, D. (2021). Si yo fuera un quiromantico y otros poemas Debasish Parashar (Poems in English and Spanish), Aerea 15, Department of Romance Languages in Franklin College of Arts and Sciences, University of Georgia, USA, 2020, ISSN No. 0717-3504

Parashar, D. (2020). A Letter to Mika Nivola and other writings, Life in Quarantine: Witnessing Global Pandemic (Digital Humanities Project), Poetic Media Lab and Center for Spatial and Textual Analysis, Stanford University, USA, 2020.

Renu., Nishant, S. (2020). Creative Accounting: An interaction of HR and Accounting. *The Journal of Indian Management and Strategy*, 0973-9335.

Roy, Setiawan., Leonardo, L., Cavaliere, R., M.A Honest, M., Nassir Abdul, J., Kartikey, Koti., G.Jerusha, A., Christabel. (2020). Business Ethics, Code Ethics and Business Conduct. *Productivity Management*, 1868-8519.

Sharan, P. (2020). The Use of Mobile Phones in the Teaching of English Language. *International Journal of Communication*, Vol. 30, No. 1-2, 192-203.

Sharma, U., Bhawna, R. (2021). Work engagement and demographic factors: A study among university teachers. *Journal of Commerce & Accounting Research*, 2277-2146.

Number of college teachers serving as Editor(s)/Members(s) of Editorial Board

College Magazine - Asmita

Chief Editor: Dr. Kanha Ram Meena

Members, Editorial Board:

Dr. Brij Kishore (Hindi)

Dr. Pradip Sharan(English)

Department of English –

Digital Magazine - The Aesthetes Literary

Research Projects

Dr. P.K. Bairwa & Dr. Pintu Kumar, Impression & Oppression of Swachh Bharat Mission, A case study of Sawaimadhopur district of Rajasthan & Nalanda district of Bihar. 2019-21, Major Project sponsored by ICSSR Under IMPRESS Scheme of MHRD, Govt. of India.

Dr Pintu Kumar, Redefining Fundamentals of India's Foreign Policy: The Paradigm Shift since 2014 by by ICSSR.

Seminars Organized

'Current Challenges during Corona Period' on 2 May 2020. Prof. Girishwar Misra, former VC of Mahatma Gandhi

International Hindi University, Wardha, Maharashtra was the speaker.

'Corona ki Chaunatiyan aur Gandhigiri' on 9 May 2020. Prof. Ramesh Bhardwaj, Director Gandhi Bhawan, University of Delhi was the speaker.

'International Trade and Investment during Covid19 crisis: What to Expect?' on 15 May 2020. Dr. Niti Bhasin, Associate Professor, Department of Commerce, Delhi School of Economics was the speaker.

'Post-Lockdown Economy: Measures for Recovery and Reshape' on 16 May 2020. Dr. Ajay Sharma, Principal, Sri Aurobindo College of Commerce and Management, Ludhiana was the speaker.

'40 years of Neo Liberalism: Lessons for Intelligentsia and Policy Makers' on 18 May 2020. Dr. Ramesh Chand, Associate Professor, Head of Department, Political Science, BSR Government Arts College, Alwar, University of Rajasthan, and State Joint Secretary of JNU Alumni Association, Rajasthan was the speaker.

'Covid19 Pandemic: Opportunities and Challenges from an Environmental Perspective' on 20 May 2020. Dr. Manoj Kumar, Senior Scientist, Forest Research Institute, Dehradun was the speaker.

'Building Resilience for Personal Well-being' on 21 May 2020. Dr. Charru Sharma, Principal, Bhagini Nivedita College, University of Delhi was the speaker.

'The Marginals during the Pandemic' on 22 May 2020. Prof. Raj Kumar, Head of Department of English, University

of Delhi was the speaker.

'Covid19 & Beyond: Syllables of Suffering in India's Intellectual History' on 23 May 2020. Prof. Heeraman Tiwari, Centre for Historical Studies, Dean, Atal Bihari Vajpayee School of Management & Entreprenuership, JNU was the speaker.

Seminar/Conference Presentations

Dr. Vichitra was invited as the Guest Speaker for the Webinar on 'Women's Right to Live with Dignity: Bhim Rao Ambedkar', organized by Political Science society of Bhagini Nivedita College, University of Delhi, on 26 May 2020.

Dr. Vichitra was invited as a Guest Speaker during Webinar Series on 'Gandhi 150: Relevance of the Mahatma Today,' organized by the Gandhi Study Circle and Department of Political Science of Aditi Mahavidhyalaya, University of Delhi on 03 October 2020.

Dr. Rajesh Kumar, Department of History was invited to give Lecture on 'Making of a Category: Caste and Census' for Webinar Series- Historian's Craft, organized by Satyawati College (Evening), University of Delhi on 03 December 2020.

Dr. Priya Bhalla presented a paper titled "Encapsulating the Essence of Gandhi's Socio-Economic Ideas: Exploring the 6E's" at a webinar organised by Nehru Memorial Museum and Library (NMML) on 23 July 2020.

Dr. Priya Bhalla presented a paper (with Dr Pooja Sharma) titled "Lessons from Gandhian Perspective unfolded by Covid-19 Crisis" at International Web Conference on Pandemic Effect and Global Economy: Unseen Challenges & Opportunities Post Covid-19 Diagnosis, organized by Amity School of Business, Amity University, Patna, Bihar from 31 July- 1 August 2020.

Dr. Priya Bhalla was the keynote speaker at webinar on "Role of Gandhian Economics in current scenario with special reference to Constructive Programme", organised by Akhil Bharat Rachnatmak Samaj (ARSB) New Delhi on 27 September 2020.

Dr. Priya Bhalla presented a paper titled "Reminiscing Gandhi's Economic Thoughts during times of Corona" at Unequal Conference (International) on 28 September 2020.

Dr. Priya Bhalla was invited to present on the topic "Emerging World and the Gandhian Way" at International Symposium on Mahatma Gandhi, organized by Swami Vivekananda Cultural Centre, Embassy of India, Seoul and Institute of Indian Studies, Hankuk University of Foreign Studies, Korea on 8 October 2020.

Sumit Kumar presented a paper titled "Combined Effect of Viscosity and Finite Straight Segment in the Circular Robe's Restricted Three-Body Problem" at the First National Conference on Application of Mathematical Tools in Social Sciences and Sciences (Online) organized by Zakir Husain Delhi College, University of Delhi from 17-18 October 2020.

Sumit Kumar presented a paper titled "Effects of viscosity in the perturbed CRR3BP with a non-spherical primary" at the 26th International conference of IAPS (Online) on Advances in Differential Equations & Mathematical modelling (IC-ADE-MM-2020), jointly organized by School of Computational and integrative science, JNU, New Delhi-110067 & International Academy of Physical Science (IAPS) from 18-20 December 2020.

National/International MoUs signed

MoU signed with Teaching Learning Centre (TLC) of Ramanujan College, University of Delhi for the period 1-14 September 2020 to conduct Online Faculty Development Programme on Online FDP on "Learning Advanced E-tools for MOOCs Development & Research".

MoU signed with Evercore Consultants for five years (29 September 2020 – 29 September 2025).

MoU signed with Shyama Prasad Mukherji College for Woman for three years (7 October 2020- 7 October 2023).

Extension and Outreach activities

NSS was constrained by the lockdown and could not conduct extension and outreach activities physically in this academic session. It decided to, therefore, organize online programs to create awareness on important issues, such as Speech Competition on "Relevance of Gandhianism in Corona Crisis" in collaboration with Gandhi Study Circle on 2 October 2020, Webinar on "Menstruation Hygiene" in collaboration with RITVA Foundation & NSS Motilal Nehru College (morning) on October 3, 2020. The speakers for the occasion were Ms. Tanisha Pandit, Founder & President, Ritva Foundation, and Mrs. Vandana Gupta, Yoga Teacher & Evaluator, Speech Competition on "Know your Netaji" on the occasion of Parakram Diwas for members of NSS MLNCE, on 23 January 2021, Bilingual Recitation Competition on the theme of "Desh Rangeela" on 26 January 2021.

Library development

Total Budget Expenditure: 8,00,000/- (Recurring Grant)

Books added: 145 Journals subscribed: 05

Membership of N-List taken: YES

Faculty Strength

Total Teachers 81 Permanent Teachers– 33 Adhoc Teachers – 44 Guest Teachers – 4

Financial Allocation

Grant sanctioned: Rs.23,49,58,578/-

Utilized: Rs.23,49,58,578/-

Pandit Deendayal Upadhyaya National Institute for Persons with Physical Disabilities (Divyangjan)

Major Activities and Achievement

Pandit Deendayal Upadhyaya National Institute for Persons with Physical Disabilities runs a Bachelor of Physiotherapy (BPT), Bachelor of Occupational Therapy (BOT) and Bachelor of Prosthetics & Orthotics (BPO) courses under the administrative and financial control of Ministry of Social Justice and Empowerment, Government of India. The Institute had started Master programme in Prosthetics & Orthotics (MPO) since the academic session 2017-18. Further we are in process of starting post graduate courses in Physiotherapy and Occupational Therapy as well.

Students with Distinctions

Following students have distinctions in different disciplines.

Under-Graduate Course in Botany, Ms. Sanskriti Singh from I year, Ms. Kanishka Mehta from II year and Ms. Nevita Saha from III year.

In the BPT course of the Institute Ms. Naina Mangla from I year, Ms. Anushka Garg from II year and Mr. Arhan Dutt Anand from III year.

In the BPO course of the Institute Mr. Ravi and Mr. Kajal Shama from III year.

In the MPO course of the Institute Ms. Garima Upadhyay, Mr. Anil Kumar and Mr. Markanda Chandra Dash from II year.

Publications

Arya, K. N., Pandian, S., Agarwal, G.G., Chaudhary, N., Joshi, A.K. (2021) Effect of NEuroplasticity-Principles-based SEnsory-Rehabilitation (NEPSER) on sensori-motor recovery in stroke: study protocol for a randomized controlled trial. *Neurol Res Pract*. 3(1):8.

Mishra, S., Nayak, S., Sahoo, P., Sharma, M., Equebal, A. (2020). Impact of Exoskeletal Prosthesis on Energy Expenditure in Female Amputees during Walking with Two Different Level of Amputation. 10. 377-381.

Nayak, S., Das, R. (2020). Application of Artificial Intelligence (AI) in Prosthetic and Orthotic Rehabilitation. 10.5772/intechopen.93903.

Sahoo, P., Nayak, S., Behera, S., Mishra, S., Equebal, A. (2020). Comparison of Balance in Unilateral Transtibial Amputees Using Exoskeletal Prosthesis with Solid Ankle Foot with Two Different Cushion Variants. 10. 230.

Vimal, A.K., Verma, V., Khanna, N., Joshi, D. (2020). Investigating the effect of vibrotactile feedback in transfemoral amputee with and without movable ankle joint. IEEE Transactions on Neural Systems and Rehabilitation Engineering. 28(12):2890-900.

Journals

One faculty of the department serving as Member of Editorial Board.

One faculty of the department is reviewer in IEEE Journal of Biomedical and Health Informatics.

Seminar / Webinars Organized:

Indra Vijay Singh, from PDUNIPPD, "Orthotic Management and Proper Foot Ware in Diabetic Foot Condition" on 22 July 2020.

Shivani Sharma, Demonstrator, P&O, PDUNIPPD, "Ergonomic Principles in the Prosthetics and Orthotics workshop" on 5 August 2020.

Amit Kumar Vimal, "Functional Electrical Stimulation (FES)" organized on 5 August 2020.

Smita Nayak, "Cosmetic Restoration" organized on 20 July 2020.

Seminar/Conference Presentations

Sensory-based Motor therapies enhancing Upper limb Recovery among Poststroke Subjects: A Systematic Review. Arya KN, Pandian S, Joshi AK. Presented at Annual National Conference of All India Occupational Therapists' Association. 6 and 7 March 2021.

National /International MoUs Signed

MOU signed with ISRO extended

Other Institutional Collaboration

The Institute has renewed the collaboration with Maulana Azad Medical College, Delhi for regular Medical classes of its students. Collaboration with ISIC Institute of Rehabilitation Sciences, Delhi is under process. Posting of students for training at the following Hospital: ISIC , Vasant Kunj, LBD, BSA, Safdarjung Hospital, Holy Family Hospital

Extension and Outreach Activities

The Professionals and faculties were deputed to conduct rehabilitation camps for persons with disabilities (Locomotor) though its outreach activities and total 03 number of rehabilitation camp were conducted to distribute Prosthetic and Orthotics appliance to the Persons with Physical Disabilities across the country.

Library Development

Total Budget for the year 2020-21 was Rs.25 lakh. Total No. of Books purchased during the year 14661. Expenditure on Professional/Non Professional Books Rs.8,86,671/-. No. of users who visited library facilities (online and offline) 2052 and Library is providing Reference Service, Internet, Printout and Photocopy facility to its users as per library rules.

Faculty Strength

Total Permanent : 33 Visiting faculty: 55

Financial Allocation and Utilization

Grant sanctioned: Rs. 2088.18 Lakh Grant Utilized: Rs. 2589.72 Lakh **Other Significant Information**

The faculties of Department of Prosthetics & Orthotics, Occupational Therapy and Physiotherapy participated as evaluator and Judge in Smart India Hackathon (SIH) month of August 2020. Mental Health Rehabilitation helpline - KIRAN services has been started.

PGDAV COLLEGE

Honours/ Distinctions:

Dr. Avanijesh Awasthi was awarded "Sahitya Bhushan" by Hindi Institute, Government of Uttar Pradesh.

Publications:

KohliB.. (2020) Sufficient optimality conditions using convexifactors for optimistic bilevel programming problem, *Journal of Industrial and Management Optimization*, doi: 10.3934/jimo.2020114

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Research Projects:

Dr Ashwani Mahajan, Associate Professor, Department of Economics and Dr. Phoolchand, Assistant Professor, Department of Commerce are working on a Major Research Project from ICSSR on the subject of "Indo-China Trade Imbalance". Grant Sanctioned: Six Lakh Fifty Thousand only (Rs. 6,50,000/-)

Dr. Pardeep Singh, Assistant Professor, Department of Environmental Studies, is working on a Major Research Project from NPIU (MHRD) on the subject of "CO-CH4 oxidation Catalysts for CNG emissions abatement" as C- Principal Investigator.Grant Sanctioned: Ten lakh eighty seven thousand only (Rs.10, 87,000)

Seminars/Webinar Organized:

Webinar Series (Basic) on "Transforming Teaching Learning Process using ICT Tools" organized by IQAC, PGDAV College, University of Delhi, from 23 July 2020 to 25 July 2020.

Webinar Series (Professional) on "Transforming Teaching Learning Process using ICT Tools" organized by IQAC, PGDAV College, University of Delhi, from 28 August to 30 August 2020.

Webinar on "Investing in Stock Market", on 10 April 2021, by Alytica, Department of Commerce, PGDAV College, Delhi University.

Webinar on "Union Budget and the State of Indian Econimcy" was held on 25th January, 2021. Prof Pinaki Chakraborty was the Speaker.

Seminar/Conference Presentations

Dr. Bhawna Kohli presented paper titled "Approximate optimality conditions for mathematical programs with equilibrium constraints via \mathcal{E} – convexifactors" in the Indo-French Seminar on Optimization, Variational analysis & Applications(IFSOVAA-2020) held during 2-4 February 2020 at the Department of Mathematics, Institute of Science, Banaras Hindu University, Varanasi, India, 2020.

Dr. Bhawna Kohli presented paper titled "Approximate optimality conditions via convexifactors for multi objective programming problems" in a virtual international conference on soft computing, optimization theory and applications (SCOTA 2021) organised by Birla Institute of Technology, Mesra from 26-27 March 2021.

Dr. Bhawna Kohli presented paper titled "Some calculus rules, generalized convexity via convexifactors and their applications to optimization" in an online international symposium on computational operations research and algorithmic game theory organised by Indian Statistical Institute, Delhi from 29-31 March 2021.

LT Renu Jonwall Presented the research paper titled , "Socially Responsible Investment" in National conference held by PGDAV College, Delhi University on "Sustainable Development and Business: Managing Organizations of Tomorrow" held on 18 August 2020.

Saurabh Kumar Presented the research paper titled "Start up and Sustainable Development" Presented In International Conference held by New Delhi Institute of Management (NDIM) on "Global Financial and Business Environment" held on 21st and 22nd November, 2020.

Gitu Nijhawan Presented the research paper titled "Analysis of the moderating role of demographic variables on the relationship between Emotional Intelligence and Organisational Citizenship Behaviour" Presented in International Conference held by Amity University Global Leadership Research Conference, held on 25th and 26th February, 2021.

Ritu Gupta Presented the research paper titled "impact of green anthropomorphic advertisement on environment concern in young minds" Presented in national conference held by PGDAV College, Delhi

University on "Sustainable Development and Business: Managing Organizations of Tomorrow", held on 18th August, 2020.

Ritu Gupta Presented the research paper titled "Brand anthropomorphism: an emotional trigger for behavioural response" Presented in International Conference (INBUSH ERA world summit 2021) held by Amity University from 17th to 19th February, 2021.

FDP

- 1. 2-week FDP on Biomathematics was organized by Department of Mathematics and IQAC from 15th October-28th October, 2020 in collaboration with Mahatma Hansraj Faculty Development Centre (MHRFDC). Dr Geeta Kalucha was the convener.
- 2-FDP on Literature, History, Politics and Other related subjects was organized by IQAC PGDAV in collaboration with Pandit Madan Mohan Malviya, Ramanujan College from 30th January to 12th February, 2021. Advisory Committee for the FDP was

Prof Balram Pani Prof Pankaj Arora Prof Ashwani Mahajan Prof Shiy Raman Gaur

Placement Details

More than 307 students grabbed placements in various reputed companies in varied profiles, including Assurance, Finance, Human Resource, Marketing, Research, Content Development, Technical and Sales. Some of the companies we are proud to have had on-board are McKinsey & Co., EY GDS,EY India, Deloitte, PwC, S&P Global, Tres Vista, FIS Global, Cvent, Wipro and Genpact. Our campus placements experienced a noteworthy increase in the average pay package offered from 4.67 LPA in 2020-21 with the highest package being 19.25 LPA (lakhs per annum).

Extension and Outreach Activities

N.S.S. unit to continuously strive for taking up various socially sensitive issues like women empowerment, child education, rural development and over all well-being of the society around us. NSS has conducted fourteen days Yoga Programme dated 11June 2021 to 24 June 2021 on mental, Physical and Spritual Health for wellbeing and it was community outreach programme under which more than three hundred participants took benefits of yoga. Women Development Cell (WDC) 'प्रतिभाशक्ति' worked to change the life of women of the slums by making them self-reliant. The volunteers of NSS sold the diyas made by the slum women under the initiative 'पहल, खुशियोंकी' and distributed the profits to them as their 'पहलीकमाई'. PWD Department of our NSS unit helps PwD student to make their assignments, to record audio lectures for them to get photocopies done, or helping them in submitting their paperwork in the office or seeing them off to their classrooms. The 'Rural Development Department' of N.S.S. PGDAV unit organized various cleanliness drives from time to time along with to clean the areas and spread awareness among everyone. We have conducted more than thirty (30) webinars National and International. We conducted Hindi pakhwara in association with Hindi Department of the college and also vigilance awareness programme in association with Central Bank of India for a week. We called Mc Swaneey Aryavan from USA to deliver a lecture on Engery as an antidote to spiritual and mental health.

During the arduous time of pandemic Covid-19, our cadets had shown great spirit and parted a crucial role in managing and reinforcing various tasks actively at virtual platforms. Our 1 girl and 2 boy cadets attended Republic Day Camp. One boy cadet was selected for the contingent commander and the other one was selected for flag bearer and marched on Rajpath. 1 girl and 3 boy cadets participated in PM's Rally at Cariappa Parade Ground. Total 13 cadets participated in Online EBSB Camp which was mainly focused on cultural activities; cadets from different states shared their cultural and traditional values to promote National Integration. 4 girl and 1 boy cadets participated in Wreath Laying Ceremony at National War Memorial India Gate to commemorate 72nd Raising Day of NCC. 12 boy cadets were part of 73rd Independence Day Celebration at Red Fort.Cadets of 3 PGDAV Company participated in various programs like "MY LIFE MY YOGA" on 'International Yoga Day, "ATMANIRBHAR BHARAT CAMPAIGN", "FIT INDIA MOVEMENT", "FIT INDIA FREEDOM RUN", "TREE PLANTATION DRIVE", "AIR

POLLUTION AWARENESS DRIVE", "SAVE WATER DRIVE" etc with zeal and discipline these activities were conducted via online mode.

Library Development:

PGDAV College library is one of the oldest and richest libraries of University of Delhi. It has a vast collection of 1,00,998 books and 4433 bound periodicals for its users. Collection: A total of 838 books worth Rs. 5, 89,235/- were purchased in the academic session 2020-2021. 65 magazines and 19 newspapers were regularly subscribed for the knowledge and reading pleasure of students and faculty alike. Automation: The library is fully computerized and is open on all working days from 9 am to 5 pm. Faculty and students have free access to both conventional as well as electronic resources like the eresources of Delhi university Library System. Consortium: College library is a member of N-LIST which is a college component of e-Shodh Sindhu consortium with access to 6000+ journals, 1,64300+ ebooks under N-LIST and 6,00000 eBooks through NDL.e-resources etc. This facility is provided to all the faculty members and students of the college. Remote Log Facility: Library followed all the protocols COVID 19 and government advisory while dealing with its users. Library extended its services by shifting from physical to virtual mode. Students and faculty members were provided remote log facility to access DULS e-resources from their home without being on campus. Book exhibition was also organized for the college faculty members. Library expansion was done keeping in view the increase in resources and its users. Thus an additional Stack room and a computer lab are built to cater the needs of the students and faculty members. Library Book Bank: The College provides needy and meritorious students with book bank facilities, and Students' Aid Fund (SAF). Around 04 meritorious students have been provided 19books for use over the year through the book bank, Library Services to Differently Abled Students: Devices and software like Braille software JAWS, ANGEL DAISY Reader, MP3 Recorder, Laptops, Zoom X Instant Text Reader, Lex Portable Camera etc are available for visually impaired students. It also provides access to the Braille Library and sound recording facility in the library itself. For this purpose five computer stations have been established. It also subscribes to 'White Print', an English Braille magazine which is useful for visually impaired students.

Faculty Strength: 160

93 Permanent and 67 ad-hoc

Financial Allocation and Utilization: Grant sanctioned in Rs. 42,42,31,000/-

Utilized in Rs. 42,42,31,000/-

P.G.D.A.V. COLLEGE (EVE.)

Major activities and achievements:

The college is in full compliance with the University guidelines related to Covid-19 pandemic and strictly incorporated the student-centric approach to serve the students' interest well. The various committees have organized various activities that played a bridging role to connect with teachers and students. In this gloomy condition, the college has rightly upheld its outstanding values in order to serve humanity by distributing face masks, food and clothes and also established a Covid-19 testing booth.

Honors/Distinctions

Hardik, (B.A.Prog.),3rd Year student was adjudged as the best in the category of 'Poetry Writing' competition commemorating 'ShaheedDiwas'. The student was felicitated by Honorable Dr. RameshPokhriyalNishank, Minister of Education,GOI in the Convention Hall, University of Delhi on Tuesday,23 March 2021.

Publications:

HariPratap, (2020),"DST Interpolation Techniques for Reisz Based Matrix Differentiator of Non-Integer Order", Published in, IEEE, 2ndInternational Conference on Advances in Computing, Communication Control and Networking (ICACCCN-2020).

HariPratap,(2021), "Discrete cosine transform with matrix technique for a fractional order Reiszdifferentiator", Published in, conference proceeding (Part of the Algorithm for Intelligent System Book Series, Springer) of International Conference on Scientific and Natural Computing, SNC-2021, Gautam Buddha University, Greater Noida.

HariPratap,(2021), "Digital Hilbert transformer designing approach using discrete sine transformmethod", Published in Malaya Journal of Matematik, Vol. 9, No. 1,823-828.

Dr. Nagpal.Sonika,(2020), A Research paper on 'Green Dimensions, Environment Orientation and Size: ImpactAssessment on Operational Performance of Manufacturing Firms' in &Global BusinessReview, May 2020, 1-14. doi:10.1177/09721509209198802.

Dr. Nagpal.Sonika, (2020), A Research paper on 'Green attributes and Customer-based Brand Equity: Synthesis and Examination of Banking Services in NMIMS Management Review, April 2020, XXXVIII(2), 93-109, ISSN 0971-102.

Dr. Pandey.Mayank,(2020) Lesson 1. Introduction to Environmental Studies in Ability Enhancement Compulsory Course (AECC) Environmental Science for All UG Courses Semester I Study Material: 1 (Lesson 1 to 9) School of Open Learning, University of Delhi, Editors: Prof. RadheyShyam Sharma and Dr. NibeditaKhuntia. ISBN: Environmental Science Study Material-1 (Volume 1): 978-81-935614-6-1.

Garg.Ajay Kumar,(2021) "Crowdfunding in India: An Analysis On Development, Trend andGrowth in Current Time", Sambodhi Journal, ISSN No: 2249-6661, in Vol. 43, No. 3, July 2020, Page No. 441-445. (Second Author in two authors) (UGC CARE)

Garg. Ajay Kumar,(2021) "Role of Technology to Achieve Financial Inclusion: An EffectiveAnalysis with respect to Rural India", Sambodhi Journal, ISSN No: 2249-6661, in Vol. 43,No. 4, August 2020, Page No. 415-419 (First Author in two authors) (UGC CARE)

Swadeshi. Anil Kumar, (2020) A Critique of English Language Teaching-Learning at Government Schools in India with Reference to Rod Ellis's Principles of Instructed Second Language Learning in Emerging Trends in ELT (Kapil Nagar: Rudra Publications, 2020)

Use of Woman Body as Landscape for Ideological Purposes in Roxane Gay's An Untamed State (Latur: VishwaBharati Research Centre, 2020.

Dr. Sinha.Binit Kumar,(2020) Published an article on Social reformer of Kerala State "Mahatma Aayankali" by Sage Publication in an edited boon in 2020.. Another article on "GraminSwashasan and Zila Sarkar kiSambhavna" has been accepted for publication by a UGC care list journal.

Journals subscribed

Number of National journals subscribed (online + paperback version): 68

Research Projects:

Seminar Organized: (Webinar)56

National/International (MoUs) signed) Within India: 4

Library Development:

Total Budget-Rs. 7,24,500.00 No. of Books and Journals added-137

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Number of faculty:

Permanent- 37 Ad-hoc-35

Financial Allocation and Utilization (2020-21): Grant Sanction in Rs. 28,87,66,000.00 Utilized in Rs. 22,83,70,824.00

Other Significant Information:

A donation drive of the college, under the project "Warm Hug" was initiated on 10 February 2021 at 01.30 p.m. The volunteers of the NSS Unit of the college, with the utmost zeal and enthusiasm, assembled the goods orderly from the persons at the Vinobapuri Metro Station, New Delhi. Different packets of clothes, shoes, stationary, food items and bags were collected from the donors. Distribution process were started with the packets of the clothes, shoes, stationary, food items, bags etc. to the needy persons like children, men and women etc. At the last, blankets were distributed to the old persons.

During the arduous times of pandemic our NCC cadets have shown great spirit and parted crucial role in managing and reinforcing various tasks actively at virtual platforms. Our 2 boys and 1 girl cadets attended Republic Day Camp. One of the boy was the Commander in PM's Rally and the other one was the Flag Bearer in PM's Rally as well as he walked at the Raipath on Republic Day.

RAJDHANI COLLEGE

Major Activities and Achievements:

Rajdhani College strives to excel in academics and extra-curricular activities and endeavours to upgrade its infrastructure to meet the requirements of the students, faculty members and non-teaching staff. The students achieved excellent results in university exams and were equally participative in various co-curricular activities. On 22 and 23 March 2020 the Cultural Committee organized a two day national conference on "Culture Matters." The chief guests of the session, Prof. P.C. Joshi- Hon'ble Vice Chancellor of University of Delhi, Prof. Balram Pani- Hon'ble Dean of Colleges, University of Delhi, Prof. Anand Kumar- retired professor of sociology at JNU were warmly welcomed at the start of the event. Dr. D. K. Aswal, Director, National Physical laboratory, Delhi, delivered a lecture on the topic "Aswal model of the inclusive growth". Even during the pandemic, various online programmes were held.

Honours/Distinctions:

Dr Rajesh Jha from the Department of Political Science is nominated as the University Representative in the Management Committee of Rajasthan Swasthya Yog Parishad Trust Yog Bhawan, Shastri Nagar, Jaipur, JRR Sanskrit University, Jaipur Rajsthan.

Dr Rajesh Jha from the Dept of Political Science is also nominated as the University Representative in Shri Maharshi Dadhich Sanskrit Teachers Training College, MD Mission Campus, Keshavpura, Kota (Jagadguru Ramanandacharya Rajsthan Sanskrit University, Rajasthan) in 2020.

Publications:

Kumar, Asheesh. (February, 2020) "Viśiṣṭādvaitānusārapratyakṣa-vimarśa," *International Journal of Applied Research*, Delhi. 6(3): pp. 483-487. ISSN :2394-5869.

Kumar, Asheesh. (March, 2020) "Jalpa kī avadhāraṇā," *International Journal of Applied Research*, Delhi. 6 (4): pp. 354-357. ISSN: 2394-5869.

Kumar, Asheesh. (June, 2020) "Nyāyadarśana mem vāda kī pūrvāpekṣāem," *Ananta*, *International Journal of Sanskrit Research*, Delhi, 6(4): pp. 67-69, ISSN:2394-7519.

Lumb, Talwar S., Lumb S. and Prasad V. (2021). "Charge currents and induced magnetic fields in a bounded two-dimensional hydrogen atom," *Eur. Phys. J. D*, 75(2), pp. 59, 1-9.

Lumb, S., LumbTalwar S. and Prasad V. (2020). "Generation of charge currents and magnetic pulses." *J. Phys. B: At. Mol. Opt. Phys.*, 53(20), 205002, pp. 1-12.

Lumb, Talwar S., Lumb S., Sen K. D., and Prasad V. (2020). "Particle confined in modified ring-shaped potential." *Phys. Scr.*, 95(3), 035404, pp. 1-14.

Rehman, S, Tiwary, N. K., & Urfi, A. J. (2021). "Conservation monitoring of a polluted urban river: an occupancy modeling study of birds in the Yamuna of Delhi," *Urban Ecosystems*. https://doi.org/10.1007/s11252-021-01127-1

Singh, D., Malik, H.K. (2020). "Terahertz emission by multiple resonances under external periodic electrostatic field," *Physical Review E*, 101(4), 043207.

Singh, D. (2020). "Impact of hot electrons on optical excitation of terahertz radiation by beating of supergaussian lasers in electron-positron collisional plasma". *IOP Publishing Ltd, Plasma Research Express*, Vol. 2(4), 045003.

Tomar, T. (2021). "Assessment of Groundwater Vulnerability to Pollution by using GIS based DRASTIC Model in Delhi Region," *IWRA* (*India*) *Journal*, 10 (1) ISSN: 2277-1301.

Journals:

Kumar, Asheesh. Associate Editor, Peer Reviewed, Refereed and Indexed International Journal of Sanskrit Research *Ananta* (ISSN: 2394-7519, Impact Factor: RJIF: 5.12).

Kumar, Asheesh. Associate Editor, Peer Reviewed, Refereed and Indexed International Journal of Jyotish Research *Vedchakshu* (ISSN: 2456-4427, Impact Factor: RJIF: 5.11).

Kumar, Asheesh. Editor, National Journal of Hindi and Sanskrit Research (ISSN NO: 2454-9177).

Kumar, Asheesh. (January 2021). Chief Editor, *śodhapallavam* (Vol.-1), New Delhi: Akinik Publications, ISBN: 9789390541058.

Sethi, Rachna. Associate Editor, *Fortell: Journal of Teaching English Language and Literature*, Print ISSN 2229-6557, Online ISSN 2394-9244.

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Seminars Organized:

Webinar on "EIA Draft 2020," on 24 August 2020, Environmental Committee, Rajdhani College, University of Delhi.

Webinar on "Emerging Power relations in the Post Covid – 19 World," on 15 May 2020, Rajdhani College, University of Delhi.

Two Day Webinar on "Yoga :Way to Holistic wellness," on 20 June 2020 & A Practical Yoga Session organized by Antarman : Yoga & Meditation Committee Rajdhani College, University of Delhi.

Two Day National Seminar/Webinar on "Sanskrit AurBhartiya Jeevan Drishti: SamkaleenParipreksha," on 25 March 2021 and 26 March 2021, Department of Sanskrit under the aegis of IQAC, Rajdhani College, University of Delhi.

International Seminar on "Advances in Sciences 2021," on 22 March 2021, Alumni Association, Rajdhani College, University of Delhi.

Conference Organized

Two Day International Conference (online) on "Rethinking Science for Sustainable Development" during 20-21 April 2021, Department of Chemistry, Rajdhani College.

National Conference (online) on "Covid-19 and its Psychological Effects" on 30 April 2021, Department of Chemistry, Rajdhani College, University of Delhi.

International Conclave on "Artificial Intelligence: Empowering Revolution in Technology" from 12 March to13 March 2021, Rajdhani College, University of Delhi, India.

International Conclave on "Contemporary Physics: The New Paradigm Shift-II Series" from 27 February to 28 February 2021, Rajdhani College, University of Delhi, India.

"Aspirational India Conclave" on 26 February 2021, Enactus, Rajdhani College, University of Delhi, India.

Seminar/Conference Presentations:

Arora, Urvashi. "Practical Applications of Graph Theory in Real Life," *First National Conference on 'Application of Mathematical Tools in Social Sciences and Sciences(Online)'*, from 17-18 October 2020, Zakir Husain Delhi College, University of Delhi.

"Imbibing Interest for Mathematics in Students by using Real Life Problems of Discrete Mathematics," *The 9th National Conference on Mathematics Education*, from 20 to 22 December 2020(Registration Number: NCERT -M-306), National Council of Educational Research and Training(NCERT), Regional Institute of Education(RIE), Bhopal through online mode.

"Practical implementation of Coding Techniques via Creation of Websites by Students," *The National Conference on Integration of STEAM in School Education*, National Council of Educational Research and Training(NCERT), from 26-28 February 2021(Registration Number: RIEB/CSE-21/T3-52), Regional Institute of Education(RIE), Bhopal through online mode.

Lumb, Sonia, Chanchal Yadav, Shalini Lumb Talwar and Vinod Prasad. "Dynamic polarizabilities for screened potentials modified by ring potential" *AIP Conf. Proc.* 2220, 130063 (2020).

Kirtee Kumar. "Confined two-dimensional hydrogen atom in magnetic field," *AIP Conference Proceedings* 2220, 020098 (2020)

Bhandari, Sonia. "Solid state Nuclear Track Detectors and their applications (SSNTDs – 21)," 21st National Conference, from 29-31 January 2021, Ramjas College, DU and Nuclear Track Society of India (NTSI), Delhi.

Kumar, Asheesh. "Expansion of Sanskrit in Social Media in the 21st Century," *National Seminar on Sanskrit in 21st Century*, 22 February 2020, Pandit Chiranji Lal Sharma State College, Karnal in collaboration with Hariyana Sanskrit Academy, Panchkula.

S., Divya. "Controlled Tunable Resonant Phase Matching in Laser Plasma Interaction," *International e-Conference on Plasma Theory and Simulations (PTS-2020)*, 14 & 15 September 2020, Bilaspur, India.

"A study of Intense Lasers and Plasma Interaction," 4th Asia-Pacific Conference on Plasma Physics, 26-31October 2020, Remote e-conference.

"Impact of Terahertz Technology on Medical Applications," *International Web Conference on Engineering Science & Technology (IWEST-2020)*, 30 June 2020, Kumaraguru College of Technology Coimbatore, Tamilnadu, India.

Placement Details:

After the successful organization of the first ever Internship Fair- AVSAR 1.0 on 13th February, 2020 in Rajdhani College campus, the Placement and Internship Cell conducted its 2nd edition of the Internship

Fair- AVSAR 2.O on 19th and 20th of April, 2021. Covid-19 pandemic may have restricted everyone to their homes but it did not deter the placement team's spirits. Almost every week, there was an opportunity for our students to choose internship in different companies. We organized 2nd edition of fair in a virtual mode on 19 and 20th April 2021 by continuing with its vision of providing a platform for companies to hire the best talent from Rajdhani College. This inlouded different profiles for students hence they got range of internship opportunities in these companies. The fair witnessed a massive footfall of 900+ students. More than 55 renowned companies like Bajaj Capital Ltd., Outlook Group, Credflow, IIFM, AIESEC and many more offering 60+ profiles like content creator, graphic designer, video editor, photographer to data analyst, equity research, finance and strategic planning participated in the fair. Virtual mode of Avsar 2.0 not only provided opportunity to Rajdhanians rather provided platform to many other students of University of Delhi. We feel extremely obliged and proud to host students from 150+ colleges and a few of the universities. AVSAR 2021 provided a platform to many students to learn, grow and brighten their journeys by getting the exposure to the real world.

Extension and Outreach Activities:

Rajdhani Covid Help Desk- The event was initiated by NSS Rajdhani students, on 29 April in collaboration with the YUVA society of the college, with the aim of helping the ailing people of Delhi during second wave of pandemic, by providing them real time verified leads of oxygen cylinders, ventilators, covid medicines, ambulance and food supplies. The volunteers were working 24x7 in different groups catering to almost all the messages for help related to the above-mentioned services. The event is still going on and will continue in the near future.

Library Development:

Book purchased: 1303; Magazine subscribed: 55; Newspaper subscribed: 36 Air-conditioning of Differentially Abled Reading Room Section and Reference Section

Faculty Strength: 89 + 69

Financial Allocation and Utilization:

Grant sanctioned in Rs. 491780352/-

Utilized in 491780352/-

Other Significant Information:

The Department of Environmental Studies in collaboration with Environment and related issues Committee, Rajdhani College has organized one day webinar on "EIA Draft 2020" which was held on 24 August 2020. On the occasion of World Ozone Day, the department also started an online Certificate Course on "Sustainable Environment Management." Inaugural session of Online Certificate Course was held on 15 September, 2020 which was inaugurated by Smt. Medha Patekar. A virtual tour on Yamuna Biodiversity Park was organized on 29 January, 2021. Department of Environmental Studies in collaboration with North-East Students' Welfare Committee of Rajdhani College organized an online webinar-cum-workshop on 13 March 2021, on the topic "Prospects in Horticulture: Cultivation of Medicinal Plants in North-East India" on "Google Meet" platform. Rajdhani College NCC 6DBN had successfully organized "Tree Plantation Drive" on 15 July 2020. The Disaster Preparedness Committee 2020-21, National road safety month (18 Jan to 17 Feb 2021) was celebrated to spread awareness amongst youth about man-made disaster under the mentorship of Delhi Disaster Management Authority (DDMA). The Cultural Committee in collaboration with the Poetry Society of the College, Kavianjali, an online program was organized in the celebration of Kargil Martyr's Day. The Diwali festival Shri 2020 was also organized by the Cultural

Committee of Rajdhani College, *Sanskriti* on 06 November 2020. NSS Rajdhani under the FIT-INDIA-MOVEMEMNT conducted yoga and meditation session. National Education Policy: On 3 October 2020, Webinar on NEP (National Education Policy), 2020 and Higher Education: A Teacher's Perspective was conducted. COVID-19 Awareness Programme - On 8 October 2020- Awareness program started on Covid 19 with the Pledge for fighting against Covid-19. In continuation On 16 October 2020, Workshop on Holistic Wellness Program was conducted for the students. From 15-22 March 2021-Waste Paper Recycling Drive- The drive was the most outstanding drive of the NSS. Webinar on Post Covid Complications and Care- The webinar was hosted by NSS Rajdhani on 4 June 2021 and our guest speaker was- Dr Uma Kumar, Professor and Head, Department of Rheumatology, AIIMS Delhi.

RAJKUMARI AMRIT KAUR COLLEGE OF NURSING

1. Major activities and achievements.

Rajkumari Amrit Kaur College of Nursing has been providing quality nursing education for the for the last 75 years. The College offers four regular Programmes i.c. B.Sc. (H) Nursing, M.Sc. Nursing, and MPhil and PhD in Nursing. The revised curriculum for both B.Sc.(H) Nursing and M.Sc. Nursing under semester system is running successfully. College has a Rural Teaching Centre at Chhawla village under RHTC Najafgarh for the purpose of providing objective oriented community health experience it continued functioning during covid 19 Pandemic also College is designated as study center by IGNOU. College participated in various programs like national organ donation day, world kidney day, perfect health mela both physically & online. The College works in close association in the Ministry of Health and Family Welfare and with various hospitals, health centers and allied agencies.

2. Students with distinctions

- 1) Ms. Pankaj Yadav, Ms. Poonam M.Sc. Nursing 1st Year
- 2) Ms. Mathew Varghese P, Ms. Divya Khatri M.Sc. Nursing 2nd Year
- 3) Ms. Rashmi, Ms. Himani Bisht B.Sc. (H) Nursing 1st Year
- 4) Ms. Bincy Rose Benny, Ms. Kajal Nehra B.Sc. (H) Nursing 2nd Year
- 5) Ms. Kadambini Sharma, Ms. Anamika Tiwari B.Sc (H) Nursing 3rd Year
- 6) Ms. Jonnet Jimmy, Ms. Arushi BSc. (H) Nursing 4th Year

3. Publication

- 1. Thomas Daisy, Medical Surgical Nursing, First South Asia Edition, Elsevier Publication, New Delhi 2020.
- 2. Thomas Daisy, etal, 22/9/2020, effectiveness of Planned Health Education Programme on Cernical screening among rural woman, IOSR Journal of Nursing and Health Science, Volume 9, Issue
- 3. Shokandha Sarita etal, August 2020, A study to develop and evaluate the effectiveness of structured teaching programme on strategies of communication competence while delivering health care services among Nursing officers in terms of knowledge, attitude and practice in Deen Dayal Upadhyay Hospital, New Delhi, IOSR Journal of Nursing and Health Science, Volume 9, Issue 4, Page No. July- August 2020 Page no. 07-23
- 4. Madhumita Dey, 2020, A study to assess the effectiveness of a planned teaching programme on effective documentation and reporting techniques for nursing personnel in terms of knowledge in selected hospitals of Kerala, International Journal of Nursing Science Practise and research, Vol 06, issue 02 (Special) Page No. 1s- 6s

5. Biswas Mitali etal, Jan 2021, effectiveness of health education intervention on prevention of self-harm amongst adolescents in New Delhi, The Physician- Journal of The British Association of Physicians of Indian Origin, Volume 6, Issue 3

5. Research Project:-

A Study to evaluate the effectiveness of structured teaching programme on prevention and control of Swine Flu (HINI) in terms of knowledge and attitude among students in selected School of Rajasthan.

A Comparative Study to assess the prevalence and risk of self-harm amongst adolescents in selected Government and Private School of Delhi with a view to develop and evaluate the effectiveness of an information Booklet in terms of knowledge on prevention of self-harm behavior.

A Study to determine the prevalence of internet addiction with a view to develop and evaluate the effectiveness of an education package regarding prevention of health problems due to internet addiction in terms of knowledge and practice among students of selected college of New Delhi.

A Study to assess the effectiveness of structured teaching program on Prevention and management of Postpartom Haemorrhage (PPH) in terms of knowledge and practice of Nursing personal working in Maternity Hospital of Ranchi, Jharkhand.

A Study to develop and evaluate the effectiveness of Mobile App: CANScreen on selected common Cancer Screening Procdures and Preventive measure in terms of knowledge and practice among the Undergraduate students of selected colleges of Palakkad district, Kerala

6. Seminar (Webinar)

- 1. Daisy Thomas, Assistant Professor, RAKCON, Management of critically ill Covid19 patients.
- 2. Sarita Shokanda, Assistant Professor, RAKCON, Myths and truths about Covid19,
- 3. Madhumita Dey, Assistant Professor, RAKCON, understanding concepts of Covid19 pandemic.
- 4. Mitali Biswas, Assistant Professor, RAKCON, coping with stress during covid19 pandemic.
- 5. Anugrah Milton, Tutor, RAKCON, Management of Covid19 patients in perinatal period.

7. Conference: College organized two National conferences on the following topics

- 1) Patient Safety -A Global agenda. 8/2/21 12/2/21
- 2) Bicentenary- a period of transformation in Nursing 15/2/21- 19/2/21

8. Presentation:

- Dr. Daisy Thomas, Assistant Professor, RAKCON, Evolving concepts in the management of wounds 29th July 2020.
- 2. Dr. Daisy Thomas, Assistant Professor, RAKCON, Covid 19 overview and critical Management of Covid 19, 15/8/2020
- 3. Dr. Daisy Thomas, Assistant Professor, RAKCON, Promoting Excellence in Palliative Care Nursing 12/12/2020
- 4. Sarita Shokandha, RAKCON, Patient Safety Implications during the Covid19 pandemic 10/2/21

9. Extension and Outreach Activities

The Rural Teaching Centre was established in 1950 for the purpose of providing objective oriented rural community health experience to the students. It covers population of Approx, 23,000 and is situated 35 kms away from the college. The centre provides an integrated comprehensive comprehensive

health and family welfare service to the community. Special emphasis is given on MCH services, family planning, immunization, family welfare services, nutrition, adolescent girl's health and health education programme by the students and staff of rural unit in collaboration with the staff of RHTC, Najafgarh. Staff and students also participated in National Health Programmes like Malaria control programme, Dengue control programme, Revised National Tuberculosis co9ntrol programme; AIDS control programme, Diarrheal Disease control and Intensified Pulse Polio programme etc. The centre also has DOTS and Microscopic Centre for screening and treatment of T.B. & MDR TB patients RFTC Chhawla is also a 'Team Movement Point' for National Pulse Polio Programme covering 10 villages. The TMP is considered as one of the best TMP under the Matiala Zone for National Pulse Polio Programme

10. Library:

The College Library has total 20381 Books.

	i)	Foreign Journals	=	18
	iii)	Indian Journals		= 10
06	iv)	Newspapers		=
07	v)	Magazines		=

The total expenditure on books and journals during the period was Rs. 14, 30,000/-.

11. Faculty Strength

Total strength is 28			
Vice Principal		=	1
Associate Professor	=	0	
Assistant Professor	=	3	
Nutritionist		=	1
Tutor		=	5
Clinical Instructor		=	18

12. Financial Allocation and Utilization

Budget: - The Budget Provision for the 2020-2021 was Rs. 23, 54,00,000/- (Rupees Twenty Three Crore Fifty Four Lakh only)

RAMANUJAN COLLEGE

Major Activities and Achievements

In the wake of the impending crisis and lockdown in March 2020, all the faculty members of Ramanujan College were promptly provided training to develop e-content and use new technological advancements like Google Classroom, Zoom Application, Google Meet and Google Hangout. Since August 2020, the College has adopted the Microsoft Teams Platform for holding online classes. Talks, discussions, guest lectures, webinars, e-resources, quizzes and online evaluation process, on a single platform of Microsoft Teams has

ensured efficient functioning of the institution. Ramanujan College is a pioneer in offering online courses for faculty members of HEIs and research scholars through the customised Learning Management System (LMS), designed by the College's Research Development and Services Cell. It is predominantly participant-friendly and incorporates evaluation methods and comprehensive feedback systems to judge learning outcomes. The LMS is hosted on CLOUD with high scalability and reliability. The College has installed its own Cloud Infrastructure to host its servers for research and data analysis. Within a span of one year, the Teaching Learning Centre (TLC) of Ramanujan College has trained more than 100000 teachers across India and abroad. The online programmes conducted by TLC adhere to the MoE and UGC Four Ouadrant Approach (e-tutorial, e-content, Self-Assessment and Web Resources). programmes are self-paced and based on blended learning mode, allowing the participants the flexibility to access them anywhere, anytime. The college has created meaningful and quality content for the masses which can be accessed via the Official YouTube Channel of Ramanujan College. The channel already has more than 22,500 subscribers and 78,00,000 views. The college has signed MOUs with a number of colleges from the University of Delhi and other universities of the country for conducting collaborative Faculty Development Programmes. To recognise research contributions, the IQAC has instituted financial incentives for faculty members for publishing research articles in Scopus and Web of Science Journals. Around 30 members of our teaching faculty have published in Scopus or Web of Science accredited journals in 2020-21. Compulsory personality development course has been introduced for students of all disciplines to groom and make them industry-ready.

Honours/Distinctions

The Principal, Dr. S. P. Aggarwal is felicitated with Golden Aim Awards for Excellence and Leadership in Education in the category of Most Admirable Principal Award by Dynergic Business Solutions (2020).

Dr. S. P. Aggarwal is appointed as UGC nominee in the Governing Body of Gandhi Vocational College, Kushmoda, Guna MP (affiliated to Jiwaji University, Gwalior) for a period of five years w.e.f. 2020-21.

Dr. S. P. Aggarwal is a member of NEP Implementation Committee (NIC) constituted by University of Delhi for the smooth implementation of the National Education Policy 2020.

Kavita Masuria, a student of BA (H) Philosophy of Ramanujan College (Batch 2017-2020), received the "Indian Philosophical Congress Medal for BA (Hons)" for the year 2020 by the University of Delhi for securing the highest percentage of marks in BA (H) Philosophy Examination with first division.

Three students of Department of Philosophy cleared the All-India Rank in the GATE 2021 Philosophy Examination: Himanshu; AIR 17, Ritu Sahani; AIR 72, Vishal Bauddh; AIR 126.

JAM is a qualifying test for admission to various masters' programmes, at IITs (Indian Institute of Technology) and Integrated Ph.D. Programme at IISc Bangalore. A total of 13186 students from all over India participated in JAM 2021 in the subject "Mathematics" and the following 4 students of the Department of Mathematics, Ramanujan College emerged as topper with the specified AIR (All India Rank): Arpit Dawar (AIR 56), Rishabh Jain (AIR 173), Kapil Lohia (AIR 188), Piyal Kanti Ghosh (AIR 214).

More than 25 faculty members served as valued resource persons and keynote speakers in national and international academic events in 2020-21.

The Teaching Learning Centre, Ramanujan College organized **65 online programmes in 2020-21** including one to three-week discipline-specific Faculty Development Programme/Refresher Courses, one to three-week courses on research and ICT and four-week Faculty Orientation/Induction Programme. Over a lakh of teachers nationwide have been successfully trained.

Students with Distinctions

The students of Department of Management Studies have secured admission in following premier institutions of the country: Prerna Garg (BMS Batch 2016 - 2019): XLRI, Jamshedpur; Harsh Lal (BMS Batch 2016 - 2019): IIM Shillong; Piyush Rohilla (BMS Batch 2016 - 2019): IIM Udaipur; Tanmay Tandon (BMS Batch 2016 - 2019): IIM Raipur; Mayank Gupta (BMS 2017 - 2020): IIM Rohtak; and Ujjwal Aggarwal (BMS 2017 - 2020): IIM Rohtak.

The five students of Batch 2017-2020 of Department of Mathematics have secured admission in the renowned institutions: Vishant Sachdeva (IIM Shillong); Jatin (IIM Kozhikode); Tariq Ahmad Dar (IIT Madras); Paras Gautam (IIT Guwahati); Amrit Kumar (IIT Hyderabad); and Gurpreet Singh (Dr. B.R. Ambedkar NIT Jalandhar).

Himanshu, a student of BA (H) Philosophy of Ramanujan College (Batch 2018-21) has secured admission in Indian Institute of Technology, Bombay (IIT Bombay) for MA+PhD programme.

Arya Gupta, a student B.Tech. Computer Science (Batch 2013-17) is selected for PhD degree in Computer Science in the Department of Computer Science and Engineering at Michigan State University, beginning on 16 August 2020 for the Fall 2020 semester with full financial support (which includes stipend, health insurance, and tuition waiver).

The students of Tark: Debating Society and Brushstokes: The Fine Arts Society of the College emerged as winners in more than 55 inter-college/university level competitions.

Publications

Attree, A.K., Kumar, V. and Singh, A.K. (2020). Developing and validating the individual and organisational consciousness scale. *International Journal of Work Organisation and Emotion*, 11(2), pp.154-177. (Scopus).

Bebortta, S., Singh, A.K., Pati, B. and Senapati, D. (2021). A robust energy optimization and data reduction scheme for iot based indoor environments using local processing framework. *Journal of Network and Systems Management*, 29(1), pp.1-28. (Scopus, Web of Science).

Bhanot, D. and Verma, S.K. (2020). Lived Experiences of the Indian Stigmatized Group in Reference to Socio-Political Empowerment: A Phenomenological Approach. *Qualitative Report*, 25(6). (Scopus, Web of Science).

Bhushan, S. and Pandey, A.P. (2021). Optimal imputation of the missing data using multi auxiliary information. *Computational Statistics*, 36(1), pp.449-477. (Scopus, Web of Science).

Dahiya, B., Sharma, S., Khan, A., Kamra, E., Mor, P., Sheoran, A., Sreenivas, V., Varma-Basil, M., Gupta, K.B., Gupta, M.C. and Chaudhary, D. (2020). Detection of mycobacterial CFP-10 (Rv3874) protein in tuberculosis patients by gold nanoparticle-based real-time immuno-PCR. *Future Microbiology*, *15*(8), pp.601-612. (Scopus, Web of Science).

Gupta, P., Agarwal, M. and Singh, R. (2020). On graphoidal length of a tree in terms of its diameter. *AKCE International Journal of Graphs and Combinatorics*, 17(3), pp.703-707. (Scopus, Web of Science).

Kumar, V. and Kumar, S. (2021). Bounds on Hermitian-Toeplitz and Hankel determinants for strongly starlike functions. *Boletín de la Sociedad Matemática Mexicana*, 27(2), pp.1-16. doi: https://doi.org/10.1007/s40590-021-00362-y. (Scopus, Web of Science).

Kumar, V., Srivastava, R. and Cho, N.E., 2020. Sharp estimation of Hermitian-Toeplitz determinants for Janowski type starlike and convex functions. *Miskolc Mathematical Notes*, 21(2), pp.939-952. (Scopus, Web of Science).

Naz, A., Nagpal, S. and Ravichandran, V. (2020). Exponential Starlikeness and Convexity of Confluent Hypergeometric, Lommel, and Struve Functions. *Mediterranean Journal of Mathematics*, 17(6), pp.1-22. (Scopus, Web of Science).

Raghuvanshi, K.K., Kumar, S. and Kumar, S. (2020). A data encryption model based on intertwining logistic map. *Journal of Information Security and Applications*, *55*, p.102622. (Scopus, Web of Science).

Journals

The Department of Commerce has published the 5th edition of its "Ramanujan International Journal of Business and Research." (ISSN: 2455-5959, UGC Listed No. 48778)

The peer-reviewed "International Journal of Applied Ethics" published its 7th Volume (ISSN 2321-2497).

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board: 10

Research Projects

PMMMNMTT, Ministry of Education, Two Years, TLC Project on "Higher Education and Employability Skills: A Study of Under Graduates in India", 4.5 Lakhs.

PMMMNMTT, Ministry of Education, Two Years, TLC Project on "Big Data and Learning Analytics in Higher Education with special reference to National Programme on Technology Enhanced Learning (NPTEL)", 3 Lakhs.

PMMMNMTT, Ministry of Education, Two Years, TLC Project on "Innovation in Higher Education System in India: An Exploratory Study", 5 Lakhs.

PMMMNMTT, Ministry of Education, Two Years, TLC Project on "Application of Augmented Reality (AR) in teaching basic skills to children with autism spectrum disorder (ASD)", 4.9 Lakhs.

Seminars Organized

Ms. Dolveen Bhatti (Psychologist and Life Coach), Webinar on "Transformational Mindset: Innovating Minds for Success", 1 June 2020.

Dr. Surabhika Maheshwari (Assistant Professor, Indraprastha College, University of Delhi), Webinar on "Living and Learning in times of Change", 4 June 2020.

Mr. Sandeep Sadhu (long years of experience as a freelance consultant, educationist and a certified personality development mentor), Webinar on "Positive Outlook in the Times of Uncertainty" on 30 July, 2020.

Ms. Surabhi Srivastava (Digital Stategist, 'Help Delhi Breathe') and Mr. Abhishek Saini (Founder, 'Those in Need'), Webinar on 'Blue Skies Beyond Lockdown: Addressing Air Pollution in Delhi', 13 September 2020.

Prof. N. Radhakrishnan (Rajiv Gandhi National Sadbhawana awardee and Gandhi King IKEDA Peace Prize awardee), Webinar on "Gandhian Principles in the Modern World", 5 October 2020.

Ms. Neeru Verma (renowned wellness counsellor, yoga therapist and founder of 'Divine Grace Wellness'), Webinar on Digital Wellbeing, 6 November 2020.

Dr. S.B. Rathore (Former Associate Professor of Department of Commerce, Shyam Lal College, University of Delhi), Webinar on "E-Filing of ITR- 2 for the financial year 2019-20", 25 November 2020.

Professor Arun Sangwan (Area Coordinator for Strategy and Entrepreneurship Area at FIIB), Webinar on "Why to do MBA?", 8 December 2020.

Prof. Asha Mukherjee (Visva Bharti University, Shantiniketan, West Bengal) and Dr Sameena Zehra (University of Queensland, Australia), Webinar on "Is Feminist Philosophy a Misnomer?" (Reflection from Indian and western perspective), 29 January 2021.

Professor Purushotham Billimoria (School of Philosophy, University of Melbourne, Australia, and California State College), Webinar on "Hindu Response to Dying and Death in the Time of COVID-19", 19 February 2021.

Conferences Organized

"One Year of the Repeal of Article 370: Implications and Outcomes", 5th August 2020, PMMMNMTT, Ministry of Education.

"Revisiting Human Rights, Ethics and Environment During COVID-19", 6th-7th August 2020, PMMMNMTT, Ministry of Education.

"Financial Market: Avenues for Alternate Career", 28-30 September 2020.

"Exploring Tradition and Modernity in the Era of Technology", 9th October 2020.

"The Great Legacy of Indian Constitution", 26th November 2020.

"National Education Policy-2020, Educators & Indian Youth: Challenges & Insights", 12th March 2021, PMMMNMTT, Ministry of Education.

