



RAMANUJAN COLLEGE
(Accredited Grade 'A' by NAAC)
UNIVERSITY OF DELHI

TWO-WEEK FACULTY DEVELOPMENT PROGRAMME
(EQUIVALENT TO REFRESHER COURSE)

On

**RECENT ADVANCES IN RESEARCH
METHODOLOGY**

17- 28 JANUARY 2020

CALL FOR REGISTRATION AND PARTICIPATION

Organized by

**RAMANUJAN CENTRE FOR APPLIED
MATHEMATICS AND RESEARCH**

And

**TEACHING LEARNING CENTRE
RAMANUJAN COLLEGE**

(Under the MHRD scheme of Pandit Madan Mohan Malaviya
National Mission on Teachers and Teaching)



Government of India
Ministry of Human Resource
Development

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INTRODUCTION

The Ministry of Human Resource Development (MHRD) launched the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching (PMMMNTT) in 2017. One of the main objectives of this mission is to facilitate teacher training by constituting Teaching Learning Centres in various institutions of higher education in our country. In the 9th PAB meeting of PMMMNTT held on July 12, 2017, the proposal for setting up of the Teaching Learning Centre (TLC) at Ramanujan College, University of Delhi was approved. Ramanujan College is the second college of the University of Delhi to be awarded the TLC. The vision of TLC is to provide young teachers with the tools for their development as effective and efficient teachers who are responsive to the needs of the learners in both local and global contexts. Our TLC is mandated to promote on a continuous basis the learning of new pedagogical practices, methodology of forming discipline-specific curricula and creating new learning materials for use by the teachers in colleges and universities.

The Ramanujan College, University of Delhi established Ramanujan Centre for Applied Mathematics and Research in July 2012 to continue the Legacy of Srinivasa Ramanujan, the greatest mathematician our country ever had. This centre aims to expose students as well as teachers to various areas in mathematical sciences other than those prescribed in the syllabus.

The TLC and Ramanujan Centre for Applied Mathematics and Research at Ramanujan College, University of Delhi is offering a two-week Faculty Development Programme, equivalent to refresher course, in “**Recent Advances in Research Methodology**” for the teachers of higher education in the country from the 17th to 28th of January 2020.

CONCEPT NOTE

Mathematical Sciences formulate a discipline of study that includes not just Mathematics but also other related areas like Statistics and Computer Science. The field is brewing day by day with holistic research and knowledge generation by the academia. One of the primary reasons for this much needed development is the rapidly advancing technology that has brought an immense difference in the way study and research is undertaken. Information and Communication Technology (ICT) has revolutionized the functioning of every single system in our society making our lives better, easier and somewhat simpler. This revolution has also largely affected two important aspects of human development: research and study. Gone are the times when a Sales Manager had to maintain his grocery, expenditure and sales records on paper and manually analyze them. There are databases to hold such information and computational techniques to mine significant predictions from such records.

This is the era of technology and we as teachers need to develop our competency to adopt to this because we do not only affect our lives but also touch those of our students.

The concept behind this Faculty Development Programme is to inculcate skills in the teaching fraternity that relate to usage of emerging techniques for comprehensive research. The main focus during the programme would be understanding the techniques provided by tools such as machine learning and network science and then implement them using python programming. The hands-on sessions will make these topics more interesting and help participants to utilize the concept learnt in different application areas.

The knowledge gained through this would present a plethora of opportunities for efficient analytical and critical analysis.

OBJECTIVES

The Faculty Development Programme intends to fulfill the following objectives:

- Developing the core competency of the participants in the area of research
- Enabling them to select appropriate research methods for conducting mathematical and empirical research
- Skill-based training in open-source and very powerful Python programming language that meet their requirements for modelling and data analysis
- Familiarizing them with data visualization, statistical and graphical techniques, including linear and nonlinear modeling, classical statistical tests, time-series analysis etc.
- Developing proficiency in various machine learning techniques and hands-on practices with python.
- Understanding network science and its applications, and implement them using python programming to enable integration of computation, visualization and analysis in an easy-to-use environment.

RAMANUJAN COLLEGE

Ramanujan College, named after one of the greatest Indian mathematician Srinivasa Ramanujan FRS, is a constituent college of the University of Delhi. It was previously known as the Deshbandhu (Evening) College established in 1958. With over 60 Years of excellence presently it has approximately 2500 students studying various undergraduate courses in the disciplines of Mathematical Science, Humanities and Management. It is also the study centre for the students of the School of Open Learning, University of Delhi, the Non- Collegiate Women's Education Board, University of Delhi and the Indira Gandhi National Open University. Ramanujan College has also been selected by the MHRD as a National Resource Centre. The College also runs a number of professional courses. The teachers of Ramanujan College are highly motivated and have original, published academic and creative work, including journal and other print media articles and educational filmmaking to their credit. Ramanujan College is a premier institution of the University of Delhi and has been accredited grade "A" by the National Assessment and Accreditation Council (NAAC). The college has also been ranked in top 100 in the National Institute Ranking Framework (NIRF2019). We at Ramanujan College emphasize on the holistic development of personality, meaningful exposure to real world, and inculcating practical skills amongst our students apart from ensuring academic excellence.