Seminar/Conference Presentations

Sooraj Kumar Maurya presented a research paper on "Roots, Routes, and Gender Discrimination: An Ethical Discourse" in an International Conference on 'Arts, Humanities and Social Sciences (ICAHSC-21)' Organized by Lab-Tech at Pune, Maharashtra on 16-17 January 2021.

Dr. Aparajita Mazumdar presented on Academic Leadership: How Gender Impacts Leadership Roles in Higher Education Institutions, in a one-day National Level Webinar on "Women in Indian Academia: Obstacles and Accomplishments", organised by Women Cell in association with IQAC, Chatra Ramai Pandit Mahavidyalaya (Affiliated to Bankura University, Bankura, W.B.) on 19 September 2020.

Ms. Mahima Singh presented a paper titled "Posthumanism in the fiction of Saadat Hasan Manto" in International Conference on "Electronic Textual Cultures: A Study of Digital Literature and Literature in Digital Spaces" organized by Department of Indian and World Literatures, The English and Foreign Languages University, Hyderabad (9-12 March 2021).

Dr. Deepakshi Sharma presented a paper titled "On Study of Some Signed Graphs" in International Conference on Advances in Mathematics, Science and Technology (ICAMST-2020) during 1-3 September 2020.

Dr. Aparajita Mazumdar presented on Measuring Teacher performance in the areas of NAAC, in the National Webinar on "Development of institutional Quality with reference to parameters of NAAC," organised by the IQAC Cluster India on 31 August 2020.

Dr. Nikhil Rajput and Ms. Bhavya Ahuja Grover presented paper titled "ICT in Indian Agriculture: an overview of the major services, their penetration and infrastructural development in the 10th World Congress on Information and Communication Technologies (WICT 2020) held on the world wide web during 16-18 Dec 2020.

National/International MoUs Signed

Ramanujan College has signed an MoU with MCI Management Center Innsbruck, Austria for a period of five years recognizing the benefits to be gained by both institutions through a cooperation in teaching, academic research & operations, and exchange of students, staff and knowledge within the interests and abilities of each institution. As per the Student Exchange Agreement between MCI and Ramanujan College, the exchange program will involve undergraduate or graduate students who have completed at least three (undergraduate)/two (graduate) semester of tertiary study at the home institution. Moreover, each institution will waive tuition fees for students coming from the other institution under this agreement. Also, as per the

MoU, the students of Ramanujan College will get an opportunity to pursue a master's degree at MCI Management Center Innsbruck subsequent to the completion of their bachelor's studies at Ramanujan College. Moreover, there will be Exchange of academic staff (faculty) and Joint development and organization of academic programs, courses or seminars and research between MCI and Ramanujan College.

The college has also signed an MoU with Western Sydney University, Australia. Under this MoU, the joint activities include: Development of collaborative research projects; Organization of joint academic and scientific activities; Exchange of academic staff for teaching and research activities; Encourage PhD/ HDR students to undertake short term study or participate in research programs and projects at respective host institution.

The college has signed MOUs with a number of colleges from the University of Delhi and other universities of the country for conducting collaborative Faculty Development Programmes:

- Shaheed Bhagat Singh Evening College, University of Delhi
- o Motilal Nehru College Evening, University of Delhi
- o Shivaji College, University of Delhi
- o Mata Sundri College, University of Delhi
- o Janki Devi Memorial College, University of Delhi
- o Ram Lal Anand College, University of Delhi
- o Mahatma Gandhi University, Nalgonda, Telangana
- o Sri Venkateswara College, University of Delhi
- o Davangere University, Karnataka
- o Armapore P. G. College, Kanpur
- o Atma Ram Sanatan Dharam College, University of Delhi
- o Christ Arts, Science & Commerce College, Rajkot, Gujarat
- o Government First Grade College, Titpur, Karnataka
- o GNIOT Institute of Management Studies, Greater Noida, Uttar Pradesh
- Smt. Radhadevi Goenka College for Women Akola, Maharashtra
- o Pandit Jawaharlal Nehru Mahavidhyalaya, Aurangabad
- o Karmaveer Bhaurao Patil Mahavidyalaya, Pandharpur, Solapur
- o Shri Muktanand College, Gangapur
- o Sibsagar Girls' College, Sivasagar, Assam

The college has signed MoU with The Internet College, Mathematics Science Foundation to conduct content development, teaching and related activities and in the area of online delivery of education.

Under the directive of the UGC and the MoE, the College has entered into an MoU with Oakridge Rooftops Pvt. Ltd. for Generation of 130 KV power through the installation of rooftop solar power panels.

Other Inter-Institutional Collaboration

Apart from the collaborations stated in the above point, the college is working for collaboration with other higher education institutions located in remote areas of the country, under the Vidya Vistar Scheme of the University of Delhi.

Students under Exchange Programme

As per the Student Exchange Agreement of Ramanujan College with the two institutions: (i) MCI Management Center Innsbruck, Austria and (ii) Western Sydney University, Australia, the exchange program will involve undergraduate or graduate students who have completed at least three (undergraduate)/two (graduate) semester of tertiary study at the home institution.

Placement Details

In the difficult time of Covid-19 pandemic, the job opportunities for campus recruitment took a toll. Companies were not able to participate in offline campus recruitment, due to which the college saw less participation of students who were living in the remote areas of the country and did not have the facility to participate in online recruitment process. However, 26 companies visited the campus and 66 students were

placed. There was tremendous craze for internships among the students and the placement cell facilitated the internships for more than 350 students.

Extension and Outreach Activities

The Outreach Programme Committee of Ramanujan College was constituted with the objectives of reaching out to the larger society and bringing about a positive change in the lives of the people. The Committee organized the following events in the online mode in 2020-21 which aimed at providing services to the underprivileged and marginalized sections of the society: A session was conducted on the occasion of Teachers Day, that is, 5 September 2020. This was the first online event conducted by the society. A small speech was given by a volunteer mentioning when and why Teachers Day is celebrated and the value of teachers. After that, in the "Making Greeting Cards" activity, children and volunteers made greeting cards for teachers. Also, a small quiz on Teachers Day was conducted to enhance children's knowledge. At the end, an impromptu story sharing session was held wherein the children and volunteers shared stories of their favourite teachers. An online yoga session was organized on 12 September 2020 under the instructor, Dr. Shikha Sharma, Director, Department of Physical Education and Sports Sciences, Ramanujan College. The children did some yoga poses, stretching and moderate intensity exercises. An Art and Craft session was hosted on 7 November 2020. The session started with a talk about the importance of "Diwali". Then a candle making activity was conducted wherein children and volunteers made water candles. Following this, the children were told about the detrimental effects of crackers and were made to take a pledge to protect the environment and not use crackers. Party Mask Activity was held online on 2 January 2021 in which the children of Coolie Camp, Vasant Vihar actively participated and brought out their creative side. Using colored papers, the children and volunteers made party masks. On 16 November 2020, the committee conducted Kite making activity with the children of Coolie camp. A total of 6 students and around 23-24 volunteers joined online to be a part of this activity. The event started with creating awareness on the festival of Makar Sankranti. After that, an activity of Making Kites was conducted. The children showed their creative skills by making such beautiful kites and decorated them with the help of colours very innovatively. An online Republic Day event was conducted on 26 January 2021. The children of Coolie Camp talked about the vast heritage and regional culture of places where they belong. This was followed by a quiz session where all children actively participated. On 8 March 2021 the committee conducted its first ever event at the old age home Panchyati, expanding our reach to old age homes and diversifying our services to different sections of the society. The onset of the pandemic brought with it many challenges into the lives of people. One of them was mental health problems. In order to ensure a healthy environment in the society, the students thought of creating a safe space wherein ideas related to mental health were discussed. The committee conducted weekly sessions called the "Self-care Sundays" and tried to hold discussions about the less talked topics so as to maintain a lively, informative, evolving and healthy environment for the children and all the volunteers. The first session was conducted on 15 November 2020. Many sessions have been conducted after this on topics like "What to do when things don't go our way", "Stress management", "Bullying", "Peer pressure", "Self-love" and many more. The Girl Up society of Ramanujan College, in collaboration with Yash Sewa Samiti organised Project Ezra. The project was a fun and artsy fundraising initiative to help out the underprivileged communities located in outskirts of Delhi worst hit by the covid-19 pandemic. The project continued from 21 of September to 6 of October 2020. The same society in collaboration with UPAY NGO organised Project Shiksha. This project was an enriching initiative to help out the underprivileged students to have access to education amidst this pandemic. Under this project 14 members of the society along with some core members worked as an intern with UPAY NGO for 3 weeks starting from 5 March 2021.

Library Development

Two Library Kiosk Dual Core have been placed for OPAC-based search of databases of books and journals. This has eliminated the need for manual searching. Around 30 LAN connected desktops have been installed in the students' reading room and faculty lounge, with Wi-Fi and internet facilities. These computers are used to access the various library links that the College has subscribed to, like the N-List, DELNET, NDL and NPTEL. The library has created a webpage within the College website, linked to all the e-resources subscribed by the College. This has been especially useful during the pandemic induced lockdown. Webpage Link: https://sites.google.com/view/e-libraryrmj A widescreen LED television has been placed at the reception counter of the library, which is used to display important information, rules and regulations of the library in a loop. The College has purchased 10 KINDLE e-book readers for students and teachers.

Faculty Strength: 126

Financial Allocation and Utilization Grant sanctioned in Rs. 23,81,20,000

Utilized in Rs. 23,99,87,595

Other Significant Information

The College, through its Teaching Learning Centre (TLC), has pioneered blended teaching-learning with an efficient in-house Learning Management System (LMS). The LMS is predominantly participant-friendly and incorporates evaluation methods and comprehensive feedback systems to judge learning outcomes. In the past one year, the College has conducted 65 online programmes. For more details, visit the link: https://ramanujancollege.ac.in/list-of-online-programmes-conducted-under-tlc/. Moreover, more than 35 faculty members are involved in creating online modules in the FDP/ Orientation/ Induction/ Workshops organized by the TLC. For more the information, visit $\underline{https://ramanujancollege.ac.in/wp-content/uploads/2021/05/List-of-} Faculty-involved-in-online-creation.pdf$ Apart from organizing a series of webinar, fests and inter-college competitions, the college provided a platform to the students to upgrade their skills by conceptualizing and launching a series of short-term courses in the online mode. The first online course for the students: "30 Hours Online Certificate Course on Research Data Analysis" received a tremendous response with a participation of 903 participants from all over India (15-21 June 2020). Some of the other programmes included: 7 Days Online Course 'Microsoft Excel: Zero to Hero' with Mathematical Sciences Foundation (21 September - 7 October, 2020) (Number of Participants: 303); 10 days online course on "Getting Started with Data Analysis on Microsoft Excel" organized in collaboration with Mathematical Sciences Foundation (4-17 August 2020) (Number of Participants: 280); 25 Hours certificate course/ Executive Development Programme on "Research and Data Analysis 2.0 using R and MS Excel" (27 January-6 February 2021) (Number of Participants: 123); and 6-Month Certificate Course on Happiness from 1 February 2021 (Number of Participants: 61). The Ramanujan College conducted the IQAC Audit on 3 March 2021. An esteemed panel of seasoned academicians evaluated the functioning and documentation of the IQAC. The Panel had an extensive interaction with all the internal members, presented a report commending the initiatives of the IOAC and made suggestions for future plans.

RAMJAS COLLEGE

Major Activities and Achievements:

Ramjas College with an admirable legacy has become one of the main centers of excellence in India for Education. Since inception, the college has been committed to provide quality education to all students regardless of their socio-economic background, and strives to inculcate values of empathy, gender equity, environmental consciousness and professional ethics. The students continue to make us proud by bringing laurels in studies as well as sports and extra-curricular activities, despite the Covid-19 pandemic limitations.i. During the academic year 2020-2021, 03 Books and 71 Research Papers have been published; 4 Research Projects awarded, 1 Patent filed, 3 Conferences Organized and 31 Seminars/ Conference Presentations/ Invited Talks have been accomplished.ii. The Department of Chemistry held a Workshop on Laboratory skill development for the laboratory staff from 3-4 February 2021. iii. A vibrant College Magazine, Anand Parvat was released on 07 September 2020. Focus, The Film and Photography Society of Ramjas College released a Magazine on 29 December 2020 The Fine Arts Society Melange released the first ever edition of its Newsletter – 'Aurora'

Honours/Distinctions

Dr. Amish Kumar, Department of Botany was awarded Top 5 best oral presentation at the 19th International Conference on Bioinformatics (InCoB) 2020 (World Wide Web; from 25-27 November

2020), on "Shared ancestry of core-histone subunits and non-histone plant proteins containing the histone fold motif (hfm)".

Publications Total Number: 74

Books Published: 03

Kaur, H., Toteja, R., and Makhija, S. (2021). Textbook of Immunology. IK/WILEY.

Kumar, S., Kumar, A. Mukherjee, S. and Vandana (2020): *Textbook of Analytical Techniques for Plants*; NEWRAYS, India. ISBN:978-81-940687-0-9

Chakravortty, M. (2021) Ehsaas Meri Kalam Se. Delhi, India. ISBN: 978-81-949311-8-8

Research Papers: 71

Babu, S., Singh, M.O.K. (2021). Cultural entomology and edible insect diversity in a wetland ecosystem: A case study from the Loushi pat basin, Manipur. *Indian Journal of Traditional Knowledge (IJTK)*, 20(1), 180-190.

Bhanu Murthy, K.V & Goel, S. (2020). "A Study of Market Microstructure of Indian Money Market", *MUDRA: Journal of Finance and Accounting*, (7) 2, July- Dec 2020, 31-54.

Bhardwaj, AR., Pandey, R., Agarwal, M., Katiyar-Agarwal, S. (2021) Northern Blotting Technique for Detection and Expression Analysis of mRNAs and Small RNAs. *Methods in Molecular Biology*, 2070, 155-183.

Bhaskaran, S., Singh, M., Negi, M.S., Gupta, S.K. (2021) Improved electrochemical performance of nickel cobaltite/ multi-walled carbon nanotube composite as a hybrid electrode for super capacitors. *Journal of Physics and Chemistry of Solids 154*, 110107.

Bhattacharya, A., Maurya, S.K., and Bhattacharya, N. (2020) Emergence of the fifth human malaria parasite, *Plasmodium knowlesi*: A new threat to public health? *Asian Journal of Research in Infectious Diseases*, 05, 49-53.

Bhattacharya, N., Maurya, S.K., Bhattacharya, A., Senapati, S. (2020) A review on drug repurposing: a strategy to treat human coronavirus disease (COVID-19). *International Journal of Tropical Disease & Health*, 41, 42-54.

Deo, V., Chetiya, A.R., Deka, B., & Grover, G. (2020). Forecasting Transmission Dynamics of COVID-19 in India Under Containment Measures- A Time-Dependent State-Space SIR Approach. Statistics and Applications, 18(1B), 157-180.

Goyal, B., Sabharwal, A., & Dhingra, N. (2021). Impact of parental psychiatric problems on adjustment behavior of adolescents: A study through inventory of school students. *International Journal of Scientific Research*, 10(1), 15-18.

Gupta, A. (2020), "Corona Virus Pandemic: Threat or an Opportunity to Sex Workers", *International Journal of Research Culture Society*", 4(6), 191-195

Gupta, K.K., Jha, A.K., Singh, S.S. (2020). Quark Gluon Plasma (QGP) Evolution under Loop Corrections. *International Journal of Scientific Research in Physics and Applied Sciences*, 8 (6), 13-18, E-ISSN: 2348-3423.

Journals

Published by the College: 01

Ramjas Economic Review (ISSN 2582-6093 Online)

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board: 02

Research Projects: 04

Dr. Charu Dogra Rawat, Department of Zoology.Funding Agency: Department of Biotechnology, Govt. of India.Year/ Period: March 2018- September 2021. Title: Remediation and Reclamation of Hexachlorocyclohexane (HCH) Dumpsite by using Microbial Bioremediation Technology. Amount Sanctioned: Rs. 16.8 Lakhs

Dr. Ankur Bhardwaj, Department of Botany.Funding Agency: Institution of Eminence, University of Delhi, Delhi. Year/Period: 2021 (One year May 2020-June 2021). Title: Genome-wide identification of differentially expressed genes from host and pathogen during tolerant and susceptible interactions between Safflower and *Fusarium oxysporum* f. sp. carthami.Amount Sanctioned: Five Lakhs

Dr. Suman Sharma, Department of Botany.Funding Agency: FRP-IOE, University of Delhi.Title: Tracing Genomic changes driven by recent Whole Genome Duplication event, Year/ Period: December 2020- June 2021. Amount Sanctioned: Five Lakhs

Dr. Mausumi Bose and Dr. Amit Pradhan, Department of Philosophy. Funding Agency: Indian Council of Philosophical Research. Year/ Period: 2020/30 Months. Title: Systematic Analysis and Approach to Neuro-Wellness Solution. Amount sanctioned: Five Lakhs

Patents Filed/Granted: One

Number and title of national patents-Dr. Suresh Kumar *et al.* (Department of Botany) Filed a National patent on antibacterial compound from *Achillea millefolium*

Seminars Organized:

Organized by IQAC, Ramjas College

Webinar Series on Online Teaching Platform, 07-08 August 2020. Speaker: Dr. Amit Sehgal (Hansraj College).

Corona Pandemic and Online Education: Pros and Cons 07 September 2020. Speaker: Prof. Pankaj Arora (CIE, Department of Education)

Organized by Women Development Committee

Webinar on Women Laws and Rights 16 January 2021. Sushila, Associate Professor, National Law University Delhi (NLUD), Research Director of Centre for Study of Consumer Law and Policy and the Projector Director, Chair on Consumer Law at NLUD.

Workshop on Maintaining Healthy Lifestyle 13 February 2021. (Exclusively for Women Students and Staff). Dietician Alpana Verma, Dr. Anupama Gonjhu, Resident obstetrics and gynecologist, Hindu Rao Hospital, Delhi and Dr. Kiran Raman Goyal, Consultant Obstetrics and Gynecologist at Sri Balaji Action Medical Institute, New Delhi.

Organized by Wellness and Counseling Unit

Holistic Well-Being Session, 30 January 2021.Dr. Seema Midha, a happiness coach and psychotherapist, Ms. Pragati Jalan Surekha, a clinical psychologist and mental health expert and Ms. Sunaina Rekhi, a yoga and fitness expert and Ms. Preeti Singh, founder Sattva Nation.

Conferences Organized: 03

International Conference on History of Mathematics, 20 December. 2020-22 December. 2020, ISHM

19th Annual Winter Conference of the Department of Economics. 20 February 2021

Dr. Helianthous Verma from Department of Zoology organized the 61st Annual conference of Association of Microbiologists of India (AMI) and Indian Network For Soil Contamination Research (INSCR) on "Microbial world: Recent developments in Health, Agriculture and Environmental Science" from 3 to 5 February 2021.

Seminar/Conference Presentations

Dr. Charu Dogra Rawat, Department of Zoology, Invited Talk: Overcoming challenges in microbe assisted bioremediation – a genomic approach. 61st Annual International Conference of the Association of Microbiologists of India (AMI) and Indian Network for Soil Contamination Research (INSCR) in association with The Energy and Resources Institute (TERI), University of Delhi (DU), Indian Agricultural Research Institute (IARI) and Indian National Science Academy (INSA). 05 February 2021.

Dr. Vishal Deo, Department of Statistics, Invited Talk on "Dynamic Predictions from Joint Models- An Alternative to Multi-State Decision-Analytic Models for Cost-effectiveness Analysis" in the 23rd annual conference of SSCA (online), VISTA-2021, during 24- 28 February 2021 at ICAR-NAARM, Hyderabad.

Dr. Pooja Jha Maity (Department of Botany), Invited Talk on topic: "Role of Medicinal Plants in Boosting Immunity during This Pandemic" at BICON-2020, at Biyani Group of Colleges, Rajasthan, India, 17 December 2020.

Dr. Suresh Kumar (Department of Botany), Invited talk on Ethnobotany and Drug Discovery in the Webinar Ethnobotany and Pharmacology bioactive compounds and safety evaluation, organized by the Society for Environment, Health, Awareness of Nutrition and toxicology (SEHAT), 27 April 2021.

Dr. Savita Bargujar, Department of Chemistry Paper presentation "Impact of Covid-19 Pandemic on the Marginalized Sections in India" in two days International Conference on "Rethinking Science for Sustainable Development" held on April 20-21, 2021, organized by Department of Chemistry, Rajdhani College, University of Delhi, India.

Dr. Sarika Malik, Department of Chemistry Oral paper presentation on "Studies on Decentralization of Solid Waste Management in National Capital" in International e-Conference on "Self Reliant India through Inclusion of Science, Arts, Pharmacy, Teaching, Commerce, Humanities, Engg & Tech-2020 organized by Nagarjuna Science and Environmental Forum held on 2 - 3 October 2020

Dr. Pooja Gupta (Department of Botany) presented (Oral) Role of Traditional Knowledge in Environmental Conservation – Challenges and Future Prospects. In Webinar on Biodiversity, Wildlife and Traditional Knowledge organized by ENVIS-RP, Institute of Wildlife Sciences, ONGC Centre for Advanced Studies, University of Lucknow, Lucknow, Uttar Pradesh, 8-9 May 2020.

Dr. Neelu Anand Jha and Vinod Kumar (Department of Zoology): Long term consequences of constant bright light environment on reproduction and associated behaviours in zebra finches. International Colloquium on Regulatory Mechanisms underlying Behavior, Physiology and Development. 24 – 26 March 2021, Department of Zoology, University of Delhi, Delhi, India.

Dr. Helianthous Verma (Department of Zoology) Presented on "Insights into the evolution of drug resistance and potential drug targets of *Mycobacterium tuberculosis* using comparative genomics" at 61st annual conference of Association of Microbiologists of India (AMI) and Indian Network For Soil Contamination Research (INSCR) on "Microbial world: Recent developments in Health, Agriculture and Environmental Science" from 3-5 February 2021.

Neelima, (Department of Mathematics) Existence and Uniqueness for a class of SPDEs driven by Levy Noise, Bernaulli-IMS One World Symposium 2020, 24 August 2020-28 August 2020.

Virender, (Department of Mathematics) Bases and Frames in Quaternionic Hilbert Spaces, International Video Conference Generalized Integration and its Applications, BUAP, Mexico, 26 August 2020-28 August 2020.

Deshpande, A. and Apoorva Gupta, (Department of Economics) "Nakusha: Son-preference, Resource Concentration and Gender gaps in Education", Research Colloquium on Contemporary Issues in Economic Theory and Policy, organized by Department of Economics, Sri Venkateswara College, University of Delhi, 27 January 2021.

Other Inter-Institutional Collaboration

International webinar on Biodiversity Day organized by Department of Environmental sciences, M.L. Sukhadia University, Udaipur (Rajasthan) In collaboration with Ramjas College and others on 22 May 2021(Dr. Suresh Kumar, member Organizing Committee)

International webinar on World Environment Day organized by Department of Environmental sciences, M.L. Sukhadia University, Udaipur (Rajasthan) In collaboration with Ramjas College and others on 5 June 2021 (Dr. Suresh Kumar, member Organizing Committee)

Placement Details

Number and percentage of students placed: 127 (41%) Number of Companies visited for campus recruitment: 84

Library Development:

E-journals and e-books- The library provided e-journals and e-books to students and faculty members through NLIST subscription. There has been a substantial increase in the membership to NLIST during 2020-21. The faculty members and PG students have been extended the facility of remote login to the e-resources provided by Delhi University Library System. Printed Study Material- The required study material was sent to the students through WhatsApp and email as the students were unable to physically visit the library due to the ongoing Covid pandemic. The circulation counters were restructured to fulfill the requirements of a fully automated college library and also to free up space.

Faculty Strength: Adhoc: 135, Regular: 89, Temporary:1, Librarian: 1, Principal:1

Financial Allocation and Utilization

Grant sanctioned in Rs. : 59,42,87,000/- * Utilized in Rs. : 59,11,54,954/-

*Subject to Audit

Other Significant Information

Virender, Department of Mathematics Subject Resource Person in Virtual Workshop on Collating Mathematics Resources for Teachers in Higher Education organized by NIEPA, Delhi from 06 October 2020-07 October 2020.

Dr. Smita Bhatia Department of Zoology Critical reviewer for paper: Nidhi Chahal, Anjali Geethadevi, Surleen Kaur, Ruchi Lakra, Anjali Nagendra, T.G. Shrivastav, Francesco De Pascali, Eric Reiter, Pascale Crépieux, M. Gouri Devi, Neena Malhotra, K. Muralidhar, Rita Singh (2021). Direct impact of gonadotropins on glucose uptake and storage in preovulatory granulosa cells: Implications in the pathogenesis of polycystic ovary syndrome. Metab. Clin. Exp. 115:154458. DOI: https://doi.org/10.1016/j.metabol.2020.154458

Dr. Suresh Kumar, Department of Botany: Resource Person for Extraction and Phytochemical Analysis in Medicinal plants in Entrepreneurship Development Programme-EDP" on "Crude drugs based on Herbal Medicinal Plants for Livelihood for Rural Unemployed Youths organized by Department of Botany, Multanimal Modi (P.G.) College, Modinagar, Ghaziabad-UP, 10 April 2020.

Dr. Alok Kumar, Department of Botany delivered talk on 'Addressing Ethical Dilemmas of Life' October 06, 2020 during short term course on Know Thyself: Balancing Mind, Body and Soul organized by Maitreyi College, University of Delhi, 30 September 2020 to 09 October 2020.

Dr. Alok Kumar, Department of Botany delivered a session at the One Day Online workshop entitled: Sahajyog Meditation: Discover inner peace and positivity organised by Internal Quality Assurance Cell in association with Atman: Mind, Body and Soul Club of Sri Ram College of Commerce, University of Delhi, 14 June 2020.

RAM LAL ANAND COLLEGE

Major Activities and Achievements:

The Academic session 2020-21 remained productive despite the lockdown due to ongoing pandemic. We remained focused on our ambitions and dedicated towards creating a culture of academic excellence keeping a regular dialogue with all stakeholders. Faculty smoothly made a transition to online mode of teaching. The students and faculty were provided with G-Suite account facility with Institutional email IDs for online classes and Google classroom access for sharing study material and conducting assessments/ quiz. The College enhanced its IT support and infrastructure. FDP on ICT Tools and LMS was conducted for all faculty members before the start of academic session 2020-21 to facilitate online teaching covering all platforms including Google Meet, Google Classroom, Canvas, JioMeet, Zoom, Photo and Video Editing tools. The pass percentage of outgoing batch 2017-20 was 93.1%. In 2020-21, a total of 871 admissions were done against 886 sanctioned seats in various programs. Students have been given remote access to Library Resources via NList membership. For Visually Challenged students, the prescribed books were shared after being converted to VH readable E-Texts. For curriculum enrichment, the college offered 21 skill development certificate courses for students (without any additional fees) in online mode so as to utilize the lockdown Period constructively. Also, there were a total of 749 certificate course completions including 13 specialized courses by students and faculty on Coursera platform. For physical and mental fitness of students and staff, a course on Yoga and meditation has been running since 1st June 2020 in online mode. The Human values, Ethics and Life Skills course was also offered in online mode to all semester I students. Three new short-term courses for preparation of Entrance examinations (CAT, PO, SSC, Civil services etc) were conducted by Career Counselling and Placement Cell. Among other new initiatives, a Book bank Facility with a provision of complete set of course books for needy students of all programs. A Gender Sensitization Committee has been constituted under the staff council. Two new journals "Asmi" and "Journal of Human Values, Ethics and Life Skills" (multi-disciplinary) have been approved. The college has also started an Endowment Fund under which donations of INR 8 lacs has been received from the college this year from stakeholders and public. The funds received will be utilized for the purpose of scholarships or awards for the meritorious students.

Honors/Distinctions

Gandhi Study Circle of RLA College secured 1st position in the field of spreading Gandhian values on the basis of the events and activities of 2019-20 session in the University. The College Principal Dr R. K. Gupta, Gandhi Study Circle Convener Late Dr Devendra Kumar and Student President Deepak Trivedi of B.A (Hons) Hindi Patrakarita Evam Jansanchar, were awarded by Honorable Vice Chancellor Prof. P. C. Joshi on 2nd October 2020 at Gandhi Bhawan, University of Delhi.

Dr. Vandana Gupta, conferred "International Distinguished Women Scientist award" for superior performance in Microbiology Conferred by Center for Professional Advancement, Vijayawada, Andhra Pradesh, 8th March 2021.

Ms. Sakshi Taresh Khanna, bagged the Best Teacher Award 2020 by InSc (Institute of Scholars), 20th November 2020.

Ms. Shikha Verma and **Mr. Arun Kumar Gautam** were selected for Summer Faculty Research Fellow Programme 2020 at IIT Delhi on 30th July 2020

Dr. Shachi Meena, Department of History successfully defended Ph.D (Title: Trade Routes, Transportation and Travellers in Mughal India during Seventeenth Century) and conferred Ph.D Degree on 24th May 2021

Dr Pratik Kumar, Department of History successfully defended Ph.D (Title: Many Faces of Kṛiṣṇa: Representations in Premodern Sanskrit and Braj Traditions) and conferred Ph.D Degree on 24th June 2020.

Students with Distinctions

Ms. Simran Preet Kaur, B.Sc. (Hons) Microbiology, III Year, awarded "Best Student" of the academic session 2020-21 by Microbiologists Society of India.

Kastur Parida, B.Sc. (Hons) Geology, awarded the University Gold Medal and certificate in the 97th Convocation ceremony held on 27th February 2021.

Mr. Akash Nair and Ms. Jyoti Jangra, B.Sc. (Hons) Geology got selected as a grant recipient of \$500 under L. Austin Weeks Undergraduate Grant Program.

Ms. Shreya Shukla III Year and Ms. Sanjana Kumari II Year, B.Sc. (Hons) Geology got selected as coordinators of American Association of Petroleum Geologists Foundation (AAPG) Student Chapter, University of Delhi.

Two students cleared IIT-JAM (2020); Mr. Akash Nair ranked AIR-58 and got placed at IIT Kharagpur and Ms. Aarushi Rawat ranked AIR-62, placed at ISM (IIT Dhanbad).

Nikhil Gupta, B.Sc (Hons) Microbiology, awarded Inspire Scholarship under Scholarship for Higher Education (SHE).

Chanuka Nisalanka Wijewardana, B.Sc (Hons) Microbiology, awarded Nehru Memorial Scholarship Scheme for International students by Indian council for cultural relations (ICCR).

Pritika Baranwal, B.Sc (Hons) Microbiology, Shortlisted for presenting the idea in Nature Hack for Clean Air Hackathon to look for innovative ideas towards nature based innovative solutions for clean air organized by Clean Air Asia India on 5th June 2020.

Priya Bhatia, B.Sc (Hons) Microbiology, awarded "Best Speaker" for National Level Microbiopodium Contest organized by Government Institute of Science Aurangabad on 8th February 2021.

Lakshay Chabhra bagged Elite + Silver Grade in NPTEL Course; Bhomik Kaushik and Anushka Singh got Elite Grade in NPTEL courses

Publications

Research Articles:(60)

Articles indexed in Scopus (UGC Care List II)

Ali, S., Shekhar, S., Chandrasekhar, T., Yadav, A.K., Arora, N.K., Kashyap, C. A., Bhattacharya, P., Rai, S.P., **Pande, P.**, Chandrasekharam, D. (2021). Influence of the water–sediment interaction on the major ions chemistry and fluoride pollution in groundwater of the Older Alluvial Plains of Delhi, India. *Journal of Earth System Science*, 130(98),1-16. https://doi.org/10.1007/s12040-021-01585-3. (Impact Factor 1.423)

Al-Solamy, F. R., **Bansal, P.,** Chen, B. Y., Murathan, C., Shahid, M.H. (2020). Geometry of chen invariants in statistical warped product manifolds. *International Journal of Geometric Methods and Modern Physics*, 7(06), 2050081, ISSN 0219-8878, 1793-6977. (Impact factor 1.874)

Bhatia, P., Sharma, A., George, A.J., Anvitha, D., Kumar, P, Dwivedi, V.P., Chandra, N.S. (2021). Antibacterial activity of medicinal plants against ESKAPE: An update. *Heliyon*, 7(2). e06310. DOI: 10.1016/j.heliyon.2021.e06310. Scopus Indexed (UGC CARE LIST II)

Jain, R. and Kumar, S. (2021). National Cadet Corps (NCC): Its Role in Integrating North- Eastern Region (NER) with Mainstream India. *Indian Journal of Public Administration*, 67(1). https://doi.org/10.1177/00195561211006558. (UGC CARE list Group II)

Kaur, S.P., Gupta, V. (2020) COVID-19 Vaccine: A comprehensive status report. *Virus Research*, 288,198114. doi: 10.1016/j.virusres.2020.198114. (Impact Factor 2.934)

Kuhad, U., Goel, G., Maurya, P.K., Kuhad, R.C. (2020). Sukshmajeevanu in Vedas: The Forgotten Past of Microbiology, Indian Vedic Knowledge. *Indian Journal of Microbiology*, 61(1),108-110. (Impact Factor 0.9).

Móring, A, **Hooda, S.**, Raghuram, N., Adhya, T.K. et al (2021). Nitrogen challenges and opportunities for agricultural and environmental science in India. *Frontiers in Sustainable Food Systems*, 5, 505347. doi: 10.3389/fsufs.2021.505347 (Scopus Indexed)

Sakshi, K. (2020). The challenged digital capacity of India is now a state of a living in lockdown. *Aegaeum Journal*, 8(9), 291-301. doi: doi:16.10089.AJ.2020.V8I9.285311.40925. (UGC CARE Group II)

Sakshi, K., Bhomic., **S, Kumar, N.**, **Gandotra, V.** (2020). FEEDU-Android Based One Stop Solution for Feedback Analysis. *Aegaeum Journal*, 8(8), 694-707. doi:16.10089.AJ.2020.V8I8.285311.3969. (UGC CARE Group II) **Dabas, S.C.** (2021). Dinkar ka Virtav Bhav aur Aapaddharm. I JAEMA, XIII 81-83, ISSN 0886-9367 (UGC-Care LIST II).

Sharma, B., Shahanshah, M.F.H., Gupta, S., **Gupta, V.** (2021). Recent advances in the diagnosis of COVID-19: A bird's eye view. *Expert Review of Molecular Diagnostics*. 21(5), 475-491. doi: 10.1080/14737159.2021.1874354. (Impact Factor 4.096)

Singh, A., **Gupta, V.** (2021) SARS-CoV-2 therapeutics: how far do we stand from a remedy? *Pharmacol Rep.* 3,1–19. doi: 10.1007/s43440-020-00204-0. (Impact Factor 2.754)

Articles indexed in UGC care List I Journals

Dabas, S.C. (2021). Swawlamban aur Gandhiji. Samsaamyik Srijan, 21:18-19, ISSN 2320-5733 (UGC-Care listed).

Dabas, S.C. and Kumar, S. (2021). Gandhi Ji Ke Atamnirbharta Ke Adarsh Ki Vartamaan Prasangikta. Jyotirverd Prasthanam, 10 (1), 05-08, ISSN 2278-0327 (UGC-Care listed).

Dabas, S.C. and Kumar, S. (2021). Hindi Kavita Main Nayi Sambhavnao Ka Dwar Kholti Krati 'Zaroorat Khawaab Dekhne ki'. Jyotirverd Prasthanam, 10(1), 53-56, ISSN 2278-0327 (UGC-Care listed).

Kumar, R. (2020). Dharmsatta Rajsatta aur seekari Ke Sant: Sharad Joshi Ki Vynagya Drishti. *Shodh Disha* 51:102, ISSN 0975-735X. (UGC-Care list 1).

Kumar, R. (2020). Lyrical Prose Ka Sansar. Samsamvik Srijan, 2:20, ISSN 2320-5733. (UGC-Care list 1).

Kumar, R. (2020). Parsai Ki Vyangya Kathaon ke Natya Roppantaran. *Gagananchal*, 3-4, 91 ISSN 0971-1430. (UGC-Care list I).

Kumar, R. (2020). Shiksha Aur Samajik Bahishkaran. *Samsamyik Srijan*, 1,190, ISSN 2320-5733. (UGC-Care list 1).

Kumar, R. (2020). Sir Arthur Gordon: Fiji Me Bhartiya Bandhua-Majdoor-Pravasan-Vyavastha Ke Prastootkarta, *Itihaas Shodh Patrika*, 6(2),65-84, ISSN 2319-8818. (UGC Care List I)

Kumar, R. (2021). Articulating Authority and Ideology through Built Structures: A Study of the Monuments of Akbar and Shah Jahan. *The Journal of Oriental Research, Madras*, XCH-XX, 39-48 ISSN0022-3301. (UGC CARE list I)

Books/Chapters published by faculty (35)

E-content/MOOCs developed:

Dr. Rakesh Kumar, MOOC on Mughal Architecture (for Faculty), Camera Presentation (Quadrant 1-4), under Online Annual Refresher Programme in Teaching (ARPIT), sponsored by National Resource Centre, UGC-HRDC

Journals

Published by the College

One new Journal have been approved: Journal of Human Values, Ethics and Life Skills (Multidisciplinary)

The E-Magazine/Journal Asmi has been launched. The first issue is available at https://rlacollege.edu.in/pdf/asmi-e-journal.pdf.

Department of Hindi Patrakarita Evam Jansanchar published "RLA Samachar" and a hindi magazine named "Sambhav".

Number of college teachers serving as editor/member of editorial board: 6

Research Projects: 7

New Projects Sanctioned: 2

Targeting biofilm formation by inhibiting Cysteine biosynthesis pathway enzymes in ESKAPE pathogens with natural products" (Principal Investigator: Dr R K Gupta, Co-investigators: Dr Vibha Gupta, Dr Prerna Diwan), INR 45 Lacs, 3 years, funded by Indian Council of Medical Research (CMR), Government of India.

Resistome metagenomic profiling of bioaerosols in metro network in Delhi- NCR, (Principal Investigator: Dr R K Gupta, Co-investigators: Dr Sunila, Dr Prerna Diwan), Technically Approved for INR 56 Lacs, 3 years by ICMR, Government of India.

On-going research Projects/Grants: 5

Star College Grant to Department of Microbiology, INR 25 Lacs, 3years, Department of Biotechnology, Government of India.

Enhancement of Livelihood Opportunities through Sustainable Development using Multifaceted Support Plans for Village Cluster around Patiya in Takula Block, Almora District, Uttarakhand" (Principal Investigator: Dr Seema Gupta; Co-investigators: Dr Rakesh Kumar, Dr Mukta Mazumdar, Dr Rajesh Sachdev, Dr Prabhas Pande, INR 1.99 crores, 3 years, National Mission on Himalayan studies (NMHS) by MOEF&CC, Government of India.

Alterations in oral microbiome of Betel nut chewing population of North Eastern India and its Correlation with Oral Cancers: Prospecting Microbial Consortium for Therapeutic Effect (Principal Investigator: Dr Prerna Diwan; Co-investigators: Dr R K Gupta, Dr James Wahlang), INR 36 Lacs, 3 years ICMR, Government of India.

Communicating the science behind the phenomenon of antibiotic resistance to promote social awareness ((Principal Investigator: Dr Prerna Diwan; Co-investigators: Dr R K Gupta), INR 5 Lacs, 2 years, IMPRESS-ICSSR, Government of India.

A study of Socio-economic and cultural impact of the left-wing Extremism (LWE) in Bastar, Chhattisgarh ((Principal Investigator: Dr Prerna Malhotra), INR 8 Lacs, 2 years, IMPRESS-ICSSR, Government of India.

Seminar Organized by College 12

International: 8

International webinar series was organized by the Department of Geology from 6 to 7 March 2021 The event received more than 500 registrations from different parts of the world, including the United States of America, United Kingdom, Germany, Chile, and Sri Lanka. Speakers: Prof. Maurice E. Tucker, School of Earth Science, University of Bristol, Title: Fossil Viruses and the Role of Viruses in Earth Science; Prof. Prof. Nigel Hughes, University of California, Riverside, Title: Reconstructing the Pre-Collision History of Himalayan Margin and it's Implication for Himalayan Uplift and Erosion, Prof. Ashok Sahni, Department of Geology, Panjab University, Title: Dinosaurs of India: Dead but Well; Dr. Robert Finkelman, Department of Geosciences, University of Texas, Dallas, Title: Prospects of Medical Geology and Health Impacts of Uncontrolled Coal Fires at Jharia Region.

International Webinar on Climate Change and Extremes organized on 27th February, 2021. Speaker: Dr. Shipra Jain, Post-Doctoral Research Associate, School of Geosciences, The University of Edinburgh, UK.

International Webinar Understanding Indian Diaspora: Roots, Struggles and Contemporary realities organized by the Department of English, , 5th November 2020. Speaker: Mr. Kapil Kumar, Chairperson, Faculty of History, IGNOU

International Webinar Fighting on Multiple Fronts: The Battles of the Indian Diaspora for Cultural Retention organized by the Department of English., 20th November, 2020; Speaker: Mr. Rudra Ramdial, Senior Executive, USMA Ltd. Title: Fighting on Multiple Fronts: The Battles of the Indian Diaspora for Cultural Retention.

International Webinar Text to Screen: an Educational Discussion on Literature and Cinema organized by English Literary Society, in association with UDAAN, 23rd January 2021. Speakers: Dilip Shukla, Screenplay writer and Director; Kamlesh K Mishra, Winning Filmmaker.

International Webinar Principles of Ancient Indian Drama organized by English Literary Society on 08th February 2021 Speaker: Bharat Gupt, Classicist and Former Associate Prof., CVS.

International Webinar Rasa Theory organized by UBIQUITOUS, The English Literary Society, on 9th February 2021; Speaker: Bharat Gupta, Classicist and Former Associate Prof., CVS.

Two days international Interactive webinar on Lifestyle, weight management, Nutrition and Immunity from 23 -24 June, 2020 jointly organized by Department of Physical Education and IQAC. Speaker: Dr. Rakesh Tomar, Faculty (Physical Education), King Fahd University of Petroleum & Minerals, Saudi Arabia.

National:4

National e- Symposium on "Urban and Rural Governance: Issues and Challenges" organized by the Department of Political Science, University of Delhi in collaboration with Adamas University on 13 June 2020. Speakers: Dr. Sebak Kumar Jana, Professor of Economics and Coordinator, UGC, SAP, DRS-1 in the department of Economics, Vidyasagar University, Midnapore, West Bengal, Title: Governance and sustainable rural development: some issues and options; Dr. Kamala Kant Pandey, Indian Institute of Public Administration, New Delhi. Member of Expert Committee to review NCR plan 2020, NCR Planning Board, New Delhi, Title: Post Covid urban Governance

National Webinar on 'Inclusion and Disability' on 3 April 2021 organized by Sugam Society, in collaboration with the Department of History, Speakers: Abhay, Research Scholar, Dept. of English, Banaras Hindu University (BHU), Varanasi, Title of the talk: Divyangta is not a barrier-Narrating the Self; Shri T.D. Dhariyal, Former State Commissioner for Persons with Disabilities, Government of NCT of Delhi, Chair and Keynote Speaker; Dr. Chitra Kataria, Chief of Rehabilitation Services, Indian Spinal Injuries Centre, Vasant Kunj, Delhi, Title: Rehabilitation and Community Reintegration for Person with Locomotor Disability; Dr. Bipin Kumar Tiwari, OSD, Equal Opportunity Cell & Faculty Department of Political Science, University of Delhi, Title: Inclusion and Disability

National Seminar, "Vartman Samay Mein Hindi" organized on 23 September 2020 by Department of Hindi Patrakarita Evam Jansanchar. Speaker: Shri Neeraj Kumar, Deputy Director, Department of Information. Public Relation and Language, Haryana.

National Webinar entitled 'Plagiarism Issues, Policies and Detection Tools' on 25 June 2020 by Institutional Academic Integrity panel and IQAC in association with INFLIBNET; Speakers: Prof. J. P. Singh Joorel, Director, INFLIBNET.; Mr. Manoj Kumar K. Scientist - E (CS), INFLIBNET

Conferences organized: 4

International:1

Two Day International E-Conference on Post Pandemic Education & Employment: Challenges & Opportunities, 4-5th March 2021 Speakers: Prof. Mahendhiran Nair, Pro Vice Chancellor, Sunway University, Malaysia; Prof. Balram Pani, Dean Colleges, University of Delhi; Shri Bharat Bhushan, Entrepreneur and Community Activist; Prof. Inder Mohan Kapahy, Former Member University Grant Commission; Dr. Rama, Principal, Hansraj College, University of Delhi; Dr. Pratyush Vatsala, Principal, Lakshmibai College, University of Delhi; Shri Shonal Gupta, Project Head, Samarth Bharat; Shri Mukesh Shukla, Chairman, Institute of Industrial Development (IID); Shri Ravi Gupta, Advisor IID and Samarth Bharat; Shri Praveen Arya, Founder F-Tec; Smt. Sarita Duhan, Principal, Zonal Multi-disciplinary Training Centre, KVIC; Shri Shonal Gupta, Project Head, Samarth Bharat; MS Chaitra, India Studies Unit, Centre for Educational and Social Studies, Bengaluru; Professor Gautam Sen, Retd. London School of Economics and Political Science; Professor Prakash Shah, Queen Mary, University, of London;

National: 3

Two day National Conference entitled "Self-reliant India: A Gandhian Perspective" from 28 -29 September 2020 organized by Gandhi study circle and Gujarat Vidhyapeeth, Deemed University, Ahmedabad

National Conference titled "Role of NCC for National Integration" from 17-18 October 2020 by NCC. Speakers: Lt Gen. Satish Dua, Retd. PVSM, UVSM, SM, VSM. Title: Role of NCC in National Integration; Maj Gen Dilawar Singh, Former DG NYKS, Title: Role of Youth in Development of the Nation, Maj Gen Vikram Dogra, Retd. AVSM, Title: Mental endurance and perseverance, Col Sonam Wangchuk, Retd. MVC, Title: National Integration and Relevance of NCC in Unifying Nation, Col. Anup Awasthi, CO-7DBN, Title: Role of NCC in National Integration, Core Values inculcated in NCC, Role and Responsibility of Youth.

E-summit'21 with 5 successful Entrepreneur Speakers: Saurabh Jain, Vice president at Paytm & Founder at Fun2Do Labs; Nixon Joseph- President and Chief Operating officer at SBI Foundation; Arjun Vaidya-CEO at Rd. Vaidya; Deep Bajaj- Founder Sirona and Pee buddy; Anil Khaitan - Chairman and Managing Director at Sunil Healthcare Ltd on 26 February 2021

Seminar/Conference Presentations: 23

International: 15

Bansal P. (2020). Paper presentation "Geometry of Chen invariants in statistical warped product manifolds' in Virtual Math Fest (VMF 2020) organised by IMSc Chennai, India from 20-26 July, 2020.

Bhatia VK. (2021). India Central Asia in Post Covid Era" at Webinar Organized by Research Circle Malaysia on 14 March 2021.

Bhatia VK. (2021). New Education Policy Prospects and Opportunities at International E-Conference organized by Sangoshthi Society of from 4-5 March, 2021.

Bhatia VK. (2021). The New Educational Policy and Indian Education at Young Researchers International Webinar Co-Funded by Jean Martin Project SAPHIRE, European Union Jawaharlal Nehru University on Areas of India-EU cooperation in Higher Education: Challenges and Opportunities from 8-10 March, 2021. Bhatnagar K and **Sharma S**. (2021), "Long term Impact of Covid-19 Pandemic on Higher Education in India" Presented in 'Two Day International E-Conference on Post Pandemic Education & Employment: Challenges & Opportunities', 4-5 March 2021

Kuhad, U. (2020). Invited for Special Lecture as a Resource Person on the topic, "Voices of Women in Science Fiction with Special reference to Manjula Padmanabhan's Escape" at the online 10 day International Symposium on Thought – Experimentation on Humanities, Science and Science Fiction, organised by Shri Muktanand College, Maharashtra, Indian Association for Science Fiction Studies & Indian Science Fiction Writers' Association from 20 – 30 July, 2020.

Kuhad, U. (2020). Chaired session in the International Conference- Representation of Disease: Literary Responses Across Time and Space, organised by The Shakespeare's Association, (India) from -28 - 30 June 2020.

Kuhad, U. Paper Presentation on "The Shadow of Spanish Flu Pandemic on T. S. Eliot's The Waste Land" in the International Conference titled "Representation of Disease: Literary Responses Across Time and Space"- organised by The Shakespeare's Association, (India) from 28 – 30 June

Lal, R.(2020), Session Convenor and presented a paper on "Deciphering the Provenance, Climate and Tectonic Settings of High Altitude Quaternary Deposits in Ladakh-NW Himalayas" in Goldschmidt 2020 which was held from 21-26 June 2020.

Mishra B. (2021). Covid 19 Pandemic: Impact and Strategies for Education sector in India Presented in Two Day International E-Conference on Post Pandemic Education & Employment: Challenges & Opportunities', 4-5 March 2021

National :5 University level: 3

National/International MoUs Signed

Renewed the MOU with THSTI for the ongoing Science Setu program. Period of validity: 5th August, 2020 to 4 August 2023

Other Inter-Institutional Collaboration

Translational Health Science and Technology Institute (THSTI), Faridabad under Science Setu MoU

National Institute of Plant Genome Research (NIPGR)

Gandhi Smriti and Darshan Samiti, Rajghat, New Delhi.

Research Collaboration with St Edmunds College, Shillong, Meghalaya.

Research Collaboration GGS Indraprastha University, New Delhi.

Research Collaboration Department of Biotechnology, Jaypee Institute of Information Technology, Noida, India.

Collaboration with Jean Monnet Module and Centre for European Studies, Jawaharlal Nehru University to promote European Studies in India.

Centre for Innovation in Infectious Disease Research, Education and Training, University of Delhi South Campus, Benito Juarez Marg

Department of South Asian Studies, University of Delhi

Gujarat Vidyapeeth (Deemed to be University) Ahmedabad, Gujrat

Department of Political Science, , University of Delhi and Department of Laws, BPS Mahila Viswavidyalaya, Khanpur Kalan, Haryana

Teaching Learning Centre, Ramanujan College, University of Delhi

Students Under Exchange Program

Mr. Akash Nair and Ms. Jyoti Jangra, B.Sc. (H) Geology got selected as a grant recipient of \$500 under L. Austin Weeks Undergraduate Grant Program.

Placement Details

Number and percentage of students placed: 11 and 2 short listed for placement

Number of Companies visited for campus recruitment: 5

Number of Internships offered: 72

Extension And Outreach Activities

Covid Support: NSS Unit of RLA organized a donation drive in the college campus from 18 to 25th January 2021. NSS also started a helpdesk for blood, plasma and bed availability in DELHI-NCR region via the college website and various social media handles. Dr. Vandana Gupta, Department of Microbiology, started an online community outreach project "UDISHA: A New Dawn an HPV vaccine awareness initiative" in Jan 2021. Under this webinar UDISHA: An HPV Vaccination Initiative, was held on on 22 March 2021. A Cancer awareness talk on 22 March 2021 organized by Department of Microbiology, in association with Rajiv Gandhi Cancer Institute and Research Centre. Department of Commerce initiated a plantation drive on the 26 of April 2021. The motto of the event was to make each day "The Earth's Day" and to create environmental awareness in community. Dr. Ravish Lal, Assistant Professor, Department of Geology, was one of the coordinators under IIRS-ISRO Outreach Programme for the six online courses.

Library Development

In the session 2020-21, 852 (textbooks) and 68 (reference books) were purchased worth INR 625680.INR 15 lacs have been approved by GB for **Book bank Facility with** a provision of complete sets of course books for needy students of all programmes. For Visually Challenged students, the prescribed books scanned by Kabo Scanner and converted to VH readable E-Texts were shared. The library staff has been trained on Plagiarism Detection Software, URKUND.

Faculty Strength: 90

Financial Allocation and Utilization

Grant sanctioned: INR 34,90,000,00/-(Thirty four crores ninety lacs only)

Grant Utilized: INR 29,26,29,000/- (Twenty nine crores twenty six lacs twenty nine thousand only)

Other Significant Information

FACULTY/PROFESSIONAL DEVELOPMENT PROGRAMMES CONDUCTED BY COLLEGE (5)

WORKSHOPS CONDUCTED BY COLLEGE (11)

CERTIFICATE COURSES OFFERED BY COLLEGE FOR STUDENTS: (21)

- i. Scientific Writing and Research Ethics" under DBT Star College Scheme
- ii. Python in Biological Sciences under DBT Star College Scheme
- iii. Exploring Feasible Alternative Technologies to Address Environmental Issues under DBT Star College Scheme
- iv. Modern Web Development Tools
- v. Vector Design and Animation
- vi. GST Concepts and Filing of Returns" Conducted by Department of Commerce
- vii. Investing in Stock Markets
- viii. Skill Enhancement certificate Course on "Latex: The Mathematical Type Setting Software
- ix. Training on Experiential Learning & Soft Skills Development in Policy Sciences
- x. Disability Studies
- xi. Software Editing for Media reporting
- xii. Excel and Tableau
- xiii. Data analytics
- xiv. Full Stack Web Developing & Hosting

- xv. Foreign Language Chinese
- xvi. Foreign Language Japanese
- xvii. Hindi Translation
- xviii. Creative writing
- xix. Competition Skill Enhancement Course (Bank PO Coaching)
- xx. Competition Skill Enhancement Course (UPSC Coaching)
- xxi. Competition Skill Enhancement Course (CAT Coaching)

Student Welfare: A total amount of Rs. Four Lakh eighty nine thousand three hundred twenty (INR. 489320/-) was distributed among 96 needy students from low family income category by the college.

SATYAWATI COLLEGE (M)

Major Activities and achievement:

Promotions of teachers from Academic Level 10 to 11 (53 teachers) and Academic Level 11 to 12 (47 Teachers) were completed and got approved in the Governing Body. Promotions of Assistant Professor to Associate Professor (14 Teachers) have been completed as per the guidelines of University of Delhi and got approval in Governing Body. Library digitalization software was started to link college library with DU library resource.

Honours/Distinction

Mr. Luckshay Batra received, Delhi Technological University Commendable Research Award in 2020.

Mr. Luckshay batra invited for Values and Ethics in Mathematics" An invited talk delivered at TEQIP-III RTU (ATU) sponsored a one-week workshop on "Universal Human Values and Professional Ethics" organized by Rajasthan Technical University, Kota from 16-20 February 2021.

Publications

Nirmal Jindal and Kamal Kumar, eds. (2020) International Relations: Theory and Practice, Sage, New Delhi.

Mathur Abha (2020). Higher Experience equips Managers to endure & brave Organizational challenges, PHD Chamber Journal of Ideas & Innovations: 1(1), 53-56

Mathur Abha (2020). Principles of Marketing, New Delhi, ND, Galgotia Publishing House.

Mathur Abha (2020). Communication & Documentation in Business, New Delhi, ND, Galgotia Publishing House.

Mathur Abha (2020). Human Resource Management, New Delhi, ND, Galgotia Publishing House.

Mathur A. (2021), Growing concern for Green Products among Consumers- An Exploratory Study, In S Shruthi, *Green Banking & Environment*, (1),123-130, Bengaluru, Archers & Elevators Publishing House

Kumar P, Kausar, Mathur A, Singh A B, Singh R (2021). Biological Contaminants in Indoor Environment and their impact on Human Health. Air Quality, Atmosphere, and Health. ISSN 1873-9326

Yadav H, Rai U, Singh R (2021). Radiofrequency radiation: A possible threat to male fertility, Reproductive Toxicology (100) 90-100. ISSN 0890-6238

Negi P, Singh R (2021). Association between reproductive health and nonionizing radiation exposure. Electromagn Biol Med. 2021 Jan 2; 40(1):92-102. doi: 10.1080/15368378.2021.1874973. Epub 2021 Jan 20. PMID: 33471575.

Kumar P, Singh R (2021). Novel coronavirus (severe acute respiratory syndrome coronavirus 2) as threat to general and reproductive health: Challenges and research needs. J Reprod Healthc Med 2021;2:S19-S25. ISSN 2768-1114

Research Projects

Design, synthesis and biological evaluation of novel lead compounds for treatment of Fibrodysplasia Ossificans Progressiva (FOP). Indian Council of Medical Research, 2020 (Co-PI).

"The idea of self-reliance and understanding its impact in improving Socio-economic Conditions of Migrant Laborers" under Indian Council of Social Science Research (ICSSR). Total budget (5 Lakhs)

"Bisvi Sadi kye sanskritik prashan aur Geetapress" Under Indian Council of Historical Research (ICHR). Total budget (2.5 Lakhs).

The Study of Sonet Santhal Samaj and Tundi Ashram Movement in Jharkhand under Dr. Ram Dayal Munda Tribal Welfare Research Institude (TRI), Ranchi Jharkhand. Total budget (3.5 Lakhs).

Received research project grant from Institute of Eminence (IOE), University of Delhi for Rs. 3.5 lacs as Co-Principal Investigator in January'2021.

Received research project grant from Sheth Foundation Academy of Indian Marketing for Rs. 1 lacs as Principal Investigator in February'2021.

Conference Organized

International Conference on Challenges and Strategies in Reproductive and Environmental Health with Special Reference to COVID-19 Pandemic & 31st Annual Meeting of the Indian Society for the Study of Reproduction and Fertility (ISSRF) Virtual Conference. Organized by Satyawati College, University of Delhi 19 - 21 February 2021.

Presented research paper in International Congress on Visual Culture held in collaboration with Universite' Paris Diderot, Paris, France, on 17 April 2020, and presented the paper Exploring MadhubaniKohbarPainting: A Gender – Specific folk culture of North India.

Seminar/Conference Presentations

Prof. Nirmal Jindal, delivered a talk on 'Global Governance in Covid 19'in an international conference on 'Global Governance' organised by Politicos, Satyawati College, 8/1/21.

Prof. Nirmal Jindal, delivered a talk on 'Relevance of Tibet in Asian security organised by Society of Social Empowerment and CBU, 11 August 2020

Prof. Nirmal Jindal, presented a Paper on 'Reincarnation of QUAD and Sino India Relations' in an International webinar on 'Changing Paradigm of Sino Indian Relations' organised by Society of Social Empowerment and CBU, 27 April 21

Gupta S, Sharma R S, Singh R. Contraceptives and family planning methods in the age of COVID-19.. International Conference on Challenges and Strategies in Reproductive and Environmental Health with Special Reference to COVID-19 Pandemic. Virtual Conference. Organized by Satyawati College, University of Delhi 19 – 21 February 2021

Himanshi, Sharma R S, Singh R. The Effects of COVID-19 on Pregnancy. International Conference on Challenges and Strategies in Reproductive and Environmental Health with Special Reference to COVID-19 Pandemic.) Virtual Conference. Organized by Satyawati College, University of Delhi 19 – 21 February 2021

Kumar P, Singh R. Effects of Novel Coronavirus (SARS-CoV-2) on general and Reproductive Health. International Conference on Challenges and Strategies in Reproductive and Environmental Health with Special Reference to COVID-19 Pandemic Virtual Conference. Organized by Satyawati College, University of Delhi 19 - 21 February 2021

Jangid P, Sharma R S, Singh R. Association between ovarian follicles alteration and Electromagnetic Radiation. International Conference on Challenges and Strategies in Reproductive and Environmental Health with Special Reference to COVID-19 Pandemic.Virtual Conference. Organized by Satyawati College, University of Delhi 19 - 21 February 2021

Kaur P, Sharma R S, Singh R. Perspectives on Maternal Health Care Services and Safe Motherhood during the COVID-19 pandemic. International Conference on Challenges and Strategies in Reproductive and Environmental Health with Special Reference to COVID-19 Pandemic. Virtual Conference. Organized by Satyawati College, University of Delhi 19 - 21 February 2021

Research paper presented at 4th MSP on the topic "COGNITIVE AND AFFECTIVE ANTECEDENTS AFFECTING CONSUMER ATTITUDE AND SUSTAINABLE TOURISM BEHAVIOR POST COVID-19" organized by University of Newcastle, Newcastle, UK on 9th to 11 December 2020.

Research paper presented at on the topic "Fashion Brands And Status Consumption: a study of antecedent conditions" at 7th IMC organized by MICA & Moody's College, University of Texas on 7 to 9 January, 2021.

Placement details

Number of students getting successful placements-280

Number of Companies/ Industries coming for campus recruitment-20

Library Development:

Total Regular Budget : Rs.12,06,900/Previous Year Balance : Rs.6,95,168.21/Total Available Balance : Rs.19,02,068.21/: Rs.1,86,035/-

New Book Purchased : 373 Newspaper, Magazine & Journals: 48

Faculty Strength:

Permanent:95 Ad-Hoc-43 Temporary-01

Financial Allocation and Utilization:

Grant Sanction in Rs: 41,23,45000/-

Utilized in Rs. 41,64,27000/-

SATYAWATI COLLEGE (EVENING)

Major Activities and Achievements:

While imparting quality education to the students, many of the teachers have participated and presented research papers at various national and international academic and scholarly conferences, seminars and workshops, both in India and abroad. Some of them, also, have authored and/or co-authored academic articles and books. The academic results of the college have constantly shown remarkable progress with number of students in various departments securing outstanding marks in various courses and disciplines. The college has established its reputation in various fields such as Sports, NCC, Dramatics and Debate. The college has set up the benchmark for excellence in Judo and Weight Lifting. Our students have excelled in Wrestling, Weight Lifting, Body Building, Kabaddi, Archery and Judo at Inter-University, National and International level. The N.C.C. unit has provided ample opportunities to the cadets to participate in important all India Camps including Republic Day Camp, Prime Minister's Rally (2021),Amar Jawan Jyoti Camp(India Gate), Para sailing & Para slithering camp etc.

Publications:

Books/Chapter in Books

Kumar, Mayank et.al (2021)Reconfiguring the Historical Landscape of Rajasthan: Essays for Prof. GSL Devra, Aakar Books, New Delhi.

Kumar, Mayank (2020) "Invisible-visible: Sources, Environment and Historians" in Ranjan Chakarabarti, (ed.), Critical Themes in Environmental History of India, Sage, New Delhi, pp.17-52.

Singhal, Ranjana R (2020) "Lord Buddha's Expressions on Women's Rights" in Veenus Jain (ed.) Women: Stuggle, Survival and Success, Blooms Bury, New Delhi.

Articles

Arora, A., Chakraborty, P., Bhatia, M.P.S. and Mittal, P. (2021), "Role of Emotion in Excessive Use of Twitter During COVID-19 Imposed Lockdown 2 in India", Journal of Technology in Behavioral Science, Vol. 6 No. 2, pp. 370–377.

Chakraborty, P., Mittal, P., Gupta, M.S., Yadav, S. and Arora, A. (2020), "Opinion of students on online education during the COVID-19 pandemic", Human Behavior and Emerging Technologies, Vol. 66, pp. 37–39.

Gupta, P.K. and Mittal, P. (2020), "Corporate governance and risk bundling: Evidence from Indian companies", European Journal of Business Science and Technology, Vol. 6 No. 1, pp. 37–52.

Kashyap, V.S. (2021) "Hindi Upanyason me Kisan Pratirodh", IRJMSH, Vol.12 Issue 4.

Mittal, P. and Raghuvaran, S. (2021), "Entrepreneurship education and employability skills: the mediating role of e-learning courses", Entrepreneurship Education, Vol. 4 No. 2, pp. 153–167.

Mittal, P. (2020), "Big data and analytics: a data management perspective in public administration", International Journal of Big Data Management, Vol. 1 No. 2, p. 152.

Verma, C.P., Bansal, R. and Mittal, P. (2020), "Control of COVID-19: A Counter Factual Analysis", Administrative Development, Journal of HIPA, Shimla, Vol. 7 No. 1, pp. 1–24.

Research Projects:

Himachal Institute of Public Administration (HIPA), Govt. of H. P., Shimla, 2020Impact of Mukhya Mantri Adarsh Gram Yojana (MMAGY) in H. P., Below 5 Lacs. PI:Dr. Prabhat Mittal

Bureau of Police Research & Development, Ministry of Home Affairs Govt of India, 2020, Police Accountability, Motivation& Control, Below 5 Lacs. Co-PI:Dr. Prabhat Mittal

Seminars Organized:

Dr.Nilanjan Sarkar, Deputy Director, South Asia Centre, London School of Economics & Political Science, United Kingdom, Event, Objects, Narratives: Medieval Hindu-Muslim Histories in Colonial India, 15 Sep 2020

Prof. Kumkum Roy, Professor, Centre for Historical Studies, JNU Changing Narratives, Changing Times: Revisiting Shakuntala, 15 Sep 2020

Prof. K L Sharma, (Retd.), Centre for the Study of Social Systems, Jawaharlal Nehru University, New Delhi and Former Vice Chancellor, Rajasthan University & Jaipur National University, Jaipur spoke on Social Inequalities: Jati and Varna, 05 Feb 2021

Prof. Avijit Pathak, Professor, Centre for Study of Social Systems, Jawaharlal Nehru University, New Delhi, spoke on Social Perspectives on Inequalities, 05 Feb 2021

Shubhra Ranjan "Major Changes in Indian Foreign Policy after Covid19", Organised by Debating Society, 03 March 2021

Conferences Organized:

"Acid Attack and Cybercrime against Women", Sponsored by National Commission for Women, New Delhi, Organised by NSS and Department of Political Science, 23 March 2021 Convener: Durgesh Verma

"Stop Violence against Women", Supported by Delhi State Legal Services Authority, Organised by Department of Political Science, Satyawati College (E), 06 Sep 2020 Convener: Mr. Durgesh Verma

Panel Discussion on "Culture, Literature, and Gender Justice", Organised by Debating Society, 28 March 2021 Convener: Mr. Durgesh Verma

Seminar/Conference Presentations:

Kumar, Mayank, Energy Resources: Historical Trajectories' at Research Week-'Nature, Culture and Politics' organised by Centre for Environmental Studies, Vidyasagar University, Midnapore, 12 February 2020.

Kumar, Mayank, Discussant at panel discussion on 'Researching Water: Methodologies in History and Archaeology' organised by Centre for Water Policy C- Pact. Shiv Nadar University, Dadri, 28 January 2020.

Kumar, Mayank, Calamities and Social Fault lines', A webinar lecture at two-day webinar on the theme "Adaptations and Challenges from PreCovid to Post Covid Era: A Crucial Juncture of Human History", organised by History Department, University of North Bengal, Darjeeling, 11 February 2021.

Kumar, Mayank, 'Possibilities and constraints: Writing history of early modern times in India', A Webinar talk as part of lecture series for the Spring semester 2021, organised by History Department, Ashoka University, Sonepat, 10 February 2021

Kumar, Mayank, 'Environment, History and its politics in Post-Colonial India' at Darohar, the annual Festival of History Society, PGDAV College, Delhi University, Delhi 21 April 2021.

Kumar, Mayank, 'Writings on Early Modern Rajasthan: Parochial or Refreshing?' at the Series Ganga-Jamuni Heritage, organised by Aligarh Society of History and Archaeology, 18 April 2021. (https://youtu.be/tHrhmuyP4Oc)

Mittal, Prabhat, "A multi-criterion decision analysis based on PCA for analyzing the digital technology skills in the effectiveness of government 4 services", 2020 International Conference on Decision Aid Sciences and Application, DASA 2020

Mittal, Prabhat, "Impact of Digital Capabilities and Technology Skills on Effectiveness of Government in Public Services", 2020 International Conference on Data Analytics for Business and Industry: Way Towards a Sustainable Economy, ICDABI 2020.

Placement Details

The number of students registered both for summer internship and for final placement were around 250. Since this academic year was affected by pandemic of Covid-19, no campus or internship drive was permitted to conduct in physical form. However, companies were approached to hold the placement and internship drive through online mode and accordingly placement cell actively shared the online link to the registered students. The following companies have conducted the placement/Internship drive through online mode during the academic year 2020-21. They are: i) OKAYA POWER PVT. LTD (on 1st October 2020); ii) Process Services (India) Pvt. Ltd for placement Drive (on 21 December 2020); iii) Learn well Organization for internship (on 21st January 2021); Live 101.in organization for internship (on 15-03-2021); and iv) Algorithmic International school of Mathematics and Programming for internship (during 1st week of April 2021).

Library Development

The college library has added 1030 new books on various subjects to its collection. The library subscribes to six journals of various disciplines, one journal (Reliance Drishti) for blind students, twenty two magazines and twenty three newspapers. To provide hassle free access to visually impaired students the Library has also subscribed Indo-NVD software screen reading software with 14 voices in 10 languages). The library is also the member of N – LIST programme. The programme is funded by the MHRD under NMEICT to extend access to selected e-resources to colleges. It has subsumed under UGC-INFONET-Digital Library Consortium as college component from year 2014 being funded by UGC. The Library offers an open access facility and OPAC facility to the users for the available collection. It has also started the PayTm facilitytopayfineonlineforbooksreturnafterduedate.Recently library has opened a 5 new Journal and magazine section for users, where they can read newspapers, magazines and journals subscribed by the

library. The Previous year's question papers are also made available in digital form for easy dissemination among the students and teachers.

Faculty Strength: 101 Sanctioned

SCHOOL OF OPEN LEARNING

Major activities and achievements

About one lakh new students were admitted in Undergraduate and Postgraduate programmes in SOL for the academic session 2020-21. The School of Open Learning successfully conducted online personal contact programme classes under CBCS Semester System in its Programmes for the academic session 2020-2021 despite Corona-19 pandemic. The study material of SOL programmes was prepared as per the CBCS semester system and softcopies uploaded on SOL website for the students of SOL and for benefit of other regular colleges. Besides, the SOL conducted Assignment Based Evaluation of SOL students and helped the Examination Branch in conducting Open Book Examinations of SOL students for the academic session 2019-2020. All activities from Admission to conduct of examination, results, Marksheet / Provisional Certificate etc. have been made online in SOL.

Publications

Arora, P., & Sahoo, R.K. (2020). Students' and teachers' understanding of the concept of democracy in the State of Jammu & Kashmir, India. *International Journal of Teacher Education and Teaching Chicago*, *1*(1), pp.72-86.

Pandey, U.S. & Yaqoob, Syed Irfan (2021), "Software as a Service Development Using Agile Methodologies", *Solid State Technology*, Vol.64, Issue-1, pp.1013-1022. Pandey, U.S. & Yaqoob, Syed Irfan (2021), "Implementation & performance Accuracy of Agile Software Engineering on Software as a Service", *Journal of the Maharaja Sayajirao University of Baroda*, Vol.55(1(i).

Sahoo, R.K. (2021), "Changing Higher Education Scenario in India: Reflections on some Emerging Challenges and Redressal", In P. Arora, S. Sharma & Y. Sharma, *Synergizing Educational Concerns and Social Needs* (1st ed., pp. 151-164). New Delhi: Indian Council of Social Science Research (ICSSR) in association with Macmillan Publishers.

Seminar Organized

Online Workshop entitled "How to become a Successful entrepreneur – Aatmanirbhar" organized by Dept. of Commerce, SOL and Entrepreneurship Cell, SOL during from May 28 to June 8, 2020

Special Lecture on "Education and Socialization" by Prof. Pankaj Arora, Director, ILLL, under the "Dialogue Series on Education 2021" on March 11, 2021.

Seminar / Conference Presentations

Paper Presentation on "A Study of the Concept of 'Citizenship' among the Students and Teachers of the state of Jammu and Kashmir" at the 1st Universatas Lampung International Conference on Social Sciences "The Future of Global Governance" organised by University of Lampung, Indonesia, on November, 2020.

Library Development

Total Budget: Rs.1,13,000,00/Number of books added: 8549 Volumes
No. of National Periodicals/Journals Subscribed: 11
No. of International Periodicals/Journals Subscribed: 02

The Library, SOL provide the following services like DELNET (Resource Sharing Network), N-LIST (National Library and Information Infrastructure for Scholarly Content), Enabling Unit for visually impaired students and Sugamaya Pustakalaya Online

Faculty Strength

Permanent: 18 (As on 31-03-2021)

Temporary: 01 Ad hoc: 06

Financial Allocation and Utilization

No grant is being received from the UGC since 1998. The expenses of SOL being managed from the students fees.

SHAHEED BHAGAT SINGH COLLEGE

Major Activities and achievements:

The Department of Commerce of the College organised the International e-Conference on "Advances in Business and Management" from 4 March to 6 March 2021 in collaboration with the University of Tehran, faculty of entrepreneurship studies, Iran, and the University of Sabaragamuwa, Faculty of Management Studies, Srilanka to encourage the international participation of renowned intellectuals, academicians, and research scholars to benefit from the exchange of knowledge across the globe. . The conference aims to discuss the Global and Indian aspects of Business and Management. The objective of the conference primarily revolve around Marketing; General Management and Public Policy; Financial Management; Entrepreneurship, International Business and Strategies; Operations and Information System Management and Supply Chain Management; Human Resource Management; Covid-19 and its Impact on Business and Management. The College also had 'Emerald Publishing House' as the academic partner for this conference. There was a total of 260 papers received and around 84 presentations were done. Centre for Disaster Management Studies of the College organized a Capacity Building Program on Hydrometeorological Disaster: Techniques of Measuring, Monitoring and Management of Floods, 1-7 March 2021, Ministry of Education, Government of India, Pandit Madan Mohan Malviya National Mission on Teachers and Teaching, organised by Centre for Disaster Management Studies, Shaheed Bhagat Singh College in collaboration with TLC, Ramanujan College University of Delhi.

Outstanding Honors/Distinctions

Ms. Charu Grover, Assistant Professor, Department of Economics was awarded Ph.D. titled 'Consumer preferences for energy efficient products: Role of green network' in August 2020 from Centre of International Trade and Development, School of International Studies, Jawaharlal Nehru University, New Delhi under supervision of Prof. Sangeeta Bansal.

Dr. Poonam Sharma, Associate Professor, Department of Geography mentored undergraduate students on, "Reimagening and restyling the geography of political perspectives: A Case Study of Bihar Electoral Scenario", in National Youth Conference organized by Shaheed Bhagat Singh College, University of Delhi on January 28th and 29th 2021, and received 2nd prize.

Dr. Swati Rajput, Associate Professor, Department of Geography was awarded Venus International Women's Award of Outstanding Researcher in Geography (Social Sciences), Centre for Advance Research and Design, Venus International Foundation, Estd. u/s 3 of the Indian Trusts Act,1882 ISO 9001:2008 Certified.

Dr. Amrita Bajaj, Assistant Professor, Department of Geography was awarded *Distinguished Teacher's Award* on 5 Sept 2020 by Prachi Educational Society.

Dr. Rashmi Rani Anand, Assistant Professor, Department of Geography mentored undergraduate students on, "Cyber Geopolitics, Diplomacy and counter terrorism apropos India- Israel Relation: Sentiment Analysis", in National Youth Conference organized by Shaeed Bhagat Singh College, University of Delhi on 28-29 January 2021, and received 2nd prize.

Publications

Saini, A., & Parayitam, S. (2020). Moderating Role of Education and Gender on the Effects of Celebrity Endorsement on Strength, Uniqueness, and Favorability in Brand Association: Evidence from India. *Asia-Pacific Journal of Management Research and Innovation*, 16(4), 287-308.

Saini, A., & Parayitam, S. (2020). I am loving it, really? The effect of ethnocentrism, animosity, and service quality on consumer purchase intention in fast food restaurants in India. *International Journal of Markets and Business Systems*, 4(2), 164-184.

'A conceptual model for promotion on digital platforms' in Academy of Entrepreneurship Journal, Vol. 27, Issue: 2S, (February, 2021) (ABDC and Scopus listed), Print ISSN: 1087-9595, Online ISSN: 1528-2686

'Application of AI technology in modern digital marketing environment' in World Journal of Entrepreneurship, Management and Sustainable Development, (Emerald, ABDC and Scopus listed) Vol. ahead-of-print No. ahead-of-print (January, 2021) https://doi.org/10.1108/WJEMSD-08-2020-0099, ISSN: 2042-5961

Role of E-Banking in Building Customer Loyalty: An approach to Model Building, Our Heritage Journal, Vol.68, Issue-30, February 2020 (ISSN: 0474-9030 UGC Care Approved Journal)

Role of Service Quality in Customer Satisfaction: A Comparative Analysis of Private and Public Sector Banks in India, IITM Journal of Business Studies, Vol. 7, Issue-1, pp.205-217, January- December 2020 (ISSN: 2393-9451 UGC Care Approved Journal)

Gulati, S. (2021) "Social and sustainable: exploring social media use for promoting sustainable behaviour and demand amongst Indian tourists", *International Hospitality Review* (ABDC-C) Emerald Publishing Limited Vol. ahead-of-print No. ahead-of-print. https://doi.org/10.1108/IHR-12-2020-0072

Gulati, S. (2021), "Dual Perspective in Social Media Marketing: Mini Cases from Tourism Industry" Conference Proceedings Recent Advances in Management & Technology (ICRAMT-2020)

Gulati, S. (2020) "Role of Social Media in Promoting Green Tourist Behaviour: A Step Towards Sustainable Tourism" *PHD Chamber Journal of Ideas and Innovation* p92-94 National Apex Chamber PHD Chamber of Commerce and Industry ISBN: 978-93-84145-96-5

Gulati, S. (2020) "Exploring the Social Media Effect on Tourist's Engagement, Relationship and Customer Care" *OJAS Expanding the Knowledge Horizon International Journal of Research Management* p2-10 ISSN No: 2279-0373

Journals/Magazine

The Department of Political Science took an outstanding decision to publish department's magazine titled as "ঘক্яViewह". The Call for Paper (CfP) for the inaugural (first) edition has already been published. The magazine "ঘক্яViewह" would publicize the works of the department. The plan is to have a special Professor's Column in the magazine which would introduce the readers to department teachers. Besides, there would be a section of articles. The theme of the inaugural edition is the "POLITICS THAT MATTERS". Under this theme, topic related to social, economic, cultural and political aspect of national and international affairs are covered. The department has resolved to take this initiative seriously and aspire to spread the reach of the magazine to a larger audience in and across the university.

Research Projects:

ICSSR Project, 2020. F.No. 02/89/2019-20/MJ/RP/ICSSR Project Director, Mapping and Analysing the Landuse-Land Cover and Food Insecurity in Rajasthan, Project Fund sanctioned amounting to Rs.5,75,000/-

IMPRESS/ICSSR No. F. No. IMPRESS/P773/609/2018-19/ICSSR, Co-Project Director, Appraisal of Urban Growth Dynamics and Polltion using GIS Techniques along River Yamuna

IMPRESS/2286/541/2018-19/ICSSR, Co-Project Director, Assimilation of Bangladesh's Enclaves in India: Assessing the Socio economic Conditions of Rehabilitated People in Cooch Behar District, West Bengal

ICCSR Orihectm 2019, Appraisal of Urban Growth Dynamics and Pollution using GIS Techniques along River Yamuna, Sponsored by Indian Council of Social Science Research (ICSSR) under IMPRESS Scheme, Project Fund sanctioned Rs.10 Lakhs.

Seminar Organized

Organized a Webinar on the theme 'Black Economy' via Zoom where the guest speaker was Prof. Arun Kumar, Malcolm Adiseshiah Chair Professor at Institute of Social Sciences. The webinar received an amazing response with more than a hundred registrations and took place via Zoom Meetings. Prof. Arun explained the concept of Black Economy and shared his insights on the topic following which he answered some of the questions asked by the audiences. The response for this webinar was overwhelming and added more feathers to Ecospire's cap.

Organised a Webinar by Ecospire in association with the Meghnad Desai Academy of Economics, which was held on 19 March, 2021 and the web session was given by Dr. Ajit Ranade, Chief Economist, Aditya Birla Group & Head, Academic Board, MDAE. This webinar discussed the 'Daunting challenge of meeting the fiscal deficit'. This webinar too received a large number of registrations and the feedback from those who attended it told how informative and insightful the event was. Dr. Ranade's approach to simplify complex concepts in simpler terms was appreciated by the attendees as the webinar became one of the many successful events organized by Ecospire in the session 2020-21.

Conferences Organized

The Department of Commerce organized an "International E-Conference on Advances in Business and Management" on 4-6 March 2021. The main focus was to discuss Global and Indian aspects of Business and Management.

Seminar/Conferences Presentation

Dr. Pooja Goel co- presented paper titled "Impact of e-banking website quality on bank loyalty and evangelism: A mediational study" at International e-Conference on "Transitioning from Digital Inclusion to Digital Empowerment" organized by Sharda University, Greater Noida, India and also won Best Paper Award in Marketing track.

Dr. Noopur Agrawal presented a Paper titled "Ensuring Responsible and Sustainable Business Conduct through Green HRM: A study of Indian Perspective"in an International E- Conference on "Advances in Business and Management" organized by Shaheed Bhagat Singh College, University of Delhi, held on 4-6 March 2021.

Ms. Shruti Gulati presented at International Conference on Sustainable Business Management Practices and Social Innovation (ICSBMPSI - 2021), SRDC - Vidhyanidhi, Center for Management Studies, Jain (Deemed-to-be University) Bangalore on 30 January 2021

Ms. Shruti Gulati presented at 3rd International Conference on Recent Advances in Management & Technology (ICRAMT-2020) organised by Invertis University, Bareilly in association with Livingstone College, Salisbury, NC, USA, Johnson C. Smith University, Charlotte, NC, USA and Institute of Companies Secretaries of India (Bareilly Chapter) on 08-09 January 2021.

Ms. Shivangi Dhawan presented a paper titled "Higher Education Institution's Quality and Student Satisfaction a Meta and Sub-Group Analysis" in One Day International E-Conference on "Roles of Human Resources and Organizational Behavior for Business Sustainability in Current Scenario" organized by *IPEM* in collaboration with *GAD-TLC*, SGTB Khalsa College, University of Delhi under PMMMNMTT of *Ministry of Education*. (27 February 2021).

Ms. Shivangi Dhawan presented a paper titled "Quality Dimensions of HEIs and Student Satisfaction: A Meta-Analysis" in the 3rd International Conference on Recent Advances in Management & Technology (ICRAMT-2020) organized by Faculty of Management, *Invertis University* in association with *Livingstone College, Salisbury, NC, USA; Johnson C. Smith University, Charlotte, NC, USA & The Institute of Company Secretaries of India* on 8 & 9 January 2021.

Mr. Saurabh Singh presented the paper entitled – "ECRM - a Critical Digital Application in Modern Banking Industry" 2nd International Conference On Engineering, Technology and Management in the Digital Era (ICETMDE'20) jointly organized by Life Way Tech India and KL Research Association on 15 December 2020

Ms. Charu Grover presented a paper titled "Effect of Green Network and Emission Tax on Consumer Choice under Discrete Continuous Framework with Conflicting Quality Dimensions" at European Association of Environment and Resource Economics (EAERE) Conference, Berlin in June 2020 (coauthors Sangeeta Bansal).

Placement details

Number and percentage of Students placed : 182 Number of Companies visited for campus recruitment: 30

Library Development

Total Budget allocated : Rs.17,43,000/-

Number of books and journals added : 354 (Books)

81 (Periodicals)

E-Resources : N-List, DULS

Number of Faculty

Permanent : 87 + 1 (DPE)

Adhoc : 72 Guest : 05

Financial Allocation and Utilisation

Grant sanction in Rs.

UGC : 4400 Lakhs*
Delhi Govt. : 48 Lakhs
Utilised : 3323.44 Lakhs

*Includes grants for the financial year 2019-20

Other Significant information

Program on Mental Health was organized on 18.11.2020 by NSS Unit and Dr. Nishtha Narula delivered online lecture on mental health especially during COVID-19.Celebrating Parakarm Diwas: NSS Unit SBSC celebrated Prakarm Diwas on 23.01.2021 and on this occasion a webinar was organized on Subhash Chandra Bose. Dr. Sandeep Kumar Singh (Assistant Prof. Central University of Himachal Pradesh) delivered lecture on role of Neta ji Subhash Chandra Bose in India's freedom struggle.National Vaccination Day: This day was celebrated on 16.03.2021. On this day, NSS volunteers made aware people in their locality as well as through social media/online platform about important of vaccination and COVID-19 vaccination program.

SHAHEED BHAGAT SINGH COLLEGE (EVENING)

Major Activities and Achievements

In the academic year 2020-21, the college witnessed marked distinction in promotions. Five faculty members of the college were promoted to professor level, seven to Associate Professor and all eligible Assistant Professor were promoted to higher pay level. In addition to this ad-hoc appointments were also made to fill the sanctioned posts. The college has attempted to perform at its best in spite of the challenges thrown by the prevailing pandemic situation. Several activities were organized by the college to engage the students through curricular and co-curricular activities. Various online talks, lectures and webinars were organized. Along with these various fests and competitions were hosted through different cells, societies and departments. Our students initiated and completed social-service projects, participated in interinstitutional competitions and brought laurels and accolades to the college. Apart from high-performing individual Departmental Societies (Commerce, Geography and Political Science) Sustainable Development Centre, Academic Affairs Committee, the Enactus-SBSEC, NSS (National Service Scheme), the debating society NUKE, OBC cell and Women Development Cell were the prominent cells societies which performed exceedingly well and provided fantastic platform to the students to showcase their talents and innovation.

Honours/Distinctions

Prof S K Bandooni (Department of Geography) has been nominated as Advisor, Advisory Committee of Centre for Himalayan Studies, University of Delhi, 19.2.21 onwards.

Prof V S Negi (Department of Geography) has been elected as a member of Executive Council (University of Delhi) for the Year 2021-2023.

Sunil Kumar (Assistant Professor, Department of Commerce) has been elected as members of Academic Council (University of Delhi) for the Year 2021-2023.

Prof V S Negi, UGC Nominated member of Governing body in Mumbai University, Maharashtra.

Prof V S Negi, UGC Nominated member of Governing body in Gwalior University, Madhya Pradesh.

Publications:

Bandooni, S.K. (2020). Farmer vulnerability to agricultural risks in the Indian central Himalayan region. ENVIS Bulletin Himalayan Ecology, 27, 102-110.

Chandna, V. (2021). Health scenario in Delhi: Status and recent trends of vector borne and water borne diseases in NCT of Delhi. The Horizon: A Journal of Social Sciences, 12(1), 25-42.

Das, S. (2020). Identification of landslide-prone zones of Mandakini Valley (Central Himalaya) post-Kedarnath tragedy (2013). Annals of the National Association of Geographers, 40 (2), 304-329.

Jain, S.K. (2020). Dynamics of federal political process in India, 1947-2020. *The Indian Journal of Political Science*, 81(1), 49-56.

Kumar, P. (2020). Female workers and transformation of rural economy into urban economy. The Indian Journal of Labour Economics, 63(2), 459-469.

Kumar, S. (2020). Online education during Covid-19: Perception of online learning and effectiveness among college students. Shodh Sanchar Bulletin, 10 (40), 163-168.

Soni, A., Chandra, A., & Varma, S. (2020). Impact of M&As on employment in the Indian Information Technology (IT) Industry. Indian Journal of Labour Economics, 63(2), 311-329. https://doi.org/10.1007/s41027-020-00232-7

Veen, S. Kamboj, S., & Subathra, V. (2021). COVID - 19 pandemic: Challenges and responses towards online teaching-learning in higher education: Indian perspective. Vivekananda Journal of Research, 10(1), 79-93.

Yadav, K. (2021). Virtual Classes: A reality with implications on health of adolescents. International Journal of Education, Modern Management, Applied Science & Social Science, 3(1), 117 – 121.

Zeeshan, Mohapatra G., & Giri A. K. (2021). Dynamics of poverty and its determinants in rural India: Evidence from longitudinal farm households. Journal of Public Affairs. Advanced online publication. https://doi.org/10.1002/pa.2650

Journals

Prof C S Dubey (Department of English), Associate Editor of The Critique - An International Peer Reviewed Journal, Delhi, Ranchi, since June 2021. (ISSN 2249 6769).

Prof C S Dubey (Department of English), Associate Editor, Phenomenal Literature, An International Peerreviewed Journal, Authors Press, New Delhi.

Prof C S Dubey (Department of English), Board of Members, Asian Signature, A Literary Journal, Kolkata.

Prof C S Dubey (Department of English), Member, United Writers Association, Chennai.

Prof C S Dubey (Department of English), Member, ICLALS.

Prof C S Dubey (Department of English), Member, Poetry Society of India, Gurugram, New Delhi.

Prof C S Dubey (Department of English), Member, Muse India, Hyderabad.

Ms Kalyanee Rajan, Editorial board member, Indian Association for Commonwealth Literature and Language Studies (IACLALS) Journal, ISSN-2395-1206.

Ms Kalyanee Rajan, Editorial board member, Lapis Lazuli- An International Literary Journal (LLILJ), ISSN: 2249-4529.

Research Projects

"Development and Research Centre (DRC) for CSR Initiative for Sustainable Livelihood and Resource Management in Upli Ramoli Patti of Pratapnagar Bloc, Tehri District in Uttarakhand. Sponsored by SEWA THDC A unit of THDC INDIA LTD. Project director -Dr vaneeta chandna, Project co director- Prof V S Negi, Dr N P Singh-Project field director- Prof Suresh Kumar Bandooni

CSR Initiative for Primary Health Centre Herwal Gaon, in Upli Ramoli Patti of Pratapnagar Block, Tehri in Uttarakhand. Sponsored by SEWA HDC A unit of THDC INDIA LTD. Project director -Dr vaneeta chandna, Project co director- Prof V S Negi, Dr N P Singh-Project field director-Prof Suresh Kumar Bandooni

Prof V S Negi, Project Co- Director of Major Project entitled "Development and Research Centre for Activities on Ecological Restoration and Socio-economic Empowerment of Rural Community for Sustainable Livelihood and Resource Management in Naugura Gad Watershed of Upli Ramoli Patti of Pratap Nagar Block in, Tehri".

Prof V S Negi, Project Co- Director of Major Project entitled "CSR Initiatives for Management of Primary Health Center, Herwalgaon in Upli Ramoli Patti and other areas of Pratap Nagar Block, Tehri in Uttarakhand".

Seminars Organized

On 5 November 2020, a lecture on "Iinterpretation of Satellite Cloud Imagery was organized by the Department of Geography in which students participated and asked their queries regarding satellite imageries, remote sensing and GIS.

An interactive session to commemorate SALT SATYAGRAHA, was organized in collaboration with the *Gandhi study circle* on 6 March 2021. With the eminent speakers *Dr. Priya Ranjan Kumar* Assistant Professor, School of social sciences, Central university of Gujarat and *Dr. Sanjay Srivastava* Professor, Department of Political Science, Banaras Hindu University.

The History department conducted a webinar entitled 'Everyday Lives in Early Medieval India' by the eminent Historian and Professor (University of Delhi)- Prof. B.P. Sahu, on 22 April 2021.

A webinar with poet Sandeep Dwivedi was organised by the department of Hindi on march 1st 2021 on the topic "kahan tak tik sakoge yadi ram sa sangharsh ho?" ('बोलो कहाँ तक टिक सकोगे, यदि राम सा संघर्ष हो?'.

On 2 July 2020, Sustainable Development Centre was inaugurated under the theme "Health and Well Being". The inaugural talk was delivered on topic 'Anxiety and Stress Management in Present Scenario Due to Covid 19' by Psychologist, Ms. Saniya Bedi.

Conferences Organized:

The *Department of Political Science*, organized a four- day Virtual International Workshop on the theme "Current Trajectory of India's Foreign Policy" from 17-20 June 2020. Students and faculty members from over 40 Universities worldwide participated in it and was presided over by 17 prominent panelists.

The department of Commerce organized a two-day International Conference on the topic, "Atmanirbhar Bharat from the Perspective of Young Entrepreneurial Skills and its Financial Implications" on 11 and 12 June 2020. The conference was aimed at deliberating India's path to self-reliance and contribution of youth in reaching this goal.

Defence Dialogues Series organized by Academic Affairs Committee - With a vision to inculcate sense of community, this series was initiated to provide a forum for discussion on various issues and challenges faced by the Defence industry with an aim to draw, explore and critique the India quest.

Defence Dialogue- I- On 26 June 2020, the AAC organized "Defence Dialogues", a webinar on "Indian Army: An Overview", where the keynote speaker was Col. Mayank Chaubey, Ex. Director, Foreign Service Institute, MEA, Govt. of India and the chairperson was Dr. Shiv Shakti Nath Bakshi, Executive Editor, Kamal Sandesh.

Defence Dialogue- II -On 25 July 2020, to commemorate the Kargil Vijay Diwas, the AAC organized "Defence Dialogue- II", a webinar on "India- China Relations: Past, Present and Future", where the keynote speaker was Maj. Gen. B. K. Sharma (Retd.), Director, united Service Institution of India, new Delhi and the chairperson was Sh. Amitabh Thakur, eminent journalist and filmmaker.

Seminar/Conference Presentations

Prof. Suresh Kumar Bandooni (Department of Geography) was invited as a resource person to deliver a lecture on Data Processing and Representation of Data (Geographical Representation of Data Processing and Construction of Diagrams in Geography) in Refresher Course for PGT organized by DIET/SCERT, Government of Delhi.

Dr. Vaneeta Chandna (Associate Professor, Department of Geography) presented a paper "Impact of Covid 19 pandemic on health of women in Indian Society" on 28-06-2020 at E-conference, International Geographucal Union (IGU) India, 2020.

Dr. Kavita Yadav (Associate Professor, Department of Commerce) presented a paper titled, "Virtual Classes: A reality with implications on health of adolescents" at the 7th International Multi-Disciplinary Virtual Conference on "Education, Social Sciences, Applied Sciences & Technology (VIMCESAT-Virtual/Online- 2020)" organised Jointly with Sanskriti University, Mathura from 23-24 December 2020.

Kalyanee Rajan (Assistant Professor, Department of English) presented a paper titled "Interrogating Mind, Market and Madness in the Dystopic world of Gyan Chaturvedi's Pagalkhana" at the IACLALS Annual International Conference (Online) 2021 on "Utopias and Dystopias of Our Times", held from 17-20 March 2021, in collaboration with Janki Devi memorial College, University of Delhi.

Suman Das (Assistant Professor, Department of Geography) presented paper namely Change Detection Assessment of Landslide Prone Zone During pre and post Kadernath Tragedy (2013) in Mandakini Valley, Central Himalaya. In International Geographical Union (IGU) international conference on "Global to Local Sustainability & Future Earth" involving IGU commissions from 18th to 20th December 2020 at MLSU, Udaipur, India.

Khushboo Gupta (Assistant Professor, Department of Commerce) presented a paper titled "Determinants of systematic risk in Fast Moving Consumer Goods sector of the Indian economy", in the ICSSR sponsored National Conference on "Sustainable Development and Business: Managing Organizations of Tomorrow" held on 18th August, 2020 organized by P.G.D.A.V. College, University of Delhi.

Suzanee Malhotra (Assistant Professor, Department of Commerce) Won the Best Paper Award for the paper titled "Features of Mobile Trading Apps: A Silver Lining of the Pandemic" in the International Econference on Global Information & Business Strategies organized by Gitarattan International Business School, New Delhi, India held on 9 January 2021.

Suzanee Malhotra (Assistant Professor, Department of Commerce) Won the Best Doctoral Paper Award for the paper titled "Revenge Buying Behavior-Curious Case of Consumer Behaviour" in the 6th International Management Conference organized by the Fortune Institute of International Business, New Delhi, India held on 16-18 December 2020.

Shivali Veen (Assistant Professor, Department of Commerce) presented a paper entitled as "Financial Literacy and Financial Inclusion Amongst Undergraduate Students: A Study Of Kalindi College" in International Multidisciplinary Conference on Future trends in Commerce, Economics, Management Education, Social Sciences, Applied sciences, Technology, Art and Culture (IMCFT-2021), organized by Inspira Research Association, Jaipur held on 17 to 19 February 2021.

Niraj Nirola (Assistant Professor, Department of Economics) presented a paper titled "Global Capital, Fair Trade and the continuity of Unfreedom: A study of two tea plantations in Darjeeling" at the Young Scholars Conference "Space, Knowledge, Capital" organised by the Special Centre for the Study of North East India, Jawaharlal Nehru University from 18 to 19 of February, 2021.

Placement Details

Number of companies visited for campus placements: 15 Total number of students who appeared for at least one drive: 105 Total no of students placed: 121 (out of which 25 are alumni) Total number of students placed from this batch: 96 Percentage of students placed: 65

Extension and Outreach Activities

During the second wave of corona pandemic wave (March-April,2021) NSS volunteers helped more than 700 covid affected patients and their relatives by providing genuine leads on availability of oxygen cylinder, oxygen bed, hospital beds, plasma donor, blood donors, medicines etc verifying through the official social handles like Instagram, Twitter and Facebook of NSS unit of college. On the occasion of INTERNATIONAL YOGA DAY, 2021, globally celebrated on 21st June each year, the National Service Scheme Unit of Shaheed Bhagat Singh Evening College, organized an event on the theme: "THE WAY TO MEDITATION-ASHTANGA YOGA". It was organised to encourage and create awareness among youth regarding the importance of various asanas and their effect on the greater part of our lives.

Library Development

In the academic year 2020-21, the college library reached to students and faculty members and tried to provide online services to them. It has subscribed E-resources N-List through INFLIBNET Centre, Gandhi Nagar, Gujarat. Very soon our college library is going to sign agreement with DELNET. Once the agreement is signed users can access many resources online and offline. Users can access many electronic resources in college campus only, through Delhi University Library System portal. (http://crl.du.ac.in). All these open access on-line resources/ links have proved very beneficial for its library users. During first wave of COVID-19 Pandemic in 2020, online orientation programme on usage of online resources was conducted for students. In this programme students were made aware about how to access and use online resources. Library staff helped students and faculty members to address their queries via e-mail, phone calls and WhatsApp messages. Time again and again new online and e-resources links were also shared.

Faculty Strength:104
Permanent Faculty-40
Ad-hoc Faculty-64

Financial Allocation and Utilization

Grant sanctioned in Rs. 2587.28 Lakh Utilized in Rs. 2283.94 Lakh

Other Significant Information

A Two-Week Online Faculty Development Program on the topic Contemporary Issues and Challenges faced by Modern Jammu & Kashmir: Socio-cultural and Political Scenario, was organised from 10 August-24 August 2020 by the Academic Affairs Committee, SBSEC in collaboration with TLC, Ramanujan College under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching under the Ministry of Human Resource Development. It is the first of its kind that endeavours to deliberate on the history, historiography as well as social, cultural, political, economic, Strategic, territorial, constitutional, international, and human rights discourses about the Union Territory of Jammu & Kashmir. The objective of this FDP was to understand the significant aspects pertaining to the development, future safeguard and prosperity of the people and the territory of the J&K and nation. Eminent academicians and experts were invited for giving insights into various aspects of the topic in discussion through pre-recorded sessions.

SHAHEED RAJGURU COLLEGE OF APPLIED SCIENCES FOR WOMEN

Major Activities and Achievements

The college has successfully submitted the documents for NAAC Cycle 2. The college was ranked 67 in the college category in the India Rankings 2020 – National Institutional Ranking Framework. The college endeavored to maintain the normalcy in the online mode of education and worked incessantly to organize different activities., intra and inter-college competitions, talks and webinars, such as "Coalescence-Industry Academia National E-Seminar Lecture Series"; International Young Researcher's Conclave; Online Five-day Entrepreneurship and Faculty Development Program on Edible Mushroom and IFDP for teaching cum research excellence, Two-day Certification course- Implementing HACCP in food industries by CII-FACE. The changing teaching learning environment and the Covid situation impacted the mental health of the students, Department of Psychology organized a talk on "Mental Health during Pandemic", and counseling sessions was taken up through by the in-house Clinical Psychologist. Institute-industrial links were promoted, by collaborating with companies like CETPA InfoTech Pvt. Ltd., Waters India Pvt. Ltd., KV Computer Home (KVCH) Private Limited etc. The students also achieved positions in several National/international level competitions organized by MIT Pune, IIT Bombay etc.

Honours/Distinctions:

Ms. Para Dholakia- Received Young Scientist Award of 2019 by International Institute of Technical Teachers, Dehradun (Registered under MSME, Govt of India, in July 2020)

Ms. Prabhjot Kaur Sabharwal- Received Young Scientist Award of 2020 by International Institute of Technical Teachers, Dehradun (Registered under MSME, Govt of India, in July 2020)

A team of four members (Team STH109) Dr. Rashi Verma, Dr. Rajan Goyal, Mahiguhappriya Prakash, Sakshi Verma was recognized as one of the champions in "SciLab Toolbox Hacathon 2020" organized from June 10-30, 2020 by FOSSEE, IIT Bombay.

Dr. Projes Roy: Received honorary membership from American Society for Sciences and Technology (ASIS&T) for the year 2020-21.

Mahiguhappriya Prakash student of B.Sc. (H) Physics (Batch 2019-22), won Bronze Honour in "International Astronomy and Astrophysics Competition-Edition of 2020" organized from May 15 – July 18, 2020 by International Astronomy and Astrophysics (IAAC).

Jaya, Jyoti Negi and Neha Gupta of B.Sc. (H) Microbiology III year won the first prize in 20th National level Microbi Olympiad organized by Department of Microbiology, Government Institute of Science, Aurangabad on 25th March 2021. A total of 175 colleges participated in the event.

Ms. Bhawna Yadav, B.A. (H) Psychology, III year, 3rd Position in Discuss Throw at Khelo India University Games.

Ms. Sonali Singh, Badminton world federation Ranked - 373 and Badminton Association of India Ranked - 10 in Girls Doubles in 2021 & Ranked - 30 in Girls Singles

Ms. Sonali Goel, National Winner — IMACX IIIT Bangalore and MietY, Government of India, TIDE 2.0 — Startup Bootcamp. (Aug'20)

Ms. Sonali Goel, National Finalist — Clean Air Asia — National Level Business Hackathon. (June '20)

Publications: (Total number 42)

Agrawal, Y., Gunwal, I., & Mago P. (2020). Review on Bioremediation of Metal Contaminated Soils. Journal of Bioremediation & Biodegradation, 11(4), 469.

A. Tanvi., Aggarwal, R. & Raj, Y. A. (2021): A fractional order HIV-TB co-infection model in the presence of exogenous re-infection and recurrent TB. Nonlinear Dyn 104, 4701–4725. doi.org/10.1007/s11071-021-06518-9

Bhardwaj, R., Verma, S., (2020). Chaturvedi, S. Microencapsulation of food flavors. *Journal of emerging technologies and innovative research*, 7(5),957-964

Chawla, S. (2021). Application of Fuzzy C-Means Clustering and Semantic Ontology in Web Query Session Mining for Intelligent Information Retrieval. *International Journal of Fuzzy System Applications* (*IJFSA*), 10(1), 1-19

Kulshreshtha, A., Malik, A., Khan, M., Arya, V.(2020). Status of cereal processing and preservation in India. *Journal of emerging technologies and innovative research*, 7(6), 96-104

Kumar, A., Chopra, R. & Saxena, R. R, (2020): An efficient algorithm to solve Transshipment problem in Uncertain environment, *International Journal of Fuzzy Systems*.22, 2613–2624.doi 10.1007/s40815-020-00923-9

Pal, P., Pratap, Y., Gupta, M. & Kabra, S. (2021). Analytical Modeling and Simulation of AlGaN/GaN MOS-HEMT for High Sensitive pH Sensor. IEEE Sensors Journal, 21 (12), 12998 – 13005, doi: 10.1109/JSEN.2021.3069243

Pavani, P., Kumar K., Rani, A. & Venkatesu, P. & Lee P. (2020). Insight into the interaction between enzymes and biological buffers enhanced thermal stability of stem bromelain. *Journal of molecular liquids*, 322, 114526.

Sharma, R., Gupta, D., Mehrotra, R., & Mago, P. (2021). Psychobiotics: The Next-Generation Probiotics for the Brain. CurrMicrobiol, 78, 449–463.

Singh,R., Lamba ,V., Sachchan,T. (2021). Utilising Agricultural Waste as Natural Biosorbents- A Review. *Journal of Emerging Technologies & Innovative Research*, *R*7(11), 133 -139

Journals:

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board: 4

Research Projects:

Project Director: Dr. Payal Mago, Project Title: Ecological Feminism of Indian Women: A Comprehensive Study on Indigenous Practices for Sustainable Development. Total Grant

: 26 lakhs. Status: Sanctioned/ Ongoing

Seminars Organized

Mr. Jitesh Thakur (Senior application specialist, North India) and Mr. Hitesh Srimal (Manager application, North India) from Waters India Pvt. Ltd conducted two days seminar on "Coalescence-Industry Academia E- Seminar Lecture series", on the topic "Coalescence-Industry Academia E- Seminar Lecture series" on 6-7 October 2020.

Dr. T. Eshwar, Senior Scientist, CEERI, Pilani conducted Webinar on "Flexible Electronics" on 15 October 2020.

Webinar on "Fundamentals and Applications of Physics" were conducted by Department of Physics, Shaheed Rajguru College of Applied Sciences for Women (University of Delhi) in which series of Six Lectures were conducted.

Dr. Krishnamurthy Subramanian, Chief Economic Advisor, Government of India conducted a National Webinar on Decoding Union Budget 2021 on 15 February 2021.

Cini Varghese, Principal Scientist, ICAR, IASRI, New Delhi, Dr Seema Jaggi, Head(A), ICAR, IASRI, New Delhi, Dr. Arpan Bhowmik, Scientist, ICAR, IASRI, New Delhi & Dr. Eldho Varghese, Scientist, ICAR, IASRI, New Delhi conducted Two-day Training Programme on Experimental Data Analysis & Descriptive statistics & Exploratory Data Analysis on 18 & 19 February 2021.

Topics Covered: Descriptive Statistics and Exploratory Data Analysis, Testing of Hypothesis and Basic Design of Experiments, Factorial Experiments & Response Surface Methodology respectively by the speakers.

Conferences Organized

Conference Title: International Young Researchers Conclave. September 25-26, 2020.

Seminar/Conferences Presentations: Total Seminar/Conference Presentation (24)

Rahul, Surabhi Adhikari, Monika published the research paper entitled (April,2020) "NLP Based Machine Learning Approaches for Text Summarization", in IEEE 4th International Conference on Computing Methodologies and Communication (ICCMC-2020)

Bajaj, D., Bharti, U., Goel, A., & Gupta, S. C. (2020, May). Partial Migration for Re-architecting a Cloud Native Monolithic Application into Micro services and FaaS. In *International Conference on Information, Communication and Computing Technology* (pp. 111-124). Springer, Singapore.

Bharti, U., Bajaj, D., Batra, H., Lalit, S., Lalit, S., & Gangwani, A. (2020, June). Medbot: Conversational artificial intelligence powered chatbot for delivering tele-health after covid-19. In 2020 5th International Conference on Communication and Electronics Systems (ICCES) (pp. 870-875). IEEE.

Dr. Shalini Choudhary: Paper Presented- Coping with Lockdown: Experiences of final year undergraduate girls Paper presented in the National Webinar on 'Reformulation of Self Concept, Social Consciousness and Social Harmony in Context of Covid-19, 12-13 June, 2020 Organized by Department of Psychology, Munishwar Dutt PG College, Pratapgarh, U.P. India.

Dr. Parul presented paper on Fluorescein-entrapped magnetosomes for magnetically assisted photodynamic therapy, at 2nd International Virtual Conference organized by University of Central Lancashire (United Kingdom), 14th-16th July, 2020.

Rableen Kaur Rao, Paper Presentation Titled 'Flipped Classroom: An Innovative Teaching Paradigm' in National e-Conference on SDG-4 organized by PHD Chamber of Commerce and Industry on theme of Covid-19: Recalibrating Indian Education System on 24th July 2020.

R. Sinha and J. Kaur (2020), "A Study on Low Power Spintronics," 2020 International Conference on Advances in Computing, Communication & Materials (ICACCM), 2020, pp. 310-315, doi: 10.1109/ICACCM50413.2020.9213013.

Dholakia, P., Yadav, J., Singh, S., Yadav, S., Pal, S., & Sabharwal, P. (2020). Phytochemical and radical scavenging activity of *Bauhinia variegata* (Kachnar) stem. International Conference and Webinar on Agriculture production and Food Safety, ITTT, Dehradun.

Dr. Komal Chandiramani - Job Satisfaction and Organizational Commitment: A Gender Based Statistical Interrogation in International Young Researcher's Conclave, SRCASW (September 25-26, 2020).

Srishti Singh, Anjali Singh, Harshita Singh, Preyasi Pal, Poorvi Bharteye, Rekha Mehrotra, Smita Sundaram, 2021. Biogas technology and future prospective Selected for poster presentation in International Conference on Recent Technologies and Advanced Materials for Green Energy and Sustainable Environment (RTAMGESE-2021) held at NIT Tiruchirappalli during 12-13 March, 2021.

Placement Details

Total Number of Students Consented : 126
Students Placed : 19
Percentage of Students Placed : 15.07%
Number of the companies Consented : 07

Extension and Outreach Activities

National Service Scheme of Shaheed Rajguru College of Applied Sciences for Women conducted various slum visits and distributed several useful items under the Outreach Program in Dallupura and Kondli Village. The NSS Volunteers visited Dallupura Village on 13 February, 2021, 28 February 2021 & 7 March 2021 and distributed masks and sanitizers to the people living in slum. Volunteers also made them aware about Coronavirus and how harmful it can be and what important precautionary measures one should take and distributed biscuits and other food items to the poor slum children and sanitary napkins to needy women and also briefed them about ill effects of using cloth and how important it is to stay hygienic during menstruation time. The NSS Volunteers also visited the Kondli Village on 4 March 2021 & 14 March 2021 and donated rice, wheat and pulses to one of the families of the slum area. As a part of a social outreach program, the Department of Physics organized Physics lecture classes for the students of class 11th, Govt. Girls Sr. Sec. School, New Kondli from November 2020 - 22 February, 2021. As a social cause, E-waste Society of Physics department is continuously working to spread awareness about the E-waste management and organizes E-waste collection drive. On 10 November 2020: E-waste society organized a webinar on "Sustainable Management of E-waste: Challenges and Opportunities" by Dr. Anwesha Borthakur, Marie Sktodowska Curie Postdoctoral Researcher, KU Leuven, Belgium and started a poster series named-"Know your E-waste".

Library Development:

The library of the college has initiated online resource accessibility to the students and faculty member through NLIST and DULS resources. The existing students and faculty members account has been upgraded. The new students of first year there are around 446 NLIST account created to access more than 5000 e-Journals and more than 135000 e-Books with login id (Remote Accessibility). The library has also conducted 15 (fifteen) library orientation program for the first-year students. Majority students participated in this program. The orientations program was conducted for the each of the department of the college. The library also procures large number books, some books were purchased and many text books was received from the donation. The library inducted new permanent staff, one is Semi Professional Assistant and second one is MTS.

Faculty Strength: 114
Financial Allocation and Utilization:
Grant sanctioned in Rs. GIA received in Rs. =
Grant Utilized in Rs. =

19,85,09,612.00 22,48,24,257.83

Other Significant Information:

The college has an inhouse Clinical Psychologist, Ms. Aastha Jain, she along with the teachers of department of psychology took regular counselling sessions during the Pandemic to ease the students with the constant stress and anxiety. The various student societies of the college engaged in innumerable activities to promote student participation and engaging in active involvement in different fields. Various events were conducted such as "Healthy Mindset for a better tomorrow", Workshop on Expressive Arts Therapy, Talk on Career Prospects in HRM, Webinar on IoT: Application in Smart Agriculture, Webinar on Making Quarantine Productive, Webinar on Physical and Mental Wellness During Lockdown and many more etc. To enhance the knowledge and adjust to the changing teaching learning environment, Department of Electronics and English also organized a Five-Day Comprehensive Workshop on Moodle Learning Management System. Focus was laid not only to enhance the knowledge, but also to enhance mental and physical health of the students and teachers, the Department of Physical Education organized a Therapeutic Yoga Course for the staff and the students and also organized online Yoga and Aerobics Classes. A webinar on "Cyber Security and the Weakness of the Human Factor" wasdelivered by eminent professor Dr. Tal Pavel from Cybersecurity Studies - Information SystemsProgram, School of Economics and Management, the Academic College of Tel Aviv-Yaffo, Israel, organized by Department of Library. The para-teaching staff of the college was also engaged in various activities by organizing a week-long event on "My Passion during Lockdown". Despite the lockdown, the student and teachers stayed connected by having regular mentor mentee sessions, alumni interactions, online farewell and orientation etc. by each department. The Enactus Society of the college achieved another great milestone by initiating the project GREEN HAVEN. Under this project a variety of mushroom were grown without any form of pesticides. The project was mentored by Dr. Payal Mago, and other experts from Department of Microbiology. This project did not only provide various varieties of mushroom but primarily gave employment to various people who suffered due to the pandemic. Apart from this, Enactus also initiated Project Sugavya where elegant and eco-friendly Diyas were made from cow-dung to have a safe and environment friendly Diwali.

SHAHEED SUKHDEV COLLEGE OF BUSINESS STUDIES

Major Activities and Achievements

SSCBS under the spirited guidance of its principal, Prof. (Dr.) Poonam Verma, has been adjudged as the Best Undergraduate Business School in India in 2021 by India Today Magazine for the second time in a row. The student placement has been phenomenally successful with the highest package offered INR 19.25 Lakhs p.a. and average package being INR 8.37 Lakhs p.a. SSCBS in collaborations has started two international Chapters, India's first APICS Student Chapter with ASCM, the world's largest non-profit association for supply chain and Institute of Management Accountants (IMA) student chapter and at a national level SWAYAM – NPTEL Local Chapter. Further, the college in association with Coursera facilitated free access to many popular online courses offered by reputed educational institutions worldwide for its student and staff. Lastly, college under the aegis of University of Delhi has earned name and reputation at the global level by participating and winning in numerous international projects and competitions.

Honors/Distinctions

SSCBS Enactus won Best Practices Award by UN OHCHR. The Project Basera was among Top 12 out of 174 Enactus projects across 23 countries in Race for Climate Action and under Top 48 for both 1 Race 4 Oceans and Race to Rethink Plastic out of 174 Enactus Projects across 23 countries, Successful Sensitization in Project Basera

Winner - India, Middle East and Africa Student Case Competition 2021 by IMA

Second Position- India, Middle East and Africa Student Case Competition 2021 by IMA

National Runners Up - Gathbandhan: International M&A Case Analysis by IIM Ahmedabad

National Runners Up - YO University Deal Challenge by Duff and Phelps

National Runners Up - Vitt Equity: The Investment Valuation Challenge by National Institute of Bank Management, Pune

National Second Runners Up - HSBC India Case Program by HSBC and Sattva Consulting

Students of SSCBS secured 3rd rank at International Global Valuation Olympiad by Global Banking Training, London

Students of SSCBS secured 4th rank at Global CFI Financial Modelling Case Competition and World Championships by Corporate Finance Institute

Students of SSCBS secured 6th rank at Global CBS Case Competition by Copenhagen Business School

Students of SSCBS Qualified in the top 12 teams at Global Microfinance Case Competition by University of Melbourne and Melbourne Microfinance Initiative

Students of SSCBS Qualified in the top 15 teams at CFO Global Case Study Competition 2020 by Charterquest Case Study Center NPC

Students of SSCBS undertook seven projects namely Impactify, Africa Decoded, CRY, Untangle, Save The Children, World Economic Forum (GSC) and Lemon Bowl in collaboration with national and international organizations

Publication

Aakash, A., Tandon, A. and Aggarwal, A. G. (2021). How features embedded in eWOM predict hotel guest satisfaction: An application of Artificial Neural Networks. *Journal of Hospitality Marketing & Management*, Vol. 30 (4), pp. 486-507. https://doi.org/10.1080/19368623.2021.1835597

Goel, A. (2021). India's inclusive growth - an approach based on TOPSIS method. Global Business and Economics Review, Vol. 24 (3), pp 296-315. DOI: 10.1504/GBER.2021.114663

Jain, R., Jaggi, C.K. and Verma, M. (2020). Two Echelon Supply Chain with Vendor Managed Inventory and Revenue Sharing Contract under Shortage Gaming Scenario. *International Journal of Quantitative Management, Vol. 26 (4)*, pp. 255-283.

Jain, R., Verma, M. and Jaggi, C.K. (2021). Impact on Bullwhip Effect in food industry due to food delivery apps. *OPSEARCH* 58, pp. 148–159. https://doi.org/10.1007/s12597-020-00469-2.

Kumar, A., Nigam, N. K., & Singh, K. (2020). Do Women Directors Impact Financial Outcomes? The Indian Evidence. *Indian Journal of Corporate Governance*, 13(2), 119–139. https://doi.org/10.1177/0974686220966813

Mishra, A., Bentur, S. A., Thakral, S., Garg, R., & Duggal, B. (2021). The use of integrative therapy based on Yoga and Ayurveda in the treatment of a high-risk case of COVID-19/SARS-CoV-2 with multiple comorbidities: a case report. *Journal of medical case reports*, Vol. 15 (1), pp. 1-12.

Nigam, N.K. and Gupta, C.P. (2021). Correlation-based Diversification and Firm Performance: An Empirical Investigation of India. *Global Business Review*. Vol. 22 (2), pp. 442-458. doi:10.1177/0972150918811232.

Sehrawat, N.K., Kumar, A., Nigam, N.K., Singh, K. and Goyal, K. (2020). Test of Capital Market Integration Using Fama-French Three-factor Model: Empirical Evidence. *Investment Management and Financial Innovations, Vol. 17* (2), pp. 113-127. doi:10.21511/imfi.17(2).2020.10

Sehrawat, N.K., Singh, S. and Kumar, A. (2020). Does corporate governance affect financial performance of firms? A large sample evidence from India. *Business Strategy and Development*, 3(4), 615-625. https://doi.org/10.1002/bsd2.126.

Tandon, A., Neha, Aggarwal, A. G. and Jaiswal, A. (2020). Reliability Assessment of Software System Using IFS and OWA-Tree Analysis. *International Journal of Reliability, Quality and Safety Engineering, Vol. 27* (05), pp. 1-15. https://doi.org/10.1142/S0218539320400136

Journals

Number of college teachers serving as editor(s), Member(s) of Editorial Board,

Dr. Poonam Verma, Editorial Advisory Board, MANTHAN: Journal of Commerce and Management, Print ISSN: 2347-4440, e-ISSN: 2395-2601

Mr. Neeraj Kumar Sehrawat, Editor-in-Chief, *Amar Research Journal: An Interdisciplinary Research Journal*, ISSN: 2348-1323

Dr. Abhishek Tandon, Associate Editor, *International Journal of System Assurance Engineering and Management*, Print ISSN: 0975-6809, Online ISSN: 0976-4348

Dr. Sameer Anand, Associate Editor, *International Journal of System Assurance Engineering and Management*, Print ISSN: 0975-6809, Online ISSN: 0976-4348

Dr. Anamika Gupta, Editorial Board member, *International Journal of Data Analysis Techniques and Strategies*, Print ISSN: 1755-8050, Online ISSN: 1755-8069

Research Projects

Dr. Kumar Bijoy, Dr. Ajay Jaiswal & Dr. Sameer Anand, ICSSR, Ministry of Education, January 15, 2020 – January 14, 2022. "Increasing the Impact of Government Welfare Policies for Social and Financial Inclusion through Technological Integration in India". Sanctioned amount ₹ 6,40,000

Seminars Organized

"MBA in India vs MBA in Abroad" by Mr.Kamlesh Sajnani, Managing Director, IMS Test Preparation on September 7, 2020

"LGBTQ Rights" by Mr Ashish Chopra, Co-founder of Beunic and talent researcher at Phillips on September 20, 2020

"Financial Modelling" by CA Paresh Gupta, Financial Modeller, Operis UK on October 10, 2020

"Women Empowerment: What's in it for me?" by Ms Yogita Bhayana, Founder, P.A.R.I.-People Against Rapes in India; Ms. Veenu Kakkar, Rights Activist & Ms. Utcarsh Mathur, Editorial Head, Girl Up Delhi University on November 20, 2020

Conferences Organized

"Annual Leadership Summit - Convergence" on February 18, 2021

"4th International conference on Innovative Computing and Communication (ICICC) 2021" from February 20-21, 2021

Seminar/Conference Presentation

Jigmet Wangdus on "Destination stakeholder perceptions of Overtourism and Environmental Impacts in Ladakh" at GSOM Emerging Markets Conference 2020 held at St. Petersburg, Russia, November 11-18, 2020

Jigmet Wangdus on "A paradigm shifts of Tourism Industry towards sustainability: A study with special reference to Ladakh" at 4th International Conference on Marketing, Technology and Society held at IIM Kozhikode, December 7-9, 2020

Dr. Anamika Gupta on "Texture Feature Extraction: Impact of Variants on Performance of Machine Learning Classifiers: Study on Chest X Ray Pneumonia Images" at 8th International Conference on Big Data Analytics held at Ashoka University, December 15-18, 2020

Dr. Kumar Bijoy,on "Risk Assessment" in online MDP organized by National Institute of Financial Management (NIFM), January 12, 2021

Dr. Sushmita on "Economics beyond the Equilibrium" at Shaheed Sukhdev College of Business Studies, January 28, 2021

Narander Kumar Nigam on "Predicting an Indian Firm's Sickness using Artificial Neural Networks and Traditional Methods: A Comparative Study" at 4th International Conference on Innovative Computing and Communication held at SSCBS, February 20-21, 2021

Gurjeet Kaur and Sandra Suresh on "Analysis of Change of Market Value of Bitcoin Using Econometric Approach" at 4th International Conference on Innovative Computing and Communication held at SSCBS, February 20-21, 2021 on

Neeraj Kumar Sehrawat on "Beyond Balance Sheet Analysis" at Shaheed Sukhdev College of Business Studies, March 9, 2021

Dr. Kumar Bijoy on "Financial Statements and Ratios" at All India Management Association (AIMA), March 19, 2021

National/International MoU signed

BSE for running the FMAT (Financial Modeling and Algo Trading) Course

NSE for running the NCCMP (NSE Certified Capital Markets Professional) Course

Knowerx Education Private Limited has signed MoU with APICS SSCBS Chapter

YStart Innovation Labs for running the Financial Technology Course

Confederation of Indian Industry (CII) MoU

Placement Details

Number and percentage of students placed: 171, 78.44%

Number of companies visited for campus recruitment: 84

Extension and Outreach Activities

The Enactus, Rotaract and NSS Unit of the college are undertaking numerous projects to serve the society during Covid-19:

Project Srijan provides employment opportunities to underprivileged community by producing DIY products using e-waste components. It has collaborated with Saahas NGO as a knowledge partner and with multiple third-party sites for future sales. The team of project Srijan met with the Director General of All India Rubber Association, who is also an e-waste expert, to gain further insights into the working of the industry.

Project Anved provides skill-based education in modern technologies, instead of textual knowledge-based education, in order to enhance employability. The first three webinars of the series were conducted free of cost and were attended by students, adults and various members of the Rotary network.

Project Kamakhya works in the area of improving the menstrual conditions of women in slum areas. They have collaborated with Ladli Foundation Trust, The Laali Project, Sukarma Foundation, Safe N happy periods, Vyomini Social Foundation and a few other menstrual activists as knowledge partners.

Project Rakt aims to bridge the gap between plasma donors and beneficiaries in order to fight against the deadly coronavirus. A team of volunteers from NSS SSCBS has been working to verify covid resources like oxygen supplies, medicines, hospital beds, doctors, plasma donors etc. and proving the verified leads of the same to the needy. It started with some of our volunteers working with external organizations to help the cause. Now, we are a team of 40+ CBS Covid Fighters, working the entire day for the people in need. It also started a COVID Vaccination Awareness Campaign covering the entire procedure of registration and other aspects thereby gaining universal acceptance for vaccination among people.

Project Chetna sensitizes the youth about hate on social media by inviting and sharing the real life experiences of different social media influencers in live sessions. It also organized a meditation session which helped in accepting the new normal, taking out some time to relax and achieving mental peace by students

Project Sangrakshan aims to create awareness about cybercrimes through various social media posts and webinars

Project Pravaah inculcates backward integration of farmers through sensitization sessions and helping them form SHGs and increasing the reach of the project by increasing the production centres and getting into various governmental and private partnerships. There is an increase in sales of air purifier and stubble pots and e-listing of stubble pots by further delving into vertical gardening and stubble manure.

Project **Basera** aims to upgrade homeless shelters and ensure holistic development of its people by providing employment through production and sale of Yoga mats from PPE scrap with further diversification in PPE bags, and in cardboard furniture products like lap tables, stools etc.

Library Development

The library spread across two floors has a reading room for 218 students and research section for faculty members along with reprographic facility. The library has added 127 new titles in its collection and the total number of books in the library is 23,465. In addition, the library subscribes to 56 magazines and journals of national and international repute. An approximate budget utilized on the purchase of books, magazines/journals, newspapers and membership fee for institutional members is Rs. 198943.40

Faculty Strength

Permanent: 32 Ad-hoc: 11

Financial allocation and Utilization

Grant Received: ₹ 14,57,00,000

Grant Utilized: ₹ 14,57,00,000

Other significant Information

The College started Coursera for Campus Program under which students have been given free access to a large number of popular online courses by reputed educational institutions across the world available on the Coursera platform.

The College started APICS SSCBS Chapter which is India's Maiden Student Chapter of the World's Largest Non-profit Association for Supply Chain.

The College started Institute of Management Accountants (IMA) student chapter

SHIVAJI COLLEGE

Major Activities and Achievements

Shivaji College is currently in its 'Diamond Jubilee Year'. In the midst of the COVID-19 outbreak, Shivaji College made a swift transition from offline to virtual mode by launching "SPACE", its own digital platform. The college also established an E-Learning Cell, E Content Repository, and a Covid Task Force to combat the challenges posed by the pandemic. To ensure the safety and mental wellbeing of its students, an empathetic step was taken by the college of waiving off the annual fee. Several webinars and workshops were organised by the departments and committees on various relevant topics. Shivaji College was one of the first centres for Covid-19 vaccination drive under Delhi University Health Centre (West Campus). The college secured 51 rank in the NIRF, and 32 in India Today for Sciences. The college has also secured research grants from various reputed organisations like SERB, DBT Star College Scheme to promote a rigorous research ecosystem.

Honours/Distinctions -

Dr. Kumari Priyanka, Department of Mathematics, Shivaji College received **International Innovative Women Scientist Award 2021** in Mathematical Sciences" by Center for Professional Advancement, West Midlands, United Kingdom lionised on the eve of International Women's Day 2021.

Dr. Ruchira Dhingra, Department of Hindi, has been awarded the **Rashtriya Gaurav Samman** in the field of Education & Social Work, by Rajneeti ki Pathshala social platform on 25November 2020.

Dr. Ruchira Dhingra, Department of Hindi, has been awarded the **Dr. S. Radhakrishnan memorial award** 2020 in the field of Education & Social Work, by Rajnaiaiti ki Pathshala **on 5 September 2020**

Dr. Ruchira Dhingra, Department of Hindi, has been awarded the National Level **Dr.B.R.Ambedkar Peace Award** by Shakiran Samriddhi foundation in December 2020

Dr. Vikas Sharma Department of Hindi received **Sri Guganram Smriti Sahitya Samman** on his book "Bhumandalikaran ke daur me hindi ki vividh bhumikayein" in September 2020

Dr. Darshan Pandey, Department of Hindi was honored by **the Red Diamond Achievers' Award 2020** for contribution in the field of Literature, Education and Research from NRB Foundation and Bhavya International, Rajasthan.

Dr. Amarjiva Lochan has been elected Vice President of The International Association for the History

of Religions (IAHR), and was elected as a member of The International Council for Philosophy and Humanistic

Studies (CIPSH) under UNESCO.

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1.

Publications

Bharti, Ahmed, G., Kumar, Y., and Sharma, S. (2021). DFT computation of quantum capacitance of pure and doped niobium nitrides for supercapacitor applications. Ceramics International, 47, 18948-18955. (IF 3.830)

Chaurasia, R., Ashokan, A., Kumar, K., Pramanik, A.K. (2021). Low-temperature ferromagnetism in perovskite SrIrO₃ films. Physical Review B, 103(6), 064418. (IF 3.575)

Goel, R.K. & Kaur, H. (2021). Commodity Futures in India: A Review of Literature. Mukt Shabd Journal, 10(1), 232-243. (IF 4.6)

Kamna, S., Sharma, C., & Singh, R. (2020). Prediction Of Managerial Fraud in ICICI Bank. Inspira-Journal of Modern Management & Entrepreneurship, 10(3), 224–231. (IF 6.280)

Manish, M., Verma, S., Kandari, D., Kulshreshtha, P., Singh, S., Bhatnagar, R. Anthrax prevention through vaccine and post-exposure therapy. Expert Opin Biol Ther, 20(12), 1405-1425. (IF 3.974)

Meena, M. K., Kumar, D., Kumari, K., Kaushik, N. K., Kumar, R. V., Bahadur, I., Vodwal, L. & Singh, P. (2021). Promising inhibitors of nsp2 of CHIKV using molecular docking and temperature-dependent molecular dynamics simulations. Journal of Biomolecular Structure and Dynamics, DOI: 10.1080/07391102.2021.1873863. (IF 3.310)

Rana, T. S., Ratnu, B., Dahiya, S. (2020). Social Fabric and Diffusion of Agricultural Inventory: A Micro Level Study of Naya Baas Village, Rohtak, Haryana. International Journal of Social Science and Economic Research, 5(5), 1135-1151. (IF 5.156)

Ratnu. B., and Singh, V.V. (2020). Testing Times in a Global Pandemic: A National Study of India's Trade-off with COVID 19. International Journal of Creative Research Thought, 8(5), 2222-2238. (IF 7.97)

Yadav, S., Vijayan, P., Yadav, S. & Gupta, R. (2021). Ruthenium complexes of phosphine–amide based ligands as efficient catalysts for transfer hydrogenation reactions, Dalton Trans, 50, 3269-3279. (IF-4.174)

Yadav, R., Chaudhary, J.K., Jain, N., Chaudhary, P.K., Khanra, S., Dhamija, P., Sharma, A., Kumar, A., Handu, S. (2021). Role of Structural and Non-Structural Proteins and Therapeutic Targets of SARS-CoV-2 for COVID-19. Cells, 10(4), 821. (IF 4.366)

Research Projects

Funding agency: Science and Engineering Research Board (SERB).Dr. Kumari Priyanka (Department of Mathematics). Science and Engineering Research Board (SERB) sponsored a Major Research Project under Mathematical Research Impact Centric Support (MATRICS) scheme entitled "Development of Tuned Estimation Methodologies for Modelling Non Sampling Errors in Survey Sampling"; Reference No. [MTR/2019/000329]. This Project is under the supervision of Dr. Kumari Priyanka (Department of Mathematics). Year Feb, 2020- Feb, 2023. Amount sanctioned - Rs. 6,60,000.

Funding agency: Department of Biotechnology, Govt. of India Projects department wise under DBT sponsored Star College Scheme

"To assess cardiorespiratory functions & its correlation with Quetlet's Index and other relevant health parameters", sponsored by DBT, Govt. of India (May 2019-May 2022). This project is jointly supervised by Dr. Darshan Malik and Dr. Jayita Thakur. "Generation of Green Energy using a Microbial Fuel Cell",

sponsored by DBT, Govt. of India (May 2019-May 2022). This project is jointly supervised by Dr. Darshan Malik and Dr. Jayita Thakur.

"Study of variation in hematological parameter/s among youth and their correlation with diseases" under DBT-Star College Scheme, Shivaji College, University of Delhi under the supervision of Dr. Renu Baweja.

"Relevance of Literature Review as a Research Methodology", sponsored by DBT, Govt. of India under Star College Scheme, Shivaji College, University of Delhi. This project is jointly supervised by Dr. Kiran Bamel and Dr. Prabhavathi.

Project titled "Immunity Boosting Health Promotion Measures Using Alternative System of Medicine for COVID-19", sponsored by DBT, Govt. of India under Star College Scheme, Shivaji College, University of Delhi. This project is jointly supervised by Dr. Prabhavathi and Dr. Kiran Bamel.

"Synthesis and characterization of multifunctional ZnO nanoparticles for biomedical, piezoelectric and ferroelectric applications", under the supervision of Dr. Deepika Yadav.

Annual Interdisciplinary Project title "Developing quantitative approach to biological understanding" under the DBT-Star College Scheme (Year: 2020-2021), under the supervision of Ms. Nimita Kant. Funding agency- College Research Cell, Shivaji College, Duration- 1 year

Patents Filed/Granted

Patent filed- Mr. Krishan Kant Singh Gautam, Department of Computer Science.PATENT filed Title "Virtual Vision System For Visually Impaired People And Thereof", 2 October 2020.Application Number 202041038731

Seminars Organized

A webinar on the topic 'Self Reliant India' was held for the Diamond Jubilee on 30 October 2020, where the honourable Chief Guest Prof. M. Jagadesh Kumar, Vice Chancellor, Jawaharlal Nehru University, delivered a talk.

A webinar was conducted on 30 November 2020 wherein a talk titled 'Good Quality Early Education is the First Step Towards Transforming India' was given by Prof. Rakesh Bhatnagar, Vice-Chancellor of Banaras Hindu University.

A webinar on the topic "Education, Research and Innovation in the 21st Century: The Changing Role of Academic Institutions" was conducted by Dr. V. Ramgopal Rao, Director, Indian Institute of Technology, New Delhi on 25 February 2021.

National Webinar titled "Impact Centric Research: Funding Opportunities and Challenges in Framing Successful Research Proposal" was organized on 11 July 2020, by Prof. Upender Choudhury, Professor and Former Director, ICSSR, Department of Political Science, Aligarh Muslim University.

A Webinar on the topic 'Mitigating the Impacts of COVID-19 on Menstrual Health and Hygiene' was conducted on 20 November 2021 by Aman Preet passy, IRS officer.

Seminar/Conference Presentations

Dr. Neetu Rani of Department of Mathematics presented a Research Paper entitled "Geometrical Description of Vedic Fire Altar-Falcon" in the Online International Conference "Vedic Knowledge: The Highest Contribution Of Aryavarta To The World" organized by PCM SD College for Women, Jalandhar on 9-11 May 2020.

Ms. Ekta Raman of the Department of Geography presented a paper in International Geographical Union IGU-E-Conference 2020 topic on "Urban Health Hazard and associated issue in Covid-19 pandemic" 27-28 June 2020.

Dr. Anubha of the Department of Commerce presented and won Best Paper Award for research paper on "Consumer Perceptual Mapping towards Insurance Plans: The Marketing analytics Approach" in International Conference on Business, IT and enterprise Architecture held at MDI, Murshidabad on 25 - 26 September 2020.

Dr. Virat Jolli of the Department of Environmental Studies presented the paper titled "Survey of Shorebirds of North India" at the International Shorebirds Twitter Conference #ISTC2020 organized by International Wader Study Group and British Ornithologists Union, United Kingdom, held on 7-8 October 2020.

Dr. Nimita Kant of the Department of Zoology presented a poster titled "Evaluation of Telomerase reverse transcriptase(TERT) expression in squamous cell carcinoma (SCC) of the skin" at the Hybrid "Annual Conference of Indian Society of Medical and Pediatric Oncology –ISMPOCON 2020" held on 6–8 November 2020.

Dr. N. G. Giri of the Department of Chemistry gave an oral presentation on the topic "Effect of soil pH on germination and growth of Triticum aestivum and Zea mays" in the International Interdisciplinary Virtual Conference on "Drug Disease And Development" jointly organized by Department of Chemistry and IQAC Mungasaji Maharaj Mahaviyalaya, Darwha, India on 9-10 December 2020.

Dr. Richa Arora of the Department of Chemistry gave an oral presentation on the topic "Effect of soil pH on germination and growth of Triticum aestivum and Zea mays" under the theme "Frontiers Area of Research-Chemical Sciences" in the Young Scientists' Conference organized on 22-24 December 2020 as a part of India International Science Festival-2020 by the Ministry of Science and Technology, Ministry of Earth Sciences and Ministry of Health and Family Welfare, Govt. of India in collaboration with Vijnana Bharti (VIBHA).

Dr Kiran Chaudhary of the Department of Commerce presented the research paper titled 'Month of Year Effect: An Empirical Evidence from BRICS Stock Markets' in the online 12th International Conference on "Digitalization as Vehicle for Innovation, Organizational Growth and Effectiveness" held on 19 -20 December 2020.

Mr Satish Kumar of the Department of Mathematics presented a paper at an International Conference: International conference on Sustainable Development: Modeling and Optimization organized by Operational Research Society of India, Meerut Chapter held on 16-17 February 2021.

Ms. Meenakshi Yadav of the Department of English presented a paper titled "Standardization and Vernacularization of Hindi" in an International Conference on Language Ideologies and the 'Vernacular' in South Asian Colonial and Post-colonial Literature(s) and Public Spheres organized by Department of English, Jamia Millia Islamia and Heidelberg University held from 15-17 March 2021.

National/International MoUs Signed

Under University of Delhi's **Vidya Vistar Scheme**, Shivaji College has signed MoU on academic and research cooperation with Himalayan Degree College Rajouri, J&K and DAV College, Muzaffarnagar in February 2021. This scheme aims at sharing of resources, academic cooperation and educational collaboration.

Placement Details

Number and percentage of students placed during 2020-21: 34 and percentage wise 13.18 % students were placed.

Number of Companies visited for campus recruitment: **15 Companies** took online placement drives for the purpose of providing placements.

Extension and Outreach Activities

Earth Savior Foundation -3 July 2020. During the session 2020-21 many donation drives took place. The Earth Savior Foundation was the beneficiary of a "Donation Drive" organized by NSS Shivaji (Let No One Sleep Hungry). It aimed to solicit a small donation from the public to assist the less fortunate. Sanitizers, masks, gloves, raw food products, and other items were mostly donated. It was during this time that the Coronavirus had just been uncovered, and masks and other precautions had been made mandatory. Mask **Donation Drive** – 7 July 2020.NSS Shivaji organized a mask donation drive to raise awareness about the importance of masks, particularly in the wake of the pandemic. Masks are important resources for preventing Covid 19 transmission in the community. By the summer, the number of covid cases had skyrocketed, and masks were the only way to prevent the virus from spreading. NSS Shivaji took it upon themselves to inform the public and provide masks to help monitor the situation. Plantation Drive – 16-17 August 2020. The team of NSS Shivaji College organized a "Plantation Drive". Due to the pandemic, we nearly forgot about planting trees in our nearby parks and society and so we took the initiative to make our environment clean and green. Food Donation Drive- 16 October 2020. Under the aegis of IOAC, the NSS unit of Shivaji College Organized a Donation Drive for 'The Earth Savior Foundation' with the motive: 'Let No One Sleep Hungry! 'IN which one could donate in-kind; Atta, rice, pulses, Sugar, non-perishable items or any item of their choice at The Staff Room, Shivaji College. Everyone's support Facilitated the organization to continue assisting all the needy people. Awareness Campaign - 17 October 2020. A webinar was organised by Enactus Shivaji regarding the Awareness of Breast Cancer. The guest speaker for the event was Dr. Neeti Leekha Chhabra (Founder and President of 'Yes to Life' NGO). Diya Donation Drive - 14 November 2020. The NSS team donated Diya to the poor household workers to brighten up their Diwali festivities. Sanitary Pad Donation Drive- 8 March 2021. Donation Drive Under the Aegis of IQAC, the NSS unit of Shivaji College organized a sanitary pad Donation drive under the initiative SAPNA where we all put a step forward For the noble cause to donate a packet of Sanitary pads. Setup of AASHA Campaign – 22 April 2021- 15 May 2021.NSS Shivaji's team has been working tirelessly to compile a list of checked and operational helplines and contacts for the urgent need for oxygen cylinders, ICU beds, plasma donors, injections, and medications. Every day, following a series of checks, the helplines are made public to assist those in need. Under the AASHA CAMPAIGN, various awareness posts were posted early including- Vaccination awareness, Exercise videos to increase Oxygen Saturation and Healthcare Survey. Awareness Campaign - 28 May 2021. Menstrual Hygiene Day was celebrated with an awareness campaign on Instagram by Enactus Shivaji. The campaign included First Period story - Boy's Edition, Degendering Menstruation, Campaign on #MahavariInMahamari.

Library Development

The fully computerised library of the Shivaji College subscribes to 31 newspapers, 18 magazines and 6 journals. Total number of books available in the library is 80,533 apart from 286 Braille Books. KOHA Library software with RFID system was procured and installed to improve the security of books in the library. The library management software provides better service to the users, enabling students to self-issue or return books. College library has membership of Delnet- Developing Library Network (prime objective is to promote resource sharing among libraries).

Faculty Strength-

Total Faculty Strength: 198

Financial Allocation and Utilization (2020-21) **Grant sanctioned** in Rs.44,87,57,000.00 (Unaudited)

Utilized in Rs. 59,29,27,097.35- (Unaudited)

Other Significant Information

Workshops organised - A four-week "Tools and Techniques in Plant Sciences: Morphology to Metabolome", was held at National level (6 July – 31 July 2020) under the aegis of DBT sponsored Star College scheme. One Week" Inter College Laboratory Skill Training Programme For Assistants/Attendants In The Chemical And Life Science Laboratories" was organised (8February -12 February 2021)) under the aegis of DBT sponsored Star College scheme. A five-day "Workshop For School Teachers In Biological And Chemical Sciences" was organized by the Department of Biochemistry, Botany, Chemistry and Zoology of Shivaji college under the aegis of DBT sponsored star college scheme from 22-26 March 2021. Online Hands-on Training Workshop for students using Bioinformatics Tools for Understanding Protein Biology, 16-17 April 2021. Five-day National Workshop with Hands-on Training through Virtual Platform on "Bioinformatics and Biostatistics: A Beginner's Guide" from16-20 January 2021.

SHRI RAM COLLEGE OF COMMERCE

Major Activities and Achievements

The College coordinated with **renowned publishers** such as Pearsons Education and McGraw-Hill and **National Digital Library** for continuous access to e-books and other reference materials. The College has made **considerable investment** in Campus Management Systems, blended e-learning platforms, smart classrooms, digital databases and building strong alumni connect. **Free value-added courses** were provided to the students and faculty through tie-up with **Coursera**, a globally renowned online learning platform, for improving their skill-sets. 24*7 **counseling services** were arranged to ensure mental and emotional wellbeing of all stakeholders of the College. Several **new recruiters** approached the College with highest package offered of Rs. 25 lakhs p.a. For uninterrupted learning and expansion of knowledge base, several insightful **webinars** were organized on topics such as "Leadership in Disruptive Times", "Unlock your potential during Lockdown", and "How to be happy in times in times of Uncertainty." Various measures were undertaken by the College to **promote eco-friendly campus** such as effective **waste management** and **energy management and conservation**

Honours/Distinctions

Mr. Saurabh Gupta received the award for the Best Abstract submission on June 03, 2020, from the Internal Quality Assurance Cell and the Postgraduate and Research Department of Commerce, Nirmala College Muvattupuzha.

Publications

Jain, V., & Sharma, C. S. (2020). Workplace Deviant Behaviour in Response to Breach of Psychological Contract: The Mediation Effect of Moral Disengagement. *Ramanujan International Journal of Business and Research*, 5, 71-86. Doi: 10.51245/rijbr.v5i1.2020.217

Kapuria, C., & Kaur, S. (2020). Crop Diversification and Crop Disposition in India: An Inter-State Analysis. *Indian Journal of Marketing*, 50(5-7), 7-21. Doi: 10.17010/ijom/2020/v50/i5-7/152117

Kaur, S., & Kapuria, C. (2020). Determinants of financial inclusion in rural India: does gender matter?. *International Journal of Social Economics*, 47(6), 747-767. Doi: 10.1108/ijse-07-2019-0439

Kaur, S., & Malik, S. (2020). Determinants of public–private partnerships: a state-level empirical analysis of India, *Property Management*, 38(4), 597-611. Doi: 10.1108/pm-10-2019-0063

Kumar, M. (2020). Covid, Cooperatives and Education. The Cooperator, 57(10), 43-46.

Kumar, M. (2020). M-Wallets: A comparative study on usage intention of rural an urban citizens. *Solid State Technology*, 63(6). Retrieved from http://solidstatetechnology.us/index.php/JSST/article/view/6540

Makkar, S., & Singh, A. K. (2020). A conceptual development of spiritual leadership model. *International Journal of Business and Globalisation*, 26(3), 239-252. Doi: 10.1504/ijbg.2020.10032723

Mehta, S., Chaudhary, K., & Kumar, V. (2020). Optimal promotional effort policy in innovation diffusion model incorporating dynamic market size in segment specific market. *International journal of mathematical, engineering and management sciences*, *5*(4), 682-696. Doi: 10.33889/ijmems.2020.5.4.055

Sajeev, A., & Kaur, S. (2020). Environmental sustainability, trade and economic growth in India: implications for public policy. *International Trade, Politics and Development*, *4*(2), 141-160. Doi: 10.1108/itpd-09-2020-0079

Sharma, C. S., & Sharma, N. (2020). Spiritual Orientation and Proactive Workplace Behaviour: A Qualitative Analysis. *Global Journal of Enterprise Information System*, *12*(2), 66-72.

Journals published by College

Business Analyst

Strides: The Students' Journal

No. of college teachers serving as Editors or Members of Editorial Board: 8

Seminars Organised

Shri Manoj Kohli, Managing Director, Bharti Enterprises, Leadership in Disruptive Times, April 23, 2020

Mr. Aditya Pratap Singh, Consultant, Tata Strategic Mt. Group, Unlock your potential during Lockdown, May 10, 2020

Prof. Ajay Kumar Singh, Vice Chancellor, Sri Sri University, How to be happy in times in times of Uncertainty, May 12, 2020

Prof. Himanshu Rai, Director, IIM Indore, Leadership in times of crisis, May 20, 2020

Colonel Rajyavardhan Singh Rathore, Member of Parliament, The New Normal-Discussion on Financial Stimulus for Sports and Talent Acquisition in India, May 20, 2020

Conferences Organised

One Week Faculty Development Programme on "Mind-sets, Knowledge-sets and Skill-sets for 21st Century Youth: Innovations and Adaptations", May 27-June 3, 2020

One Day Workshop on "Sahaja Yoga Meditation: Discover Inner Peace and Positivity", June 14, 2020

Seminar/Conference Presentations

Ms. Priyanka Agarwal, Organizational Commitment & Citizenship Behaviour: The Internal Consequences of Perceived CSR, 7th Annual International Commerce Conference on "Organizational Realities: Changing Paradigm of HR"

Ms. Sakshi Gambhir, Conceptualization and Measurement of Air Pollution Index (API) in the South Asian Context, Ensuring a Sustainable Future: Role of Entrepreneurship, Innovations in Management Practices, and Circular Economy

Mr. Saurabh Gupta, De-marketing for Injurious Consumption In India With Special Reference To Tobacco's, De-marketing for Injurious Consumption In India With Special Reference To Tobacco's

Dr. Shikha Makkar, Diversity Management in Higher Education In India, National Conference on "Exploring Spiritual Foundations of Leadership and Management"

Ms. Suman Si, Impact of Social Media in Marketing of Luxury Brands, SIMSR Global Marketing Conference 2020

Ms. Sunita Sharma, Feasible solution of the time table assignment problem to faculty, Recent Advances in Mathematical Sciences and its Applications (RAMSA-2020)

Mr. Vikki Sharma, Brand Building Through Guerrilla Marketing, International Conference "Global Business and Social Issues"

Mr. Vikki Sharma, De-marketing For Injurious Consumption in India: With Special Reference To Tobacco's, International Conference "Road Map To Sustainability: Environment And Health"

Other Inter-institutional Collaboration

Online Collaboration with Federation of Indian Chambers of Commerce and Industry (FICCI)

Online Collaboration with Forum for Industrial Interaction (FII) at IIM Bangalore

Online Collaboration with National Cooperative Union of India, (NCUI)

Placement details

Number of students placed: 251 offers

Percentage of students placed: 44.74%

Number of companies visiting the campus: 60

Extension and Outreach Activities: The faculty and students of the college have carried out various outreach and extension activities as a part of following projects:

Project Aarogya, Connecting Dream Foundation, SRCC,

Project Amal, ENACTUS, SRCC

Project Ankush, National Service Scheme, SRCC

Project Arpan, Connecting Dream Foundation, SRCC

Project Asbah, ENACTUS, SRCC in collaboration with KPMG

Project Asha, Vittshala, SRCC in collaboration with Janhit Skill Development Centre NGO

Project Khushhali, Vittshala, SRCC in collaboration with Haryana Government (District Administration), Sarva Haryana Gramin Bank and local village panchayats

Project Sahay, Vittshala, SRCC in collaboration with NGO Reach Out and Pass it on, NGO Umeed, NGO Goonj, NGO Bal Sahyog, NGO Lotus Petal Foundation, and NGO Drop

Project Uttara (Phase I), Vittshala, SRCC in collaboration with Ministry of Information and Broadcasting, Government of India and State Bank of India

Project Uttara (Phase II), Vittshala, SRCC in collaboration with National Bank of Agriculture and Rural Development (NABARD), Punjab National Bank, HP State Cooperative Bank and NGO Mahila Kalyan Parishad

Project Vishwas, National Service Scheme, SRCC in collaboration with NGO Development Assistance

Library Development

The library is fully automated and provides tech-enabled user services. It is well-stocked and has a collection of **81,400 volumes** on varying subjects. Moreover, it regularly subscribes various periodicals, magazines, daily newspapers and nearly **eighty national and international journals.** Latest publications in the fields of business, economics, humanities and social sciences are continuously added to provide students with a wide range of academic insights. The library has also efficiently provided **remote access to e-resources** during lockdown which has immensely benefitted both students and faculty during the pandemic. It is well-equipped with modern and sophisticated digital systems such as fully automated **RFID technology** and database management software **LibSys 7 (EJB) Rel 1.0 version.** It has a subscription to the latest research software tools **N-List (INFLIBNET)** for enhancing the academic and research infrastructure of the college. It also permits access to the electronic resources provided by DULS (Delhi University Library System). Faculty members also have **remote access to e-publications through DELNET, Prowess database and Economic outlook.** A total of Rs. 4,78,082, Rs. 3,90,366 and Rs. 5,48,642 has been spent on the additions to books, journals and databases respectively during the year.

Faculty Strength

Permanent: 53 Ad-hoc: 79

Financial Allocation and Utilization

Grants Sanctioned: Rs. 28,33,80,000/-Grants Utilized: Rs. 35,23,58,599/-

(Figures are provisional and are subject to audit)

SHYAM LAL COLLEGE DAY

Major Activities and Achievements

SLC has achieved rank 69th rank in 2020, in the MHRD NIRF ranking of colleges in India. The college has achieved another remarkable milestone with Ministry of Education recognizing SLC as SAP (Swachhta Action Plan) institution in 2020. The college has successfully completed four batches of the add-on course on "Stock Market and Expert Trade" and one certificate Course in "How to be an Expert Trader" in collaboration with Bombay Stock Exchange Ltd. The College also offers Foreign Language Certificate and Diploma courses in German/Spanish/French/Chinese/Japanese/Korean Courses under the aegis of Department of Germanic & Romance Studies and Department of East Asian Studies, University of Delhi. The college has organized flagship event of "Umang-East Delhi Flower Show 3.0" on March 1, 2021 in its campus to encourage the spirit of Ek Bharat Shreshtha Bharat & Swachha Bhart Abhiyan. Our college is a participating institute in the Unnat Bharat Abhiyan (UBA 2.0) which is the flagship programme of MoE, GoI. Under this project, SLC has adopted 5 villages to support rural development through institutional linkages. The College organized Yamuna Festival 21 on 5th and 6th of March at College campus as well as Yamuna Ghat. The theme of the Festival was "Conservation and Rejuvenation of the Ever Green Yamuna".

Honours/Distinctions

Prof. Rabi Narayan Kar is Visitor's Nominee, Visva-Bharati, Santiniketan, WB; is a member of PG Board of Studies- Pondicherry University, is a member of Board of Studies, Department of Commerce and

Financial Studies- Jharkhand Central University and also a Member of Research Expert Committee, NIEPA, Delhi 2020-21.

Publications Total Numbers

Balram Kindra (2021), Capacity constraint EOQ model for deteriorating items with two-level trade credit under financial environment. *Malaya Journal of Matematik*, Volume 9, Issue 1, Page Nos. 981-992.

Narendra Singh, Sunny Aggarwal (2021), Energy Levels and Oscillator Strengths of Ca V. Journal of Atomic, Molecular. *Condensed Matter and Nano Physics*, 8, 1, 45.

Niti Agrawal (2020), 'Experimental Investigations of fault tolerance due to shading in photovoltaic modules with different interconnected solar cell networks' *Solar Energy* (Elsevier Journal with Thomson Reuters impact factor 4.7).

Pradeep Kumar Sharma (2021), Revisiting the thermoelectric properties of lead telluride *Materials Today Energy*, 21, 100713, https://doi.org/10.1016/j.mtener.2021.100713.

Rabi Narayan Kar (2020), "Role of Mergers and Acquisitions on Corporate Performance: Emerging Perspectives from Indian IT Sector", *Transnational Corporations Review. Routledge, Taylor & Francis Group*, doi.org/10.1080/19186444.2020.1832427

Rabi Narayan Kar & Kusha Tiwari (2020), "Realms of Gender Interactions: South Asian Perspectives". *South Asian Survey* 27 (2), Sept, 2020, SAGE. Scopus

Kusha Tiwari (2020), "Gender Variant Children and Institutional Arrangements: Exploring the Phenomenon from South Asian Perspective". *South Asian Survey* 27 (2), Sept, 2020, SAGE 141-157. Scopus

Sitaram Kumbhar (2021), Odisha's Transformation under the Naveen Patnaik Regime: Beleaguered Victim to Robust Warrior" *Economic and Political Weekly*, Vol. 56, Issue No. 8, pp. 21-25.

Sushil Kumar (2021), Development of new encryption system using Brownian motion based diffusion. *Multimedia tools and applications*, Springer, Scopus indexed, Published Online.

Vijay Sharma (2020), Use of ZnO nanoparticles in the degradadtion of Rhodamine B dye in wastewater to save the environment. *International Journal of Emerging Technologies*, 11(4), 527ISSN online 2249-3255; ISSN P 0975-836

Journals

Prof. Rabi Narayan Kar is a Member of Scientific Advisory Board, in Revue Internationale de Psychosociologie et de Gestion des Comportements Organisationnels (RIPCO) Journal, France.

Dr. Kusha Tiwari, Department of English, Member of Editorial Advisory Board, Cambridge Scholars Publishing, UK.

Prof. Rabi Narayan Kar as Guest Editor of "Realms of Gender Interactions: South Asian Perspectives", September, 2020, Special Issue of South Asian Survey, SAGE, Volume 27 Issue 2.

Dr. Kusha Tiwari as Guest Editor of "Realms of Gender Interactions: South Asian Perspectives", September, 2020, Special Issue of South Asian Survey, SAGE, Volume 27 Issue 2.

Research Projects

Dr. Narender Kumar, "Atomic Data for vapour shielding in fusion devices". International Atomic Energy Agency (IAEA) in Vienna, Austria. Amountt sanctioned ₹ 12,00000

Dr. Sitaram Kumbhar, "Sea-born Disaster Risk Reduction, Governance and Management in Odisha: A Comparative Study of Policy and Innovation" ICSSR. Sancitoned amount ₹ 4,00000

Dr. Kusha Tiwari, MoE Flagship Project/Programme Unnat Bharat Abhiyaan. Sancitoned amount ₹ 50,000

Patents Filed / Granted:

Dr. Vijay Sharma Patent: "Inducing safety among bike riders through traffic camera—an AI and IOT based approach" Reference Number: 202131021 765 A. Page No. 323, Journal no. 24/2021. Publishing Date: June 06, 2021.

Dr. Vijay Sharma Patent: "Method for Effective Medical Supply Management using Block Chain and Machine Learning" Reference Number: 202131023475A. Page No. 166, Journal no. 25/2021. Publishing Date: June 18, 2021.

Seminars Organized

One week national workshop, "Emerging trends in science and technology: Issues In These Unprecedented Times", August 4-8, 2020

First International LIS (Learn, Innovate and Start-up) Summit from September 3-4, 2020

National Webinar on Creating Awareness about National Education Policy on September 22, 2020. Webinar on Mental Health and Well-being in Present Times on September 26, 2020 Challenges of Teaching-Learning in Schools in Rural Areas during covid-19 Pandemic, November 7, 2020 NATIONAL EDUCATION POLICY: Innovation and Entrepreneurship, November 25, 2020

National student Seminar - NEP 2020 - A New Paradigm to Empower India, February 16, 2021

Seminar/Conference Presentations

Dr. Narender Singh, delivered Invited talk in 2nd RCM of the Coordinated Research Project on Atomic Data for Vapour Shielding in Fusion Devices from October 7-9, 2020 organized by IAEA, Vienna Austria.

Dr. Kusha Tiwari, "Importance of Language and Communication Skills in Enhancing Employability" organized by Valliammal College for Women, Chennai on May 4, 2021

Dr. Kusha Tiwari, "Media Literacy and Communication for Sustainable Development" organized by VIPS, I.P University, Delhi on December 18-19, 2020.

Dr. Kusha Tiwari, "Postcolonialism and the Politics of Representation" organized by Dwaraka Doss Goverdhan Doss Vaishnav College, Chennai on July 16, 2020.

Mr. Pradeep Kumar Sharma, "Synthesis and Thermoelectric Properties of Pristine Lead telluride (PbTe)" in ICHSM-2021, SRM University, April 8-10, 2021

Mr. Pradeep Kumar Sharma, "Synthesis and thermoelectric properties of Nanostructured Pristine Lead telluride in 4th Departmental Symposium on Advances in Physics, Department of Physics, December 1-3, 2020, Indian Institute of Technology Delhi, India.

Dr. Neha Bothra, "Unrecognized Tangibles for Tangible Valuation" at International Conference on Advances in Business and Management organized by Shaheed Bhagat Singh College, University of Delhi on March 4-6, 2021.

Mr. Mohd. Sajid, "Literature review of Behavioral Finance: Then and Now." In Elementary education online, EEO. Year and month: January, 2021 ISSN:1305-3515 doi:10.17051/ilkonline.2021.01.311. Indexed by: Scopus.

Ms. Jyoti Sindhu, "Social Media Marketing- A Road Ahead" in International Conference on International Marketing Conference: Innovations in Contemporary Marketing Theory, organized by IIM Shillong, on April 21-22 April 2021.

Ms. Jyoti Sindhu, "Customer Based Brand equity in the age of Social Media Marketing" in International Conference on 3RD International Virtual Conference: The Ecology of New Economy Post Covid - 19", organized by CGC Technical Campus, Jhanjheri, Mohali, on April 23-24, 2021.

Ms. Anita **Sikandar**, "Self-Reliant India: Shift Towards Skill and Vocational Education in Higher Education" in National Student Seminar on NEP 2020 – A New Paradigm to Empower India held on 16th February 2021 organized by Shyam Lal College, University of Delhi.

National/International MoUs Signed

M/s Prowisdom Growth on 9.3.2019 To introduce and /or strengthen entrepreneurship education on campus through deployment of a systematic approach to optimising and increasing the impact of teachers and training programs on entrepreneurship education and provide students with the opportunity to become entrepreneurially skilled and inspired to be entrepreneurs.

Hunger Heroes (Feeding India) on 24.9.2019, Installation of Happy Fridge near the main gate to help the poor with distribution of food.

With International Atomic Energy Agency (IAEA), Vienna, Austria for applied project on "Atomic Data for Vapour Shielding in Fusion Devices (F43024)". Collaborative research to review data needs and coordinate research plans for the modelling of vapour shielding in controlled fusion devices, with a focus on liquid metal surfaces.

With Wadhwani Operating Foundation, Four main Street, Suite 120, Los Altos, CA 94022 to introduce and/or strengthen entrepreneurship education on campus through deployment of a systematic approach to optimizing and increasing the impact of teachers and training programs on entrepreneurship education and provide students with the opportunity to become entrepreneurially skilled and inspired to be entrepreneurs

Other Inter-Institutional Collaboration:

IQAC, SLC has organized First International LIS Summit, 2020 (Learn, Innovate & start-Up) in collaboration with XAMK, Finland from September 3-4, 2020.

IQAC, SLC has organized a National Student Seminar - NEP 2020 - A New Paradigm to Empower India in collaboration with Shiksha Sanskriti Utthan Nyas on February 16, 2021.

Placement Details

Number of students placed: 353

Number of Companies visited for campus recruitment: 15

Extension and Outreach Activities

SLC (University of Delhi), Shyam Lal College is a participating institute in the Unnat Bharat Abhiyan (UBA 2.0) which is the flagship programme of MHRD, GoI. Under this project, SLC has adopted 5 villages. UBA team of SLC has conducted extensive surveys of the said villages, participated in the Swachata hi Sewa campaign, interacted with villagers and other stakeholders of the villages such as village Pradhans and village panchayat samities and other stakeholders. The UBA, SLC team has also worked with and helped the adopted villages during COVID-19 pandemic in following ways: poster and video distribution about maintaining hygiene and sanitation, distribution of food packets, distribution of rashan, distribution of masks, dissemination of information through Whatsapp groups to farmers regarding precautions to be taken in farming activities during the pandemic etc.

The College has tie-ups with several NGOs to work for the community. NSS volunteers of the College visit slum areas and spread awareness about cleanliness in collaboration with NGOs

The tree plantation activities organized by the College are aimed at improving the air quality in and around the College, as well as for creating awareness about protection of environment.

WDC regularly organises activities to sensitize the students and staff to gender related issues and to promote respect for human beings irrespective of race, religion, colour or gender.

Most of the activities of the Equal Opportunities Cell such as remedial classes and Spoken English classes for students from under-privileged communities and facilities for differently abled also largely benefit the students from surrounding areas.

The College participates in all national initiatives aimed at promoting good citizenship such as cleanliness drive, skill and entrepreneurship development initiatives, "Make in India" campaign, etc. The College has set up Centre for Skill Development following the launch of this programme by the Union Government.

NSS of the college organized clothes donation drive to support NGOs like Amar Jyoti. Yoga camp, pledge ceremony in Yamuna festival, plantation and sanitation derive, awareness drive namely "HAIN JARURI", "GET VACCINATED"

The Plantation Drive: The Plantation Drive was organized by the National Service Scheme of Shyam Lal College on the occasion of Independence Day on Aug 15, 2020. 30 volunteers of NSS, SLC actively participated in the event through online mode. Volunteers conducted the plantation drive in their local residence. It aims to showcase awareness towards the environment.

Aatmnirbhar Bharat: An Inter-college online Quiz Competition was organized on "Aatmnirbhar Bharat" dated Aug 20, 2020. The quiz contained 15 questions carrying 1.5 marks each. Students fulfilling the criteria of scoring 80% got their e-certificates via mail.

Women's Equality Day: An Inter-college online poster making competition was organized on "Women's Equality Day" dated August 26, 2020. Many students showed their interest in the competition. All participants sent their posters via google form.

The Steps Tracking: In the light of the Fit India Movement, NSS SLC organized one month fitness campaign from August 26 to October 02, 2020 to promote fitness during Covid times. Under the program, students participate in fitness exercise like daily morning steps, jogging and running at their home place.

Youth Festival: The 24th National Youth Festival 2021 was held from January 12 - 16th 2021. Volunteers of NSS, SLC actively participated in the event through online mode. Its closing ceremony was addressed by Union ministers of Textiles and Women and Child Development Smriti Zubin Irani in the presence of Union Minister of State for Youth Affairs & Sports KirenRijiju. NYF was celebrated to commemorate the Birth Anniversary (12th Jan) of youth icon Swami Vivekananda.

Mind and Soul purification webinar: A two-week workshop on June 05-21, 2021 was organised on "Integration Mind, Body & Soul" by Swami Shyama Chaitanya & yogacharya lalitmadaan. The camp was organised by the Centre for Holistic Development in collaboration with IQAC & NSS & Sports Committee. About 120 participants took part in the two-week workshop. During the two-week workshop, Yoga practice sessions were given on different topics associated with yoga. A meditation session along with special interactive session has been organised on effect of Yoga on brain development.

Library Development

The college Library has a rich collection of over 55,000 books covering the gamut of different disciplines. E-Resources facility is also available through which students and faculty members access the world's best Databases, e-Books etc. The Library is automated. This year (2020 - 2021) under report, 518 books were added to our collection in various subjects.

Faculty Strength

Permanent: 58 Ad-hoc: 52

Financial Allocation and Utilization:

Grant sanctioned in Rs. 26.10 Crores

Utilized in Rs. 30.18 Crores

Other Significant Information

The College has also organized a Covid-19 vaccination camp from April 12-13, 2021

IQAC has initiated Project Anutosh under which we are committed, through a structured institutional mechanism, to help rebuild the lives of those students who have been worst affected by the Covid-19 and have lost their parent/s and are looking at a grim and uncertain future. Counselling and Financial aid were provided to 13 students who have lost their parents due to Covid-19.

SLC has undertaken major infrastructural upgradation with addition of 2nd Floor in the Old building with several new classrooms, multipurpose Hall, Computer Labs

SLC is also constructing an STP plant.

We have successfully adopted Shahdara Mandi and Hanuman Seva Basti, Jhilmil for several community welfare measures.

SHYAM LAL COLLEGE (EVENING)

Major activities and achievements

The College published 'Aspirare', an International Journal of Commerce and Management (Vol.No.7, Sept.2020) (ISSN: 2394-0484 (Print), 2394-6601 (Online)), which has impact factor of 6.629. Besides, IQAC of the College, in collaboration with DSPSR, organized (online) an ICSSR Sponsored XXII Annual International Conference on the broad theme of "\$ Five Trillion Economy: The Way Ahead" on January 9-10, 2021. Besides, Students' Union of Shyam Lal College (Eve.) in consultation with Students Advisory Committee donated the amount of Rs.4,00,000/- (Rupees Four Lakh Only) towards the PM CARES FUND.

Publications

Bhushan, Ila (2020), "Mandatory CSR: Revisiting Trusteeship", Aspirare: an International Journal of Commerce and Management, Vol No. 7, Sept 2020.

Kumar, Ramesh (2021), "Appropriating Animal Resources: Godhan Nyay Yojna of Chhatisgarh, January – June 2021", *Anvesak – A bi-annual Journal* (Vol.51, no.1(VI) ISSN 0378-4568, single author)

Kumar, Ramesh (2021), "Mapping Farmers' Movements: An Indian Context", *Kalyan Bharati* (Vol.36, no.(XII) 2021 ISSN 0976-0822, single author)

Kumar, Ramesh (2021), "When Spinning Wheel Speak", *The Journal of Oriental Research Madras* (Vol.XCII-XXX: 2021, ISSN 0022-3301, first author out of three)

Kumar, Ramesh (2020), "Citizenship Amendment Act, 2019 & its Discontents", *Shodh Sarita*, October – December 2020 (Vol.7, Issue 28) ISSN 2348-2397, single author)

Rai, Anil (2020), "Sant Kaviyon Ke Sikari So Kaam", *International Multi-disciplinary Research Journal* 'Shodh Sarita' (UGC-Care listed), Vol.7, Issue-27, July-Sept.2020, published from Lucknow, U.P

Rai, Anil (2020) "Aaj Ka Bharat Aur Tulsi Ka Samaj Darshan", *International Research Journal 'Shodh Sanchar Bulletin'* (UGC-Care listed), Vol.10, Issue 39, July-Sept.2020, published from Lucknow, U.P.

Rai, Anil (2020), "Kavita Ki Zameen Par Phanishwarnath Renu", *Banas Jan* (UGC-Care listed), Issue-41, Jan-March, 21, published from Delhi.

Sarita (2020), "Vashvik Mahamari Aur Sahityik Prastuti" in the *Harigandha*, Page No. 100, Vol. 310-311, June-July 2020 (Peer Reviewed).

Singh, Amit (2020), "Hindi Sahitya Aur Cinema Mein Samajik Hit Aur Rashtriyata Ka Bhav", "Bhasha Patrika" CHD, Ministry of Education, Government of India in July-August, 2020 Special edition, ISSN-0523-1418.

Karmwar, M. (2020), "India-Africa: Rediscovering Trade Relations through Cultural Assimilation. *VEETHIKA-An International Interdisciplinary Research Journal*", *6*(4),5-15. E-ISSN: 2454-342X, UGC Index no. 44539.

Karmwar, M. (2020), "India-Africa-Covid19: Old Engagements and New Exchanges" *Global Thought*. 4 (16):163-170, ISSN:2456-0898.

Journals

Aspirare', an International Journal of Commerce and Management (ISSN: 2394-0484 (Print), 2394-6601 (Online)

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board:

Editor-in-chief – Dr. Ramesh Kumar, Managing Editor – Dr. Aditya P. Tripathi & Associate Managing Editors – Dr. S.P. Sharma, Dr. Pramod Kumar, Ms. Ila Bhushan, Dr. Ashwani Jassal, Dr. Kumar Prashant, Dr. Preeti Shukla and Dr. Pramod Kumar Dwivedi

Seminars Organized

Webinar on 'Linkedin', 23rd November, 2020 and on 'Why to do MBA', February 8, 2021.

Webinar "Career Avenue Options with Computer Science" on September 18, 2020, 6:15

Webinar on "Artificial Intelligence and Natural Language Processing: Perspective & Dimensions" on February 27, 2021

Webinar on "ICT in Food and Beverage Industries" on March 22, 2021

Webinar on "Relevance of Buddhism in India Today" on December 31 2020

SAKSHYA; The Society of History has organized a Seminar on Open Book Examination (OBE) on 7th December 2020.

Conferences Organized

XXII Annual International Conference on "\$ Five Trillion Economy: The Way Ahead" on January 9-10, 2021.

Seminars / Conferences Presentation

Dr. Anil Rai, speaker in a webinar titled 'Puratan Bhartiya Kalaon Dwara Mahilaon Ka Kaushal Vikas' (under Mission Shakti, Govt. of U.P.) organized by Govt. Raza P.G. College, Rampur, U.P.

Ms Ila Bhushan Jain, Assistant Professor, Dept. of Political Science attended a webinar on on "Conserve Water: Need of future Generation" organised by ARSD college.

Mr. Rajiv Ranjan Singh, presented a paper "Modelling of 802.11 4-Way Handshake Attacks and Analysis of Security Properties" with his co-authors from University of Birmingham, UK, as First author on "The 16th International Workshop on Security and Trust Management" held at Guildford, UK in September 2020 which was published in Springer's Lecture Notes in Computer Science (LNCS) book series.

Dr. Amit Singhon "Mahatma Gandhi ka Jivan :Vikas or Arthik Swavalamban ke, sandrbh Mein" on October 2, 2020 in a National Webinar on "Gandhi and Modern World organized by National Gandhi Museum; also delivered a lecture on "Importance of Mother Language in a webinar on International Mother Language day organized by NSS Unit, Ramanujan College in collaboration of World Hindi Organisation, Delhi on February 21, 2021.

Dr. Stuti Gupta, on "Impact of COVID-19 on Indian Banking Sector", conducted by Vivekananda Institute of Professional Studies, Delhi.

Dr. Manish Karmwar on "Swami Vivekananda and the Politics of Religion" in National Seminar on Swami Vivekananda, Indian Culture and Global Peace Jointly organized by SSE, New Delhi, ICPR, New Delhi and Gandhi Smirti and Darshan Smirti, New Delhi on December 11-13, 2020; "Siddis Of Patthar Kuan: A Diasporic Connect (From) Africa To Ahmedabad", Jointly organized by GRFDT, New Delhi, MFA, Manila, Philippines, CISAN, UNAM, Mexico on November 2-5, 2020; "Philosophy and Practice of Jainism And Traditional Religions" in War, Conflict & Conflict Resolutions in Africa organized by Society for

social empowerment, Delhi and CBU, Bhiwani, on July 23-24, 2020 and "India-Africa-Covid19: Old Engagements and New Exchange"s organized by Society for social empowerment, Delhi and CBU, Bhiwani, May 25-26, 2020.

Library Development

Our Library has a rich collection of over 52,329 books covering an array of different disciplines. It subscribes 14 Hindi & English Newspapers, 55 magazines and journals. E-resource facility is also available through which students and teachers can access the world's best databases, DULS, E-Journals, E-books and Reports. Our library is automated and ensures the availability of current titles by consulting publishers', catalogue, book reviews and publisher websites. Open access facilities to students and staff are available on ground floor and upper library building.

The library is computerized with bar coded books and membership cards. Xerox facility is also available for the staff members. The existing ceiling of the number of copies of a title to be purchased has been increased from five to twenty in view of new syllabi. The new arrivals are duly notified and prominently displayed.

Faculty Strength

Permanent: 40

Ad-hoc: 24

Financial allocation and Utilization

Grant sanctioned: ₹ 25,43,62,000/-

Grant Utilized: ₹ 21,77,97,129/-

SHYAMA PRASAD MUKHERJI COLLEGE FOR WOMEN

Major activities and achievements:

Shyama Prasad Mukherji College had a very promising and engaging year, despite the Covid-19 pandemic challenges that impacted institutional functioning. The institution successfully inked 4 MOU and added 3 Add-on Courses titled, Counselling and Psychotherapy, Diet and Wellness, Employability and Soft Skills in the academic year 2020-21. The institution is now offering 7 add on courses, including, Travel and Tourism; Women and Legal Literacy; French and German Language in this academic year. In present academic year, 1 teacher was awarded Doctor of Philosophy and another faculty had completed Post – Doctoral research work. In the context of research and publication, our faculty members published more than 40 books and book chapters, more than 50 research articles and presented more than 30 papers at various seminars, workshops and conferences. 1 UNG sponsored Two Day Seminar, 40 Webinars, 3 FDP, 6 Workshop etc.

Honours / Distinctions:

Dr. Shubha Sinha, Dept. of Political Science was awarded Doctor of Philosophy from University of Delhi.

Dr. Suruchi Bhatia completed her Post-Doctoral Research from ICSSR.

Dr. Rishi Raj has been awarded Sahitya Akademi Yuva Puraskar 2020 under the aegis of the Sahitya Kala Akademi.

Dr. Amna Mirza has been honored Award for Excellence in Education, at 9th Principals & Teachers Award 2020, by Thar Sarvoday Sansthan, in association with Rajasthan Foundation & Simply Jaipur, September 5, 2020. She is being awarded Women Prestige Award 2021, by Lion Club Delhi, January 20, 2021.

DR. Chandrakanta Mathur has been elected as President of Women's India Chamber of Commerce and Industry 2020.

Ms. Mahima Singhi, Applied Psychology (H) II Year, DU Ist Position with CGPA 9.14

Ms. Nazneen Sultana, Geography (H) II Year, DU Ist Position with CGPA 9.46

Ms. Nilisha Singh, B.Ed. II Year, DU 2nd Position with 75.64 %

Ms. Saloni Jindal, B.EL.Ed. II Year, DU 2nd Position with 78.9%

Publications

Bhatia, S., Yadav, A., Babu, N., & Bharadwaj, G. (2020). Gender Differences in Perceived Parenting and Career Decision Making of Adolescents. In S.K Srivastava, & K. Sharma, (Eds). *Health Care Challenges in India: Psycho-Social Perspectives*. New Delhi: Global Vision Publishing House. Pp 35-52.

Idnani, D (2021). Religious Diversity, Secular Ethos, and Schooling in a Secondary School in India. In *International Journal of Humanities and Innovation (IJHI)*. Vol. 4, No2. DOI: https://doi.org/10.33750/ijhi.v4i2.108.

Jamal, S., Upadhyay, A., Dua, R. (2021). "Indigenous people and changing socio-cultural behavior: A case study of Toto tribes, Totopara." In *Sustainability, Agri, Food and Environmental Research*, 9(3), ISSN: 0719-3726), 9(3),2021: 369-392.

Mirza, A. & Jha, Bh. (2021) 'Delhi & Statehood- Problematic Law & Order & Federal Trade-off'. In Rekha Saxena (ed.). *New Dimensions in Federal Discourse In India*. Routledge: Oxon,New York. ISBN: 978-1-138-36150-8 (hbk),ISBN: 978-1-003-03266-3 (ebk), Routledge.

Prakash, P., & Mishra, P. K. (2021). Climate Vulnerability and Adaption Assessment in Bundelkhand Region, India. In S. Kanga, V. N. Mishra, & S. K. Singh (Eds.). *Sustainable Development Practices Using Geoinformatics*. Scrivener Publishing LLC.

Singh, P. (2021). Kavita ka Vidrohi Swar: Bhartiya Dalit Kavita Ke Vishesh Sandarbh Mei. In Sadhna Sharma, Shagun Agarwal, Charu Goel. *Sahitya Aur Samkalin Sarokar*. Swaraj Prakashan: New Delhi. ISBN-978-93-88891-967. Pp. 26-36.

Singhal A, Bedi P. (2020). Multi-Class Blind Steganalysis using Deep Residual Networks. In *International Journal Multimedia Tools and Applications*. Springer. (Impact Factor: 2.313, Scopus: Indexed),

Thareja, R., Chaurasiya, S. (2020). Empowering Women Through Entrepreneurship in India. In *International Journal of Entrepreneurial Knowledge*, 8(2), 77-88. Doi: 10.37335/ijek.v8i2.114 ISSN 2336-2952 (Print), ISSN 2336-2960 (Online)

Uniyal, Chayanika. (October-December 2020). Forgotten Women Warriors of India's First War of Independence, 1857. In *Shodh Sanchar Bulletin*. Vol. 10, Issue 40. ISSN - 2229-3620, UGC Care listed SN-83, Page Nos. 129-133.

Wadhwa, T. (September-December, 2020). Teachers' Identities and Mental Health: Reflections in Times of COVID'19. *Indian Journal of School Health and Wellbeing*. 6(3): 1-

Member of Editorial Board:

Chayanika Uniyal is a member of editorial board of an International E Journal, IJHIR ISSN:2454-5600 is a double-blind peer-reviewed international history Quarterly e-journal https://qtanalytics.in/journals/index.php/IJHIR/about/editorialTeam.

Dr. Poonam Singh is a member of Editorial Board of the Journal Dalit Sahityiki Varshiki since 2019.

Dr. Reema Thareja has been appointed as Editor, International Multidisciplinary Research Foundation (IMRF).

Research Projects

Dr. Sanjiv Kumar, Status of Impact of Constitutional Status of J&K on marginalized communities since Independence, 2019-21, ICSSR. Amount Sanctioned: Rs. 18.06 lakhs

Dr. Sanjiv Kumar, History, Science, Religion among Modern India Political thinker: A Thematic and Methodological Exploration, 2020-22, ICHR, Amount Sanctioned Rs. 3.5 lakhs

Seminars Organised

Two Day National Seminar on "Artificial Intelligence: The Next Generation of Computing" from April 3-4, 2020.

National Webinar on "Entrepreneurship & Creativity" on August 08, 2020. Dr. S. Lakshmi Devi and Dr. S.K. Palhan shared their expertised knowledge.

Webnair on 26th and 27th November 2020, on the theme 'Making of Indian Constitution' and 'Gandhi and the Constitution of India' on November 26-27, 2020 respectively

Webinar on "Art of Thesis Writing" April 07, 2020.

Webinar on "Transformartive Power of Mentoring" on May 09, 2020.

Conference

Three Days National Webinar on Advance usage of official language in the field of education and administration in the context of technical terminology from June 25-27, 2020.

One Week Online Lecture Series on the theme Celebrating Womanhood in Testing Times Reflections from the Past and Present from March 8-12, 2021.

National Workshop on "E-Governance in Colleges" from June 14-16, 2020. SPMC organized a Two Days Faculty Training Program on Microsoft Teams from 28-29 August 2020.

National Webinar on 'Addressing Gender Issues in Education in India' on September 08, 2020.

Seminar/Conferences Presentations

Dr. Amna Mirza on 'Changing Nature of Globalisation and it's impact on Geopolitics Amidst Tectonic Shifts due to Covid19', in Two Day International Conference (Online) on Geopolitics in Post COVID Era: Emerging Dimensions and Dynamics organized by the UGC-HRDC, Osmania University, Hyderabad, in Collaboration with Hyderabad Institute of Social Sciences (HISS) Hyderabad, Telangana State, India on September 11-12, 2020.

Dr. Anmika Rai on "Loneliness and Virtual Group Identities – A correlational study" in two days International Virtual Conference, organized in collaboration with Central University of Karnataka, SVKM's Usha Praveen Gandhi College of Arts, Science, and Commerce, Mumbai, Maharashtra, and St. Anthony's College, Shillong, Meghalaya, November 28-29, 2020.

Dr. Chayanika Uniyal moderated a session at One Week Online Workshop on Gender Studies at UGC-Human Resource Development Centre, Jamia Millia Islamia, New Delhi on 1st September 2020 from 2:00-3:30 pm

Dr. Deepa Idani on "NEP and School Education" on August 13, 2020 in an International Webinar on 'National Education Policy 2020- A New Vision', organised by the KPSA and IPSA.

Ms. Kulbir Kaur on 'Matimen, Thugs, Soldiers and Landlords: Mazhabi Sikhs in the Colonial Period', ICMSSAAHP, October 24, 2020, Ludhiana, India, SAIRAP.

Dr. Meenu Agarwal on 'Preparation of traditional Gujarati Snack' in International virtual conference organized by Amity Institute of Food Technology, Noida, UP on December 21, 2020.

Dr Nazia Talat on "Air & Water Pollution", at the Three Day Online Programme on 'Environment and Pollution', organized by Andhra Pradesh Human Resource Development Institute (APHRDI), Government of Andhra Pradesh, (in association with DoPT, GOI), 7 to 9 September, on September 8, 2020.

Dr. Reema Thareja participated as a resource person in a Student Workshop on 'Recent Trends in Programming Languages' on August 15, 2020 for ITU California, USA.

Dr. Urmil Vats presented a paper on 'Covid -19 A Transforming Era' in an International Webinar organized by S B P G College Baragaon, Varanasi, UP, on June 20, 2020.

Dr. Vandana presented a research paper on 'Bharat Main Soofiwaad ki Parnpara Aur Hindi Sahitya' in Two Day International Interdisciplinary Webinar on 'The Culture Of Sufism & Qawali in Indian Subcontinent 'organized, K.M. Agrwal College Maharashtra, Dept of Hindi from May 15-16, 2020.

National/International MoUs Signed:

Motilal Nehru College Evening to run Add on Courses on Legal Literacy For Women on October 1, 2020.

IIPL to run Add on Courses in Food Technology on July 1, 2020.

Utsaah Psychological Service to run Various Certificate Courses on Psychology on June 29, 2020.

P.A. Business Consulting Pvt. Ltd. to start Add on Courses on Travel and Tourism on June 29, 2020.

Other Inter-Institutional Collaboration

SPM Alumni Association in collaboration with 9LedgePro organized a webinar on "Online Safety and Cyber Security" on May 23, 2020.

SPMC in collaboration with Commission for Scientific and Technical Terminology, Ministry of Education, Govt. of India organized a 2 days National Webinar (Convenor) on the topic 'Role of Scientific and Technical Terminology in Translation' on the November 26-27, 2020.

SPMC in collaboration with SAKSHAM presented a National Webinar on "Disability: Corona Crisis, Challenges and Remedies" on May 26, 2020.

SPMC in collaboration with Teaching Learning Centre, Ramanujan College, University of Delhi organized One-Week Faculty Development Programme on "Emerging Trends of Pedagogy in Language, Literature and Social Sciences" from July 13-19, 2020.

National Webinar on Legal Awareness on theme "Domestic Violence against Women" was jointly organized by Delhi State Legal Services Authority, Arunachal State legal Services Authority, Punjab State Legal Services Authority Manipur, State Legal Services Authority, Bhagidari Jan Sahyog Samiti (Regd.) on September 26, 2020

SPM in collaboration with National Institute of Disaster Management, Delhi orgainsed Three Day FDP cum training workshop on Geo-Spatial Training on Geo-Spatial Technology, Inclusive and accessible disaster risk reduction (DRR), from March 4-6, 2021.

Dr. Veena Kapur, under the aegis of Institute of Life Long Learning University of Delhi, conceptualized and conducted a five day workshop on Academic Writing in February 2021

A Two 3 Week-long series of workshops on Teaching English Interactively Teaching and Critical Elements of CLIL was conducted for students of B.El.Ed IV year and B.Ed II year students respectively. The workshops were held from September 28 to October 16, 2020 in collaboration with Regional English Language Office of the U.S. Embassy, India.

Department of Education collaborated with the Regional English Language Office, Embassy of the United States of America to offer two asynchronous, ten-week online courses- Content and Language Integrated Learning and Teaching English for 21st Century Skills for students of B.El.Ed III and IV and B.Ed. II year. The courses were delivered online over Canvas and Zoom for a total of 40 hours (approx) from Feb 1-April 9, 2021.

Library Development

The library budget for 2020-21 was Rs. 18,54,900.00 out of which the amount of Rs. 10,42,179.00 was spent. The development fund of the library was Rs. 12,12,750.00 of which the amount spent was Rs.2.83,733.00

1294 books were added this year. 1274 books were purchased and 20 books added through donated collection. During the year, the library subscribed to 16 journals, 36 magazines, and 11 newspapers.

In this year, the library had a total membership of 4843 including 191 teachers. Student membership totaling 4652 included 1883 I year, 1340 II year, 1299 III year, 41 B. El. Ed IV year, and 89 M.A. students.

Faculty Strength: 188

Financial Allocation and Utilisation

Grant Sanctioned:

Rs. 5246666000/Additional Grant from Delhi Administration:

Rs. 3900000/
Grant Utilized:

Rs. 5250566000/-

Other Significant Information

SPMC in collaboration with Teaching Learning Centre, Ramanujan College, University of Delhi Organised Seven Days National Online Interdisciplinary Faculty Development Programme on "Global Economy, Finance, Industry and Business: Emerging Trends and Challenges" from February 24 to March 3, 2021.

SPMC in collaboration with Teaching Learning Centre, Ramanujan College, University of Delhi, Armapore PG College, Kanpur and Mount Carmel College, Bangaluru organized 2 weeks Faculty Development Programme on "Sahitya, Bhasha, Samaj, Rajniti aur Darshan" from December 2020 26 to January 9, 2021.

In the 63rd Annual Flower Show competition of University of Delhi, students participated in the photography and videography competitions which were held virtually on 4th March 2021. A video based on the theme 'Lead the scene to keep it green', showcasing the college campus and lawn, plant diversity and green initiatives by the students was made and accordingly sent for the competition. Mahima Singhi and Swasti Arya received the third prize and the Certificate of Appreciation respectively in the photography competition based on the theme 'Diversity of flowers, fruits and vegetables in India'.

SRI AUROBINDO COLLEGE (DAY)

Major Activities and Achievement

Five-day Faculty Development Program cum Workshop on 'Artificial Intelligence' was organized from April 2- 6, 2021. The main topics covered in the workshop were- Basics of Python programming language, Introduction to Machine learning, Numpy Basics, Introduction to Deep Learning, Artificial Neural Networks, Convolutional Neural Networks, and Image Classification with Deep Learning. Traffic Sign detection using CNN etc. A 20 hours online course on 'Data Analysis for Business Decision Making' was organized with an aim to enable the students to organize, visualize, evaluate and interpret data sing spreadsheet, from January 7-30, 2021, and also organized an online workshop on advanced learning in "Computerized Accounting (GST-Tally ERP 9)". Further, one-week faculty development programme on "Contemporary Teaching Methodologies: Enabling Effective Teaching Learning Process" was also organized. An excellent endeavor was made to give an overview and wherever possible the comprehensive hands-on experience of platforms such as Moodle, Google Classrooms, Google Meet, and Zoom. The participants also learned about the fundamentals of academic integrity, dealing with the issue of plagiarism and similarity index, as well as the case study method of research and teaching.

Publications

Chourasiya D, Gupta MM, Sahni S, Oehl F, Agnihotri R, Buade R, Maheshwari HS, Prakash A, Sharma MP (2021) Unraveling the AM fungal community for understanding its ecosystem resilience to changed climate in agroecosystems. *Symbiosis*.8:1-6.

Goyal, a. K., Rajput, N., Thanki, h., & kundu, a. Political and Economic Determinants of Foreign Direct Investment in G7 Economies. *Finance India, XXXIV*(2), 501-512. https://financeindia.org/volumes/v34no2.htm

Gupta MM, Gupta A. (2021) Survey of artificial intelligence approaches in the study of anthropogenic impacts on symbioticorganisms—a holistic view. *Symbiosis*.20:1-3.

Jain, Dr. P. L. (2021). PunarjanmaAurAatmakeSwaroopkaVaigyanikAdyayan. *Interdisciplinary journal of Cntemporary Research*, 8(3), 19-22.

Kaul, Abhijeet Mishra, R. Ravi (2020). Preparation of selver Nonoparticles using different plants and their Antibacterial properties: A review-Sangeeta *BioScience Biotechnology Research Communicatiobns Vol-3* Number (4)

Nitika, Ms& Gupta, Sakshi & amp; Dixit, Shiv & Sharma, Aditya & Vij, Ankush& Bhatnagar, Chhavi& Kumari, Anita & Kumar, Vinod& Bahal, B. & Sharma, Ram & Bhatnagar, Pramod.(2021). Mechanistic insights on improved performance of PCDTBT:PC71BM hetero-structuredorganic photovoltaic cells via interfacing CdSe/ZnS nanostructures. *Applied Nanoscience*.10.1007/s13204-021-01789-5.

Rajput, N & Goyal, A & Tamsil, S & Shoeba. (2020). Interlinkages and Causal Relationships: An Empirical Study of BRICS and SAARC. *Finance India, XXXIV*(2),683-692. https://financeindia.org/volumes/v34no2.htm

Suraj, M.S., Aggarwal, R., Asique, M.C., Mittal, A.: (2021). The Basins of Convergence in the Magnetic-Binary Problem with Angular Velocity. Computational and Mathematical Methods. https://doi.org/10.1002/cmm4.1161

Suraj, M.S., Mittal, A., Pal, K., Mittal, D.: (2020). Stability of the Artificial Equilibrium Points in the Low-Thrust Restricted Three-Body Problem when the Smaller Primary is an Oblate Spheroid. *Nonlinear Dynamics and Systems Theory*, 20 (4) 439–450.https://www.e-ndst.kiev.ua/v20n4.htm

Journals

Member Editorial Board: International Journal of Scientific Development and Research: Prof. Sangeeta Kaul and Prof. Meeta Mathur

Patents Filed / Granted: Category 8, Australia patent

Application no 2021103711, date of filing 29 June 2021

 $LINK: \underline{http://pericles.ipaustralia.gov.au/ols/auspat/quickSearch.do?queryString=2021103711\&resultsPerPage=$

Seminars Organized

Workshop entitled "Bug Bounty" from January 24-26, 2021. Mr. Mayank Bharti (Sr. Security Analyst, Cybrotech Pvt. Ltd.)was instructor and the resource person.

Webinar entitled "Embedded Systems" on September 29, 2020. The invited eminent speaker was Prof. Kolin Paul, department of computer science and engineering(CSE), IIT Delhi.

Workshop on the functioning and movements of trade and stock Markets in Indian Economy on February 13, 2021. The workshop was conducted by Mr. Shishir Sinha, a renowned Editor and Journalist.

Two day online workshop on "Using Spreadsheets for Business Mathematics problems" on January 23-24, 2021. Prof. V.K. Kaul, Department of Business Economics, University of Delhi was the Chief Guest of the occasion.

Seminar / Conference Presentations

Webinar on 'Biodiversity Conservation: Innovation and Challenges' on October 15, 2020

Webinar on 'Biodiversity Conservation: Innovation and Challenges'. The event was graced by prominent guests Shri Jigmet Takpa, Joint Secretary, Ministry of Environment, Forest and Climate Change and Dr. Usha Mina, Associate Professor, School of Environmental Science, Jawaharlal Nehru University.

Placement Details

Amidst the gloom of Covid-19, over 350 students benefitted from the placement and internship drive in collaboration with the Central Placement Cell, University of Delhi and Internshala. During the year 2020-21, pre-placement presentations were made by companies, including Ernst & Young GDS, ICICI prudential life Dr. APJ Abdul Kalam Research Foundation, Youth Empowerment Foundation, International Model United Nations, United Nations Volunteer, World Youth Council, Snapdeal, HamariPahchan NGO, Hariyali etc. The process of our regular recruit, Ernst & Young GDS is ongoing.

Extension and Outreach Activities

Tree Plantation Drive on July 14, 2020

SSB Webinar By Col. SBS Yadav on May 17, 2020

AatmaNirbhar Bharat Abhiyan on August 01-15, 2020

Fit-India Campaign on August 20-30, 2020

Misssion-20 Days on November 01-15 November, 2020

Constitution Days Week Celebration on November 20-26, 2020

Pollution Awareness Campaign on November 24, 2020

Rajpath Swachhta Pakhwada on January 18-31, 2021

Camps RDC and PM Rally (09 Cadets) on January 26 and 28, 2021 respectively Sports Activities With SBSC from March 01-03 March 2021 Covid-19 Helpdesk from April 10-31, 2021

Library Development

A total 61300 Books, [11 Journals, 20 Magazines, 16 Newspapers (P+O)], E-Library Sections, Audio Books, Book Bank, OBE, Covid-19 Centric facilities provided to users.

Faculty Strength

Permanent: 50

Ad-hoc: 75

Financial Allocation and Utilization

Grant Sanctioned: Rs. 173849000

Grant Utilization: Rs. 173849000

SRI AUROBINDO COLLEGE (EVENING)

Major Activities and Achievements

Sri Aurobindo College (Evening) celebrated its Foundation Day on 1st of September 2020. A Hindi Signature Drive was held as part of Hindi Pakhwara celebrations. The Hindi held between 14th and 28th September 2020. The Samvidhan Divas, 28 November, was observed by the college. The NSS unit organised a week-long awareness programme about the health benefits of Yoga from 15 to 21 June 2020. A Faculty Development Programme was held in the online mode from 11th to 17th December, 2020 on "Econtent and Management Online Teaching" to tackle the challenges of the pandemic-related lockdowns across the world. This was done specifically to address the technology-related issues faced by educators within institutions. This programme was conducted in collaboration with Hansraj college, DU. A two day event "Khanak" was celebrated to spread awareness about issues related to LGBTQ community. Under project ALFAAZ the SAMTA Society of the College spread awareness regarding women issues. The college was awarded with B+ grade by NAAC

Honours and Distinctions

Dr Sumati Varma was given the Global Educator Award for Project X-Culture by the University of North Carolina USA.

Mr. Amandeep Nahar was awarded for Best paper Presentation at **National Conference on SDG-4-Aligning** Industry and Policy Ecosystem for Quality Education, funded by UGC and jointly organized by PHD Chamber of Commerce and Industry, New Delhi and Sri Aurobindo College (Eve), University of Delhi held on February 5, 2020 at PHD House, New Delhi.

Publications Total Number

Kulshreshtha, Jyoti. (2020). Innovative Higher Education: Let Sustainable Development Goals Innovate the Inculcation Practices as Corollary to Time. *JAC: A Journal of Composition Theory*. XIII, ISSUE IV.

Kumar, Saroj. (2020). An Empirical Analysis of Islamic Extremism in North East India. *Journal of North East India Studies*. Vol. 10(1), pp. 43-72.

Kumar, Saroj. (2020). Financial Network of Lashkar-e-Taiba, Social Science Research Network, November, 2020, Available at SSRN: https://ssrn.com/abstract=3704944 or https://dx.doi.org/10.2139/ssrn.3704944

Kumar, Saroj. (2020). Ilyas Kashmiri through the Prism of HuJI, HuA, HuM, JeM, Brigade 313 and al Qaeda, Social Science Research Network, October 2020, Available at SSRN: https://ssrn.com/abstract=3704948 or https://ssrn.com/abstract=3704948 or https://ssrn.com/abstract=3704948 or https://dx.doi.org/10.2139/ssrn.3704948

Lata, Kusum HALALA 2020 Vani publications, New Delhi

Marwah, Sheveta. (2020). Customer perception for Herbal products: An opportunity for the FMCG industry in the post Covid period. *JETIR journal*. Volume7, issue 6.

Singh, Aman. (2020). Covid-19 and exodus of migrants: Inference from housing prices in Delhi-NCR. Asiatic Society for Social Science Research (ASSSR). www.asssr.in.

Singh, Aman. (2020). MSME and exports transforming India: Statistical introspection. Wesleyan Journal of Researc, Vol 03. No. 2.

Soni, A., Varma, S., & Chandra, A. (2020). Impact of M&As on employment in the Indian Information Technology (IT) Industry. *Indian Journal of Labour Economics*. vol 63(2), pp 311 -329, doi:10.1007/s41027-020-00232-7

Varma, S., Bhatnagar, A., Santra, S. & <u>Soni, A.</u> (2020). Drivers of Indian FDI to Africa – An initial exploratory analysis. *Transnational Corporations Review* (Taylor & Francis, Scopus and ABDC listed). 12:3, 304-318, doi:10.1080/19186444.2020.1803186

Varma, S. (2020) 'Diaspora networks as drivers of Indian global technology start-ups – a case study', *Int. J. Business and Globalisation*, Vol. 26, No. 3, pp.273–294

Journals published by College

College Magazine: Aditi (Editorial Board consists of 3-5 faculty members)

Goonj (Newsletter: convenor GCC

Commercia: TIC & all teachers of the Commerce department

Samta: convenor WDC

Enactus - convenor Enactus

Research Projects

Cabinet Secretariat, Government of India, (June 2020 to December 2022). China's Belt and Road Initiative Arm Twisting and India's National Interests. INR 7,200,000, PI: Saroj Kumar Rathi

Indian council of World Affairs (ICWA), Ministry of External Affairs, Govt. of India (2020-21, total 18 months). India-Afghanistan Relations Through the Mirror of History and Foreign Policy INR 500,000, PI: Saroj Kumar Rathi

Hosei University, Tokyo, Japan, (2020-2023). International Terrorism: Arab Spring in Libya, Algeria and Tunisia. USD 36, 000, PI: Saroj Kumar Rathi

Seminars Organized

Webinar on "Swatantra Bharat mein Hindi ko kaise milega uska Sthan" on September 22, 2020

Webinar on "Insights into a Start-up" on September 26, 2020

Webinar on "Self Care: Good for You and Your Work" on October 18, 2020

Webinar on "Holistic Living to Counter Stress during Pandemic" on October 23, 2020

Webinar on "Women and Gender and the dialectics of the Popular Imaginary in India" on April 23, 2021

Conferences Organized

An online international conference titled "Five Trillion Economy: The Way Ahead" in collaboration with Delhi School of Professional Studies and Research (DSPSR) from January 9-10, 2021

An online conference on "Role Of Television Debates" in collaboration with "Rate The Debate" on January 12, 2021

Seminar/Conference Presentations

Dr. Kusum Lata, delivered a lecture on हिन्दी भाषा की खूबियाँ (Remarkable characteristics of Hindi language) मेरी भाषा मेरी शान lecture series webinar organised by Sri Aurobindo College Evening on September 28, 2020.

Dr. Sumati Varma, presented a paper titled "The Role of Operational, Technological and Network resources in Firm Internationalisation – Evidence from the Indian IT Industry" in the Academy of International Business Online Conference 2020 on July 6, 2020.

Dr. Anisha Srivastava, presented a paper titled "Technocratic Higher Education in India: Predicaments and Possibilities" in the national e-conference organised by PHD Chamber of commerce and industry on July 24, 2020.

Dr. Anisha Srivastava, presented a paper in an e- conference organized by Indian Association for South Asian Studies, on November 9, 2020, titled "A study of Feminine Consciousness within the Traditional Narratives of *Grihalakshmi*".

Dr. Saroj Kumar Rath, delivered the keynote address titled "State of Surveillance: International Cyber Insecurity" at AICTE Training and Learning (ATAL) Academy Programmes sponsored by AICTE, New Delhi, organized by Department of Computer Science & Applications, Dr Harisingh Gour University, Sagar (M.P.) on December 5, 2020.

Ms. Shevata Sehgal Marwah, presented a paper in an International Conference conducted by Udaipur University in May 2020, titled "Customer perception for Herbal products: An opportunity for the FMCG industry in the post Covid period".

Ms. Shevata Sehgal Marwah, presented a paper in the XXII Annual International Conference: On \$ Five Trillion Economy: The Way Ahead, held on January 9-10, 2021, titled "Five Trillion Indian Economy by 2024: An opportunity for the Indian FMCG industry with special reference to Ayurvedic and herbal products".

Other Inter-Institutional Collaboration

Academic collaboration with the Delhi School of Professional Studies and Research (DSPSR) Collaboration with University of North Carolina USA. Through project X- Culture

Students under Exchange Programme

20 Students in international inter- University program.

Placement Details

Number of students placed:

13

Number of Companies visited for campus recruitment: 11

Extension and Outreach Activities

Daan Utsav: Enactus SACE organized a Joy of Giving Week to spread love, kindness and happiness among those who are less fortunate. Enactus SACE teamed up with "Books for all" virtually in 2020 to fund books for underprivileged at no or very minimal cost.

Donation Drive: Enactus SACE, in collaboration with NSS SACE, started a donation campaign in August to acquire face masks for pregnant and breastfeeding mothers, as part of a cause established by SARANG.

Van Mahotsav: Enactus SACE celebrated Van Mahotsav, dedicated to Mother Nature, from July 1-7. Members posted pictures of themselves planting saplings at their homes and in the surrounding neighborhood.

Alumni meet: Held on 17 April 2021

Project Talk: Awareness Videos on Instagram.

Library Development

The College is well-equipped with more than 45,000 volumes of books of which more than 500 volumes were added during the academic year 2020-2021. The library is ICT facilities enabled. Facility for Plagiarism Checking -Access through Urkund Software. Computerized library, working on R.D. System of Library Management. College library provided and uploaded subject wise **E-books** /**E-Resource links**, including important links of **e-resources provided by the UGC**, on the college website. **Remote Access of N-LIST e-resources**: College Library subscribed to the membership of NLIST e-resources and provided remote login access facility of N-LIST e-resources.

Faculty Strength: 70

Financial Allocation

Grant Sanctioned: Rs. 24.014 Crores **Grant Utilized:** Rs .23.37 Crores

Other Significant Information

The College is ranked by NIRF in overall and college discipline. With a good score of three broad parameters of teaching, Learning and Resources, Graduation Outcomes and Outreach and Inclusivity the college has maintained its position in top 150 institutions for the past three years.

SRI GURU GOBIND SINGH COLLEGE OF COMMERCE

Major Activities and Achievements

We are a participating institution in the Unnat Bharat Abhiyan, of Ministry of Human Resource Development. The College is also a Pilot Campus for the Green Nudges Project after our implementation plan was successfully accepted by UNEP. Our faculty and students together also developed a mobile based app-Sahayak to aid foreign students in DU.

The Centre for Professional Development organised 12 add-on courses, workshops and mentoring sessions online for the students. The environment club, *Ecosperity*, continued to spread environmental consciousness with a one of its kind Virtual Film Festival, 'Hopping Sparrows Film Festival' being organized, featuring five films based on the themes of Ecology, Wildlife Conservation, and Sustainable Lifestyle. Members of

NSS and the Rotaract Club of the College organised several socially relevant campaigns. The Women's Development Cell organized webinars on female health and hygiene, PCOS and Breast Cancer Awareness.

Honours/Distinctions

Dr. Simmarpreet Kaur, Ms. Vandana Kalra and Ms. Nitya Chutani along with student team comprising of Avleen Kaur Bakshi, Prafful Gupta, Praful Sharma, Aditi Chauhan and Gorisha Puri **Sahayak.** The aim of the app is to provide all basic amenities at one place thereby helping interested foreign students for enrolling themselves in University of Delhi.

Dr. Gurleen Kaur was appointed as a reviewer for a Springer published Journal on Business and Economics in August 2020.

Students with Distinctions

Amarpreet Kaur secured a Cumulative Grade Point Average (CGPA) of 8.527. She was awarded the Sardar Mohan Singh Memorial Gold Medal at the 97th Convocation of the University of Delhi for securing the highest percentage marks in B.A.(Hons.) Punjabi Examination and obtaining a First Division.

Parth Makhija qualified for World University Games in July, 2020 for the 10 mtr. Air Rifle shooting competition.

Publications Total Number

Journal Articles 14, Chapters in Books-2 and Books-2

Dodrajka, S.. (2020). Green marketing as a sustainable strategy. *Thematics Journal of Commerce and Management*, 2(1).

Dodrajka, S.. (2021) Quality Function Deployment and Sustainable Development through Circular Economy. *International Journal of Management and Business Studies (IJMBS)*, 11(1), 4-13.

Gupta, R., Singh, S. & Gill, K. Role of Industrial Talks in Enhancing Learning Quality of Commerce and Business Students in view of Covid-19 Scenario. *IOSR Journal of Humanities and Social Sciences*. 26(4).

Kaur, G., & Kaur, C. (2020). COVID-19 and the Rise of the New Experience Economy. *FIIB Business Review*, 9(4), 239-248.

Kaur, H.. (2020). Measuring Dispersion and Volatility for Diversification Benefit: Evidence from the NSE Nifty50 Portfolio. *Indian Journal of Commerce*, 73(4).

Kaur, H.. (2020). Mutual Fund Investment Behaviour in India during High Market Volatility. *Indian Journal of Accounting*, 52(2).

Kaur, K., Khanna, A., Kaur, B., Kapahi, D., & Madaan, K. (2020). Analysis of Surveys on International Trade in Banking Services. *Journal of Business Thought*, 11(1), 51-63.

Kaur, S., & Kaur, M. U. (2021). Blended Learning Framework–Instructor's perspective and Student's perspective in Higher Education Institutes. *Psychology and Education Journal*, 58(2), 3649-3660.

Nanda, A.. (2020). How India is tackling the impact of Covid-19 on its Economy. *International Journal of Commerce and Economics*. 2(4).

Nanda, A.. (2020). Understanding the socio-economic impact of Covid-19 on the daily lives of people. *EPRA International Journal of Socio-Economic and Environmental Outlook (SEEO)*. 7(4).

Journals

The college published the eleventh volume (April 2020-March 2021) of its Journal- *Journal of Business Thought*.

The Editorial Committee is headed by the Principal, Dr. Jatinder Bir Singh and comprises of the following six college teachers

Research Projects

"Municipal Solid Waste Management", Funding Agency: Centre of Excellence, SGGSCC, 2019-2021, Amount sanctioned-₹1,00,000

"Impact of Social Media Applications on Young Children in Delhi", Funding Agency-Centre of Excellence, SGGSCC, 2019-2021, Amount sanctioned-₹1,00,000

"Financial Inclusion of Underprivileged - How Inclusive : A Case Study of Delhi NCR", Funding Agency-Centre of Excellence, SGGSCC, 2019-2021, Amount sanctioned-₹1,00,000

"Exploring Challenges faced by the international Students Community and Devising a Web-Based solution-An Empirical Study Based on University of Delhi", Funding Agency-Centre of Excellence, SGGSCC, 2019-2021, Amount sanctioned-₹1,00,000

"Doubling Farmers Income: Strategy and Prospects in Punjab", Funding Agency-ICSSR, 2019-ongoing, Amount sanctioned-₹5.00.000

Seminars Organized

Webinar entitled "Understanding the Nuances of Anti Defection Law" with Shri Satyapal Jain, Additional Solicitor General of India, Former Lok Sabha MP and Ex- member of the law commission of India as the guest speaker on March 13, 2021.

Webinar entitled "IoT in Smart Agriculture" by Dr. Anuradha Chug, University School of Information and Communication Technology, GGSIPU was organised on January 29, 2021.

Webinar entitled 'Budget 2020-21: For an Economic Turnaround' was organised on 18 February, 2021. The speakers for the session were Mr. Sanjeev Sanyal, Principal Economic Advisor, Ministry of Finance, Government of India, Ms. Aakanksha Arora, Deputy Director, Office of Principal Economic Advisor, Ms. Gurvinder Kaur, Deputy Director, Office of Principal Economic Advisor and Ms. Mahima, Consultant, Office of Principal Economic Advisor.

Webinar entitled "Stress Management" with Dr Madhulika Bajpai from Bhaskaryacharya College of Applied Sciences, University of Delhi giving essential and basic advice on how to handle this inevitable and pertinent issue especially in the present unprecedented and trying times.

A Session entitled "Aatmanirbhar Bharat Abhiyan and Re-prioritisation for Indian economic Revival: Challenges and Opportunities in the way Ahead" with Prof. Parvakar Sahoo from Institute of Economic Growth and Prof. C. Veeramani from the Indira Gandhi Institute of Development Research was held on August 30, 2020.

An international webinar entitled "Exercise and Health in Context of Covid-19" with Prof. Nishan Singh Deol, Dean and Head, Department of Physical Education, Punjabi University, Patiala; Dr. Rakesh Tomar from the Physical Education Department, King Fahd University of Petroleum, Dharan, Saudi Arabia and Mr. Antonio Robustelli an international sports consultant from Italy as the guest speakers on July 03, 2020

Conferences Organized

A session on "How to be Productive during the Pandemic", in association with Fortis Healthcare on January 29, 2021, via Zoom. Ms. Tanushree Sangma, an expressive Arts based Psychologist, addressed the students and faculty and resolved their queries.

Achiever's United '21 was organised on February 19, 2021, where eminent speakers and personalities from different industries provided valuable insights to the eager audience. Achievers United 2021 hosted profuse and sagacious guests: Mr. Varun Sridhar, CEO of Paytm Money; Mr. Praveen Gupta, MD of SBI; Sukhbir, Artist, Singer and Entertainer; Mr. Aman Dhattarwal, Educator and YouTuber; Mr. Yahya Bootwala, Writer/Poet/Actor; Mr. Jitender Singh Shunty, Padma Shri Recipient, Mrs. Rachana Ranade, Finance Educator and YouTuber; Mr. Stavya Kalia, Music Artist and Digital Gandhi, the EMCEE of the Event.

Session was organized with Mr. Montek Singh Ahluwalia, former Deputy Chairman of the erstwhile Planning Commission of India titled "Lessons from India's High Growth Years" on January 23, 2021.

Webinar entitled 'Envisioning Opportunities & Managing Finances: The Road Ahead' on July 12, 2020. The webinar comprised of three panellists: Mr. Vipin Kapooria, Vice President of Business Finance at OYO, Mr. Pankaj Dubey, CEO at D'Spin Consulting and Mr. Saurabh Jain, Vice President of Finance at Mobikwik.

Session on 'Paradigm change in Career Development: Unfolding Opportunities in the New Normal Realm' was organised on June 14, 2020. The three invited panellists of the session were- Mr. Pranjal Sharma, Author of India Automated and Member at Global Expert Network and World Economic Forum, Mr. Prateek Gupta, Head of Strategy and Business Development at Aditya Birla Finance Ltd and Mrs. Shalu Manan, HR Transformation and Talent Development Strategist and Vice President at Genpact.

Seminar/Conference Presentations

Renu Gupta presented a paper titled "Role of Industrial Talks in Enhancing Learning Quality of Commerce and Business Students in view of Covid-19 Scenario" at the XXIInd International Conference held virtually on January 9-10, 2021 jointly organised by Delhi School of Professional Studies and Research (DSPSR), Deen Dayal Upadhyaya College and Shyam Lal College (Evening), University of Delhi.

Meenu Gupta was invited for a talk on 'Forensic Accounting and Auditing' as part of a training program on 'Document Examination for Criminal Justice Functionaries and Forensic scientists' by Lok Nayak Jayaprakash Narayan National Institute of Criminology and Forensic Science on March 23, 2021

Megha Ummat, co-authored a paper titled "Empirical Analysis of Artificial Immune System Algorithms for Aging Related Bug Prediction", which was presented at IEEE 7th International Conference on Advanced Computing and Communication Systems on March 20, 2021.

Renu Gupta co-chaired the Session on "Research Papers Presentations on Contemporary Issues: Higher Education" of XXII Annual International Conference organised by DSPSR on January 9-10, 2021. She was also invited to deliver a lecture (virtually) on the topic "Significance of Braille in the Era of Technology" on 4 January, 2021 at Pt. CL Sharma Govt College, Karnal.

Ushveen Kaur was invited as a resource person to take two sessions of a 5-session Training Program on "Virtual Pedagogy: Tools, Techniques and Debates" conducted for the faculty members at Gargi College, University of Delhi on August 17-18, 2020.

Tarvinder Kaur was invited as resource person for a three-day workshop on 'Use of Computer in Punjabi' organized by Department of Punjabi in collaboration with IQAC, Mata Sundri College for Women from November 6-8, 2020.

National/International MoUs Signed

AIESEC in Delhi University Evaluation Community of India

Saraswati Accountants Software

Other Inter-Institutional Collaborations

UNEP launched the "Little Book of Green Nudges" in September 2020 at the World Academic Summit. It is collaborating with higher education institutions around the world to pilot nudging on campuses. Our college's implementation plan was successfully accepted and now our college proudly is a Pilot Campus for the Green Nudges Project.

Placement Details

Number and percentage of students placed: 214 (73 %) Number of Companies visited for campus recruitment: 39

Extension and Outreach Activities

We are a participating institution in the Unnat Bharat Abhiyan, of Ministry of Human Resource Development, having been selected through a challenge mode application process. A cluster of villages has been selected by the College in consultation with the District Collectors- Pooth Khurd, Khera Khurd, Naharpur and Haiderpur. A survey has been initiated to understand the problems of these areas. There are plans of organising medical health camps, financial literacy sessions, opening of training centre's for youth, practical training for sewing, computer, mushroom grooming, waste management, etc in these villages.

The NSS unit of the College celebrated the International Yoga Day, 2020 by organising an online contest "Happy Stretch Contest" to spread awareness about the importance of yoga. A webinar on Mental Health and Peace was also organised. A Cleanliness Drive in and around the college premises was also undertaken. The Vigilance Awareness Week was observed, encouraging the embracement of fair practices. The NSS team celebrated Voter's Day in the college premises, by proudly taking a pledge to uphold the democratic traditions of our country and the dignity of free, fair and peaceful elections. The team organised a virtual visit to Mercy Home Society where a dance workshop was conducted with the children.

Ecosperity organised an awareness campaign 'Regard Before Discard' in collaboration with the Volunteer Organization, Change in Range, wherein members of the club adopted the practice of waste segregation at home. An online workshop 'Boasting the Composting' was hosted in collaboration with SWACHH Association to sensitize the participants towards composting and management of the domestic waste.

Library Development

The RFID (Radio Frequency based Library Management System) has become functional in the College Library. The system has increased the speed and accuracy of all the transactions in the library and at the same time has made the library more user friendly.

Faculty Strength

Permanent: 39

Ad-hoc: 37

Financial Allocation and Utlization

Grant Sanctioned: ₹ 22,0000000 **Grant Utilized:** ₹ 21, 5000000

Other Significant Information:

Dr. Renu Gupta prepared an E-Kit for the paper 'Principles of Marketing', B Com-Sem V-CBCS-UG students on the topic "Consumer Behaviour: Nature and Importance". She also prepared an E-Kit for Corporate Laws paper for B Com (Hons.)-Sem II-CBCS-UG students on the topic "Bonus Issue, Buy Back and Transmission". These E-Kits were prepared for Teaching Learning Centre -GAD, SGTB Khalsa College, University of Delhi.

Dr. Tarvinder Kaur, Assistant Professor, Department of Punjabi, worked as co-editor in preparing the study material of B.A./B.Com, IInd Year, Core-MIL-Punjabi-2B, titled – Ethics: Literary Discourses & Functional Punjabi (Twelve Lessons) for School of Open Learning, University of Delhi.

Dr. Gurleen Kaur Assistant Professor, Department of Economics, has been a core team member involved in designing LOCF based curriculum for G.E Indian Economy –I & II.

SRI GURU NANAK DEV KHALSA COLLEGE

Major activities and achievements

Five short term courses were conducted by various departments of the college. These include short term course on Business Data and Analytics, computer literacy in Punjabi language, Holistic fitness and wellness learning, Mindfulness and human values and a Hindi Translation course. The college was given permission to conduct Certificate course in French Language by Department of Germanic and Romance Studies. The first batch of students completed the course in June 2021. One-week National Online Faculty Development Programme (FDP), on the theme "The Road Ahead: National Education Policy and Pedagogies" was organized by the IOAC of the college, in collaboration with Guru Angad Dev Teaching Learning Centre (GADTLC), SGTB Khalsa College, Two-Day National Webinar on the topic "Man<->Nature: Through the lens of Eco criticism", was organized by the Department of English and Department of Environmental Studies, in collaboration with IQAC, SGNDKC.NSS and NCC units of the college conducted a number of activities throughout the academic year that aimed at increasing awareness and capacity building of students as well as contribute to a number of social causes through its outreach activities. IQAC of the college conducted a number of training sessions, talks, lectures, webinar series (all in online mode) that catered to the needs of students, faculty and staff of the college. SGNDKC tied up with the renowned NGO, Youth for Seva, to launch a volunteering program for the college students named Project S.E.V.A. The name 'S.E.V.A' is an acronym of 'Supporting and Empowering through Volunteering and Assistance' As the name suggests, the program helps students contribute towards societal well-being through their volunteering activities.

Outstanding Honours / Distinctions

Preeti Gupta was awarded Doctorate of Philosophy on 27 February, 2021. The topic of her PhD thesis is 'An Empirical Study on Efficiency and Sustainability of Indian Microfinance Institutions in India'.

Ramneet Kaur was awarded Doctorate of Philosophy on 4 November, 2019. The topic of her Ph.D. dissertation was 'Motherhood, Birth Control and Choice: A Feminist Struggle for Reproductive Rights.'

Mamta Ahuja was awarded Doctorate of Philosophy on 9 October 2020. The topic of her PhD dissertation is "An Analysis of India's Trade with Latin American Countries Since 1995.

Students with distinctions

Team Magus won 1st Prize in an online dance competition organised by GL Bajaj Institute of Management and Research.

Mr. Siddharth Sharma won 3rd prize in the Astrophotography competition organized by Indian Institute of Technology, Ropar on 25 April 2021.

Mr. Nidhan Singh won 2nd prize in the Snap-a-tale Photography competition organized by Symbiosis Institute of Business Management, Hyderabad on 10 April 2021. He also won 3rd position in the Ecobiz Photography competition organized by Indian Institute of Management, Shillong on 25 March 2021.

Publications

Deepmala (2021). 'Online Shiksha Ek Naya Anubhav' published in 'Bhartiya Aadhunik Shiksha' Research Journal of NCERT, Issue: - April 2021. (ISSN 0972-5636).

Gupta, Priyambada (2020). Firm Survival through Semi-Exits: The Case of Indian Registered Manufacturing. Asian Journal of Economics and Empirical Research, 6(2), 148-164 (ISSN 2409-2622).

Gupta, Priyambada (2020). The Impact of International Trade on Environment from the Perspective of Global South: A Game Theoretic Approach. *International Journal of Emerging Technologies and Innovative Research*, 6(6), 161-166, (ISSN 2349-5162)

Thomas Ashish, Das Sandeep, Easa Pulikunnel Syed, Nithin Divakar, and Benjamin Tapley (2021). Predators of an evolutionarily distinct and globally endangered Frog *Nasikabatrachus sahyadrensis Biju and Bossuyt*, 2003. *Herpetology Notes* 14 (2021): 247-249.

Verma, Nidhi (2020). 'The Question of Self, The Question of Life: Identity in the Autobiographical Narratives of Domestic Workers' published in Fortell Journal of Teaching English Language and Literature. July 2020 issue. No. 41. ISSN no. 2229-6557

Journals

Journal Published by the College- Journal of Research and Innovation Number of college teachers serving as Editor(s)/Member(s) of Editorial Board-5

Seminars organized

Internal Quality Assurance Cell (IQAC) in collaboration with Anand Institute of Social Work, Anand, Bhopal School of Social Sciences, Bhopal, organized the Webinar Series – "From Internal Quality to Quality Internalising". The webinar series comprised of 5 lectures held every month starting August 2021.

Under the Mentoring the Mentor initiative of the college, IQAC organized three lectures for its Faculty and students. These include webinars on the topics on 1) Managing Anxiety, 2) What do you plan to do after college?: Options after an Undergraduate Degree and 3) Managing the Self.

Internal Quality Assurance Cell (IQAC) and Gender Sensitization cell of the college organized a seven Lecture Webinar Series on the theme "Dhara Se Uthte Kadam" in the month of February, 2021.

Department of English and Department of Environmental Studies in collaboration with Internal Quality Assurance Cell of Sri Guru Nanak Dev Khalsa College organized a two-day National Webinar on 'Man ↔ Nature: Through the lens of Eco-criticism' on 5 & 6 November 2020.

Department of Hindi organized, One Day National Webinar on "Hindi ka Vaishvik Paridrishya aur Rojgaar ki Sambhavnayein'" on 15 September 2020.

Department of Hindi Journalism organized, one Day Online Workshop on ''Google Fact Checking Karyashala'' and ''Video, Audio and Image Editing'' on 16 April 2021 and 22 April 2021 respectively

Seminar/Conference Presentations

Nidhi Verma presented a paper titled "Breaking the Bondage of Servitude: A Study of Balram's character in Aravind Adiga's The White Tiger" at a virtual international conference on Multiple Dimensions of South Asian Literary Imagination: Classic to Contemporary" held from 10-12 September 2020, organized by Yonphula College, Bhutan.

Nidhi Verma presented paper titled "Education in Lockdown: The Vulnerability of the Less Privileged" at a virtual conference Sahityavithi 2020 "Teaching and Learning Language and Literature in the Digital Era: Opportunities and Challenges" organised by *Shri Vaishnav Vidyapeeth Vishwavidyalaya*, *Indore*, held on 29 October 2020.

Nidhi Verma presented a paper titled "Twist the Sinew of thy Heart: A Reading of Blake's "The Tyger" as a Representative Eco-critical Text" at the National Webinar 'Man and Nature: Through the Lens of Ecocriticism' organized by SGND Khalsa College on 5 and 6 November 2020.

National/International MoUs Signed

A tripartite Memorandum of Understanding was signed between Sri Guru Nanak Dev Khalsa College, Delhi, Bhopal School of Social Sciences, Bhopal and Anand Institute of Social Work, Anand.

Placement Details

Number and percentage of students placed: 27 (60%) Number of companies visited for campus recruitment: 15

Extension and Outreach activities

National Cadet Corps (NCC) organized Delhi District Survey during to help Covid patients and families, Polio exercise camp, cancer awareness day, tree plantation drive, Swachhta awareness rally and donation drives. The National Service Scheme (NSS) organized various online events and activities to observe important days of Social and environmental significance. NSS volunteers actively participated in various activities like Mask making, awareness through social media posts and video making, talks and webinars during the Covid 19 Pandemic in order to help and support the students of the college and society at large. Certatus, The Model United Nations Society of Sri Guru Nanak Dev Khalsa College conducted its Inter MUN Conference'21 on 12th - 13th February, 2021 in online mode, which witnessed participation of over 180 participants from across the country. As part of Project S.E.V.A, a college team consisting of 18+ student volunteers and 2 faculty members visit at Lohar Basti in Sarai Rohilla on 16 March 2021. The volunteers focused on understanding various issues and challenges faced by the community members especially after the pandemic. The team focused on four main areas including Menstrual Hygiene, Creativity, Entertainment and Problems faced due to covid pandemic. The enabling unit of the college conducted various intercollege competitions for differently abled students like Quiz competition, Online poetry competition, Speech and debate competition, National Music competition, extempore competition. Various seminars were also held by the unit. All these events witnessed excellent participation of differently abled students.

Library Development

Detail of College library books added during the academic year 2020-21
General Books : 901
SAF (Student Aid Fund) : 00
BBE (Bachelor of Business Economics) : 19
Hindi Journalism : 23

Details of Periodicals Collection of the Library are as follow:

Journals subscribed in current year : 16 Magazines : 30 News Papers : 21

Faculty Strength

Permanent Faculty : 43 Ad-hoc Faculty : 53

Financial Allocation and Utilization

The Non–Plan expenditure for the academic year 2020 – 21 is approximately 4081.09 lacs rupees.

SRI GURU TEGH BAHADUR KHALSA COLLEGE

Major Activities and Achievements:

The College started the academic session on August 10th, 2020. The inauguration of General Hari Singh Nalwa Hostel was carried out on 12 March 2021 by Singh Sahib Giani Harpreet Singh Ji (Jathedar, Sr. Akal Takhat Sahib, Amritsar), S, Manjinder Singh Sirsa (President, DSGMC) and S. Harmeet Singh Kalka (General Secretary, DSGMC) as the chief guests. The college commemorated the 400th Prakash Purab of Sri Guru Tegh Bahadur Sahib Ji by publishing a special edition magazine, Maanvi Haqaan De Raakhe: Guru Tegh Bahadur (Saviour of Human Rights: Guru Tegh Bahadur), dedicated to the Guru's legacy. Symposia and webinars were also organised to provide a glimpse into the life and teachings of the Guru. Guru Angad Dev-Teaching Learning Centre (GAD-TLC) at the college organized various webinars and faculty development programme. Under the mandate of the National Resource Centre of Chemistry awarded to GAD-TLC, the online refresher course in Chemistry for higher education faculty as Annual Refresher Programme in Teaching (ARPIT Course) has been developed and run successfully in the years 2018-19; 2019-20 and 2020-21. Centre for e-Learning" (CfeL) at the college has several ongoing projects in collaboration with various institutions and video modules for MOOCs have been developed. The college felicitated S. Tarlochan Singh (Former MP and Chairman, Governing body) on his having been conferred with Padma Bhushan on 21 February 2021. The college organised an International Webinar on "Vaishvik Paridrishya mein Hindi ka Bhavishya" on 5 March 2021. The students of our college showed exemplary performance in academics. The college had two University Toppers in the academic year. The college performed exceedingly well in sports, winning various Delhi State and National Championships. The students of the college participated and won several accolades in Athletics, Basketball, Handball and Tennis. The teaching faculty took the lead in various fields in form of research projects, publications and awards and our cultural/academic societies organized various online events in their respective fields. The NSS Unit of the College undertook extension and outreach activities during the academic session. Several awareness activities were conducted online during the pandemic.

Honours/Distinctions:

Principal, Prof. Jaswinder Singh was honoured as World's 101 Prominent Punjabi Personalities by "Jagat Punjabi Sabha" (JPS), Canada (2020).

Dr. G.S. Sodhi was honoured with Best Senior Faculty Award under the aegis of *International Forensic Science & Criminal Investigation Summit 2020* on 29 May 2020.

Dr. Nachiketa Singh was felicitated by National Gandhi Museum and Library, New Delhi for his contribution in student centric program on the Life and Legacy of Mahatma Gandhi

Dr. Vimal Rarh was awarded with Indian National Science Academy (INSA) Teacher Award-2020

Dr. Vimal Rarh received "Prof. P R Singh Award for Outstanding Contributions in Chemistry Education" for the year 2020 by Association of Chemistry Teachers (ACT), Homi Bhabha Centre for Science Education, Tata Institute of Fundamental Research, Mumbai

Dr. Vimal Rarh was felicitated as one of the "Top 20 Revolutionary Education Leaders" of Year 2020, by The Academic Council of Ulektz.

Students with Distinctions

Ms. Manpreet Kaur M.A. Punjabi was selected for Bhai Vir Singh Gold Medal and Panjab Government Prize for Panjabi for her academic performance.

Ms. Komal Bansal, B.A. (H) Business Economics III year secured secured first rank in university examination.

Mr. Ansh Shehrawat, B.A. (H) Political Science, secured 2nd position in 400m and participated in 200m in 18th National Fed Cup Junior Athletics Championships, held at Tatya Tope Stadium Bhopal (MP) from 25-27 January 2021.

The following athletes won accolades at the 80th Delhi State Annual Athletics Championship held from 14-22 January 2021,

Mr. Ansh Shehrawat, B.A. (H) Political Science secured 1st position in 400m and 2nd position in 200m.

Mr. Tushar.K. Manna of B.A. (H) History secured first position in long jump and second position in 100m in Under-20 men category.

Mr. Rohit Kumar, B.Sc.(H) Chemistry secured second position in 5000m & 1000m and third place in cross country in Men category.

Mr. Amit Tiwari, B.A. (H) History secured 1St position in 100m and 200m.

Mr. Niket B.A.(H) History secured 3rd position in U20 boys in Shotput 36th national junior athletics championship held at Sarusajai Stadium, Guwahati (Assam) from 6th to 10 February 2021.

Mr. Prabhat Kumar Mahato of B.Com secured First Position in Jharkhand State Basketball Championship, Dhatkidih Community Centre, Jamshedpur from 20 March 2021 to 21 March 2021.

Mr. Sushant Sandhu of B.A. (H) Political Science represented Delhi and Secured First position in 43rd Junior National Championship (2021), held at Delhi from 23 to 27 March 2021 in Handball.

Mr. Sarthak Sudan, B.A. Prog, secured third place in Singles category winner in doubles in All India Men's National Ranking Tennis Tournament

Publications

Batra, K., Sinha, N., & Kumar, B. (2020). Lead-free 0.95(K0.6Na0.4)NbO3-0.05(Bi0.5Na0.5)ZrO3 ceramic for high temperature dielectric, ferroelectric and piezoelectric applications. *Journal of Alloys and Compounds*, 818, 152874. https://doi.org/https://doi.org/10.1016/j.jallcom.2019.152874

Bharadvaja, A., Kaur, S., & Baluja, K. L. (2020). Electron-impact cross-sections of atmospherically relevant amines from intermediate to 5000 eV energy range. *Pramana*, *94*(1), 73. https://doi.org/10.1007/s12043-020-1923-z

Kaur, J., & Sodhi, G. S. (2020). How Indian Tradition of Palm Print Authentication Interspersed the Globetrotting Journey of Kohinoor Diamond: A Historical Review. *Indian Journal of History of Science*, 55(4), 1–3. https://doi.org/10.16943/ijhs/2020/v55i4/158328

Kaushal, A. (2021). Symbols, Community and Contest: Jhatka and Tobacco in the Politics of Sikh Identity. *Journal of the Royal Asiatic Society*, 1–24. https://doi.org/DOI: 10.1017/S1356186321000523

Kumar, D., & Kumar, S. (2020). Some More Solutions of Caudrey–Dodd–Gibbon Equation Using Optimal System of Lie Symmetries. *International Journal of Applied and Computational Mathematics*, *6*(4), 125. https://doi.org/10.1007/s40819-020-00882-7

Kumar, S, & Kumar, D. (2020). Lie symmetry analysis and dynamical structures of soliton solutions for the (2 + 1)-dimensional modified CBS equation. *International Journal of Modern Physics B*, *34*(25), 2050221. https://doi.org/10.1142/S0217979220502215

Kumar, Sachin, Kumar, D., & Kumar, A. (2021). Lie symmetry analysis for obtaining the abundant exact solutions, optimal system and dynamics of solitons for a higher-dimensional Fokas equation. *Chaos*, *Solitons & Fractals*, *142*, 110507. https://doi.org/https://doi.org/10.1016/j.chaos.2020.110507

Shrotryia, V. K., & Dhanda, U. (2020). Exploring Employee Engagement Using Grounded Theory: Experiences from the Best Firms in India. Vision, 24(2), 171–183. https://doi.org/10.1177/0972262920915070

Singh, J., & Gill, A. S. (2021). *Guru Nanak Dev Ji: Sublime Life and Social Perspective*. Indira Gandhi National Centre for Arts.

Singh, J., & Kaur, K. (Eds.). (2020). Guru Tegh Bahadur: Shahadat Ate Rachna. Manpreet Parkashan.

Sinha, N., Batra, K., Bhukkal, S., Kumar, R., Kumar, S., Goel, S., & Kumar, B. (2020). Effect of sunset yellow dye on morphological, optical, dielectric, thermal and mechanical properties of KDP crystal. *Arabian Journal of Chemistry*, *13*(6), 5750–5764. https://doi.org/10.1016/j.arabjc.2020.04.013

Sur, S., Dutta, A., & Chothe, H. R. (2021). Mimetic-metric-torsion with induced axial mode and phantom barrier crossing. *The European Physical Journal C*, 81(4), 306. https://doi.org/10.1140/epjc/s10052-021-09101-z

Research Projects

Dr. Manoj Kumar Nimesh: Department of Biotechnology (DBT), Ministry of Science & Technology, Govt. of India sanctioned the project entitled "Designing and evaluation of point of care diagnostic assay for detection of MDR Tuberculosis using Loop mediated isothermal amplification combined with lateral flow dipstick" at a total cost of Rs.7483280 (Rupees Seventy Four Lakhs Eighty Three Thousand Two Hundred and Eighty Only) Grant Number No. BT/PR207 46/MED/29/1194/2016 [2019-2021]

Dr. Venugopalan T: Project Director – "Sustainable Tourism Development in India: A case study of Uttar Pradesh Heritage Tourism" – ICSSR IMPRESS Funded Project, 2019-2021. Sanctioned Amount- Rs. 7 Lakhs

Seminars/Workshops Organised

Department of Botany organized a lecture on "Role of Genes and Genomics for Creation of Climate Resilient Crops" on 22 March 2021

Department of Commerce organized a webinar on "Seven Steps Towards Integrity."

Department of Hindi organized seminar on "Hindi madhyam mein pratiyogi parikshaon ke awasar" on 27 February 2021

Department of Economics and Computer Science jointly organized workshop on R software.

Department of Zoology organized workshop on "Preparing a DPR for setting up a backyard ornamental fish breeding unit for institutional support" on 27 November 2020

Conferences/Symposia Organised

Online symposium on Guru Tegh Bahadur: Life and Legacy was organized on 18 December 2020 and 18 January 2021 commemorating 400th birth anniversary of Sri Guru Tegh Bahadur Ji.

An international online conference on "Role of Human Resources and Organizational Behaviour for Business Sustainability in Current Scenario" was organized on 27 February 2021

The college organised an international symposium (online) on "Vaishvik Paridrishya mein Hindi ka Bhavishya" on 5 March 2021.

An international online conference titled "International E-Conference on Teacher Education Generation Next: Perspectives, Opportunities & Challenges" was organized on 18 March 2021.

Seminar/Conference Presentations

Dr. G.S. Sodhi presented "A novel base material for small particle reagent." in the conference *Twenty first All India Conference of Directors of Finger Print Bureaux-2020*, held on 13-14 October at *National Crime Records Bureau*, *New Delhi*.

Dr. Savinder Kaur delivered six invited online talks of an hour each on "Mathematical Physics" at "NASI - the Delhi Chapter" in September 2020.

Dr. Sukhbir Kaur Gujral presented 'In-silico identification and experimental validation of heat shock proteins in economically important crop *Vigna unguiculata L.*' in National Web Conference on 'Sustaining Pulse Production for Self Sufficiency and Nutritional Security' organized by Indian Society of Pulses Research and Development, Kanpur (9-11 February 2021)

Dr. Tarun Kumar delivered presentation on "Some Issues Confronting Archaeologies of South Korea and India", in the 14th International research webinar titled *Challenges and Future Prospects Under Act East Policy in India and New Southern Policy in South Korea* organized by the Researchers' Association for the Study of Korea (RASK) in collaboration with Jamia Millia Islamia (New Delhi) and Central University of Jharkhand (Ranchi) on 6 and 7 November 2020.

Ms. Upasana Dhanda presented paper titled 'A study on Impact of Goods & service tax on the manufacturing sector in India' at International Conference on Engineering, Technology and Management for the Sustainable Development organized by Computer Science & Engineering Department and MBA Department, Meerut, India (Affiliated to AKTU Lucknow, U.P.) during 26-27 May 2020.

Placement details

Number of students placed: Total placed 208

Number of companies visited for campus recruitment: 45 companies including LIC, TresVista, Bajaj Capital, Chegg, Redbus, Wipro, Bisleri, Apollo, Teach For India, OYO, BYJU's, Bain Capability Centre, McKinsey & Company, Willis Tower Watson, Grant Thornton, Deloitte USI and Price waterhouse Coopers.

Extension and Outreach Activities

The NSS Unit of the College undertook An Online Poster Making Competition was organised on 8 May 2020 on the topic *Global Effects due to Corona Virus*. On 12 August 2020 a Crossword Competition was organised on the occasion of International Youth Day (Theme: Youth Engagement for Global Action). On 25 September 2020; on the occasion of NSS day, a Road Safety Awareness Webinar was organised in collaboration with Honda Safety Training. A talk on 'Path towards Sustainable Development, with a focus on Climate Change' was conducted on 30 January 2021. A quiz competition, online poster making competition and presentation competition on the theme "Sadak Suraksha – Jeevan Raksha" were organized on 13-16 February 2021. A photography competition on the occasion of social justice day (20 February 2021) was organized to raise voice against social injustice and to bring evils like poverty, gender, and physical discrimination, illiteracy, religious discrimination in front of everyone through the medium of photography. A webinar on the topic "How to get closer to one's own identity in this competitive world?". focused on basic human psychology and personality enhancement was delivered on 22 February 2021. A CFG campaign (Clean, Feed and Green campaign) was conducted from 22 February to 28 February. In this campaign, volunteers were asked to plant a tree, clean the surroundings and feed the stray animals.

Library Development – The college has a well-stocked library having nearly 1,38,000 books on record and regular subscription of Indian journals; magazines and daily newspapers. The library is connected with Delhi University wide area campus networking system and provides access to electronic resources to its users from Delhi University Library System (DULS) and UGC-INFONET Consortium. The college library also subscribed NLIST (National Library and Information Services Infrastructure for Scholarly Content) which provide access to e-resources to its members. Library is subscribing 12 journals, 46 Magazines and 27 Newspaper. College library also subscribes to braille magazines for Visually Impaired Students. The library is computerized and books are bar-coded and made easily accessible through OPAC (Online Public Access Catalogue). The library has gate security check system with CCTV cameras installed to monitor.

Faculty Strength- Permanent 82 and Ad hoc 67

Financial Allocation and Utilisation

Grant Sanctioned- Rs. 56.4 Crore Utilized- Rs. 56.9 Crore

Other significant information

Keeping pace with the changing times, and the growing needs of our students, the management has expanded the infrastructure of the college, and the construction of a boys' hostel in the college is going on at a fast pace. The college has a continuing collaboration with University of Carleton for joint research projects including an exchange program for teachers and students and organizing joint Teachers Training Program for new age teachers. "Guru Angad Dev Teaching Learning Centre" is a centre of MHRD under the Pandit Madan Mohan Malviya National Mission on Teachers and Training (PMMMNMTT) of the MHRD, Govt. of India. ARPIT Chemistry 2020-21: Start Date: 01 December 2020 – 31; End Date: March 2021. As per statistics of ARPIT Courses by NTA at National level, in terms of no of teachers who gave examination, ARPIT Chemistry is at First Position where 1966 gave examination of the total no of 12,485 participants in 42 ARPIT Courses of various disciplines. The quality of content was also rated one of the best and MHRD through AICTE shared the ARPIT Chemistry Introductory video as benchmark for new National Resource Centres. Consultancy Projects as executed at GAD-TLC for video recording and editing:ARPIT- History for National Resource Centre at Jawaharlal Nehru University (JNU),ARPIT- Arts, Culture & Literature for National Resource Centre at Jawaharlal Nehru University (JNU),ARPIT- Home Science- Jammu University.

ST. STEPHEN'S COLLEGE

Major Activities and Achievements The admissions were done online, though delayed on account of Covid. **All the classes were conducted through** online mode and exams continue without a break and as per the DU Calendar. The two-year old NCC group in College has been doing extremely well with two of its cadets getting commendations. The college has also participated in NIRF ranking

Honours/Distinctions

Two teachers of the College were selected by the ICCR for teaching at Universities in Poland and Croatia for History and Sanskrit respectively. While one teacher went before the onset of Covid the second teacher was unable to go on account of Covid.

The College continued its online Certificate programmes under the Centre for Advanced Studies. For the first time a College under DU has been empaneled under ITEC of the MEA. A Chair in Public Policy has been established in College with the generous support of ABAN group.

Students with Distinctions

Olana Marie Peters was awarded the Rhodes Scholarship in 2020 Ridhima Khanna and Aartika Bhayana were awarded the DG NCC Commendation Card Aartika Bhayana received the ADG Appreciation by the ADG of Delhi

Yashaswini Shekhawat, B.A. (Hons) Economics received Sri Mudiyil Padmanabha Pillai Memorial Gold Medal, The Ranade Prize, The Erachshah Maneckji Nanavutty Memorial Prize, The Ravi Kanta Devi Prize

Olana Marie Peters, B.A. (Hons) History received The Dip Chand Memorial Prize

Priya Seth, B.A. (Hons) Sanskrit received His Holiness Shankaracharya Swanandashram Hari Prize

Vipin Chaudhary, B.Sc. (Hons) Physics received University Medals for (B.Sc. Honours)

Kumari Shambavi, B .Sc. Physical Science received University Medals for (B.Sc. Honours)

Nitik Bhatia, B.Sc. (Hons) Chemistry received Prof. Seshadri Prize

Publications

Kumar, A., Bimal, D., Kavita, Kumar, M., Mathur, D., Maity, J., Singh, S. K., Thirumal, M., and Prasad, A. K. (2020). Synthesis and Antitubercular Activity of 4,5-Disubstituted N1-(5'-deoxythymidin-5'-yl)-1,2,3-triazoles. Chemistry Select 5:8839-8845.

Kumar, B., Shankar, B., Kumar, S., Maity, J., and Prasad, A. K. (2020). Multicomponent one pot synthesis of C-glucosides of 1-azaindolizines, *Synthetic Communications* **50**(18):2853-2859.

Maity, J., Srivastava, S., Khatri, V., Saha, R., Ghosh, S., and Prasad, A. K. (2020). Biochemically Synthesized Potential Aminocoumarin-Glycoside Antibiotics. *Trends In Carbohydrate Research* **12**(2):1-16.

Rana, N., Kumar, M., Singla, H., **Maity**, **J**., and Prasad, A. K. (2020). Synthesis of conformationally restricted C-4'-spirofurano-ribonucleosides. *Trends In Carbohydrate Research* **12**(3):16-24.

Srivastava, S., **Maity, J.**, Maikhuri, V. K., Jha, A., and Prasad, A. K. (2020). Synthesis and Applications of Coumarin Glycosides: A Review. *Trends In Carbohydrate Research* **12**(3):25-48.

Kumar, B., Maity, J., Shankar, B., Kumar, S., Kavita, and Prasad, A. K. (2021). Synthesis of D-glycopyranosyl depsipeptides using Passerini reaction. *Carbohydrate Research* **500**:1-8.

Tulika, Amrita (2021). Bhil Life- Worlds in the Colonial Transition. Seminar 740 (April): 14-25.

Dev, Aditya Pratap (2021). Spirits of the State. Seminar 740 (April): 26-34.

Dev, Aditya Pratap (2021). Beyond Myths. Seminar 740 (April): 10-13.

Inurnals

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board – One. Prof John Varghese serves on the Editorial Board of **The Bede Athaneum**

Seminars Organized

Under the aegis of the IQAC, the Department of Mathematics together with the Mathematics Society organized a 2-day online Symposium on the topic of "Real-Life Applications of Abstract Mathematical Concepts" on April 9-10, 2021.

National/International MoUs Signed

The St. Stephen's Centre for Advanced Learning (SCAL) has been empaneled with the ITEC to offer a three-month long Fellowship Programme in Public Policy.

Students under Exchange Programme

Bhutanese students enrolled in College

Placement Details

No. and percentage of students who got placed: 71 (62.5%)

No. of companies that visited Campus for placement: 54

Extension and Outreach Activities

Members of the Social Service League collaborated with NGOs and other societies to offer relief to Covid affected families.

The Stephen's Centre of Advanced Learning (SCAL) offers certificate courses on Public Policy, International Relations, Administration, Governance and UPSC preparation.

Library Development

Infrastructural needs (relaying the roof) were attended to, to optimize the efficiency of the Library while students were away. Options to digitize the library have gained headway with the purchase of a high-definition scanner.

Faculty Strength

Permanent: 58

Ad-hoc: 30

Financial Allocation and Utilization

Grant Sanctioned: Rs. 24,94,82,023.00

Grant Utilized: Rs. 31,09,63,156

SRI VENKATESWARA COLLEGE

Major Activities and Achievements

The college secured 14th rank in the NIRF 2020, and also secured 9th, 12th and 6th rank in Sciences, Commerce and Humanities, respectively in the Outlook-I care survey of undergraduate colleges of India. Five projects were sanctioned to college in 2020-21 amounting to ~1.1 crores. Our faculty published 65 publications and 20 books, chapters and e-chapters. The college organized around 70 webinars and workshops on various aspects related to research advancement and skill development to benefit students. The college signed MoUs with AIIMS, New Delhi and IGL for environmental initiatives. SRI-VIPRA (Sri Venkateswara Internship Programme for Research and Academics), a flagship internship program of the College was offered to around 400 undergraduate students under the mentorship of around 40 faculty. College inaugurated the new Smt. Durgabai Deshmukh block. Faculty promotions under the CAS 2010/2018 were initiated in the college as per the guidelines of University of Delhi.

Honours/Distinctions

Dr. N. Latha, Associate Professor, Department of Biochemistry has been conferred the prestigious INSA Teachers Award 2020 by Indian National Science Academy (Oct 2020).

SVC student Navdeep Singh clinched Gold medal at the 12th Fazza International Championship, Dubai, in Feb. 2021 and secured a spot at the Tokyo Paralympic Games 2020 held in Aug 2021.

SVC students Aaditya (Maths Hons), Harshil Tewatia (BA Program) and Mansi Dhingra (Zoology Hons) mentored by Dr Robin Suyesh received the Golden Beaver Award (First position in Out of the Box category) for short film "Croaking Frogs" at 10th National Science Film Festival 2020

Dr Rakhi Narang. Assistant Professor, Department of Electronics received IEEE Senior member Grade elevation by IEEE, USA, 2021.

Sri Venkateswara College won the '5th Dr. V Krishnamoorthy Inter College Faculty T-20 Cricket Tournament' held during 17-26 March 2021.

Students with Distinctions

SVC students have secured UDSC ranks and have earned several medals for excelling in their subjects of choice.

Prassanna Nand Jha, Harshit Raj, and Himanshu Mishra were granted the Outstanding Award for their submission of Problem C Disputes in SCUDEM V 2020- SIMIODE Challenge Using Differential Equations Modeling, 14 November, 2020.

Vatsal Kaushik was awarded Silver Honour in International Youth Math Challenge, 14 December, 2020.

Publications Total Number: 65

Chitra, Laishram, R., Rajput, S., & Singh, K.C. (2021). Particle-Size-Induced High Piezoelectricity in (Ba0.88Ca0.12)(Ti0.94Sn0.06)O3 piezoceramics prepared from Nanopowders. *Journal of Alloys and Compounds*. 812, 152128. https://doi.org/10.1016/j.jallcom.2019.152128

- Gaur, M., Singh, A., Sharma, V., Tandon, G., Bothra, A., Vasudeva, A., Kedia, S., Khanna, A., Khanna, V., Lohiya, S., Varma-Basil, M., Chaudhry, A., Misra, R., Singh, Y. (2020). Diagnostic performance of non-invasive, stool-based molecular assays in patients with paucibacillary tuberculosis. *Sci Rep*, 10(1), 7102. https://doi.org/10.1038/s41598-020-63901-z
- Jha, A. M., Rajan, P. (2021). Movie piracy: Displacement and its impact on legitimate sales in India. *The Journal of World Intellectual Property*. 24(3), 237-252. https://doi.org/10.1111/jwip.12190
- Kumar, R., Verma, H., Singhvi, N., Sood, U., Gupta, V., Singh, M., Kumari, R., Hira, P., Nagar, S., Talwar, C., Nayyar, N., Anand, S., Rawat, C.D., Verma, M., Negi, R.K., Singh, Y., Lal, R. (2020). Comparative genomic analysis of rapidly evolving SARS-CoV-2 reveals mosaic pattern of phylogeographical distribution. *mSystems*. 5(4), e00505-20. https://doi.org/10.1128/mSystems.00505-20
- Kumar, S., Kumar, D., Kumar, A. (2020). Lie symmetry analysis for obtaining the abundant exact solutions, optimal system and dynamics of solitons for a higher-dimensional Fokas equation. *Chaos, Solitons & Fractals*. 142: 110507. https://doi.org/10.1016/j.chaos.2020.110507
- Malik, C., Kaur, N., Singh, B., & Pandey, A. (2020). Luminescence properties of tricalcium phosphate doped with dysprosium. *Applied Radiation and Isotopes*. 158:109062. doi: 10.1016/j.apradiso.2020.109062
- Pasricha, S., & Gahlot, P. (2020). Synthetic Strategies and Biological Potential of Coumarin-Chalcone Hybrids: A New Dimension to Drug Design. *Current Organic Chemistry*, 24(4), 402-438. 10.2174/1385272824666200219091830
- Trivedi, M., Kumar, A., Husain, A., & Rath, N.P. (2021). Copper(I) Complexes Containing PCP Ligand Catalyzed Hydrogenation of Carbon Dioxide to Formate under Ambient Conditions. *Inorganic Chemistry*, 60, 7, 4385–4396, https://doi.org/10.1021/acs.inorgchem.0c01937
- Sharma, G., Guleria, R., & Mathur, V. (2020). Differences in plant metabolites and microbes associated with Azadirachta indica with variation in air pollution. *Environmental Pollution*, 257: 113595. https://doi.org/10.1016/j.envpol.2019.113595
- Singh, A., Gaur, M., Sharma, V., Khanna, P., Bothra, A., Bhaduri, A., Mondal, A.K., Dash, D., Singh, Y.*, & Misra, R*. (2021). Comparative Genomic Analysis of Mycobacteriaceae Reveals Horizontal Gene Transfer-Mediated Evolution of the CRISPR-Cas System in the Mycobacterium tuberculosis Complex. *mSystems*, 6(1):e00934-20. doi: 10.1128/mSystems.00934-20.

Journals

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board: 9

Research Projects (Ongoing)

- DST, Government of India, India-Thailand scheme, 2019-2022, Computational studies of drug targets towards rational design of antiviral therapeutics for dengue infection Rs. 19,41,800, PI: Dr. N. Latha & Dr. Nimisha Sinha
- DST, Government of India, Indo-Uzbekistan scheme 2021-2024: Determination of the trail-following pheromone and mechanism, Rs 9,14,400, PI: Dr. Vartika Mathur
- DST, Government of India, Indo-Norway scheme, 2021-2024, NANODOS- Synthesis of nano-phosphors and spin-trapping nano-crystals as energy-independent dosimeters for radiotherapy beams, Rs. 30,00,000, PI: Dr. Anant Pandey

Ministry of Environment, Forestry and Climate Change (MoEF&CC), 2021-2023, Microbial communities in changing climatic regime: Analysis of primary and secondary risk factors, Rs 43,23,800, PI: Dr. Vartika Mathur, Co-PI: Pooja Gokhale Sinha

National Mission On Himalayan Studies (NMHS) Implemented by the Ministry of Environment, Forest & Climate Change (MoEF&CC), 2018-2021, Sustainable Tourism and Revival/Preservation of Hill Cultures and Ecology in abandoned villages of Uttarakhand, Rs. 50,00,000, PI: Dr. Nirmal Kumar

Seminars Organized

Three-day webinar series entitled "COVID-19 breaking myths and moving forward" organized by Sri Venkateswara College, University of Delhi, in association with the All India Institute of Medical Science, New Delhi, India, on April 27-29, 2020.

Webinar entitled "Intellectual property Rights (IPR) and Industry-Academia Innovative Practices" (Speakers from Lakshmikumaran & Sridharan Attorneys, Subramaniam & Associates, Sen-Oberoi Attorneys–at-law, IT for Change) on August 29, 2020

Online Webinar Series on various applications of Mathematics (Speakers from ISI Delhi, IIT Delhi, etc) on October 9, 16, 23 and 30, 2020 respectively

International Webinar entitled "Rewilding Immunology: Current Status and the road ahead" (Speakers from Yale University, USA) on January 9, 2021

Webinar on "Environment Degradation and Disaster Risk Reduction (DRR)" jointly organized by Dept of Environmental Sciences, Sri Venkateswara College with National Institute of Disaster Management (NIDM) and Society for Environment and Development, New Delhi on March 02, 2021

Conferences Organized

International E- Conference entitled "Health and Research in Current Scenario: with special emphasis on COVID-19 Virus Genomics and Pathogenicity", jointly organised by Sri Venkateswara College, University of Delhi and phiXgen Pvt. Ltd., India on 17th July 2020, funded by International Society of Microbial Ecology (ISME), the Netherlands.

National Symposium on "Wildlife Conservation: Challenges, Efforts & Scope" on 20th March, 2020

Symposium and Panel Discussion on "Growth and Sectoral Trends in Indian Economy" on 24th of September 2020.

Online Faculty Development Program on ICT Enhanced Teaching and Learning 2.0. from July 25-29, 2020.

Online Faculty Development Program on Higher Education: Road Ahead Developing Next Generation Academic Leaders from Nov, 25, 2020- Dec, 1, 2020 in collaboration with Teaching Learning Centre (TLC) Ramanujan College, University of Delhi.

Seminar/Conference Presentations

Ms. Meenakshi Sharma, presented a paper entitled 'Political Economy of State Finance in India' in National Conference 'Economic Theories and Empirics: Emerging Issues-2020' held on December 05, 2020 organised by Shri Ram College of Commerce.

Dr Krishna Kumar, served as the Key Resource Person and delivered a lecture cum workshop on Introductory Macroeconomics organised by University College, Thiruvananthapuram (online) from March 08-10, 2021

Mr. Amit Kumar Jha, presented a paper entitled 'Software piracy and Software protection' at the National Conference organised by Delhi School of Economics, University of Delhi on April 04, 2021

Sugandha Huria, presented a paper entitled 'Evaluation and Assessment of Services Trade Regulations – Some New Findings for the Future' in 'Dr Gadgil Memorial Presentation' organized by Manan – The Economics Society of Gokhale Institute of Politics and Economics, Pune on February 12-14, 2021.

Dr. N. Latha gave an invited lecture on 'Accelerating drug discovery in the AI era' organized by INMAS, DRDO on February 3, 2021.

Dr. Vartika Mathur gave an invited lecture on 'Air Pollution and One Health' in G-STIC 2020 e-conference organized by Global Sustainable Technology & Innovation Community (G-STIC), Belgium held on 26-28 October 2020.

Dr. Anita Verma & Dr. P. Jayaraj presented a paper titled 'Immunohistochemical analysis of Telomerase reverse transcriptase (TERT) in conjunctival melanoma using Tricholoroisocyanuric (TCCA) acid solution as a bleaching agent' in International Conference on Innovations in Biotechnology and Life Sciences ICIBLS held on December 18, 2020.

Dr. Robin Suyesh delivered an invited talk titled 'Acoustic Communication in Frogs' at 'Wild week conference' themed 'Bewildering wildlife' organised by School of Life Sciences, Pondicherry University held during Oct 1-9, 2020.

Dr. P. Jayaraj, presented and published a research paper titled "Evaluation of Telomerase Reverse Transcriptase (TERT) Expression In Squamous Cell Carcinoma (SCC) Of The Skin" in International Conference on Innovations in Biotechnology and Life Sciences ICIBLS held on December 18, 2020.

National/International MoUs Signed

Indraprastha Gas Limited, New Delhi for Environmental Monitoring of Reforestation Project on March 30, 2021.

All India Institute of Medical Sciences, New Delhi for Environmental and Health Initiatives on September 30, 2020.

Other Inter-Institutional Collaboration

SVC-ILBS hospital Joint Project (2019-2022) on 'Development of Thiourea derivatives as antiviral agent for Hepatitis B Virus infection' funded by DBT, Government of India.

SVC-IIT, Bombay Joint Project (2018-2021) on 'The issue of infiltrators and refugees in North East India funded by Indian Council of Social Science Research (ICSSR)

Placement Details

Number and percentage of students placed: 90

Number of Companies visited for campus recruitment: 86 companies for placement, 379 companies for internship, 320 internship offers

Highest package -19.25LPA Average package - 6.16 LPA

Extension and Outreach Activities

NSS SVC initiated an Awareness campaign for COVID pandemic in Sanjay camp (adopted community) under Mission Raksha. In the months of April, May and June 2020, students conducted various surveys to

identify the problems faced by the people residing in Sanjay camp like the ration issue, sanitization problems etc. They also created awareness among the people regarding the importance of social distancing, etc. With the support of various foundations like Light Up, Robin Hood Army, Pratyek Foundation, Uday Foundation, Shades of Happiness and Learning by Locals and Goonj, the students of NSS SVC distributed ration kits to 200+ families in Sanjay camp in the months of June and July 2020.

NSS SVC continued their Each One Teach One project during the pandemic and student volunteer took classes of students in Sanjay Camp on online platforms or through phone calls.

NSS SVC collaborated with Yoga Society for a webinar Session on 21st June, 2020 on the occasion of Yoga Day.

NSS SVC in collaboration with British Paints (Celebrating 100 years) took upon the task of painting Sewa Bharti, a community school in Sanjay Camp, under the initiative of Rang Badlaav Ke 2.0. Leonci and Promethean, the art societies of Sri Venkateswara College and Shaheed Bhagat Singh College, respectively, joined later in the day and undertook the responsibility of making the walls look beautiful.

NSS in collaboration with Dharamshila Cancer Foundation and Research Centre organized a webinar on Cancer Prevention and Clean Yamuna - Prevent Cancer on January 09, 2021

A social media campaign #AstitvaWaliDidi campaign was organized from 21- 25 August 2021 by NSS Sunder the project Astitva to make people aware about menstruation and menstrual hygiene.

Women Development Cell released a poster on International Day Against Homophobia, Transphobia and Biphobia (IDAHOBIT) on May 17, 2020. WDC hosted a live session with Samrudh Sinha on LGBTQ+ community on June 27, 2020

Enactus SVC along with Enactus Hansraj collaborated with Zomato Feeding India and organize a Food Distribution drive for the Children of Manvi Seva Sanstha on 27th January, 2021 in Sector 52, Gurgaon and a Slum in Sector 57, Gurgaon.

Eco club SVC, under MoU with AIIMS, New Delhi, continued their collaborative flagship program, 'Green School Initiative' to create Environmental awaresness to school students.

Library Development

Total no. of new Magazines / Periodicals subscribed to (physical form): 74

No. of National journals subscribed to in hard copy (physical form): 23

No. of National/International journals subscribed to E-copy / digital form: \sim 43286 (DULS) + 6000 Database and NLIST (in Total)

Faculty Strength

Permanent: 86 Ad-hoc: 125

Financial Allocation and Utilization

Grant sanctioned: Rs 51,37,09,000/-

Utilized: Rs. 57,90,06,119 /-

Other Significant Information

Prof. C. Sheela Reddy was appointed as the new Principal of the College w.e.f. January 2021.

International Hands-on e-Workshop on "Health and Research in Current Scenario with Special Emphasis on Covid-19 Virus Genomics and Pathogenicity" organized jointly by Sri Venkateswara College, University of Delhi and PhiXgen Pvt. Ltd., India July 14-16, 2020.

"MindSpar 3.0– Adding New Dimensions" in collaboration with the BSC BioNEST BioIncubator, Regional Centre for Biotechnology, Faridabad, Haryana to showcase the creative genius, innovative and entrepreneurship ability of our youth on March 12, 2021.

The College offered the following Add on Courses/ Certificate Courses:

Add on Course on Bioinformatics & Computational Biology from 12th September 12, 2020-February 06, 2021

Add on Course on Digital Marketing from January 16- April 03, 2021.

Add on Course on Climate Change: Issues, Concerns and Strategies from March 06-June 19, 2021.

Certificate Course on German from October 07, 2020- till date.

Certificate Course in Spanish from October 07, 2020- till date

Certificate Course in French from October 07, 2020- till date.

Diploma in German from October 07, 2020- till date.

Diploma in Spanish from October 07, 2020- till date

Diploma in French from October 07, 2020- till date.

SWAMI SHRADDHANAND COLLEGE:

Major activities and achievements

College has established a Saghan Van Nirman in 5000sqm with 1000 plants planted this year. A separate airconditioned reading room has been created to provide the much-needed space for teachers to work. A separate well-maintained cabin has been provided for visually handicapped students of the college. To search different type of E-mails, Internet browsing facility is available in the library. Step up Solar Power Plant with 50KV capacity was installed.

Publications Total Number

Bala, K. Published chapter in Ethnobotany –II, Chapter 5, 85-99 on 'Ethnobotany as a tool to protect the interests of ethnic group', ISBN- 978-81933805 Kojo press.

Bala, K. Published in conference proceedings on 'Smart Energy resources and sustainable Engineering' entitled 'Importance of algal oil as a source of biodiesel; A short review' Punblisher- Energy@SSNC, ISBN-978-93-5391-131-7, 30-36.

Chadha, N., Singh, D., Milton, M. D., Mishra, G., Daniel, J., Mishra, A. K., Anjani K. Tiwari. (2020) Computational prediction of interaction and pharmacokinetics profile study for polyamino-polycarboxylic ligands on binding with human serum albumin. *New Journal of Chemistry, Royal Society of Chemistry*,

Chanana, G., Batra, K., Prasad, V. Exploring response of Li molecule to external electric field: A DFT and SAC-CI study. *Computational and Theoretical Physics.* 1169: 112620.

Giri, B. "Biofertilizers for Sustainable agriculture and Environment" published by Springer Nature Switzerland, Giri B et al. (eds.). ISBN 978-3-030-18932-7.

Jagbir. Disaster Management: A data analysis approach. United Nation In Switzerland.

Prasad, V., Lumb, S., Talwar, S. L., Lefkidis, G., Hübner, W. (2020) Confinement effects on persistent currents in hydrogenic atoms. *Physics Scripta*: 94:12505.

Research Projects

Project sanctioned to Dr. Anand Malik, Associate Professor in Geography

Seminar Organized

Two days National Seminar organized on 'Various Dimension of Ram Katha' on 19 and 20 March 2021 and s funded by ICHR, Delhi.

Seminar/Conference Presentations

Bhoopander Giri chaired sessions at the 5th Annual Congress on Plant & Soil Science in London, UK, organized by Euro Sci Con Ltd. 40 Bloomsbury Way Lower Ground Floor, London United Kingdom WC1A 2SE.

Bipin Aggrawal, presented a paper entitled "A validated method for analysis of toxic heavy metal in food spices (Food & Agriculture Products) by ICP-MS" in an International Conference on "Advances and Innovations in Agriculture & Allied Sciences (AIAAS-2020)" during 31 January to 1 Febriary 2021 held at JNU Convention Centre, New Delhi, India.

S.K.Srivastava presented a paper entitled, "Utilization of Viruses maintained in Plants for Vaccination, Cancer and Immunotherapy" at the VIROCON, 2020, an International Conference on Evolution of Viruses and Viral Diseases held at Indian National Science Academy, New Delhi from 18 to 20 February 2020.

Library Development

Library of the college also has a good collection in the areas of Humanities and Social Science(s). A separate library on Commerce and other interdisciplinary subjects also is housed in the old campus of the college. College has General Collection of Books, Reference Books, Progress Reports (PR), Technical Reports (TR), Theses (TH) Text Books (TB), Book Bank (BB), S.A.F. Books IT and Computer Section. Library subscribes more than 70 national and international journals and periodicals and 31 newspapers, which provide the latest information on current events and affairs. Library has a rich collection of books on Science and Technology including chemistry, mathematics, physics, chemical engineering, computer science, electrical and electronics engineering, biochemical and biomedical engineering, economics, business studies, etc. More than 400 students have visited per day for different services in this session. Library also provides the special instruments and assistive tools for visually challenged students. In this session 4 such students are received these specific instruments. The library is connected to the N-LIST programme of the MHRD through which the faculty and students can access more than 500 E-journals and 1 lakh E-books. Library is focused to ensure the satisfaction of the users with its quality services provided by library. The library staff also makes support to maintain and enhance the quality of library services. Focusing on the quality of library services and work efficiency, library staff makes their enrolment to acquire training from DULS time to time.

Faculty Strength

Total faculty strength 173

VIVEKANANDA COLLEGE

Major Activities and Achievements

The college had started Diploma Course in German Language along with the ongoing certificate course in German under the aegis of Department of Germanic and Romance Studies, University of Delhi. Vidya Vistar Committee of Vivekananda College partnering with Government Model College, Assam for two years. New initiative, Skill Enhancement Committee, organized multiple modules under the programme "By Students For Students"; "National Stakeholder Consultation on Access for Persons with Disabilities and the Economics of Inclusion" on "Access Audits for Persons with Disability" organized by Environmental Studies Department to help stakeholders like policy makers, practitioners, academia and community enhance accessibility to the built and technological environment. The Covid-19 Task Force developed advisories and system of operation for staff and students to ensure compliance with GoI protocols for COVID-19. An on-campus RTPCR Covid-19 testing facility booth set up. Organized webinar and poetry competition on "Corona Kaal: Kuch Aap Beeti Kuch Jag Beeti" in March 2021. The Research and Innovation Club of the Food Technology Department prepared Nutrition Report Card Programme

Honours / Distinctions

Dr. Saroj Kumar was awarded Mahashweta Devi Puraskar 2020.

Dr Sukhneet Suri was nominated as Office Bearer (Editor-in-Chief) for AFSTI Delhi Chapter. She facilitated enrolment of 3 students in the student editorial board of the newsletter.

Students with Distinctions

Aditi Vashishtha, Bharti Sharma, Disha Yadav won first prize in 20th Senior State Netball Championship(Men's and Woman's) held on March 15-18, 2020. It was held at Yuva KalyanVibhag Ground, near Mahamaya Sports Stadium, Ghaziabad, Uttar Pradesh.

Ms. Gurmeet and Ms. Himanshi of Department of Food Technology won second prize in Inter-college Essay writing competition organized by Lakshmibai College on September 25 2020.

Ms. Radhika and Ms. Gurmeet won first and third prize respectively in "Quick Easy, Nutritious Chutneys and Dips for Every Reason and Season" organized by Lady Irwin College on September 21, 2020.

The students of the Department of French took part in the online Annual cultural event "Confluence 2021" organised by Department of Germanic and Romance Studies, University of Delhi held on April 16, 2021. Ritu Tomar of BA(P) First year won second prize in Poem recitation competition and Yashika Khanna of BA(P) Second year won third prize in essay writing competition.

Ms. Anita, Ms. Radhika, Ms. Sapna Yadav and Ms. Sony Yadav won first prize in Inter-College Skit (Video) Competition, held on September 25, 2020, Department of Home Science, Lakshmibai College, University of Delhi

Publications Total Number

Bhanot, D. Singh, T. Verma, S.K. & Sharad., S. (2021). Stigma and Discrimination during Covid-19 Pandemic in Frontiers in Public Health. https://doi.org/10.3389/fpubh.2020.577018.

Jain A, Mathur P. Ultra-processed Foods in Low- and Middle- Income Group Adolescents in Delhi, India: A Study. Indian Pediatrics 2020, 57: 712-715. (UGC Listed, Publisher: Taylor & Francis; Impact Factor: 2.598)

Jindal, R., Khan, J., & Roy, P. (2020). A Comparative Study of Satisfaction Of Patrons Of Web-enabled Information Services Of Central And Deemed University Libraries Of Delhi And NCR. *iResearch International: A Journal of Information Management*, 6(1), 1 - 8.

Srivastava P., International Journal of Sanskrit Research 2020; 6(3): 108-112, ISSN: 2394-7519 IJSR 2020; 6(3): 108-112 © 2020 IJSR

Burnwal, Mukesh Kumar: 2021, Samkaleen Rang-Prayog ke virodh ke vividh ayaam aur Anuradha Kapoor ka Rangkarm, Shodh Prerak

Chauhan P and Suri S. (2021). Polar Compounds in Frying Oils: a review. Journal of Applied Ecology and Environment Sciences, Science and Education Publishing. Vol.9, No.1,21-29. DOI: 10.12691/aees-9-1-3

Hina Nandrajog (2020) "The Journey of Food," International Journal of Creative Research Thoughts (IJCRT), ISSN:2320-2882, Volume 8, Issue 10, pp.3176-3179.

Hina Nandrajog & Abhishek Bhaskar (2020) "Motifs in Pandemic Narratives: Fear and Hope," Research Scholar, an International Refereed Journal of Literary Explorations. Vol.8 Issue IV, November 2020, p. 1-10. ISSN: 2320-6101.

Saroj Kumari Co-authored Hindi Katha Sahitya ISBN 9789 3900 3374 2020

Mukherjee, Chaandreyi (2021) "Nothing moved except the mirage": Analysing Fear and Freedom in Adania Shibli's Minor Detail. Inverse Journal. 16 March 2021. https://www.inversejournal.com/2021/03/16/nothing-moved-except-the-mirage-analysing-fear-and-freedom-in-adania-shiblis-minor-detail-by-dr-chaandreyi-mukherjee/

Sondhi, V, Kant, A, & Pawar, B. (2020). Managing sports and academics: A psychosocial study on sports students in Delhi. Indian Journal of Social Research, Vol. 61 (5+6) (Sep-Oct + Nov-Dec, 2020) (243-263)http://academic-and-law-serials.com/component/content/article.html?id=1380

Seminars Organized

Webinar entitled "Anuvaad ke Kshetra mein Rojgar ki Sambhavnaen" in collaboration with Central Hindi Directorate, Department of Higher Education, or Bhartiya Anuvaad Parishadon October 20, 2020. On this occasion, the Dean of Colleges, University of Delhi, Dr Balram Pani, Dr Rakesh Sharma from CHD, Prof. Puranchand Tandon from Hindi Department, University of Delhi, Mr Sunil Bhutani from Agriculture Ministry and Dr Mauna Kaushik from Sofia University, Bulgaria expressed their views.

Webinar entitled "Resolving Career Complexities" in collaboration with IBS Gurgaon on August 28, 2020. Prof Jean Saldaha, IBS Gurgaon was invited for the session as Speaker.

Webinar entitled "Shaping the Future Women Leaders' as a part of the "Women Empowerment Webinar Series" on April 20, 2021.

Webinar entitled "Women & Social Justice - A Dilemma" in association with Shahdara DLSA on April 2021.

The NSS Assistance committee of our college organized several webinars month-wise. One among them was on September 25, 2020 on "New Education Policy". Professor Puranchand Tandon, Department of Hindi, University of Delhi and Dr. Sudhanshu Shukla, Chair of ICCR (Poland) were invited as the speaker. Webinars on Yoga were also organized under the Yoga Mahotsav on June 18-19, 2020 respectively.

Seminar/Conferences Presentations

Dr. Neeta Mathur presented a paper "Pushtimargiy pad-gaan me Rasevam Bhavabhivyakti" in International seminar on Rasa Aesthetics in Music held from February 8-10, 2021 organised by Department of Music, Allahabad University.

Dr. Chaandreyi Mukherjee, "The Surveillance of Plush Toys: Technological Dystopia in Samanta Schweblin's Little Eyes" in the Annual International Conference 2021 organised by IACLALS and JDMC, University of Delhi from March 18-20 2021.

Dr. Meena Pandey presented review article on "Rishabh Jain ka prasidh vyang sangrah -Rang Rangila Prajatantr. in an International webinar organised by Prayas Prakashan Bilaspur Chhatisgarh on January 14, 2021

Vishakha Goyal presented paper "Understanding Regional Inequalities in Hand-Washing Behaviour of Indian Households" during the Two-Day International Conference held March 26-27, 2020. It was organized by Bharti Institute of Public Policy, Indian School of Business on the theme- Technology and Policy.

Dr. Shafaq Zareen presented a paper on "Factors Influencing Entrepreneurial Motivation of Women Entrepreneurs: Improvement in Women Sustainability in 5th Biennial International Conference held from March 6-7, 2020 organized by Sri Guru Gobind Singh College of Commerce, University of Delhi and Sydney Business School, University of Wollongong, Australia

Dr. Hina Nandrajog presented a paper on "Partition and Amrita Pritam," Women's Writing in India: Issues and Perspectives, on February 26, 2021organised by Translation and Translation Studies Centre, Indraprastha College for Women, University of Delhi in collaboration with South Asian Studies Program, Princeton University

Dr. Sukhneet Suri presented a paper on "Waste Cooking Oil: Challenges and Scope" during an International e-Conference "Environment, Literature and Culture", September 11-12, 2020, organized by Higher Education and Research Society, Mumbai, India.

Dr. Sandhya Sharma presented a paper 'Understanding Identity Issues in Punjab: Review of Some Historiographical Traditions' in an International Webinar "Exploring the History of Punjab: Legacy and Relevance in Contemporary Times" organised by Dev Samaj College for Women, Ferozepur on December 15, 2020

National/International MoUs Signed

The Vidya Vistar Committee of our college has initiated MoU of Vivekananda College with Government Model College, Deithor, affiliated to the University of Dibrugarh, Assam which is in process.

Placement Details:

Number and percentage of students placed : 5 (Complete data not available)

Extension and Outreach Activities

The Social Outreach and Community Development Committee (SOCDC) has partnered with Slum Swaraj Foundation – an NGO and is focussed on conducting regular educational camps for the slum children in Jhilmil Colony. During the ongoing pandemic, college student members are engaged in the online 'Sarthi initiative' to support students from nearby slum areas. Due to a technological constraint amongst the children, the mentors take about 3-4 online sessions with a child in a week. The initiative is running successfully and will continue till the reopening of the camp. Mentoring includes teaching, moral support, educational guidance, social etc. via mobile.

The second programme partnered with Delhi Legal State Authority (DLSA) focusses on creating legal, health and environmental awareness for families living in the slums of Jhilmil colony.

On the occasion of 'International Day of the Girl Child', the college in association with Shahdara DLSA organized three-day awareness-cum-activity program titled 'Project Shakti'. A series of competitions were conducted for the studen: Slam Poetry on October 13, 2020 (Fight for Your Rights) as well as a debate competition on October 14, 2020 (on Gender Stereotypes). A Pledge ceremony against dowry was organized on October 27, 2020.

SOCDC in association with Beartsy conducted a women-centric financial wellness webinar, "Be Your Own Lakshmi" (BYOL) on 20th November, 2020. The session helped to demystify concepts like inflation, compounding, investments, and savings.

Various events are organised by NSS of Vivekananda College during the session 2020-21 with an aim to create awareness amongst students, understand different challenges and scope, discuss different perspectives etc. including a vaccination drive campaign "Vaccine Utsav" and "Covid Awareness Event", a webinar entitled "Cancer And Therapies-Fight Together For A Cancer Free World" a talk session on the occasion of WORLD AIDS DAY to spread awareness about AIDS, a talk on "Exploring Our Constitution—The Root of Justice" on Constitution Day, and a survey on "Food Safety and Food Security".

The Department of Food Technology initiated the Nutrition Report Card Programme (Supervision of Dr Suri and Dr Arushi) during Poshan Maah celebrations. More than 100 students participated in this activity.

Library Development

Library Budget (Operational): Rs. 4,71,200/-

No. of Books: 65715 No. of Periodicals including Newspapers: 47

Faculty Strength

Permanent: 38 Ad-hoc: 56

Financial Allocation and Utilization

Grant Sanctioned: Rs.16,18,68,862/- from UGC Rs. 60,00,000/- from Delhi Govt.

Grant Utilized: Balance Sheet is under process

Other Significant Information

Dr Sukhneet Suri was Resource person for National Workshop Cum Faculty Development Program On Transformation of Food Processing From Lab to Industries From October 12-16, 2020 organized by Sharda University in collaboration with AFSTI-Delhi Chapter.

Dr. Hina Nandrajog, delivered a talk on "Things Fall Apart: Countdown to Partition," Online Partition Lecture Series 2020 on August 28 2020 organized by the department of Humanities and Social Sciences (HUSS), Indian Institute of Technology (IIT)-Kharagpur

One week (Online) Interdisciplinary Faculty Development Programme on "Microsoft Tools for Creating Effective Teaching and Learning Environment" organized by IQAC, Vivekananda College in collaboration with Mahatma Hansraj Faculty Development Centre, Hansraj College, University of Delhi, June 07-13, 2021.

The Research and Innovation Club of the Department of Food Technology collaborated with IGNOU, Regional Centre 2 to conduct a large scale study ""Covid-19 – Food Security and Food Safety in Delhi".

The Department of Food Technology collaborated with Dept of Home Science, Sri Venkateswara University (Tirupati) and The Microbiological Society of India, North East Chapter, March 2021, for a National Recipe Contest. Organizing team: Dr Suri (Convener), Dr Madhumita Barooah, Dr. Sucharitha and Dr Arushi, (Students: Ms. Gurmeet and Ms. Himanshi).

The Social Outreach and Community Development Committee (SOCDC), Vivekananda College has partnered with firstly Slum Swaraj Foundation – an NGO and is focused on conducting regular educational camps for the slum children in Jhilmil Colony. The second programme partnered with Delhi Legal State Authority (DLSA) focuses on creating legal, health and environmental awareness for families living in the slums of Jhilmil colony.

ZAKIR HUSAIN DELHI COLLEGE

Major activities and achievements

At the 63rd Annual Flower Show organised by the University of Delhi, on March 05, 2021, the college won the 'Kalindi College Trophy for Best Hanging Basket of Money Plant', The college also won 'The Delhi School of Social Work Cup', 'The Kirori Mal College Cup' and several more prizes for Rock Garden, Rose Garden, flowering potted plants arranged in a group, non-flowering potted plants arranged in a group and College Greening and Cleanliness. Shri Parmanand was awarded 'Corona Warrior Mali' and Shri Ashok was awarded 'Best Mali'.

Dr. P. K. Shishodia, coordinator DBT-STAR College Scheme, organised an online interdisciplinary workshop on "Data Manipulation and Visualisation through Statistical Software R" from July 27-31, 2020.

Dr. Divya Tiwari, as Convenor -ICC, organised a training session on November 07, 2020 conducted by Ms. Richa Tiwari, Advocate and Proprietor of Legal Fellow, Noida, India. A Virtual session on Women's rights and protection against domestic violence was organised on International Women's Day on March 09, 2021 in collaboration with Central Delhi Legal State Authority (CDLSA). It was conducted by Ld. Secretary, CDLSA, Niti Suri Mishra.

Honours/ Distinctions

Dr. Mohd. Qasim, Arabic Department, secures Membership (01 July 2020-30 June 2022) in the General Assembly of the International Council for Arabic Language under International Federation of Arabic Language, Beirut, Lebanon.

Publications

Ahmad, Naseem. (2020). أهم كتب السيرة النبوية المترجمة من الأردية إلى العربية in "Dirasat Arabia" Centre of Arabic and African Studies, JNU, New Delhi, Issue No. 7, ISSN: 2348 – 2613.

Chaturvedi, Mukul (2020). "Gendering Disability in Dharamvir Bharti's Gulki Banno: 'The Hunchback Bride" in Someshwar Sati and GJV Prasad eds. *Disability in Translation: The Indian Experience*. London, New York: Routledge.

I. Ahmad, Abdullah, K. M. Khedher and S. S. Irfan (2020). Stability and convergence analysis for a new class of GNOYIP involving XOR operation in ordered positive Hilbert spaces, Filomat, 34(9), DOI: 10.2298/FIL2009877A

Kumar, Sanjeev (2020). Gandhi and the Contemporary World. London & New York: Routledge.

Kumar, Sanjeev (2020). Saghanrsh Samadhanka Gandhimarg: Ek Rachnatmak Drishtikon in B.K. Nagla (ed) Bhartiya Samajshastra Samikshapp -170-79, Vol 7, Issue 1, New Delhi: Sage.

Kumar, Vinay, Pankaj Sharma, Rajiv Aggarwal, Sushil Yadav and Bhavneet Kaur, The unpredictability of the basins of attraction in photo gravitational Chermnykh's problem, Astrophys Space Sci 365(6) (2020), Springer, https://doi.org/10.1007/s10509-020-03815-4.

Passey, Sarita and Arora, K.K. (2020). "A Convenient Laboratory Preparation of Acetanilide A safe and green procedure for acetylation of aniline". Forthcoming in *Resonance*, November 2020.

Raza, Akmal, Arshad Khan, Pankaj Sharma and Khalil Ahmad (2020), Solution of Singularly Perturbed Differential Difference Equations and Convection Delayed Dominated Diffusion Equations Using Haar Wavelet, Mathematical Sciences, Springer, DOI 10.1007/s40096-020-00355-4.

Singh, Pradeep Kumar and Pankaj Sharma, A Comparative Study of Fluid Flow in Hemodialyzer using Differential Transform Method, Macromolecular Symposia (2021), Wiley Online Library https://doi.org/10.1002/masy.202000338

Tiwari, Divya (2020). *Religion and Happiness* in *International Journal of Applied Ethics*. Volume 7, Centre for Ethics and Values, Ramanujan College, University of Delhi.

Seminars Organised

A webinar on "Distinguished Gandhi International Webinar Lecture Series" on October 02, 2020; November 04, 2020 and January 15, 2021 respectively

A webinar on "Contribution of Sufis in Indo-Persian Literature" on March 30, 2021.

Three day International Webinar on 'Prabasi Jiban O Sanskriti' (Bengali Diaspora life and culture) from February 1-3, 2021

Webinar on 'Yogic practices and principles for healthy living' on November 25, 2020.

Webinar on 'Career in physical education and sports' was organised on March 13, 2021.

Webinar on "First Aid" on March 27, 2021

Webinar on "Creative Writing through a Philosophical Lens" on September 5, 2020.

Conferences Organised

National conference on "Application of Mathematical Tools in Social Sciences and Sciences was organised online on October 17-18, 2020.

Seminar/Conference Presentations

Anuradha Marwah delivered a Zoom talk on "Re-Crafting a Classic: Euripides' Medea in Delhi and Rajasthan" at the Department of English and Modern European Languages, University of Lucknow from 12-1.30 PM on June 04, 2020.

Amir Jamal presented a paper "Indian Feminism – A Comparative Study with Reference to Amrita Pritam & Nawal Al-Sa'dawi" in the National Seminar on "Understanding Women Empowerment through India Culture, Texts & Practices" held on March 06, 2021 organized by Gautam Buddha University, Greater Noida & Km. Mayawati Govt. Girls P.G. College, Badalpur, G.B. Nagar, (U.P.), India.

Lokesh Rana co-presented a paper titled "Optimization of Mask-less Laser lithography" at the International Conference on Advanced Functional Materials and Devices (AFMD-2021), March 03-05, 2021 held at the University of Delhi, Delhi. He also co-presented another paper titled "Studies on SAW resonators based on ST-Quartz crystal" at the International Conference on Advanced Functional Materials and Devices (AFMD-2021), March 03-05, 2021 held at University of Delhi, Delhi.

Malik Salim Javed of the Persian Department presented a research paper in the International Webinar entitled "Contribution of Mehboob e Ilahi in the Persian Literature" in the Department of Persian, University of Delhi on March 12-13, 2021. He also presented a research paper in the National seminar entitled "Nigahi be Mutaleaat e Masnavi e Maulana dar Hind" in the Department of Persian, University of Delhi on March 27-28, 2021.

Mohd. Qasim presented many research papers including "Gandhi's Personality Features in Light of His Autobiography *The Story of My Experiments with Truth*" (Arabic), in a two-day International Webinar on "Biographical Literature" organized by the Centre of Arabic and African Studies, SLL&CS, JNU, New Delhi December 5-6, 2020; "Role of the Graduates of Zakir Husain Delhi College in the field of Arabic and Islamic Studies" (Arabic), in a two-day National Seminar on "The Role of Universities in Delhi in Enriching the Arabic Language", organized by Islamic Figh Academy (India), New Delhi, on December

26-27, 2020; "India as Depicted in Arab Travelogues" (Arabic), in a two-day National Seminar on "India and the Arab World: Civilization and Prospects" organized by India Arab Cultural Centre, JMI, New Delhi, on March 16-17, 2021; "Corona Crisis and E-learning between Reality and Prospects" (Arabic), in a two-day National Seminar on "Covid-19 and Modern Challenges with Special Reference to Arabic and Urdu" organized by the Department of Arabic, University of Delhi, on March 18-19, 2021; "Arabic Language: Its Reality and Future in India" (Arabic), in a two-day National Seminar on "Teaching of Arabic Language in India: Reality and Prospects" organized by the Department of Arabic, Jamia Millia Islamia, New Delhi, on March 22-23, 2021.

Md. Quamruddin presented a paper entitled "Arabic language in India: past, present and future" in the one-day national seminar on "Arabi Zaban-o-Adab Hindustan Ke Tanazur Mein" held on February 14, 2021, organized in Urdu College Gopalganj, Bihar; "Academic and literary value of the book: "Dirasah Muqaranah Bain al-Shir al-Arabi al-Hadith Wa al-Shir al-Injilizi by Prof. Muhammad Sulaiman Ahshraf", in the two-day national seminar on "The Role of Universities in Delhi in Enriching the Arabic Language" held from December26-27, 2020, organized by Islamic Fiqh Academy (India) New Delhi; "Contribution of the Indian Scholars to the Quranic Sciences With Special Reference to the English Translations of the Meanings of the Holy Quran", in the two-day national seminar on "Promotion of Qur'anic Sciences in India" held from November 21-22, 2020, organized by Islamic Fiqh Academy (India) New Delhi.

Shraddha A. Singh presented a paper titled "Capitalocene and Dystopia in Margaret Atwood's The Heart Goes Last" at the International IACLALS Annual Conference 2021 held online from March 18-20 2021; "Anthropocene Fiction's Posthuman Turn: Multispecies Worlding in Margaret Atwood's *MaddAddam Trilogy*" at the international conference on "Globalization and New Terrains of Consciousness: Phenomenologies of the Global/ Local/ Glocal" held from February 8-10, 2021; "Locating Posthuman Articulation in the Chthulucene of Margaret Atwood's *MaddAddam Trilogy*" at the online international conference on "Living in the End Times: Utopian and Dystopian Representations of Pandemics in Fiction, Film and Culture," hosted by Cappadocia University, Turkey, from January 13-15, 2021; "Extinctathon' and the Chthulucene: Making Kin in the Posthuman World of Margaret Atwood's *MaddAddam Trilogy*" at the international conference on "Posthumanism 20/20" held at Aarhus University and online from October 7-8, 2020; "Untangling the Anthropocene as Donna Haraway's 'Chthulucene' in Margaret Atwood's *MaddAddam Trilogy*" at the international web-conference on "Rethinking Humanities and Its Entanglements" hosted by Amity University, Kolkat from August 5-7, 2020.

Dr. Sunil Kumar co-presented a poster on "Hypothalamic Neuropeptide Y in Wall Lizard" in the "International Colloquium" RMBPD-2021 held at Department of Zoology, University of Delhi from March 24-26, 2021.

Placement Details

Number and percentage of students placed: 198; 39.6%

Number of Companies visited for campus recruitment: 30

Library Development

Number of Books Acquired: 1403

General Grant Allocated: 15,60,000.00 General Grant Spent: 6,93,372.00

Number of Newspapers subscribed: English 10

Hindi 06 Urdu 05 Bengali 01 Malayalam 01

Number of Magazines subscribed: English 13

Hindi 09 Urdu 12 Bengali 01

Faculty Strength

Permanent: 126 Ad-hoc: 89

Financial Allocation and Utilization

Grant sanctioned: Rs. 57,77,86,000/-Utilized: Rs. 63,93,94,000/-

Other Significant Information

An Open House Panel discussion on "Making your admission comfortable" was organised online on the July 4 2020

An online Chess Competition was conducted October 12, 2020 with participation of over 100 students. Students along with teachers celebrated the 'Fit India Movement'. The NSS along with the Department of Physical Education and Sports celebrated the 'International Yoga Day' on the June 21, 2021. Honourable Vice Chancellor, Prof. Joshi addressed the participants and Mr. Sunil Gupta, a yoga expert, took a very informative yoga session.

Dr. Anuradha Marwah delivered a Zoom talk on 'Re-Crafting a Classic: Euripides' Medea in Delhi and Rajasthan' at the Department of English and Modern European Languages, University of Lucknow from 12-1.30 PM on 4 June 2020.

Dr. Sarita Passey was the Member of Organizing Committee for One Week National Faculty Development Program on "Towards Quality Higher Education through NEP-2020" from October 27, 2020 to November 02, 2020 organized by Guru Angad Dev Teaching Learning Centre, S.G.T.B. Khalsa College under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD; member of Organizing Committee and Panelist for Faculty Induction Program organised By Guru Angad Dev Teaching Learning Centre, Khalsa College under the PMMMNMTT of MHRD held from December 03-30, 2020; Organizing Secretary for One Week Faculty Development Program on Digital Tools for 21st Century: Word Processing & Spreadsheets by Guru Angad Dev Teaching Learning Centre of Ministry of Education from January 27– February 02 2021; Organizing Secretary for one week Faculty Development Program: Enhancing Quality of Chemistry Education in India organised By Guru Angad Dev Teaching Learning Centre, Khalsa College under the PMMMNMTT of MHRD held from February 25 – March 03, 2021; Resource Person in One Week Online National Faculty Development Program on "Development of Teacher's e-kit and MOOCs in Four Quadrant Format of e-Content" organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD from September 12-20, 2020; was also a Resource Person in One Day Online National Workshop on "Development of Teacher's e-Kit: Chemistry" organized by Guru Angad Dev Teaching Learning Centre, SGTB Khalsa College, University of Delhi under the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNMTT) of MHRD on April 21, 2020.

ZAKIR HUSAIN DELHI COLLEGE (EVENING)

Major activities and achievements

Eco-Club celebrated Wildlife Week from October 2-8, 2020 and online poster competition on the theme *Wildlife Flora and Fauna*. A cadet attended and became a part of this prestigious Republic Day Camp and Marched on Rajpath. Cadets were selected after a thorough selection procedure. An online activity by the

NSS volunteers of our college titled Campaigning for use of Mask and maintenance of Social Distancing followed by other activities like Campaign on downloading the Arogya Setu App, Tree Plantation, and Swach Bharat Abhiyan. Twenty Cadets attended a camp on the auspicious occasion of the Independence Day at Red Fort.

Honours/Distinctions

Dr Sanjay Kumar has been awarded by Gandhi Bhawan, University of Delhi as Convenor, Gandhi Study Circle of Zakir Husain Delhi College Evening for promoting the Gandhian values among students.

Publications

Prasher, Jai Kishan (2020) "How Education Migrated from Gurukul to Zoom", Education Times, TOI, Delhi

Prasher, Jai Kishan (2020) "Is Open Book Examination a viable option?" Education Times, TOI, Delhi. Baishya, Sanjib Kumar (2020) 'The Clock' and 'Archeology of Silence' in 'The Blue Nib', an International online magazine.

Ahmad, Dr Khursheed (2020) "Persian Research Journal" Published by Department of Persian, University of Delhi, Delhi-110007, ISSN: 2395-3667

Ranjan, Dr Sharad. Basic Computational Techniques for Data Analysis, Sage India, Delhi, 2021.

Dr Madhumita Chakraborty, Dr Sanjib Kumar Baishya, Dr Anas Tabraiz, Dr Hari Prasad edited (Re) Defining Marginalities a conference proceeding in the form of a book in March, 2021 Ahmad, Dr Khursheed "Nigahi be Sharah Shadmani (Sharah Qasaid-i-Khaqani) in "Persian Research Journal" Published by Department of Persian, University of Delhi, Delhi-110007, ISSN: 2395-3667 Entitled" Page no 125 to 140.

Journals

Number of college teachers serving as Editor(s)/Member(s) of Editorial Board:

10

Research Projects

Dr. Subrat K. Rout, Assistant Professor, Department of History completed his Post-Doctoral Research at the Department of History, University of Delhi on the topic "A Social History of Peasant Resistance & Anti-Colonial Nationalism; Cuttack District 1920 -30". This project was funded by the University of Delhi.

Seminars Organized

National Student Seminar on 'Translation: Theory, Contexts and Praxes' was organized on March 3, 2021

Seminar entitled "Is Delhi different from 'Home': Understanding how students of North –East talk politics in India." on March 5, 2020.

Webinar on "Ozone for Life: 35 years of ozone layer protection" held on September 16, 2020

Library Development

The Library has acquired 366 General Books and 456 Text Books in the year 2020-2021. The Library has also taken the membership of N-List from INFLIBNIT for the use of e-Books. Library is having a collection of 64465 General Books and 30284 text Books.

Faculty Strength

Permanent: 45 Ad-hoc: 39

Financial Allocation and Utilization

Grant sanctioned: Rs.250300000 Grant Utilized: Rs.240200000

UNIVERSITY HOSTELS/HALLS

AMBEDKAR-GANGULY STUDENTS' HOUSE FOR WOMEN

Ambedkar-Ganguly Students' House for Women was started in October. It is by and large a self-sustaining residence for post graduate women students of University of Delhi. It can accommodate upto hundred residents and two guest residents. For the academic session 2020-21, readmission process was started from 1 st week of December, 2020 and 44 bonafide residents & December, 2020 and 44 bonafide residents amp; 1 guest resident was admitted for the academic session 2020-21.

Lohri, Republic day, Holi was celebrated by the residents and staff. A Committee to combat Holi hooliganism and a Physical Verification Committee was formed Due to Covid-19 pandemic no students' committee was formed in the academic session 2020-21. One of the resident students was assigned responsibility for those residents who were staying in the hostel.

Hostel mess was reopened on 22nd February, 2021 and proper sanitization and pest control work was done before making it functional for the residents. Hostel prepared various Covid-19 appropriate precautionary measures w.r.t safety and security of the hostel residents as well as hostel staff and also follow the Covid-19 guidelines issued by the University of Delhi from time to time.

In view of the students' security & safety, the following purchases have been made during the period 2020-21:

- 1. For the effective monitoring of the premises one DVR was purchased for CCTV cameras
- 2. One contactless thermometer was purchased

During the reporting period, most of the cultural & academic activities were not held due to Covid- 19 pandemic.

ARAVALI POST GRADUATE MEN'S HOSTEL

Aravali Post Graduate Men's Hostel was established in 2005 by University of Delhi, South Campus to provide accommodation facilities for the bonafide Research Scholars and Post Graduate students of University of Delhi, South Campus. The Hostel has the capacity to accommodate 74 students on single occupancy basis.

Aravali hostel also provides accommodation to trainees coming to south campus under INSA/DST's INSPIRE programme and trainees from other institutions as well, specially during summer vacation.

Aravali Hostel celebrated the Independence Day, Republic Day. Annual Hostel(s) meet along with the Saramati Hostel cancelled due to Covid-19 pandemic. All precautionary measures were taken against Covid - 19 pandemic such as periodic senitising of full Hostel; Installation of new sanitizing Machine/Mask for hostel at main gate.

Entry of all PhD students was made after the designated lockdown period in the hostel by keeping them in quarantine for 11 days in the hostel guest house.

C.I.E. HOSTELS

The Central Institute of Education has two hostels, Shree Bhawan for women and Shakti Bhawan for men, established in 1950. Shree Bhawan has eight rooms accommodating twenty three female students and Shakti Bhawan has three dormitories and one two seater room accommodating twenty four male students. The hostels accommodate students from B.Ed., M.Ed., M.Phil. and Ph.D. programmes.

Apart from the Hostel Mess Committee, two other committees have been constituted i.e. cleanliness and grievance committees. Due to Covid Pandemic this year, we were not able to organize any kind of cultural activities.

In the Academic Session 2020-2021, there were only 04 residents (02 Ph.D. & 02 M.Phil. Scholars) staying in the hostel. We made all necessary arrangements to ensure their safety & security by following the Covid appropriate behavior guidelines. The Resident Tutor also arranged weekly counseling sessions for Scholars during their stay in the hostel.

D. S. KOTHARI HOSTEL

Due to covid-19 admission has not been done in this year and we could not celebrate the Fresher's function this year. We could also not celebrate the annual function this year.

Independence Day, Id-ul-Zuha, Mahatma Gandhi Birthday, Dussehra, Diwali, Christmas Day, Lohri, Republic day, Holi are celebrated by the residents and staff in the Hostel. The firms that provided the Housekeeping services and Security Services have been replaced with firms that are providing these services to the University of Delhi.

GEETANJALI HOSTEL

The last one year has been tumultuous for the Geetanjali Hostel, as it has been for many other institutions and centres. Despite the adverse circumstance, the hostel continued to provide service to the students of the South campus in various capacities throughout the year.

Hostel during the lockdowns and preparedness

The beginning of the year saw most students leaving the hostel temporarily with an urgency and by April of 2020 only a handful of research scholars were staying in the hostel. As Delhi went under a complete lockdown, we had to make quick and hard decisions to ensure safety and security of the few students who could not return home due to lockdown restrictions and stayed back. In the few days before lockdown all possible arrangements were made. In consultation with the District health officials, COVID readiness plan was prepared including rooms for quarantine. In that atmosphere of uncertainty, with travel of most of the employees completely halted, the hostel enforced a complete lockdown with a small group of girls, one guard and one gardener, Warden on the premises along with the mess employees. Arrangement was made to allow cleaners to regularly come to the hostel for their duties.

With sufficient counselling the migrant workers at the mess agreed to stay on and serve the hostel. Geetanjali could run its mess throughout the pandemic. Since then, various SOPs have been made and shared with staff and students. These SOPs have allowed students to travel, quarantine, work in their labs with all possible checks and safety measures in place.

Geetanjali was able to provide accommodation to the Masters students of the life science department before the second wave of the pandemic to facilitate their practical and dissertation work. At this time, there were around 25-30 residents in the hostel with single room accommodation to allow social distancing.

Due to the pandemic and the affected livelihood of many students and their family, we have not charged the residents for single room facility and many needy students were also given fee discounts.

Thorough arrangements had been made for maintaining the sanitation, security and safety of the residents throughout the last year. Procurements for face shields, medicines, pulse-oximeter and PPE kits have been

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made to be used in case of emergency. Further the South Campus has procured oxygen concentrators for use by campus residents.

We were unable to organize any celebrations during this one year, although sweets and treats were served during the major festivals.

GWYER HALL

Gwyer Hall is the oldest and one of the most prestigious men's Post Graduate Hostel of the University of Delhi. The unique distinctive feature of this hostel is, the students and faculty members live and dine together. Over the years Gwyerian's have made their presence felt in all walks of life in India and abroad. The hostel takes necessary step to ensure that the spirit and rich heritage that have survived over the years of its existence continues to flourish.

During the academic year 2020-2021. Eleven Ph.D students, eleven M.Phil and 37 Masters Students completed their studies. Hostel received The prestigious Platinum Jubilee Cup, the second highest marks in the Annual Flower Show, held during March 2021 and won seven more awards in different categories. The Hostel celebrated Independence day and Republic day. The Hostel also celebrated the Ambedkar Jayanti on 16 th April 2020 and Lecture was organized. Saraswati Puja was celebrated on February 16, 2021. Gwyer Hall had organized several lectures both online and offline during this period.

With the support of students and employees the COVID-19 safety precautions were followed and infected students were quarantined and sufficient hospitality was provided for their diagnosis and recovery. Campus is continuously sanitized and proper COVID-19 safety precautions are being followed.

INTERNATIONAL STUDENTS' HOUSE

The International Students' House was set up in 1964 by Indian Council for Cultural Relations, Ministry of External Affairs for foreign students and postgraduate Indian students.

During the Covid-19 pandemic ISH has put several significant measures in place in compliance with the directives issued by various agencies/University of Delhi/ and the Central or State Governments. The ISH has worked tirelessly to deal with challenges and to meet the requirements of ISH staff, students and all the stakeholders.

During the lockdown, common facilities such as reading room, gym, common room and computer room were completely closed and proper sanitizing protocols, especially around kitchen/mess and common areas have been followed. It was also decided to disinfect all "high-touch" areas (doorknobs, handle, railing, desktops etc.) throughout the day. The entire hostel premises were being comprehensively sanitized with sodium hypochlorite solution from time to time. In case of emergency, it was decided to arrange the taxi for the students from the agencies who comply with the safeguards in the context of COVID-19. Visitors were not allowed in the hostels during the entire period of lockdown.

The ISH has reassured the students that there will be no academic disadvantage to any student as a result of these changes.

INTERNATIONAL STUDENTS' HOUSE FOR WOMEN

Established on June 3, 2002 the multicultural character of the International Students' House for Women is central to all the activities organized by the House. Residents from more than 34 countries jointly celebrate their cultural festivals and important national occasions in the spirit of harmony and friendship.

During celebration activities, Hostel followed all the protocol and guidelines of COVID-19. The session began with Id-ul-Fitr and Africa Day. Other events celebrated over the year were Yoga day, Independence Day, Diwali; Christmas and New Year; Lohri; Republic Day, Holi. ISHW won the best Mali Awardin Annual Flower Show, ,2. Committees

During COVID-19 pandemic, no new committees were formed in the session 2020-21 but for smooth functioning of the Hostel all previous committees were continued namely: Cultural Committee, Sports Committee, Library Committee, House-Keeping Committee, Mess Committee Anti Ragging Committee and Disciplinary Committee, Caste Based Discrimination Committee, Anti-Smoking Committee, and Holi Committee.

JUBILEE HALL

Jubilee Hall is a prime Hall of residence for full time post graduate & Delhi. It was founded in 1947 on the occasion of the Silver Jubilee of the University. To maintain its glory this year too as a number of residents were selected for the higher posts in all India Competitive Services of Govt. of India. The internal administration & discipline of the Hall is vested in the Provost who is assisted by a Warden and a Resident Tutor.

To keep harmony and its basic character of "Unity in Diversity", Jubilee Hall celebrated all festivals viz Saraswati Pooja, Holi, Id, Independence Day, Deepawali and Christmas with lot of gaiety and enthusiasm by keeping in view the guidelines issued by the Competent Authority due COVID-19.

MANSAROWAR HOSTEL

Mansarowar Hostel is a Men's Hall of residence for full -time post-graduate and research students having capacity to accommodate 165 residents coming from various parts of India and abroad for higher studies in University of Delhi.

On the occasion of Independence Day and Republic Day the Provost unfurled the flag in presence of all the hostel residents, staff and guests. The festivals like Dusshera, Diwali, Holi, Eid, Saraswati Puja, Christmas, Gandhi Jayanti and Ambedkar Jayanti

were also celebrated in the hostel premises. The hostel Residents' Union has organized a fresher's party and New Year. The residents of the hostel participated in various out-door and indoor games during the year.

MEGHDOOT HOSTEL

The Meghdoot Hostel observed a number of activities and enthusiastic innovations in the academic year 2020-21. Some of them are Independence Day, Republic Day, Gandhi Jayanti, Dussehra, Diwali, Christmas, Lohri, Pongal and Bihu, Saraswati Puja, Holi.

All celebrations were performed with full care of Covid guidelines by Delhi University and MHA

NORTH EASTERN STUDENTS' HOUSE FOR WOMEN

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North Eastern Students House for Women was established in 2002. NESHW has 101 single rooms and 1 guest room fitted with Air conditioner and an attached bath. Out of 101 rooms, 70% of the seats are reserved for the girls from the North Eastern Region, and 30% for the girls from the rest of India. During the year, no celebrations/functions were convened because of Covid-19 pandemic.

Efforts are made to maintain as much greenery as possible in and around the hostel premises. Organic manure used is prepared by the staff through mulching, composting. Chemical fertilizers are fully avoided.

P.G. MEN'S HOSTEL

The following academic and cultural activities were organized in the Hostel: Dr. Ambedkar Jayanti, Ramzan festival, Diwali, Lohri. Flag hoisting ceremony was held on Independence Day and Republic Day by following covid guidelines issued by the Govt.

Due to Covid-19 pandemic, no fresh admission was made. The hostel was sanitized from time to time as per covid guidelines and hand sanitizer, room sanitizers and manual spray machine were purchased for the sanitization of the hostel. Liquid soap, oximeters and digital thermometers were purchased for the use of the residents and staff of the hostel on duty.

*** RAJIV GANDHI HOSTEL FOR GIRLS

The Rajiv Gandhi Hostel for Girls (RGHG) is a very spacious and beautiful Hostel situated at Dhaka Hostel Complex, Mukherjee Nagar. The Hostel Complex is by and large a self-sustained residence for women students (post graduate and research scholars) from North East and other parts of India pursuing education in University of Delhi. The Hostel is divided into 8 clusters, each independent in terms of water supply, rest rooms etc. Each cluster has four floors having a well-equipped pantry in alternate floors for off time self-preparation of snacks/refreshment. This Hostel started functioning in July, 2012.

Keeping in view of the COVID-19 pandemic and subsequent country wide lockdown, the University strongly advised students to go home. Out of the total 561 residents, 461 residents had left the Hostel. There were few residents in the Hostel who were unable to leave due to lockdown enforcement and other difficulties.

Proper sanitization of hostel premises inside and outside, as per the Guidelines of ICMR and MHA, was done at proper intervals in coordination with MCD. Clean and hygienic conditions were maintained at all places, including hostel kitchens, mess, washrooms, library room etc. For ensuring queue management, inside the dining hall, specific markings on the floor with a gap of 6 feet was made and adhered to. One of the preventive measures to avoid the spread and contain the disease was creation of an isolation ward in the Hostel premises. Isolation facilities for those who tested positive and quarantine facilities were provided for those who were in contact with the positively tested persons. Proper arrangements of safety, health, food, water etc. was made for those in quarantine and isolation. Counselling of students for COVID-19 related queries and knowledge was done by Dr. T. Chumbak from WUS who visited the hostel premises and also checked the isolation wards and quarantine facilities. Students' volunteer groups in

premises and also checked the isolation wards and quarantine facilities. Students' volunteer groups in coordination with the authorities were created to provide emotional support and outreach to the students who were positive or isolated.

Hostel mess was operational but started bearing losses since March 2020 as there were fewer residents in the Hostel. It was necessary to provide mess facilities to these residents. Under these circumstances, it was decided that mess facilities be kept operational and loss of mess contractor be met from other funds available in Provost Accounts. Rajiv Gandhi Hostel (RGHG) also provided mess facilities to the residents of other hostels of Dhaka Hostel Campus. RGHG trained its staff and residents to assist and undertake the work related to safety and health to prevent an outbreak of the pandemic in the Hostel Campus. To avoid the risk of transmission, residents and staff were allowed only after sanitization their hands, wearing of face mask and gloves, all the Hostel employees and residents were encouraged to get vaccinated.

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SARAMATI POST GRADUATE MEN'S HOSTEL

Saramati hostel celebrated New Year evening and national festivals like independence Day, Republic Day and National flag was unfurled in presence of hostel residents and staffs. Saramati and Aravali Hostels have not organized Annual cultural event "MILANGE 2020" due to pandemic Covid-19.

Every year Hostel administration constitutes disciplinary committee, cultural committee, mess committee, sports committee for smooth functioning of various hostel facilities. Hostel is equipped with a Wi-Fi facility to provide smoother and faster internet service to the residents. Hostel has installed CCTV with 8 cameras at the important places to have a better security system and surveillance.

SOCIAL WORK HOSTEL

The Department has its own hostel which became functional from 16 th July, 1966. Being an attached hostel within the Department premises, it adds to the development of overall personality of the social work students and helps in reinforcing their professional elements.

Owing to covid-19 pandemic situation the Department conducted only online classes, so this hostel remained closed in this academic session. DSW Hostel has its own website http://dswh.du.ac.in which provides information about the hostel.

Purchase of one sanitizer spray electric machine and one Digital Temperature Thermometer were done for the use of the hostel during Covid-19.

UNDER GRADUATE HOSTEL FOR GIRLS

Due to spread of Corona virus (Covid-19) the Hostel was vacated immediately w.e.f. 17 th march, 2020 and since then the Hostel has remained vacant to reduce the risk of this pandemic. Therefore, in the absence of residents in the hostel, no activities and achievements were made during the period.

UNIVERSITY HOSTEL FOR WOMEN

Established in the year 1973, University Hostel for Women (UHW) is an important landmark of the University of Delhi. The Hostel has a capacity of 320 seats for post graduate & research women students hailing from various parts of the country and abroad and provides ample opportunities and occasions for blossoming of the resplendent spirit of womanhood.

It has always been in the tradition of UHW to hold several functions and celebrations but due to COVID-19 these functions were limited. The following celebrations were organized in 2020-2021 namely Diwali, Chistmas Eve, New Year Eve, Lohri, Saraswati Puja and Holi following COVID Protocol. Independence Day, Swachcha Bharat Abhiyaan, Republic Day were celebrated by hostel staff and residents.

All precautions and measures of COVID-19 guidelines issued by MHA/University of Delhi were followed by the Hostel administration, residents and staff. Resident Tutor residence and two vacant staff quarters were transformed into isolation houses for Covid-19.

V.K.R.V. Rao Hostel

The residents of the hostel celebrated national days including Independence Day, Republic day and Gandhi Jayanti with gaiety and fervor. Independence Day and Republic day were celebrated with the hoisting of tricolour flag to instill a culture of national integration while Gandhi Jayanti gives emphasis on cleanliness through Swachh Bharat Abhiyan. The residents of the hostel celebrated various festivals covering Diwali, Holi, Lohri, Saraswati Puja and Christmas Eve with much enthusiasm by maintaining the protocols of Covid-19.

The hostel has constituted a SEWA Committee to cater to the needs and welfare of the residents. Further, it has constituted many other committees including the Anti-ragging Committee, Welfare of North East Students, and Grievance Committee for students that encompasses all issues confronting the residents of the hostel.

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ANNUAL ACCOUNTS FOR THE YEAR 2020-21

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	Sr. No.	Name of Statement		W - n	P
	A Halana Con C Parilla				
	A. University of Delhi	* * * * * * * * * * * * * * * * * * * *			
1	Balance Sheet				
2	Income and Expenditure Account				
3	Schedule forming Part of Balance Sheet: \$	Schedule 1 2 3 4 5 6 7 8	360		

4 Schedule forming Part of Income & Expenditure : Schedule 9,10,11,12,13,14,15,16,17,18,19,20,21,22.

- 5 Significant Accounting Policies : Schedule 23
- 6 Contingent Liabilities and Notes on Accounts : Schedule 24
- 7 Receipts & Payments Account

B. Provident Fund Account

- 8 Balance Sheet
- 9 Income and Expenditure Account
- 10 Receipts and Payments Account

C. New Pension Scheme

- 11 Balance Sheet
- 12 Income and Expenditure Accounts
- 13 Receipts and Payments Account

D. University Press

- 14 Balance Sheet
- 15 Profit and Loss Account
- 16 Receipts and Payments Account

E. Halls and Hostels

- 17 Consolidated Balance Sheet
- 18 Consolidated Income and Expenditure Account
- 19 Consolidated Receipts and Payments Account

UNIVERSITY OF DELHI BALANCE SHEET AS AT 31st MARCH, 2021

			₹ in Crores
Particulars	Schedule	Current Year	Previous Year
SOURCES OF FUNDS			
CORPUS/CAPITAL FUND	1	(1816.15)	(2168.92)
DESIGNATED/ EARMARKED/ ENDOWMENT FUNDS	2	951.54	874.72
CURRENT LIABILITIES & PROVISIONS	3	3526.83	3555.36
TOTAL		2662.22	2261.16
APPLICATION OF FUNDS			
FIXED ASSETS			
Tangible Assets	4	769.80	353.70
Intangible Assets		0.65	0.10
Capital Works-in-Progress		0.00	12.29
INVESTMENT FROM EARMARKED / ENDOWMENT FUNDS	5	88.31	88.31
INVESTMENT – OTHERS	6		-
CURRENT ASSETS	7	1665.88	1498.40
LOANS, ADVANCES & DEPOSITS	8	137.58	308.36
TOTAL		2662.22	2261.16
Significant Accounting Policies	23		
Contingent Liabilities and Notes to Accounts	23		
Datade 27th August 2021	24		
Dateu. 27th August 2021		_	

UNIVERSITY OF DELHI INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH, 2021

· · · · · · · · · · · · · · · · · · ·			₹ in Crores
Particulars	Schedule	Current Year	Previous Yea
INCOME			
Academic Receipts	9	69.66	104.2
Grants / Subsidies	10	582.73	
Income from Investment	11	0.88	2.7
Interest Earned	12	2.24	1.5
Other Income	13	7.74	10.6
Prior Period Income	14	7.61	
Increase in Stock		0.25	
TOTAL (A)		671.12	689.74
EXPENDITURE		*	*
Staff Payments & Benefits (Establishment expenses)	15	505.75	
Academic Expenses	16	21.62	
Administrative and General Expenses	17	137.03	78.2
Transportation Expenses	18		
Repairs & Maintenance	19	11.64	
Finance costs	20	0.03	0.0
Depreciation	4	59.20	39.9
Expenditure on Grants, Subsidies etc.	21	16.38	14.2
Prior Period Expenses	22	37.74	0.0
Decrease in Stock			0.66
TOTAL (B)	X	789.39	1252.14
Balance being excess of Income over Expenditure/ (Expenditure over Inco A-B) as per schedule-1 Fransferred to / from Designated Fund	ome) ((118.27)	(562.40)
Balance being Surplus/(Deficit) carried to Capital Fund		(118.27)	(562.40
Significant Accounting Policies	23		
Contingent Liabilities and Notes to Accounts	24		

Datade 27th August 2021

UNIVERSITY OF DELHI BALANCE SHEET AS AT 31st MARCH, 2021

				Amount in ₹
Particulars	Schedule		Current Year	Previous Yea
SOURCES OF FUNDS				
CORPUS/CAPITAL FUND	1		(18161577781)	(21689232543
DESIGNATED/ EARMARKED/ ENDOWMENT FUNDS	2		9515403543	8747162952
CURRENT LIABILITIES & PROVISIONS	3		35268385369	35553633997
TOTAL			26622211131	22611564405
APPLICATION OF FUNDS		*		
APPLICATION OF FUNDS				
FIXED ASSETS			*	
Tangible Assets	4		7698034637	3537042788
Intangible Assets			6489873	1017670
Capital Works-in-Progress		*	0	122872429
NVESTMENT FROM EARMARKED / ENDOWMENT FUNDS	5		883083000	883083000
INVESTMENT – OTHERS	. 6			
CURRENT ASSETS	. 7		16658782124	14983967956
LOANS, ADVANCES & DEPOSITS	8		1375821498	3083580561
TOTAL			26622211131	22611564405
Significant Associating Policies	22			
Significant Accounting Policies	23			
Contingent Liabilities and Notes to Accounts	24			
Dated: 27th August 2021				

UNIVERSITY OF DELHI INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH, 2021

Particulars	Schedule	Current Year	Previous Yea
	Solicadic	current rear	1101003100
INCOME			
Academic Receipts	9	696569708	1042341319
Grants / Subsidies	10	5827328335	5706460022
Income from Investment	11	8844592	27271669
Interest Earned	12	22350162	15030915
Other Income	13	77443477	106317304
Prior Period Income	14	76149846	
Increase in Stock		2505911	
TOTAL (A)		6711192032	6897421229
		*	
EXPENDITURE			
Staff Payments & Benefits (Establishment expenses)	15	5057488618	. 10581371046
Academic Expenses	16	216221660	427504772
Administrative and General Expenses	17	1370259282	782505609
Transportation Expenses	18		
Repairs & Maintenance	19	116444091	179902718
Finance costs	20	278863	207420
Depreciation	4	592031658	399715568
Expenditure on Grants, Subsidies etc.	21	163817755	142885040
Prior Period Expenses	22	377365539	683230
Decrease in Stock			6629445
TOTAL (B)		7893907466	12521404847
Balance being excess of Income over Expenditure/ (Expenditure over Inc A-B) as per schedule-1	come) ((1182715434)	(5623983618)
Transferred to / from Designated Fund			
Balance being Surplus/(Deficit) carried to Capital Fund		(1182715434)	(5623983618)
Significant Accounting Policies	23		
Contingent Liabilities and Notes to Accounts	25		
Dated: 27th August 2021	24		

					Amount in ₹
SCHED	ULE 1 - CORPUS/CAPITAL FUND		Current Year		Previous year
Balanc	e at the beginning of the year		(21689232543)		(16300485154)
Add:	Contributions towards Corpus/Capital Fund - Plan A/c				
Add:	Contributions towards Corpus/Capital Fund				
Add:	Grants from UGC, Government of India and State				
	Government				
	to the extent utilized for capital expenditure				
	(a) Plan Accounts	2039080756		1962696	
	(b) Non-Plan Accounts (Salary/Recurring grant)			72895450	
	(c) Non-Plan Accounts(Capital Assets)	75411834	2114492590	83892717	158750863
Add:	Assets Purchased out of Earmarked Funds				
	(a) Miscellaneous Accounts	2486504		14247900	
	(b) Other Earmarked Funds	49073828	51560332	52720896	66968796
Add:	Assets Purchased out of Sponsored Projects,				
	where ownership vests in the institution				
Add:	Assets Donated/Gifts Received	18		60	
Add:	Assets transferred to University after closer of Projects	18064933		8529436	
Add:	Adjustment related to previous year(SDC)	· · · · · · · · · · · · · · · · · · ·	18064951	1062234	9591730
Add:	Difference in Depreciation amount due to change method	2526252625	2526252625		
from V	VDV to SLM as per M/o Education revised format.	2320232023	2320232023		
Less:	W.D.V. of Assets disposed off during the year	(301)	(301)		(75160)
Add:	Excess of Income over expenditure/(Excess of Expenditure				
	Over income) transferred from the Income &		(1182715434)		(5623983618)
	Expenditure				
Balanc	e at the year end	*	(18161577781)		(21689232543)

SCHEDULE 2 - DESIGNATED/EARMARKED/ENDOWMENT FUNDS

Amount in ₹

		Funds wise b	reakup	Total		
Particulars	Misc. A/c	Publication	Endowment Funds	Other Earmarked	Current Year	Previous Year
Α.						
a) Opening balance	923297066	6704590	960891145	6856270152	8747162952	7679054711
b) Additions during the year				*	-	-
(i) Income from investments made of the func	21980226	285725	38544781	239578994	300389726	117808359
(ii) Accrued Interest on Investments/Advance:	26113654	55580	21772983	112724267	160666484	231253441
(iii) Interest on Savings Bank a/c	517439	13714	687039	8241640	9459832	16553579
(iv) Other additions (specify nature)	223008376	34564	2797324	401522145	627362409	1067213882
Total(A)	1194916761	7094173	1024693271	7618337196	9845041402	9111883972
B.	ئە.					
Utilization/Expenditure towards objectives of fun	2486504			49073828	51560332	66968796
ii) Capital Expenditure	131363575		10619047	135401217	278077525	297752224
ii) Revenue Expenditure Total(B)	131363575	693686 69368 6	10619047	184475045	329637857	364721020
Total(B)	133830079	033080	10619047	184473043	323037637	304721020
Closing balance at the year end (A-B)	1061066682	6400486	1014074224	7433862151	9515403543	8747162952
Represented by						
Cash And Bank Balances						
Current Accounts	23254438				23254438	18535545
Saving Accounts	60562231	500768	120593651	450560393	632217043	750206306
Investments	18000000	300000	319800000	544900000	88300000	883000000
Fixed Deposit	917645939	5500000	545587481	6188456821	7657190241	6750181524
Interest accrued but not due	26113654	60291	21806191	117885371	165865507	231709518
Shares			83000		83000	83000
Other Loan & Advances	10570206			78347862	88918068	53294735
Loan from UDF to Misc						
Amount Payable to University Press	(18202)				(18202)	
Electricity Deposits				9409500	9409500	9409500
TDS's refundable	5025221	39427	6203900	44302204	55570752	50829629
Maintenance grant a/c	(86805)				(86805)	(86805)
Total	1061066682	6400486	1014074224	7433862151	9515403543	8747162952

SCHEDULE 2A - ENDOWMENT FUNDS

,	Openir	ng Balance	Additions	luring the Year		Total		Closin	ng Balance	Amount in ₹
1. Sr. 2. Name of the Endowment No.	3. Endowment	4. Accumulated Interest	5. Endowment (Misc.Receip ts)	6. Interest	7. Endowment (3+5)	8. Accumulated Interest (4+6)	9 Expenditure on the object during the year	10. Endowment	11. Accumulated	Total (10+11)
1 Sir Shankar Lal Instt. Of Music (298355)	2560144	374850	0	199729	2560144	574579	6920	2560144	567659	3127803
2 Shri Sri Ram Chair in Physics 25456258	8075484	3005182	0	705211	8075484	3710393	118	8075484	3710275	11785759
3 Shri Shankar Lal Chair in Chemistry (298402)	8942830	3381998	0	879629	8942830	4261627	94	8942830	4261533	13204363
4 IFC Chair in Faculty of Mgmt. studies (298683)	16159640	5921454	0	1455833	16159640	7377287	118	16159640	7377169	23536809
5 SP Jain Advanced Mgmt. Research (299041)	2179569	785211	0	170469	2179569	955680	118	2179569	955562	3135131
6 Pt. Man Mohan Nath Dhar (298956)	1422014	551488	0	122489	1422014	673977	71	1422014	673906	2095920
7 Professorship in Economics (298741)	14723096	5759700	0	1324461	14723096	7084161	165	14723096	7083996	21807092
8 Publication of Orient Insect (299416)	622573	217699	0	53920	622573	271619	0	622573	271619	894192
9 DU Endowment Fund (299733)	267941780	59614043	672254	20977209	268614034	80591252	1023659	268614034	79567593	348181627
10 Pt. Man Mohan Krishan Kaul (299880)	1691856	663501	0	143331	1691856	806832	71	1691856	806761	2498617
11 Book Grant RTL (300228)	311026580	73035071	25200	25147009	311051780	98182080	9510001	311051780	88672079	399723859
12 DU Amway Professorship in Enter. Dev. (300705)	13004520	4519753	0	1064854	13004520	5584607	165	13004520	5584442	18588962
13 Cluster Innovation Centre Corpus Fund	115472131	36364051	0	10687915	115472131	47051966	47	115472131	47051919	162524050
14 MHRD IPR CHAIR	488	6983	0	206	488	7189	0	488	7189	7677
State Bank of India Scholarship (Advance RPA Scholarship) (46397)	2664236	203220	60019	112389	2724255	315609	77500	2724255	238109	2962364
	766486941	194404204	757473	63044654	767244414	257448858	10619047	767244414	246829811	1014074224

Notes

- 1 The total of Columns 3 & 4 will appear as the opening balance in the column "Endowment Funds" in Schedule2, of Earmarked Funds forming part of the Balance Sheet.
- 2 The total of Col.9 should normally be less than the total of Col. 8, as only the interest is to be used for the expenditure on the object of the endowments. (except Endowments for Chairs)
- 3 There should not normally be a debit balance in the schedule. If in a rare case, there is a debit balance against any of the Endowment Funds, the debit balance should appear on the Assets side of the Balance Sheet as "Receivables", in Schedule-8 Loans, Advances & Deposits.

	· · · · · · · · · · · · · · · · · · ·	Amount in ₹
SCHEDULE 3 - CURRENT LIABILITIES & PROVISIONS	Current year	Previous Year
A. CURRENT LIABILITIES		
1. Deposits from staff		-
2. Deposits from students		
3. Sundry Creditors		
a) For Goods	20086955	8003398
b)Others	20000333	0003330
4. Deposit-others (including EMD, Security Deposit)	381568	420627
5. Statutory Liabilities (GPF,TDS,WC TAX,CPF,GIS,NPS)	381308	420027
a) Other Bodies Transaction	3372915	1969425
b) Duties & Taxes	61626	2834378
6. Other Current Liabilities	01020	2034370
	232409743	
a) Salaries	1952517182	1690035093
b) Receipts against Sponsored Projects		107867697
c) Receipts against Sponsored Fellowships & Scholarships	107139520 5696647018	6598118147
d) Unutilized Grants	64563576	63179787
e)Amount refundable to UGC	04303370	631/9/6/
f) Grants in advance	 CO24D0057	305861331
g) Other funds	602480867	
h) Other liabilities	45361357	35037107
Total (A)	8725022327	8813326989
B. Provisions		
1. For Taxation		4440540477
2. Gratuity	1408954777	1448548177
3. Superannuation Pension	23583126601	23644829981
4. Accumulated Leave Encashment	1442666277	1463038346
5. Trade Warranties/Claims		
6. Others (Specify)/Expenses Payable	108615387	183890504
Total (B)	26543363042	26740307008
Total (A+B)	35268385369	35553633997

SCHEDULE - 3 (a) SPONSORED PROJECTS

C. C							Ai	mount in R
1	2	3	4	5	6	7	8	
Şr. No.	Name of the Project	Opening Bal	ance	Receipts/Recoveries during the year	Total	Expenditure during the year	Closing Balan	ce
		Credit	Debit		,		Credit	Debit
1	Research Scheme A/c (295853)	554386316		97337369	651723685	113539466	538184219	,
2	IASE Scheme A/c (Educ) (295853)	1579153		1000000	2579153	1357912	1221241	
3	Research Scheme A/c (SDC)(546386)	851023709		357317077	1208340786	314187925	894152861	
4	B.R.A. Project A/c (298264)	53506887		37954345	91461232	33610494	57850738	
5	Young Research Scientist A/c (298593)	183218749		51389428	234608177	68122643	166485534	
6	CEMDE\Bio-Diversity Park (DDA)	46320279		106259916	152580195	91468284	61111911	
7	Institution of Eminence	0		278901645	278901645	45390967	233510678	
Total		1690035093		930159780	2620194873	667677691	1952517182	
Previou	us Year (2019-20)	1645776335		646580460	2292356795	602321702	1690035093	Ţ.

^{1.} The Projects may be listed agency-wise, with sub-totals for each agency.

^{2.} The total of Col. (credit) will appear under the above head on the liabilities side of the Balance Sheet (Schedule 3).

^{3.} The total of Col. 9 (Debit) will appear as Receivables in Schedule 8, Loans, Advances and Deposits, on the Assets side of the Balance Sheet.

SCHEDULE 3(b) SPONSORED FELLOWSHIPS AND SCHOLARSHIPS

A		A		30
Am	M	In	IID	₹
	-	41 I C		-

							Aimount in C
Sr. No	Name of Sponsor	Opening Balance	As on 01.04.20	Transactions	During the year	Closing Balance	As On 31.03.21
1	2	3	4	5	6	7	8
		CR.	DR.	CR.	DR.	CR.	DR.
1	CSIR Fellowship (298413)	45097080	0	7569926	4054584	48612422	
2	UGC Fellowship (298560)	13890259		567122	455534	14001847	
3	Other Bodies Scholarship (298707)	44427007		27532270	32481246	39478031	
4	CSIR Fellowship (SDC) (545269)	355112		724006	373794	705324	
5	UGC Fellowship (SDC) (545258)	4098239		244306	649	4341896	
•••	Total	107867697	0	36637630	37365807	107139520	0
Prev	rious Year (2019-20)	86932037	0	64647291	43711631	107867697	0

Note:

- 1. The total of Column 7, (Credit) will appear under the above head, on the liabilities side of the Balance Sheet (Schedule 3).
- 2. The total of Column 8 (Debit) will appear as Receivables on the Assets side of the Balance Sheet in Schedule 8 (Loans, Advances and Deposits).

SCHEDULE 3(c) UNUTILISED GRANTS FROM UGC, GOVERNMENT OF INDIA AND STATE GOVERNMENTS

			Amount in ₹
		Current Year	Previous Year
A. Plan grants: Government of India			
Balance B/F			
Add: Receipts during the year			
	Total(a)	0	0
Less: Refunds			
Less: Utilized for Revenue Expenditure			
Less: Utilized for Capital Expenditure		*	
	Total (b)	0	0
Unutilized carried forward (a-b)		0	0
B. UGC grants Plan			
Balance B/F		6310444936	5790807813
Less: Grant for EWS		(229200000)	0
Add: Receipts during the year		775719439	538293420
	Total(c)	6856964375	6329101233
Less: Refunds		8001722	
Less: Utilized for Revenue Expenditure		27923584	16693601
Less: Utilized for Capital Expenditure		2039080756	1962696
	Total (d)	2075006062	18656297
Unutilized carried forward (c-d)		4781958313	6310444936

Amount in ₹ C. UGC Grants non-Plan(for Salary and Recurring) Balance B/F Opening Balance E.W.S.) 229200000 Add: Receipts during the year 6174153000 5738824000 Total(e) 6403353000 5738824000 Less: Refunds 6309249 Less: Utilized for Revenue Expenditure 5799404751 5665928551 **Less: Utilized for Capital Expenditure** 72895450 Total (f) 5805714000 5738824000 Unutilized carried forward (e-f) 597639000 D. Grants from UGC for Capital Assets 287673211 Balance B/F 285403798 Add: Receipts during the year 115000000 110000000 Total(g) 402673211 395403798 **Less: Refunds** 10211672 Less: Utilized for Revenue Expenditure 0 23837870 **Less: Utilized for Capital Expenditure** 75411834 83892717 Total (h) 85623506 107730587 Unutilized carried forward (g-h) 287673211 317049705 5696647018 6598118147 Grand Total(A+B+C+D)

Notes:-

Unutilized grants includes advances on Capital Account

Unutilized grants include grants received in advance for the next year

Unutilized grants are represented on the Assets side by Bank balances, Short term Deposits with Banks and Advances on Capital Account

SCHEDULE 4 Fixed Assets

Previous year (2019-20)

				Gross Bl	ock		Dej	reciation for th	e year 31.03.202	1	Net Bl	Amount in ₹
S.No.	Assets Heads	Rate of Depreciation	Opening Balance 01.04.2020	Additions	Deductions	Closing Balance 31.03.2021	Depreciation Opening Balance	Depreciation for the year	Deductions/A djustment/Pri or Period	Total Depreciation	31.03.2021	31.03.2020
1	Land	0%	19716892	. 0	0	19716892	. 0	O	0	0	19716892	19716892
2	Site Development/Minor work	0%	. 0	0	0	0	0	0	0	0	0	0
3	Buildings	2%	4801482171	1917472404	.0	6718954575	210663150	112535866	62198334	385397351	6333557224	3031553097
4	Roads & Bridges	2%	0	0	0	0	0	0	0	0	0	0
5	Tubewells &Water Supply	2%	0	0	0	. 0	0	0	0	0	0	0
6	Sewerage & Drainage	2%	999	0	0	0	0	0	0	0	0	0
7	Electrical installation and equipment	5%	30061444	1064215	0	31125659	6445016	1556284	0	8001300	23124359	0
8	Plant & Machinery	5%	399395761	248202054	. 0	647597815	102099550	32379890	11456562	145936003	501661812	173949850
9	Scientific & Laboratory Equipment	8%	637144293	42304081	0	679448374	205373206	54355870	0	259729076	419719298	122863245
10	Office Equipment	7.50%	47992004	8246550	0	56238554	12039696	4217892	0	16257588	39980966	0
11	Audio Visual Equipment	7.50%	4707284	113748	0	4821032	1022003	361577	0	1383580	3437452	970200
12	Computers & Peripherals	20%	1817995995	59276259	0	1877272254	1458584716	337588304	0	1796173020	81099234	88816712
13	Furniture, Fixtures & Fittings	7.50%	227295783	5806122	0	233101905	83960545	17482642	0	101443187	131658718	62360488
14	Sports Equipment	10%	215434	0	0	215434	127785	21543	0	149329	66106	3596
15	Vehicles	10%	3171626	5595	0	3177221	1897122	318214	0	2215335	961886	570343
16	Lib. Books & Scientific Journals	10%	255244724	12721111	301	267965534	101436323	26788522	0	128224844	139740690	32928365
17	Small Value Assets		0	0	0	0	0	0	0	0	0	0
18	Work of Art		3310000	0	0	3310000	0	0	0	0	3310000	3310000
Total (A)			8247733411	2295212139	301	10542945249	2183649112	587606604	73654896	2844910612	7698034637	3537042788
19	Capital Work in Progress (B)		122872429	0	122872429	0	0	0	0	0	0	122872429
S.No.	Intangible Assets	2 / 1	Opening Balance 01.04.2020	Additions	Deductions	Closing Balance 31.03.2021	Depreciation Opening Balance	Amortization for the year	Deductions/A djustment/Pri or Period	Total Amortization/Ad justments	31.03.2021	31.03.2020
20	Computer Software	40%	14541974	692871	0	15234845	14339366	421107	0	14760474	474371	1003140
21	E-Journals	40%	- 0	9993275	0	9993275	0	3997310	0	3997310	5995965	0
22	Patents	9 Years	59735	0	0	59735	33562	6637	. 0	40199	19536	14530
Total (C)		14601709	10686146	. 0	25287855	14372929	4425054	. 0	18797982	6489873	1017670
								1				
Grand To	otal (A+B+C+D)		8385207549	2305898285	122872730	10568233104	2198022040	592031658	73654896	2863708595	7704524509	3660932888

Due to change in method of depreciation from W.D.V. to S.L.M amount of Rs. 2526252625/- increased in fixed assets as well as Capital Fund.

3826474460

Note: The figure in Column 'Deductions' under Gross Block against the head Capital Work in Progress represents the transfer from Work in Progress to Assets during the year.

234249154

The figure in column 'Additions during the year under Gross Block against Assets 1 to 14 include transfer from Work in Progress during the year, as well as further acquisitions during the year.

75160

4060648456

399715568

Λ

3660932888

399715568

Depreciation for the year 31.03.2021

Gross Block

Amount in ₹

Net Block

SCHEDULE 4A - PLAN

							_		,			
S.No.	Assets Heads	Rate of Depreciation	Opening Balance 01.04.2020	Additions	Deductions	Closing Balance 31.03.2021	Depreciation Opening Balance	Depreciation for the year	Deductions/A djustment/Pri	Total Depreciation	31.03.2021	31.03.2020
1	Land	0%	0) 0	0	0	0	() 0	0	0	0
2	Site Development/Minor work	0%) 0	0	0	O	(0	0	0	0
3	Buildings	2%	993272296	1909544443	0	2902816739	63732365	58056335	62198334	183987034	2718829705	660230568
4	Roads & Bridges	2%	0	0	0	0	0		0	0	0	
5	Tubewells &Water Supply	2%		. 0	. 0	0	0	C	0	0	0	
6	Sewerage & Drainage	2%	0) 0	0	0	0	(0	0	0	
7	Electrical installation and equipment	5%	, 0) 0	0	0	0	(0	0	0	
8	Plant & Machinery	5%	202605962	198697043	0	401303005	55821426	20065150	11456562	87343139	313959866	60593106
9	Scientific & Laboratory Equipment	8%	357798769	13011769	0	370810538	123349075	29664843	0	153013918	217796620	53492809
10	Office Equipment	7.50%	0	0	0	0	0	C	0	0	0	
11	Audio Visual Equipment	7.50%	1567898	. 0	0	1567898	477586	117592	. 0	595179	972719	119439
12	Computers & Peripherals	20%	1674935534	37465525	0	1712401059	1361100044	319048306	0	1680148350	32252709	53827802
13	Furniture, Fixtures & Fittings	7.50%	74655930	8700	0	74664630	30279405	5599847	0	35879253	38785377	16428988
14	Sports Equipment	10%	0	0	0	0	0		0	0	0	
15	Vehicles	10%	976781	. 0	0	976781	586069	97678	0	683747	293034	173845
16	Lib. Books & Scientific Journals	10%	30950512	804617	0	31755129	13457737	3175513	0	16633250	15121879	2342837
17	Small Value Assets	0%	0	. 0	0	0	, 0	0	0	0	0	
18	Work of Art	0%	1310000	0	0	1310000	0	0	0	0	1310000	1310000
Total (A)			3338073682	2159532097	. 0	5497605779	1648803708	435825265	73654896	2158283869	3339321910	848519394
19	Capital Work in Progress (B)		121623684	0	121623684	0	0	0	0	0	0	121623684
S.No.	Intangible Assets		Opening Balance 01.04.2020	Additions	Deductions	Closing Balance 31.03.2021	Depreciation Opening Balance	Amortization for the year	Deductions/A djustment/Pri	Total Amortization/Ad justments	31.03.2021	31.03.2020
20	Computer Software	40%	. 0	0	0	0	0	0		0	0	0
21	E-Journals	40%	0	0	0	0	0	0	0	0	0	0
22	Patents	9 Years	19360	0	0	19360	8604	2151	0	10754	8606	6125
Total (C)			19360		0	19360	8604	2151	0	10754	8606	6125
Grand To	tal (A+B+C+D)		3338093042	2159532097	0	5497625139	1648812311	435827416	73654896	2158294623	3339330516	970149203
Previous	year (2019-20)		1097631723	1962696	2292	1099592127	0	129442924	0	129442924	970149203	0

Note: The figure in Column 'Deductions' under Gross Block against the head Capital Work in Progress represents the transfer from Work in Progress to Assets during the year. The figure in column 'Additions during the year under Gross Block against Assets 1 to 14 include transfer from Work in Progress during the year, as well as further acquisitions during the year.

SCHEDULE 4B(1) - NON-PLAN(Recurring)

			1						,			Amount in
				Gross	Block		Dep	reciation for the	e year 31.03.202	1	Net	Block
S.No.	Assets Heads	Rate of	Opening Balance	Additions	Deductions	Closing Balance	Depreciation	THE RESIDENCE CONTROL OF THE PARTY OF THE PA	Deductions/A	Total	31.03.2021	31.03.2020
		Depreciation	01.04.2020		Deductions	31.03.2021	Opening Balance	for the year	djustment/Pri	Depreciation	34.03.2021	31.03.2020
1	Land	0%	19716892		U	19716892	0	0	0	0	19716892	19716892
2	Site Development/Minor work	0%	0	0	0	0	. 0	0	0	0	0	
3	Buildings	2%	407708564	0	0	407708564	48192388	8154171	0	56346559	351362005	301197752
4	Roads & Bridges	2%	0	0	0	0	0	0	0	0	0	
0	Tubewells &Water Supply	2%	0	0	0	0	0	0	0	0	0	
6	Sewerage & Drainage	2%	0	0	0	0	0	0	0	0	0	
7	Electrical installation and equipment	5%	20621792	0	0	20621792	5799507	1031090	0	6830597	13791195	
8	Plant & Machinery	5%	95941902	0	0	95941902	25212361	4797095	0	30009456	65932446	57418105
9	Scientific & Laboratory Equipment	8%	88883185	0	0	88883185	27486567	7110655	0	34597222	54285963	19435529
10	Office Equipment	7.50%	39609218	0	0	39609218	10554451	2970691	0	13525142	26084076	0
11	Audio Visual Equipment	7.50%	1552308	0	0	1552308	272147	116423	0	388570	1163738	361617
12	Computers & Peripherals	20%	86968191	0	0	86968191	70938243	5513775	0	76452018	10516173	13697263
13	Furniture, Fixtures & Fittings	7.50%	117993215	0	0	117993215	. 44126276	8849491	0	52975767	65017449	31314414
14	Sports Equipment	10%	214690	0	0	214690	127339	21469	0	148808	65882	3585
15	Vehicles	10%	2194845	0	0	2194845	1311053	219976	0	1531029	663816	396496
16	Lib. Books & Scientific Journals	10%	216592601	80326	0	216672927	85072609	21667293	0	106739902	109933025	29708579
17	Small Value Assets	0%	0	0	0	0	0	0	0	0	0	
18	Work of Art	0%	0	0		0	0	0	0	0	0	
Total (A)			1097997403	80326	0	1098077729	319092940	60452129	0	379545069	718532660	473250232
19	Capital Work in Progress (B)		0	0	0	0	0	0	0	0	0	0
		-	Opening Balance			Closing Balance	Depreciation	Amortization	Deductions/A	Total		
S.No.	Intangible Assets		01.04.2020	Additions	Deductions	31.03.2021	Opening Balance	for the year	djustment/Pri or Period	Amortization/Ad justments	A STATE OF THE PARTY OF THE PAR	31.03.2020
20	Computer Software	40%	13800942	0	0	13800942	13671507	95182	0	13766689	34253	826590
21	E-journals	40%	0	0	0	0	0		0	0	0	0
22	Patents	9 Years	31575	0	0	31575	21048	3508	0	24556	7019	5620
Total (C)			13832517	0	0	13832517	13692554	98690	0	13791244	41273	832210
Grand To	etal (A+B+C)		1111829920	80326	0	1111910246	332785495	60550819	0	393336314	718573932	474082442
Provious	year (2019-20)		494752444	72895450	72868	567575026	0	93492584		93492584	474082442	

Addition of Rs. 80326/- is made from internal receipts of the University in respect of Lib. Books & Scientific Journals

Note: The figure in Column 'Deductions' under Gross Block against the head Capital Work in Progress represents the transfer from Work in Progress to Assets during the year.

The figure In column 'Additions during the year under Gross Block against Assets 1 to 14 include transfer from Work in Progress during the year, as well as further acquisitions during the year.

<u>UNIVERSITY OF DELHI</u> <u>SCHEDULES FORMING PART OF BALANCE SHEET AS AT 31-03-2021</u>

SCHEDULE 4B(2) - NON-PLAN Capital Assets

Total (C)

Grand Total (A+B+C)

Previous year (2019-20)

												Amount in ₹
				Gross	Block		D	epreciation for the y	ear 31.03.2021		Net B	lock
S.No.	Assets Heads	Rate of	Opening Balance	Additions	Deductions	Closing Balance	Depreciation	Depreciation for	Deductions/A	Total	31.03.2021	24 02 2020
		Depreciation	01.04.2020	Additions	Deductions	31.03.2021	Opening Balance	the year	djustment/Pri	Depreciation	31.03.2021	31.03.2020
1	Land	0%) (0	0	0	C	0	0	0	0
2	Site Development/Minor work	0%	() (0	0	0	0	0	0	0	0
3	Buildings	2%	3190129	606593	0	3796722	63803	75934	0	139737	3656985	3030623
4	Roads & Bridges	2%	. () (0	0	0	0	0	. 0	0	
5	Tubewells &Water Supply	2%	() (0	0	0	0	0	0	0	
6	Sewerage & Drainage	2%	0) (0	0	0	0	0	0	0	
7	Electrical installation and equipment	5%	146058	991353	0	1137411	14606	56871	0	71477	1065934	
8	Plant & Machinery	5%	18789531	8322448	0	27111979	939476	1355599	0	2295075	24816904	18545958
9	Scientific & Laboratory Equipment	8%	46909393	11335761	0	58245154	4698568	4659612		9358180	48886974	25308185
10	Office Equipment	7.50%	5345087	8193589	0	13538676	801763	1015401	0	1817164	11721512	
11	Audio Visual Equipment	7.50%	1019697	113748	0	1133445	101191	85008		186199	947246	427470
12	Computers & Peripherals	20%	34861103	20197166	0	55058269	9393661	11011654		20405315	34652954	18010933
13	Furniture, Fixtures & Fittings	7.50%	3188426	5655700	0	8844126	239132	663309		902441	7941685	2391319
14	Sports Equipment	10%	C	0	0	0	0	0	. 0	.0	0	
15	Vehicles	10%	0	5595	0	5595	0	560	0	560	5036	
16	Lib. Books & Scientific Journals	10%	728416	9303735	Ö	10032151	136223	995183		1131406	8900745	205754
17	Small Value Assets	0%	0	. 0	0	0	0	0	0	0	. 0	
18	Work of Art	0%	0	0	0	0	0	0	0	0	0	
Total (A)			114177840	64725688	0	178903528	16388423	19919131	0	36307553	142595975	67920242
19	Capital Work in Progress (B)		0	0	0	0	0	0	0	0	0	0
S.No.	Intangible Assets		Opening Balance 01.04.2020	Additions	Deductions	Closing Balance 31.03.2021	Depreciation Opening Balance	Amortization for the year	Deductions/A djustment/Pri or Period	Total Amortization/A djustments	31.03.2021	31.03.2020
20	Computer Software	40%	99262	692871	0	792133	39705	316853	0	356558	435575	59557
21	E-Journals / E-Books	40%	0	9993275	0	9993275		3997310	0	3997310	5995965	0
22	Patents	9 Years	. 0	0	0	0		0	0	. 0	0	0

Note: The figure in Column 'Deductions' under Gross Block against the head Capital Work in Progress represents the transfer from Work in Progress to Assets during the year.

The figure in column 'Additions during the year under Gross Block against Assets 1 to 14 include transfer from Work in Progress during the year, as well as further acquisitions during the year.

SCHEDULE 4 C - INTANGIBLE ASSETS

Amount	

S.No.	Intangible Assets	Opening Balance 01.04.2020	Additions	Deductions		Closing Balance 31.03.2021	Depreciation Opening Balance	Amortization for the year	Deductions/ Adjustment	Total Amortization/ Adjustments	31.03.2021	31.03.2020
1	Computer Software	14541974	692871		0	15234845	14339366	421107	0	14760474	474371	1003140
2	E-journals		9993275		0	9993275	0	3997310	0	3997310	5995965	0
3	Patents	59735			0	59735	33562	6637	0	40199	19536	14530
Total (C)		14601709	10686146		0	25287855	14372929	4425054	0	18797982	6489873	1017670
Previous	year (2019-20)	1398111	293162			1691273	0	673603	0	0	1017670	

						Amount in ₹
SCHEDULE 4(C) (I) PATENTS AND COPYRIGHTS	Op. Balance	Addition	Gross	Amortization	Net Block	Net Block
					20	20
A. Patents Granted			4			7
1. Balance as on 31.03.21 of Patents obtained in 2020-21						
(Original Value - Rs/-)						
2. Balance as on 31.03.21 of Patents obtained in 2020-21						
(Original Value - Rs/-)						
3. Balance as on 31.03.21 of Patents obtained in 2020-21						
(Original Value - Rs/-)						
4. Patents granted during the Current Year						
Total						
						,
Particulars	Op. Balance	Addition	Gross	Patents	Net Block	Net Block
			G	iranted/Rejecte	20	20
A. Patents Pending in respect of Patents applied for						
1. Expenditure incurred during 20						
1. Expenditure incurred during 20						
1. Expenditure incurred during 20						
			1 1 1			
Total						
C. Grand Total (A+B)						

Note: The Addition in Part A (Patents granted), will be the figure of patents granted during the year, transferred from Part B (column-Patents granted/rejected). The amount against grants rejected during the year is written off in the income and Expenditure Account

Amount in ₹

SCHEDULE 4D Others

Depreciation for the year 31.03.2021 **Gross Block** Net Block Deductions/A S.No. **Assets Heads** Rate of **Opening Balance Closing Balance** Depreciation Depreciation Total Additions djustment/Pri **Deductions** 31.03.2021 31.03.2020 01.04.2020 Depreciation 31.03.2021 **Opening Balance** for the year Depreciation or Period Land 0% Site Development/Minor work 0% Buildings 2% Roads & Bridges 2% Tube wells &Water Supply 2% Sewerage & Drainage 2% Electrical installation and equipment 5% Plant & Machinery 5% Scientific & Laboratory Equipment 8% Office Equipment 7.50% Audio Visual Equipment 7.50% Computers & Peripherals 20% Furniture, Fixtures & Fittings 7.50% Sports Equipment 10% Vehicles 10% Lib. Books & Scientific Journals 10% Small Value Assets 0% Work of Art 0% Total (A) Capital Work in Progress (B) Deductions/A Total Amortization **Opening Balance Closing Balance** Depreciation S.No. djustment/Pri Amortization/A 31.03.2021 31.03.2020 **Intangible Assets** Additions **Deductions** 01.04.2020 31.03.2021 **Opening Balance** for the year or Period diustments

	20	Computer Software	40%	641770		0	641770	628155	9072	0	637227	4543	116993
-	21	E-journals	40%	0	0	0	0	0	0	0	0	0	0
	22	Patents	9 Years	8800	0	0	8800	3911	978	0	4888	3912	2784
_	Total (C			650570	0	0	650570	632066	10050	0	642115	8455	119777
	Grand T	Total (A+B+C)		3699383801	70874028	1249046	3769008783	199996107	71420130	0	271416236	3497592547	2148721437
_	Previou	s year (2019-20)		2214857758	75498292		2290356050		141634613		141634613	2148721437	
	114	7											

Note: The figure in Column 'Deductions' under Gross Block against the head Capital Work in Progress represents the transfer from Work in Progress to Assets during the year.

The figure in column 'Additions during the year under Gross Block against Assets 1 to 14 include transfer from Work in Progress during the year, as well as further acquisitions during the year.

Note: The additions during the year include additions from

 Gifted (Books)
 18

 Project Close (NC+SC)
 18064933

 Misc. Accounts Fund
 2486504

 Other Earmarked Fund
 49073828

 69625282
 69625282

		Amount in ₹
SCHEDULE 5 - INVESTMENTS FROM EARMARKED/ENDOWME	NT Current Year	Previous Year
1. In Central Government Securities	883000000	883000000
2. In State Government Securities		
3. Other approved Securities	<u>.</u> .	
4. Shares	83000	83000
5 Debentures and Bonds		
6. Term Deposits with Banks		
7. Others (to be specified)	<u> </u>	
Total	883083000	883083000

SCHEDULES 5 (A) INVESTMENTS FROM EARMARKED/ENDOWMENT FUNDS (FUNDS WISE)

			Amount in ₹
SI. No.	Funds	Current Year	Previous Year
1	Misc. Accounts - Govt. Securities	18000000	18000000
	Publications - Govt. Securities	300000	300000
3	Endowment Fund - Govt. Securities	319800000	319800000
4	Other Earmarked Fund - Govt. Securities	544900000	544900000
5	Endowment Fund - Shares	83000	83000
	Total	883083000	883083000

Note: The Total in this sub schedule will agree with the total in Schedule 5.

		Amount in ₹
SCHEDULE 6 - INVESTMENT -OTHERS	Current Year	Previous Year
1. In Central Government Securities		
2. In State Government Securities		
3. Other approved Securities		
4. Shares		
5. Debentures and Bonds		
6. Other (to be specified)		
TOTAL	0.000	

			Amount in ₹
SCHEDULE 7 - CURRENT ASSETS	Current Year		Previous Year
1. Stock	6 1		
a) Stores and Spares			,
b) Loose Tools			
c) Publication			
d) Laboratory chemicals, consumables and glass ware			
e) Building material	·		
f) Electrical material			
g) Stationery	7763150		5957925
h) Water supply material		*	
i) Liveries			
j)Drugs and Medicines	9476424		8657151
k) Answer Sheet	1235725		1354312
2. Sundry Debtors :			
a) Others Outstanding for a period exceeding six months			
b) Others	11812501		10381027
3. Cash and Bank Balance			
a) With Scheduled Banks:			
-In Current Accounts	82265824		131513570
-In Term Deposit Accounts	13779817209		11698773012
-In Savings Accounts	2765513691		3126403359
b) With non-Scheduled Banks:			
-In Term Deposit Accounts			
-In Savings Accounts			
c) Cash Balance in hand (including cheques\drafts):	897600		927600
4. Post Office Savings Accounts	:		
TOTAL	16658782124		14983967956

Note: Annexure "A" shows the details of Bank Accounts

		Amount in ₹
I Current Account	Current Year	Previous Year
4. D.D.Avradlas Cantas Canada Ford A./s	470.00	404000
1 B R Amedkar Centre General Fund A/c	17269	101290
2 ICICI Bank A/c		8735
3 SBI Law Centre II	134017	13401
4 SBI MG I	13530409	17902670
5 SBI MG II	553839	427286
6 SBI MG III		24715847
7 SDC Examination A/c	6189366	3197490
8 SDC General Fund A/c	34586835	26627168
9 Sponsored Project Bank A/c	1221241	1579153
10 Plan Current A/c	2778409	8516713
11 Current A/cs of Earmarked Fund	23254438	18535545
TOTAL-I	82265824	131513570
II Savings Bank Accounts		
4.5		5074005
1 External Candidate Cell A/c (closed)		5971807
2 NCWEB A/c	7742848	52548029
3 SBI Departmental Receipt A/c	20177590	16611381
4 SBI General Fund A/c	72320009	130787748
5 SBI Medical Reimbursement A/c	18700675	4508288
6 Sponsored Project Bank A/c	602025761	649881330
7 Sponsored Fellowship and Scholarship	78860578	79783341
8 Plan Savings A/c	103901419	286458120
9 Savings A/cs of Earmarked Fund	632217043	750206306
10 CPF Account refundable to UGC	2673	29743115
11 IDBI Bank A/c (Misc Fee)	210991	3048646
12 Online Fees collected from Students on ICICI Bank	560547579	171598118
13 Recurring A/c-(38010936321)	68730099	304083753
14 ICICI Bank A/c-(Exam)-004318	38149062	10326026
15 Capital Assets- (38010936467)	264599319	179794665
16 Salary Account-(38010911307)	297328045	451052686
TOTAL-II	2765513691	3126403359
III Term Deposit Accounts		
1 FDR from Earmarked Fund(including margin money)	7657190241	6750181524
2 FDR from UGC Refundable A/c	46435325	121874
3 FDR from ACBR A/c	1102166	1102166
4 Sponsored Project Bank A/c(including margin money)	1251657226	898197075
5 Sponsored Fellowship and Scholarship	25000000	25000000
6 FDR From Plan A/c (including margin money)	4268432251	4024170373
7 FDR From 38010911307	530000000	
TOTAL-III	13779817209	11698773012
GRAND TOTAL (I+II+III)	16627596724	14956689941

SCHEDULE & LOANS ADVANCES & DEDOCITE		Amount in
SCHEDULE 8 - LOANS, ADVANCES & DEPOSITS	Current Year	Previous Yea
1. Advances to employees (Non-interest bearing)		
a) Salary		***
b) Festival	16439	707
c) Medical Advance		
d) Leave Travel Concession	6322926	84761
e) Other (to be specified)		-
2. Long Term Advances to employees (Interest bearing)		
a) Vehicle Loan/Conveyance/Computer	224791	1818
b) Home Loan/HBA	2731700	5652
c) Others (to be specified)		-
3. Advances and other amounts recoverable in cash or in kind or for value to be received		
a) On Capital Account		-
b) to Suppliers		
c) Delhi University Pension Accounts	2980000	29800
d) Delhi University Press	17395000	173950
e) Sir Shankar Lal Chair in Chemistry Fund A/c	1100000	11000
7) Other Advance out of Earmarked Funds	85961577	525476
g) Other Advance out of Maintenance Grant A/c	413051165	4986931
n) Other Advances out of Sponsored Projects		
A Charles and the control of the con	87739392	818770
) Advance from Plan A/c	285168791	18117555
Others(TDS refundable)	89606074	913654
I. Prepaid Expenses		
a) Insurance		-
b) Other Expenses	26591259	393187
5. Deposits		
a) Telephone		-
b) Lease Rent		_
:) Electricity	20805300	208053
d) AICTE, if applicable		-
e) DESU (Security)	4795	47
Others	4922373	2023
Income Accrued:		
On Investments from Earmarked/Endowment Funds	165865507	2317095
o) On Investments from ACBR/ UGC Refundable A/c	78771	2317033
c) On Investments from UGC Refundable A/c	900977	77
I) On Investments from Sponsored Projects	39527801	661388
On Investments from Sponsored Fellowship and Scholarship	1984685	29049
On Investments from Plan	121344287	1530361
On Investments from MG i.e. (ICICI, SDC)	1497888	16109
) On Loans and Advances		
Others (Electricity Charges Receivable)	0	6953
. Other - Current Assets receivable from UGC/sponsored projects		
) Debit balances in Sponsored Projects		-
Debit balances in Sponsored Fellowships & Scholarships		
Grants Receivable		
Other receivables	0	1380
. Claims Receivable	·	1300
) RCM Receivable		_
Turni ucceivanie		-
and the second s		

Note:

If revolving funds have been created for House Building, Computer and Vehicle advances to employees, the advances will appear
as part of Earmarked/Endowment Funds. The balances against these interest -bearing advances will not appear in this schedule.

		Amount in ₹
SCHEDULE - 9 ACADEMIC RECEIPTS	Current Year	Previous Year
FEES FROM STUDENTS		
Academic		
1. Tuition fee	2267580	1443189
2. Admission Fee	2734879	894657
3. Enrolment fee	23085525	6962910
4. Library Admission fee	1760367	886979
5. Laboratory fee	98555	18743
6. Sports and Athletic Association Fee	8996439	781158
7. Computer Fee		
8. Arts & Craft Fee		
9. Registration fee	108010067	9035347
10. Syllabus fee		
11. Other Fees	71168354	5291773
Total (A)	218121766	25314757
Examinations		
1. Admission Test Fee		,
2. Annual Examination Fee	456758781	72009600
3.Marksheet, certificate fee	21689161	2154233
4. Entrance Examination Fee	0	47555402
Total (B)	478447942	789193742
3		
Other Fees		
1. Identity card Fee		
2. Fine/Miscellaneous Fee		
3. Medical Fee		
4. Transportation Fee		
5. Hotel Fee		
Total (C)	0	0
Sale of Publications	*	
1. Sale of Admission forms		,
2. Sale of syllabus and Question Paper, etc.		
3. Sale of prospectus including admission forms		
Total (D)	0	0
Other Academic Receipts		
1. Registration fee for workshops, programmes		
2. Registration fees (Academic Staff College) Total (E)		
Total (L)		
GRAND TOTAL (A+B+C+D+E)	696569708	1042341319
	050505708	20-23-1313

SCHEDULE 10- GRANTS/SUBSIDIES (IRREVOCABLE GRANTS RECEIVED)

								Amount in ₹		
Particulars	Plan Non Plan UGC	UGC				Non Plan UGC		Total Non-Plan	Current Year	Previous Year
Govt. of Inc	dia Plan	Specific Schemes	rotal rital	Capital Assets	apital Assets Recurring/Salary Grant	Grant	Total	Total		
Balance B/F	6310444936	0	6310444936	287673211	0	287673211	6598118147	6076211611		
Opening Balance E.W.S.)	(229200000)		(229200000)	0	229200000	229200000	0			
Add: Receipts during the year	766964471	8754968	775719439	115000000	6174153000	6289153000	7064872439	6387117420		
Total	6848209407	8754968	6856964375	402673211	6403353000	6806026211	13662990586	12463329031		
Less : Refund to UGC Balance*	0	8001722	8001722	10211672	6309249	16520921	24522643	0		
Less : Utilized for Capital expenditure (A)	2039080756	0	2039080756	75411834	0	75411834	2114492590	158750863		
Balance	4809128651	753246	4809881897	317049705	6397043751	6714093456	11523975353	12304578169		
Less: utilized for Revenue Expenditure (B)	27170338	753246	27923584	0	5799404751	5799404751	5827328335	5706460022		
Balance C/F (C)	4781958313	0	4781958313	317049705	597639000	914688705	5696647018	6598118147		

^{*} Including Rs. 24522643/- lapsed under TSA Account on 31st March-2021

A- Appears as addition to Capital Fund as well as additions to Fixed Assets during the year.

B- Appears as income in the Income & Expenditure Account.

C- (1) Appears under Current Liabilities in the Balance Sheet and will become the opening balance

Amount in ₹ Earmarked/Endowment Funds Other Investments SCHEDULE 11- INCOME FROM INVESTMENTS **Current Year Previous Year Current Year Previous Year** 1. Interest a. On Government Securities b. Other Bonds/Debentures 2. Interest on Term Deposits 461056210 349061800 8844592 27271669 3. Income accrued but not due on Term Deposits/Interest bearing advances to employees. 4. Interest on Saving Bank Accounts 9459832 16553579 5. Others (Specify) 470516042 27271669 Total 365615379 8844592 Transferred to Earmarked/Endowment Funds 470516042 365615379 Balance Nil Nil

Note: Interest accrued but not due on Term Deposits from HBA Fund, conveyance advance fund and Computer Advance fund and on interest bearing advances to employees will be included here (Item 3), only where Revolving funds (EMF) for such advances have been set up.

		Amount in ₹
SCHEDULE 12 - INTEREST EARNED	Current Year	Previous Year
1.On Savings Accounts with scheduled banks	22350162	15030915
2.On Loans a. Employee/Staff	·	
b. Others		
3. On Debtors and Other Receivables		
Total	22350162	15030915

SCHEDULE 13 - OTHER INCOME

		Amount in ₹
A. Income from Land & Building	Current Year	Previous Year
1. Rent from Building/Land etc.	6265414	2097900
2. License fee recovered from employees for Home Accommodation	11588917	27090979
3. Hire Charges of Auditorium/Play ground/Convention Centre, etc.		
4. Electricity charges recovered		
5. Water charges recovered		·
Total (A)	17854331	29188879
B. Sale of Institute's publications		
C. Income from holding events		
Gross Receipts from annual function/sports carnival		·
Less: Direct expenditure incurred on the annual function/sports carnival		
2. Gross Receipts from fest		
Less: Direct expenditure incurred on the fest		
3. Gross Receipts for educational tours		
Less: Direct expenditure incurred on the tours		
4. Others (to be specified and separately disclosed)		
Total (C)		
D. Others		
1. Income from consultancy		
2. RTI fee	3114	14329
3. Income from Royalty		
4. DU recruitment		
5. Misc. receipts (Sale of tender form, waste paper, etc.)	1155132	1522039
6. Profit on Sale/disposal of Assets		
a) Owned assets		
b) Assets received free of cost		
7. Grants/Donations from Institutions, Welfare Bodies and International Organizations		·
8. Health Centre Contribution	50557644	54420692
9. Others (Specify)	7873256	21171364
Total (D)	59589146	77128425
GRAND TOTAL (A+B+C+D)	77443477	106317304
annie ioine in oieiei	7777777	200317504

SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2021

SCHEDULE 14- PRIOR PERIOD INCOME

		Amount in ₹
Particulars	Current Year	Previous Year
1. Academic Receipts	76149846	as as on on as ca
2. Income from Investments	E G 40 60 C	
3. Interest earned	60 60 60 60 60	C1 C
4. Other Income	. 40 40 40 40	GB 60 60 60 60
Total	76149846	G 6 4 6 0

SCHEDULE - 15 STAFF PAYMENTS & BENEFITS (ESTABLISHMENT EXPENSES)

Amount in ₹

						Allioune III (
Particulars		Current Year	м	×	Previous Year	
<u>rai ticulai s</u>	<u>Plan</u>	Non Plan	Total	<u>Plan</u>	Non Plan	<u>Total</u>
a) Salaries and Wages	F	*		, ,		
Teaching staff		1733093781	1733093781		1943669644	1943669644
Non-Teaching staff	6188511	683513973	689702484	7264412	1081678575	1088942987
Lower Subordinate staff		257002161	257002161	122701	273301735	273424436
b) Allowances and Bonus						
c) Contribution to Provident Fund					15745642	15745642
d) Contribution to other funds (specify)					r	
e) Staff Welfare Expenses (Liveries)		61155	61155		46320	46320
f) Retirement and Terminal Benefits		2142913035	2142913035	997452	6959510531	6960507983
g) LTC facility	· ·	10276025	10276025		15368845	15368845
h) Medical facility		195155353	195155353		170629572	170629572
i) Children Education Allowance		16026850	16026850		20576109	20576109
j) Honorarium		13257774	13257774		92459508	92459508
k) Others						
Total	6188511	5051300107	5057488618	8384565	10572986481	10581371046

SCHEDULE 15 A - EMPLOYEES RETIREMENT AND TERMINAL BENEFIT

					Amount in ₹
	Pension	Gratuity	Leave Encashment	Total	Previous year
Opening Balance as on 01.04.20	23644829981	1448548177	1463038346	26556416504	21919199361
Addition: Capitalized value of Contributions Received from other Organizations	5667806	78222	3560650	9306678	12254887
Total (a)	23650497787	1448626399	1466598996	26565723182	21931454248
Less: Actual Payment during the Year (b)	1808398593	318545531	146324438	2273268562	2237407091
Balance Available on 31.03.21 c (a-b)	21842099194	1130080868	1320274558	24292454620	19694047157
Provision required on 31.03.21 as per Actuarial Valuation (d)	23583126601	1408954777	1442666277	26434747655	26556416504
A. Provision to be made in the Current year (d-c)	1741027407	278873909	122391719	2142293035	6862369347
B. Contribution to New Pension Scheme			,		96841184
C. Medical Reimbursement to Retired Employees	-				-
D. Travel to Hometown on Retirement					
E. Deposit Linked Insurance Payment				620000	300000
TOTAL (A+B+C+D+E)	1741027407	278873909	122391719	2142913035	6959510531

Amount in ₹ **Current Year Previous Year SCHEDULE 16 - ACADEMIC EXPENSES** Non Plan Total Plan Non Plan Total Plan a) Laboratory Expenses 1086449 9126014 10212463 1113046 13941741 15054787 b) Field work/Participation in Conferences 500000 500000 ---c) Expenses on Seminars/Workshops 1819347 872532 2691879 3377706 2954306 6332012 d) Award and Scholarships 65087593 65087593 615790 75259371 75875161 e) Registration charges of institution of Eminence d) Payment to visiting faculty 18518 18518 e) Examination 260798753 134327903 134327903 260798753 f) Refund of Fees 265733 265733 2050478 2050478 g) Entrance Exam 3032089 3032089 66874041 66874041 f)Student Welfare Expenses g) Admission Expenses h) Convocation Expenses i) Publications 104000 104000 304000 304000 j) Stipend/means-cum-merit scholarship 197022 197022 k) Subscription Expenses I) Guest Faculty I) Others (specify) 422379712 2905796 216221660 5125060 427504772 TOTAL 213315864

UNIVERSITY OF DELHI
SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2021

						Amount in ₹
SCHEDULE 17 - ADMINISTRATIVE AND GENERAL EXPENSES		Current Year			Previous Year	
SCHEDOLL IT ADDITIONAL THE AND GENERAL ENGLIS	Plan	Non Plan	Total	Plan	Non Plan	Total
A Infrastructure			,			
a) Electricity and Power		202788678	202788678		287293600	287293600
b) Water charges		58398888	58398888	-	5911971	5911971
c) Insurance						
d) Rent, Rates and Taxes (including property tax)		52294102	52294102		46989161	46989161
B) Communication						
e) Postage and Telephone		4383402	4383402	41218	5381747	5422965
f)Telephone, Fax and Internet Charges						
g) Connectivity Expenses		76415980	76415980		38010229	38010229
C) Others						
h) Printing and Stationery (consumption)		9437643	9437643	306886	15852215	16159101
i) Travelling and Conveyance Expenses		3123467	3123467	79071	10079020	10158091
j) Hospitality				158004		158004
k) Auditors Remuneration						
) Legal & Professional Charges		7278888	7278888		15379060	15379060
m) Advertisement and Publicity					30956	30956
ı) Magazines & Journals		89745251	89745251		50734963	50734963
o) Watch & Ward Expenses		155222316	155222316		130791128	130791128
House Keeping Expenses		104164559	104164559		93285126	93285126
q) Games & Sports		3569759	3569759		2223488	2223488
) Medical Expenses		53463266	53463266		51648907	51648907
s) Others/Contingency	1127078	47349061	48476139	296809	28012050	28308859
Contractual/Adhoc Staff Salaries						
t) Teaching Staff	-	158543345	158543345			
) Non-Teaching Staff		228915197	228915197			****
v) Contribution to Provident Fund		6539611	6539611		,	
() Contribution to New Pension Scheme		107498790	107498790			
rOTAL	1127078	1369132204	1370259282	881988	781623621	782505609

Amount in ₹

		Current Year			Previous Year		
SCHEDULE - 18 TRANSPORTATION EXPENSE	S Plan	Non Plan	Total	Plan	Non Plan	Total	
1 Vehicles (owned by institution)			-			-	
a) Running expenses		,	- "			-	
b) Repairs & maintenance			-			-	
c) Insurance expenses			-			-	
2 Vehicles taken on rent/lease			_		,		
a) Rent/lease expenses						-	
3 Vehicle (Taxi) hiring expenses			* -			·	
Total				-	_	-	

Amount in ₹ **Current Year Previous Year SCHEDULE - 19 REPAIRS & MAINTENANCE** Plan Non Plan Total Plan Non Plan Total a) Buildings b) Furniture & Fixtures c) Plant & Machinery d) Office Equipment e) Computers f) Laboratory & Scientific equipment g) Audio Visual equipment h)Cleaning Material & services i) Book binding charges j) Gardening k) Estate Maintenance I) Vehicles m) Others (Specify) ----Total

Amount in ₹ **Current Year Previous Year SCHEDULE - 20 FINANCE COSTS** Non Plan Plan Non Plan Total Plan **Total** Bank charges 240066 278863 29501 177919 207420 a) 38797 Others (specify) b) 177919 207420 **Total** 38797 240066 278863 29501

Note: If the amount is not material, the head Bank charges could be omitted and these could be accounted as Administrative expenses in Schedule 17.

Amount in ₹

		*				illouit ill (
SCHEDULE 21 Expanditure on Create Subsidies ate	я	Current Year			Previous Year	
SCHEDULE - 21 Expenditure on Grants, Subsidies etc.	Plan	Non Plan	Total	Plan	Non Plan	Total
a) Provision for Bad and Doubtful Debts/Advances	-					
b) Irrecoverable Balances Written- off	<u>-i</u>		-	·		
c) Grants/Subsidies to other institutions/organizations	17403870	146413885	163817755	1860125	141024915	142885040
d) Others (specify)						
Total	17403870	146413885	163817755	1860125	141024915	142885040

Note: Other expenses shall be classified as writes - off, provisions, miscellaneous expenses, loss on sale of investments, and loss on sale of fixed assets etc. and disclosed accordingly.

SCHEDULES FORMING PART OF INCOME & EXPENDITURE FOR THE YEAR ENDED 31-03-2021

SCHEDULE 22: PRIOR PERIOD EXPENSES

Amount in ₹

Particulars		Current Year		Previous Year			
	Plan	Non Plan	Total	Plan	Non Plan	Total	
1 Establishment expenses		206858591	206858591				
2 Academic expenses		88175246	88175246				
3 Administrative expenses (Printing & Binding)		7504463	7504463	123832	559398	683230	
4 Transportation expenses							
5 Repairs & Maintenance		1172343	1172343				
6 Other expenses							
7.Depreciation related to prior period		73654896	73654896				
Total		377365539	377365539	123832	559398	683230	

		Amount in ₹
Increase/Decrease in Stock	Current y	ear Previous year
a.) Closing Stock	* -	
Stationery	7763	3150 5957925
Drugs and Medicines	9476	8657151
Liveries		
Answer Sheet	1235	5725 1354312
Total (A)	18475	15969388
b.) Less :Opening Stock	15969	22598833
Total (B)	15969	22598833
Net Increase/(Decrease) (A-B)	2505	911 (6629445)

SCHEDULES FORMING PART OF THE ACCOUNTS FOR THE YEAR ENDED 31ST MARCH 2021

Schedule: 23

SIGNIFICANT ACCOUNTING POLICIES

1 BASIS FOR PREPARATION OF ACCOUNTS:

a. The financial statements are prepared on the basis of Historical Cost Convention and generally on the Accrual method of accounting unless otherwise stated.

2 REVENUE RECOGNITION:

- 2.1 Fees from Students, Sale of Admission Forms, and Tuition Fees for each semester and Interest on Savings Bank account are accounted on cash basis.
- 2.2 Income from Land, Buildings and other Property and Interest on investments are accounted for on accrual basis.
- 2.3 Interest on interest bearing advances to staff for House Building, Purchase of Vehicles and Computers are accounted on accrual basis every year, though the actual recovery of interest starts after the full repayment of the principal.

3 FIXED ASSETS AND DEPRECIATION:

- 3.1 Fixed assets are stated at cost of acquisition including inward freight, duties,taxes,incidental direct expenses related to acquisition, installation and commissioning. Fixed assets received by the University without any consideration has been capitalized in the financial statement at a nominal value i.e., atRs.One per asset.
- 3.2 Gifted / donated assets are valued at a nominal value of Rs.1/- (One) per asset.
- 3.3 Books received as gift are valued at a nominal value i.e. of Rs.1/- (One) per asset.
- 3.4 Fixed assets are valued at cost less accumulated depreciation. Depreciation on Fixed Assets is provided on Straight line method. The University has changed the method of depreciation from Written Down Value to Straight Line Method in Financial Year 2020-21. The Change in Method of Depreciation has been necessitated keeping in mind the rates and method prescribed by the Ministry of Education in revised format and as per audit observation. The revised depreciation has been calculated from the financial year 2014-15 after due adjustment of the Written Down Value taken earlier. The difference arising due to the change in method has been disclosed under Schedule 1- Corpus/ Capital Fund.

Tangible Assets:

	S.No.		Rate as Per S.L.M.
	1	Land	0%
	2	Site Development	0%
	3	Buildings	2%
	4	Roads & Bridges	2%
	5	Tube wells & Water Supply	2%
	6	Sewerage & Drainage	2%
	7	Electrical Installation and equipment	5%
	8	Plant & Machinery	5%
	9	Scientific & Laboratory Equipment	8%
	10	Office Equipment	7.5%
	11	Audio Visual Equipment	7.5%
	12	Computers & Peripherals	20%
	13	Furniture, Fixtures & Fittings	7.5%
	14	Vehicles	10%
	15	Library Books & Scientific Journals	10%
Inta	ngible A	Assets (amortization):	
	1	E-Journals	40%
	2	Computer Software	40%
	3	Patents and Copyrights	9 Years

- 3.5 In respect of additions to fixed assets during the year, depreciation is provided for whole year. In respect of sale/deductions from the fixed assets, no depreciation is charged.
- 3.6 Assets created out of Earmarked Funds where the ownership of such assets vest in the university, are set-up by credit to Capital Fund and merged with the Fixed Assets of the University. Depreciation is charged at the rates applicable to respective assets as prescribed in the revised format of Ministry of Education (MHRD). Assets purchased out of Project funded by outside agencies remain the property of the concerned funding agency till the project is closed. After closure of the project, the project assets are merged with the Fixed Assets of the University after deprecation charged at the rates applicable to the respective assets by debiting respective Fixed Assets account and crediting Capital Fund Account.

3.7 Assets, the individual value of each of which is Rs 2,000/- or less(except Library books) are treated as revenue expenditure. However physical accounting and controls are continued by the holders of such assets.

4 Intangible Assets:

Patents, copy rights E Journals and computer software are grouped under intangible Assets.

4.1 Patents: The expenditure incurred from time to time (application fees, legal expenses etc.) for obtaining Patent is capitalized and shown as part of Intangible assets in the Balance Sheet. If applications for Patents are rejected, the cumulative expenditure incurred on the particular Patent is written off to the Income & Expenditure in the year of application is rejected.

The expenditure on Patents granted is written off over a life of 9 years on a conservative basis.

- 4.2 Electronic Journals: The amount spent on E- Journals/ periodicals are treated as revenue expenditure to the extent of the benefits utilized in the current year and rest of the amount is accounted in books of account on accrual basis as prepaid expenses.
- 4.3 Expenditure on acquisition of software has been separated from Computersand Peripherals.

5 Stocks:

The stock at the end of the year has been valued at cost.

6 Retirement Benefits:

The RetirementBenefits i.e., pension, gratuity and leave encashment are provided on the basis of actuarial valuation as per Accounting Standard -15. Capitalized value of Pension, gratuity and earned leave received from previous employers of Universities employees, who have been absorbed in the university is credited to the respective Provision Accounts. Pension and leave salary contribution received in respect of employees on deputation is also credited to the respective Provision accounts.

7 Investments:

All Investmentsare stated at cost.

8 Earmarked/ Endowment Funds:

The Earmarked Fund consisting ofHousing Building Fund, Conveyance Fund (including Computer Advances and other such funds)University Development Fund (UDF) and vice-Chancellor Students Fund etc. are long term funds and earmarked for specific purposes. Each of the Funds has a separate bank account. Most of the accounts are investment in Government Securities, Bonds, and Term Deposit with Banks. The income from investment/ advances (House Building, Conveyance, Computers) is accounted on accrued basis and interest on savings bank accounts are credited to the respective fund on cash basis. The expenditure and advances (in the case

- 8.1 The balance of respective funds is carried forward on the liability side of the Balance Sheet and is represented by Bank Balance, Advances, Fixed Deposit and Investmentson the asset side of the Balance Sheet.
- 8.2 Assets purchased/created out of Earmarked Funds where the ownership of the assets vests in the University, are merged with the Fixed Assets of the University by debiting respective fixed asset account and crediting Capital Fund account. Depreciation is charged at the rates applicable to the respective assets.
- 8.3 Endowment Funds: Endowment Funds are received from various individual donors, Trust and other Organization, for establishing Chairs and for Medals, Prizes and scholarships, as specified by the donors.

The Income from investment of each Endowment Fund is added to the Fund. The expenditure on Medals & Prizes is met from the interest earned on investment of the respective Endowment Funds and the balance is carried forward to next year. In respect of chairs, however, the Corpus of Endowment is also used.

The balances are represented by Investment in RBI Bonds and Fixed Deposits and balance in Savings Bank Account common for all Endowments, and Accrued Interest on Investments.

9 Government and University Grants Commission Grants:

- 9.1 Government Grant and University Grants Commission grants are accounted on receipt basis. However, where a sanction for release of grant pertaining to Financial Year received before 31stMarch and the grant is actually received in the next financial year, the grant is accounted on accrual basis and an equal amount shown as recoverable from grantor.
- 9.2 To the extent utilized towards capital expenditure (on accrual basis), grant from UGC are transferred to the capital fund.
- 9.3 UGC grant to the extent utilized for meeting Revenue Expenditure (on accrual basis) are treated as income of the year in which they are realized.
- 9.4 Unutilized Grant (including advances paid out of such grants) are carried forward and exhibited as a liability in the Balance Sheet

10 Investments of Earmarked Fund and Interest Income Accrued on such Investments:

To the extent not immediately required for expenditure the amounts available against such funds are invested in approved Securities and Bonds or deposited for fixed term with Banks, leaving the balance in Savings Bank Account.

Interest received, interest accrued and due and interest accrued but not due on such investment are added to the respective funds and not treated as income of the Institution.

11 Sponsored Projects:

- 11.1 In respect of ongoing Sponsored Projects, the amounts received from sponsors are credited to the head Current Liabilities and Provisions- Current Liabilities Other Liabilities Receipt against Ongoing Sponsored Projects". As and when expenditure incurred/ advances are paid against such project, or the concerned project account is debited with allocated overhead charges, the liability account is debited.
- 11.2In addition to funds for Fellowshipsreleased by the UGC, Fellowship and Scholarship are also sponsored by various organizations. These are accounted in the same way as Sponsored Projects except that the expenditure generally is only on distribution of Fellowships and Scholarship, which may include allowances for contingent expenditure by Fellowsand Scholars.
- 11.3The Institution itself also awards Fellowships and Scholarships, which are accounted under Academic expenses.
- 11.4Assets purchased out of Project funded by outside agencies remain the property of the concerned funding agency till the project is closed. After closure of the project, the project assets are merged with the Fixed Assets of the University after deprecation charged at the rates applicable to the respective assetsby debiting respective Fixed Assets account and crediting Capital Fund Account.

12 Income Tax:

The Income of the institution is exempt from Income Tax under section 10(23C) (iiiab) of the Income Tax Act. No provision for tax is therefore made in the accounts.

Dated: 27th August 2021

SCHEDULES FORMING PART OF THE ACCOUNTS FOR THE YEAR ENDED 31ST MARCH, 2021

Schedule 24: Contingent Liabilities and Notes on Accounts

1 Contingent Liabilities:

- (a) Various claims filed by present/former employees/retired employees of the University are sub-judice before Hon'ble Supreme/Hon'ble High Court of Delhi and Industrial Tribunals. The decision is yet to arrive. The quantum of claims is not ascertainable.
- (b) An Amount of Rs 14.25 Crore is payable to ECIL for balance payment of supplying and commissioning of security equipment during Common Wealth Games held in 2010 at various venues of DelhiUniversity. The balance payable amount of Rs. 14.25 Crores against total bill of Rs. 28.23 Crore has been stopped by the Ministry of Home Affairs, as the matter is sub judicein the Hon'ble Court of Delhi.
- (c) The Ministry of Social Justice & Empowerment has sanctioned a grant of Rs. 311.10 lakhs in the year 20212 for construction of Lift, Ramp & construction of Toilet for benefit of Persons with Disabilities. The completion cost of the said construction work was Rs. 420.41 lakhs. the University has released the total grant of Rs.311.40 Lakhs to implementing agency and Rs. 109.31 Lakhs (including GST) is payable for the said construction work to the executing agency. The University is approaching the Ministry of Social Justice & Empowerment for release of balance payable amount of Rs.109.31 Lakhs.

2 Capital Commitments (Capital Works in Progress)

During the year, Capital Work in Progress amounting to Rs. 12,04,51,341/- has been transferred to respective Building account out of Rs. 12,28,72,429/-. Depreciation has been provided from the date of completion of the respective buildings. Deprecation pertained to previous years has been shown as Prior Period Expenses under Schedule 22 of Income and Expenditure Account. Amount of Rs. 11,72,343/- has been transferred to revenue expenditure under Schedule-22 of the Income and Expenditure Account and remaining balance of Rs. 12,48,745/- transferred to prior period expenditure in Misc. Account (Endowment fund).

3 Fixed Assets:

3.1 Addition in the year to Fixed Assets in Schedule 4 include assets purchased out of plan funds Rs. 2,15,95,32,097/- (including building amount transfer from "work in progress" Rs. 12,04,51,341/-) Non Plan, Funds (Recurring) Rs. Nil, (Capital Assets) Rs. 7,54,11,834/- and

Earmarked/Endowment Fund Rs. 5,15,60,332/- Sponsored Projects closed Rs. 1,80,64,933/- and Library Books and other assets of the value of Rs18/- (at nominal value of Rs. 1/- per assets) gifted to the University. The assets have been set up by credit to the Capital Fund.

- 3.2 In the Balance sheet as on 31stMarch 2014 and the Balance Sheets of earlier years, Fixed Assets created out of Plan Fund and Fixed Assets created out of non-plan funds were not exhibited distinctly. Further the addition during the year from plan, non-plan funds, and other funds, and the depreciation on those additions respectively has been exhibited distinctly in sub schedule A B (1)B (2) &D to the main schedule of the Fixed Assets (Schedule 4).
- 3.3 Fixed Assets set out in Schedule 4 do not include Assets purchased out of funds of sponsored Project, held & used by the university, as Project contracts includes stipulations that all such Assets purchased out of Project funds will remain the property of Sponsors till the project is closed.
- 3.4 Fixed Assets depicted in Schedule 4 is after the adjustment of effects due to **change in Method of depreciation from WDV to SLM w.e.f. 01.04.2014**. Difference due to change in method of depreciation Rs. 2,52,62,52,625 from the period 2014-15 to 2019-20 adjusted with Fixed assets and Capital Fund Account (refer Schedule -1). Change in method of depreciation has been made to follow the guidelines of Ministry of Education.
- 3.5 During the Financial Year 2011-12 the University of Delhi paid the sum of Rs. 3,56,49,000/- to Delhi Jal Board for water supply connection to Hostel constructed by the University at Dhaka near Mukherjee Nagar University of Delhi. In the current year amount outstanding as advance to Delhi Jal Board is capitalized under the head of Building. The depreciation charged for the period from 2011-12 to 2019-20 is shown under the head prior period expenses refer Schedule -22.
- 3.6 During the Financial Year 2011-12 the University of Delhi paid the sum of Rs. 6,50,000/- to DDA for Master Plan at South Campus University of Delhi. In the current year amount outstanding as advance to DDA is capitalized under the head of Building. The depreciation Charged for the period from 2011-12 to 2019-20 is shown under the head prior period expenses referSchedule -22.
- 3.7 The building and other construction works which has already been completed a long back and shown as loan and advances as well as Capital work in progress has been capitalized in the fixed assets under Building and depreciation has accordingly been taken from the date of actual possession/completion.

3.8 Most of the long outstanding advances with M/s. Rites Ltd and Engineers India Limited (E.I.L.) have been adjusted on the basis of utilization certificate/expenditure details as submitted by the respective agencies and duly recommended by the Engineering Department. However, pending final submission of bills, completion certificate some advances are to be adjusted in due course. Effort is continuing to settle the advances at the earliest.

4 Deposit Liabilities:

There is no amount of earnest money deposit & security deposit which has been transferred to Revenue Account.

5 Current Liabilities:

Pending request of final bill, amount withheld/deducted by EIL and RITES Rs. 8,67,20,385/- from the contractor towards security/Liquidated damage is considered as liability and shown under Current liabilities (Refer Schedule 10- Grants/Subsidies (Irrevocable Grants Received)

6 Expenditure in Foreign Currency:

Transaction denominated in Foreign Currency is accounted for at the exchange rate prevailing at the date of payment/realization.

7 Current Assets, Loans & Advances and Deposits:

- 6.1 In the opinion of the management, the Current Assets, Loans and Advances have a value on realization in the ordinary course, equal at least to the aggregate amounts shown in the Balance Sheet.
- 6.2 Long outstanding advances with colleges and other institutions/Department has also been adjusted during the current financial year on the basis of available documents and certification given by the heads of the organization, since they were outstanding for a very long period, every possible effort has been made to settle the long outstanding advances. However, some of the advances are still to adjust.

8 Bank Balances:

The details of balances in Savings Bank Accounts, Currents Accounts& Fixed Deposit Accounts with Banks are enclosed as attachment "A" to the schedule of current assets.

- All Savings Bank Accounts with auto sweep facility (Flexi Deposit) generate interest at the rate applicable to the Fixed Deposit
 for the duration for which the funds are kept in the "Flexi Deposit Account". The interest income in such savings bank accounts is
 accounted for on accrual basis.
- 9 Previous year figures have been regrouped/rearranged where-ever necessary.
- 10 Figures in the final accounts have been rounded off to the nearest rupee.
- 11 Schedule 1 to 24 are annexed to & form an integral part of the Balance Sheet as on 31st March 2021and the Income & Expenditure Account for the year ended 31st March 2021.

12 Provident Fund Accounts:

As the Provident Fund Accounts including Fund are owned by the members of those funds and not by the University, these accounts were separated from the University Accounts. However, a Receipts & Payments Accounts, an Income & Expenditure Account (on Accrual basis) and a Balance Sheet of the Provident Fund Accounts as well as the New Pension Scheme for the year 2020-21 have been attached to the University's Accounts.

13 Salaries:

The expenditure on salaries as shown in the income and expenditure statement is for the period from April-20 to March-21 including provision for the month of March-2021 amounting to Rs. 23,24,09,743/-.

The Honorarium paid to the contractual staff/outsourcing staff/Adhoc Faculty /Guest Faculty have been booked under Administrative (Recurring) Expenses as per the direction of UGC and Audit observation

14 Prior Period Income and Expenses:

- a) Prior period income of Rs. 7,61,49,846/- includes the Academic receipt of previous years which could not be taken earlier.
- b) Prior Period Expenditure Rs. 37,73,65,539/-included Academic Expenditure of Rs. 8,81,75,246/-, Administrative expenses (Printing & Binding) Rs. 75,04,463, Repairs & Maintenance Rs. 1,17,234 and Depreciation related to prior period of Rs. 7,36,54,896/-(refer to Schedule 22: Prior Period Expenses)
- c) Salaries for the month of March-2020 amounting to Rs. 21,67,57,911/- has been shown under the head prior period expenses. It has been taken in the prior period expenses as it was not considered as liability in the previous year annual accounts for the Financial Year 2019-20 and according to the Ministry of Education (MHRD) guidelines (Schedule-22).

15 Halls & Hostel:

As Hall & Hostels are separate reporting entities, their accounts are prepared separately from the University Accounts. However, a consolidated Receipts & Payments Account consolidated Income & Expenditure Account and a consolidated Balance Sheet of all the Halls & Hostels and Guest Houses have been attached to the University's Account.

16 Delhi University Press:

As University Press is a separate reporting entity, its accounts are prepared separately and attached to the University's Account. The University Press has already been closed as directed by the Ministry of Education (MHRD) and in accordance with Executive Council resolution no 79 (79-17) dated 15.03.2020.

- a) An amount of Rs. 1,73,95,000/- had been released to Press in earlier years by the University for its subsistence and it has been shown as liability in accounts of the University Press and same is shown as receivable under Annual Accounts of the University.
- b) Further, an amount of Rs. 1,54,87,984/- is receivable from university and its departments i.e. also of a very long period, which has been shown under current assets of the Press and same is shown as payable in the annual accounts of the University.
- c) Rs. 18202/- relates to assets auctioned by University Press and deposited in University's account and shown as amount receivable from University as well as amount payable to University Press in the annual accounts of the University.

The matter regarding merger of D.U Press with University of Delhi is under consideration of a committee constituted by University of Delhi and the merger of the Press account with university accounts.

17 Institution of Eminence: -

The Central Government, on the recommendations of Empowered Expert Committee (EEC) and University Grants Commission (UGC) declared University of Delhi as an "Institution of Eminence" with effect from the issuance of the Notification No. F.11/9/2019-U3(A) dated 2ndMarch 2020. Institution of Eminence account incorporated as project accounts with annual accounts of University of Delhi in Schedule-3(a) i.e.Sponsored Projects

Dated: 27th August, 2021

UNIVERSITY OF DELHI RECEIPTS AND PAYMENTS ACCOUNT FOR THE YEAR ENDED 31st MARCH, 2021

								Amount in ₹
Co. Marie Co.	RECEIPTS		Current Year	Previous Year		PAYMENTS	Current Year	Previous Year
	,							
1.	Opening Balances	4			ı.	Expenses		
a)	Cash Balances			-	a)	Establishment Expenses	4981168919	5938531520
b)	Bank Balances				b)	Academic Expenses	216221660	427504772
	i. In Current Accounts		131513570	102222076	c)	Administrative Expenses	1391051028	698780995
	ii. In Saving Accounts		3126403359	1221087686	d)	Transportation Expenses	; 	
	iii. In Deposit Accounts		11698773012	12388074281	e)	Repairs & Maintenance	116444091	179902718
c)	Permanent Advance		927600	937600	f)	Finance costs	278863	207420
II.	Grants Received				g)	Expenditure on Grant	163817755	142885040
a)	From Government of India				h)	Prior Period Items	302538300	683230
b)	From State Government							
						Payments against Earmarked/	270000225	207752224
c)	From UGC				11.	Endowment Funds	278059325	297752224
	i) Grant for Capital Expenditure-Non Plan	115000000		*				
	ny drant for Capital Expenditure-Non Flan	113000000						
	ii) Grant for Revenue Expenditure-Non Plan	6174153000			III.	Payments against Sponsored	667677691	602321702
.11		0754060		F040034000		Projects/Schemes		
d)	From other sources (details)	8754968		5848824000		Daniel Carres of Callenghia		
	Less:- RBI TSA Lapsed	(24522643)	6273385325		IV.	Payments against Sponsored /fellowship	37365807	43711631
111	Academic Receipts					Fellowships/Scholarships		
III.	•		COCECO700	1042233559	v	Downseyte against Dlan Asseumts		
a)	Fees and Subscriptions		696569708		v.	Payments against Plan Accounts		
b)	Sale of Publications		0	107760	VI.	Investments and Deposits made		
					VI.	CARLO COMPANION CONTRACTOR CONTRA		
IV.	Receipts against Earmarked/Endowment				a)	Out of Earmarked/Endowment		
11		*				Funds	*	
	Funds		638286769	1065630662	b)	Out of own funds (Investments - Others)		
					• • • •	T		
٧.	Receipts against Sponsored Projects/Schemes		786720670	559243795	VII.	Term Deposits with Scheduled Banks		
VI.	Receipts against Plan		508232507	262936632	VIII.	Expenditure on Fixed Assets and		
9	Necespes against Flair		300232307	202330002	*****	Capital Work - In - Progress		
				190	a)	Fixed Assets	2166133248	225719659
1/11	Receipts against Sponsored Fellowships				b)	Capital Works - In - Progress	9	
VII.	Receipts against Sponsored Fellowships				D)	Capital Works - III - Frogress		
	and Scholarships		31626527	58387487			,	
					ix.	Other Payments including		
					i.	statutory payments		
						Other body transaction	93807382	34489554

VIII.	Income on Investments From			х.	Refunds of Grants		
a)	Earmarked/Endowment Funds	520694569	267346159				
b)	Plan Accounts	296849722	250812594	XI.	Deposits and Advances		
c)	Sponsored Projects	192566053	78058027	a)	Festival Advance		
d)	Sponsored Fellowship & Scholarship	4816517	6392606	b)	Advances		
				c)	Permanent Advance		
IX.	Interest received on			d)	Medical Advance	0	
a)	Bank Deposits	10964834	28067078	e)	LTC Advance	6312926	8476132
b)	Loans and Advances			f)	Remittances	39060	0
1,	Control Desired				Advance out of Sponsored Projects, Plan, &	-	
c)	Savings Bank Accounts	22350162	15030915	g)	Earmarked Fund	0	47805560
						, 0	
ж.	Investments encashed			XII.	Other Payments	1722015972	1976473267
15					and the second s	• 800 0000 0000000000000000000000000000	
- XI.	Term Deposits with Scheduled			XIII.	Closing Balances		
1/1	Banks encashed	****		a)	Cash in hand		
		-		b)	Bank Balances		
		******	40000000	,		22255224	404540570
XII.	Other Income (including Prior Period Items)	140878196	103809933		- In Current Accounts	82265824	131513570
					- In Savings Accounts	2765513691	3126403359
XIII.	Deposits and Advances				- In Deposits Accounts	13779817209	11698773012
a)	Festival Advance	· · · · · · · · · · · · · · · · · · ·		c)	Permanent Advance	897600	927600
b)	LTC Advance	8466132	7974556				
c)	Medical Advance					*	
d)	Permanent Advance	· · · · · · · · · · · · · · · · · · ·					
e)	Advances	81059292	16944774				
f)	Remittances	1403768	449219				
37	Advance out of Sponsored Projects, Plan, &	4405404007					
g)	Earmarked Fund	1485101097					
	Miscellaneous Receipts including						
XIV.	Statutory Receipts	10208628	59934047				
XV.	Any Other Receipts	2103628332	2198357518			1	
	• •			1			
	TOTAL	28771426350	25582862965		TOTAL	28771426350	25582862965

PROVIDENT FUND ACCOUNT

BALANCE SHEET AS ON 31st MARCH 2021

	,						(Amount/Rs.
Previous			Current	Previous			Current
Year	\$	4	Year	Year			Year
31.03.2020	Liabilities		31.03.2021	31.03.2020	Assets		31.03.2021
	<u>GPF</u>		*				
3991034326	Opening Balance	4249067659	± (4)	2626990000	Investment (Bonds)	*	2626990000
606268822	Add: Subscriptions/repayment of advance in the year	620758979			*		A 2 1
(658625859)	Add: Interest Credited Less: Advance/Withdrawal/Final settlement Less: Adjustment relating to Previous yr.	299685154 (697253768) (9125)	×	2315100000	Fixed Deposit with scheduled bank		2373300000
4249067659	Closing Balance		4472248899				-
	<u>CPF</u>						
616249658	Opening Balance	627923323		138018061	Interest Accrued as on 31.03.2021		125154406
	Add: Subscriptions & Contribution/				The second		*
	repayment of advance in the year	51614316			TDS receivable :	2264921	
41185113	Add: Interest Credited	35816901		2214976		548996	2813917
(99305406)	Less: Advance/Withdrawal/Final settlement	(161231647)					A
	Less: Adjustment related to Previous Year					*	81
627923323	Closing Balance		554122893		Balances with State Bank of India in Saving Accounts:-		-
i.	Interest Reserve	5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		115492712		100921878	
430847617	Opening Balance	457538484	4	110402112		100021070	
	Add: Excess of Income over Expenditure	30705182	*	136713717	CPF	285435257	386357135
457538484	Closing Balance		488243666				* *
5334529466	TOTAL		5514615458	5334529466			5514615458

PROVIDENT FUND ACCOUNT

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2021

(Amount / Rs.)

				<u> </u>	(/ time diffe / ftor)
	*		Previous		
Previous Year		Current Year	Year		Current Year
31.03.2020	Expenditure	31.03.2021	31.03.2020	Income	31.03.2021
	Interest Credited to:	, if	379209251	Interest received on Investment & SB A/c	379065331
310446144	GPF Account	299685154	105115135	Add: Interest accrued during the year	92251480
41185113	CPF Account	35816901	56236	Add: Adjustment related to previous year	9125
2079	Bank Charges	3564		Less Interest accured during previous year but realized during current year	(105115135)
26690867	Excess of Income over Expenditure	30705182	224450	Other Income	-
378324203	Total	366210801	378324203	Total	366210801

PROVIDENT FUND ACCOUNT

RECEIPTS AND PAYMENTS ACCOUNTS FOR THE FINANCIAL YEAR 2020-21

Receipts	(Amount / Rs.)	Payments	(Amount / Rs.)
Opening Balance as on 01/04/2020	.0		, ,
GPF A/c No.10851298435	115492712	GPF Adv./Withdrawal/Final Settlement	697253768
CPF A/c No.10851298457	136713717	CPF Adv./Withdrawal/Final Settlement	161231647
GPF Subscription	620758979	Investment during the year	2373300000
CPF Subscription & University Contribution	51614316	Bank Charges	3564
		Closing Balances:	*
Investment Encashed	2315100000	GPF A/c No.10851298435	100921878
Interest Received	378466390	CPF A/c No.10851298457	285435257
· · · · · · · · · · · · · · · · · · ·			
TOTAL	3618146114	TOTAL	3618146114

NPS TIER-I ACCOUNT

BALANCE SHEET AS AT 31st MARCH 2021

(Amount / Rs.)

				£	(Amount / Rs.)
Amount 31.03.20	Liabilities	Amount 31.03.21	Amount 31.03.20	Assets	Amount 31.03.21
	NPS Tier-I Account :-	,			
14230965	Subscription & Univ. Contribution	2585462	2606000	Investment	351300
07.40550			71338	Interest accrued but not due	11664
3748552	Interest Reserve	4379911	2045	TDS Receivable	27428
			15300134	Balance with SBI in Saving A/c	3308300
			* *		
		, -	18.9		
17979517	TOTAL	6965373	17979517	TOTAL	6965373

NPS TIER-I ACCOUNT

INCOME & EXPENDITURE ACCOUNT FOR THE FINANCIAL YEAR 2020-21

(Amount / Rs.)

	· · · · · · · · · · · · · · · · · · ·				(Amount / RS.)
Amount		Amount	Amount		Amount
31.03.20	Expenditure	31.03.21	31.03.20	Income	31.03.21
0.1100120		01.00.21	01.00.20	into the	01100121
		2			
3676	Bank Charges	212	666812	Interest received on investment	575272
	,				
	. 1				
×		1			
	3 *	1		Interest accrued for the year 2019-20 but realized	
656607	Excess of Income over Expenditure	631359	(77867)	during 2020-21	(71338)
	* ************************************	SE 90		* * *	*
			71338	Interest accrued but not due	127637
					9.
	**				
~ ×			-	,	
			w	F1	
		, x	V #		
660283	TOTAL	631571	660283	TOTAL	631571

NPS TIER-I ACCOUNT

RECEIPTS AND PAYMENTS ACCOUNTS FOR THE FINANCIAL YEAR 2020-21

Amount		Amount	Amount	_	Amount
31.03.20	Receipts	31.03.21	31.03.20	Payments	31.03.21
4354707	Opening Balance as on 01/04/2020	15300134	2606000	Investment	3513000
1 1 1 1 1	NPS Tier-I Account	*			,
180686486	Own Subscription & University Contribution	194930354	168277292	Withdrawal/Refund to NSDL	206575857
262287	Interest Received on investment	287396) at - 1
402480	Interest on Saving Bank A/c	273485	3676	Bank Charges	212
3115000	Investment Encashed (F.D.)	2606000	2633858	Adjustment relating to Previous Year	0
			15300134	Closing balance as on 31.03.2021	3308300
188820960	TOTAL	213397369	188820960	TOTAL	213397369

UNIVERSITY PRESS

BALANCE SHEET AS AT 31st MARCH 2021	*	
FUNDS & LIABILITIES	CURRENT YEAR	Amount in ₹ PREVIOUS YEAR
1. Capital	2,48,273.00	3,41,547.00
Current Liabilities: (a) Payable to University of Delhi		
(i) Deduction from Salary	12,43,873.00	12,43,219.00
(ii) Inter Bank Transfer	1,73,95,000.00	1,73,95,492.00
(iii) Others	10,000.00	10,162.00
(b) Earnest Money	53,500.00	53,500.00
(c) Salary Payable	89,679.00	-
TOTAL	1,90,40,325.00	1,90,43,920.00
ASSETS	CURRENT YEAR	PREVIOUS YEAR
 Machinery, Furniture & Equipments 	-	5,148.00
2. Amount Receivable	1,54,87,984.00	1,54,90,171.00
3. Stock In Hand		
(a) Raw Material	5,62,870.00	- 5,62,870.00
(b) Finished Goods		-
4. Work in Progress	-	-
5. Cash in Bank	29,71,269.00	29,69,731.00
6. Permanent Advance	-	1,000.00
7. Advance Contingency	•	15,000.00
Amount Receivable from University against sale of assets	18,202.00	
TOTAL	1,90,40,325.00	1,90,43,920.00

UNIVERSITY PRESS

PROFIT & LOSS ACCOUNT FOR THE YEAR 2020-21

	x				Amount in ₹
Particulars	Current Year	Previous Year	Particulars	Current Year	Previous Year
1. To Opening Stock:			1. Income:		
(a) Raw Materials	5,62,870.00	12,89,027.00	(a) Income from Printing and Binding	-	-
(b) Finished Goods		-	(b) Prior Period Income from sale	18,202.00	
2. To Work in Progress	-	•			
To Pay and Allowances :	89,679.00	9,58,138.00	2. By Closing Stock:		
(a) L.T.C.	-	-	(a) Raw Materials	5,62,870.00	5,62,870.00
(b) Tuition Fees	-	-	(b) Finished Goods		-
(c) Bonus					
(d) Medical Re-imbursement	-	-			
 To Purchase of Raw Materials 	-	-	By Work in Progress	-	-
To Misc Contingent Exp.	16,649.00	-			
To Rate, Rent and Taxes	-	649.00	4. Loss	93,274.00	16,86,676.00
 To Work Done Through Outside Agency 	-	-			
8. <u>Depreciation:</u>					
(a) Machinery, Furniture &Equipment	5,148.00	1,732.00	F		
9. <u>Profit</u>	-	-			
TOTAL	6,74,346.00	22,49,546.00	TOTAL	6,74,346.00	22,49,546.00

DELHI UNIVERSITY PRESS A/C NO. 10851295354

RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31st MARCH, 2021

Amount in ₹

Receipts	Current Year Pre	evious Year	Payments	Current Year	Previous Year
Opening Balance			I <u>Expenses</u>		
Bank Balance	2969731	218213	Establishment Expenses		958138
Deposit in Bank					
II Receipts from Printing & Binding work			Il Other Administrative Expen	ses	
a) Receipts against amount receivable account	2187	3708955	Expenditure	649	649
III Deductions\Recoveries		211421	Remittance	,	210071
			III Closing Balance		*
			Bank Balance	2971269	2969731
Total	2971918	4138589		2971918	4138589

HALLS AND HOSTELS BALANCE SHEET AS AT 31st MARCH, 2021

		Amount in ₹
SOURCE OF FUNDS	Current Year	Previous Year
COURPUS/CAPITAL FUND	372343902	363265158
DESIGNATED/EARMARKED/ENDOWMENT FUNDS	54419004	54961581
CURRENT LIABILITIES & PROVISIONS	30558579	21603087
TOTAL	457321485	439829826
APPLICATION OF FUNDS		
Fixed Assets	:	
Tangible Assets	31094954	16389854
Intangible Assets	24247	24292
Capital Works-In-Progress	0	0
INVESTMENT FROM EARMARKED/ENDOWMENT FUNDS		8 8 W
Long Term	0	0
Short Term	13359004	12361659
INVESTMENTS- OTHERS	80311361	89068821
CURRENT ASSETS	310271850	306483853
LOANS, ADVANCES & DEPOSITS	22314293	15555572
MISCELLANEOUS EXPENDITURE	(54224)	(54224)
TOTAL	457321485	439829826

HALLS AND HOSTELS INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31st MARCH 2021

		Amount in ₹
Particulars	Current Year	Previous Year
(A) INCOME		
Academic Receipts	22909215	63276944
Grants/Subsidies	131985546	137001868
Income From Investment	18222828	21183494
Interest Earned	1345130	1990898
Other Income	12771096	58893411
Prior Period Income	, 0	0
Total (A)	187233815	282346615
(B) EXPENDITURE	erne in the state of the state	
Staff Payments & Benefits (Establishment Expenses)	114264706	159821329
Academic Expenses	0	5073
Administrative and General Expenses	70061602	63388740
Transportation Expenses	443985	538525
Repair & Maintenance	6003639	9048521
Finance Costs	48560	134464
Depreciation	3731044	4811096
Other Expenses	16186	0
Prior Period Expenses	(285401)	0
Total (B)	194284320	237747748
Excess of Income over Expenditure/ (Expenditure over Income) (A-B)	(7050505)	44598867
Balance being Surplus/(Deficit) carried to Capital Fund	(7050505)	44598867

HALLS AND HOSTELS RECEIPTS AND PAYMENTS FOR THE YEAR ENDED 31st MARCH 2021

Amount in ₹

					Amount in ₹
Receipt	Current Year	Previous Year	Payment	Current Year	Previous year
I. Opening Balance		×	I. Expenses		
- Cash in Hand	69906	71275	(a) Establishment Expenses	116647820	160183587
- Bank Balance	91139124	136690466	(b) Academic Expenses	0	5073
- Imprest	194872	414581	(c) Administrative Expenses	64430255	62155314
- Deposit Account	277995721	189832240	(d) Transportation Expenses	443985	538525
- TDS on FDR's Interest	58557	27532	(e) Repairs & Maintenance Expenses	5954781	8930708
II. Other Bank Balances/FDRs	0	0	II. (a) Payments against Earmarked Fund	11676467	17770394
III. Grants Received	144538885	140122315	(b) Payment against Projects	627290	45112
IV. Academic Receipts	15872665	46212426	III. Investments and Deposits made	10923488	14489023
V. Receipts against Earmarked/Endowment Funds	6264551	23570250	IV. Expenditure on Fixed Assets & Capital work-in-Progress	618165	3010475
VI. Interest Received	14844899	9383691	V. Finance Charges	45676	131677
VII. Income from Investments	9562326	15530963	VI. Deposits and Advances	8737769	886730
VIII. Other Income	13450284	73782592	VII. Other Payments	3980229	6547635
IX. Deposits and Advances	12559456	2615514	VIII. Closing Balances		
X. Any Other Receipts	2681703	5898589	- Cash in Hand	61838	69906
			- Bank Balance	85903695	91139124
			- Imprest	164680	194872
			- Deposit Account	278965197	277995721
			- TDS on FDR's Interest	51614	58557
Total	589232949	644152433	Total	589232949	644152433