ENRICHMENT SPECTRUM AT RAMANUJAN COLLEGE

- Emphasis to create self-learning space for students
- Hands-on assignments and live projects
- Expert guidance on live projects
- Follow-up tasks
- Provision of study content (wherever required)
- Developing appropriate attitudinal orientation
- Learning experience for personality enrichment
- Augmentation of professional capabilities
- Co-creation and mutual contribution between participants and facilitators
- Access to global resources
- Adaptation skills for the dynamic contemporary environment

DISTINGUISHED SPEAKERS

From eminent institutions like DU, ISI, IIT's, NIT's and industries.

ELIGIBILITY AND REGISTRATION DETAILS

- The FDP is open to Faculty members (regular/ad-hoc/temporary) from any Indian University/College and research scholars. However, preference will be given to young teachers and to out-station teachers working in remote parts of the country.
- All the participants are requested to register online by visiting <https://ramanujancollege.ac.in/> or by browsing the following link: <https://forms.gle/4aHrZ7F1eXu7uciKA>

- Registration for all the participants is mandatory. Only limited seats are available. Selected participants would be informed by 11th January 2020.
- TLC Ramanujan College will not provide the participants any travel expenses and boarding/lodging facility. However, the participants would be assisted in finding boarding/lodging facility.

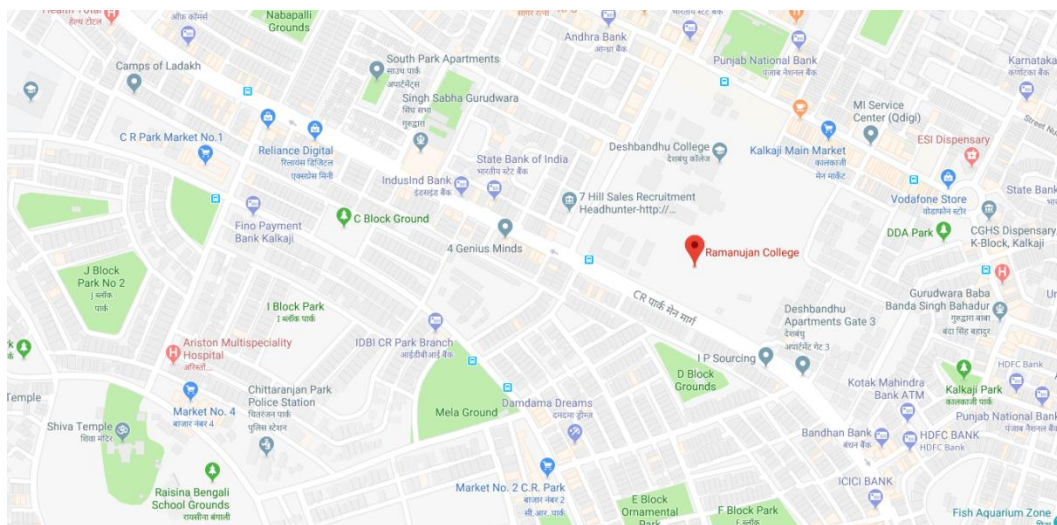
For further queries, please mail at: <https://ramanujancollege.ac.in/>

Kindly note that:

1. As the FDP is being organized under the prestigious PMMMNMTT scheme of MHRD, we at TLC, Ramanujan College give prime importance to willing and serious participants who are eager to learn. In this context, it should be noted that certificates will be awarded to only those participants who will be present and engaged during each session of the FDP. Therefore, it is compulsory for participants to attend all sessions in order to receive certificate of participation.
2. Attendance will be taken at any time and any number of times during the sessions.
3. Participants are requested to be punctual for all the sessions and strictly adhere to the date and time for all submissions.
4. All participants have to send in online feedback for each session.
5. Bring the printout of the payment receipt to be deposited to the registration desk on the first day of the FDP.

VENUE

Ramanujan College, University of Delhi, Kalkaji, New Delhi -110019



The college is located in south Delhi near the well-known commercial hub of Nehru Place and the residential areas of Chittaranjan Park, Kalkaji and Greater Kailash. It is well connected with public transport and the Delhi Metro. The nearest metro station being the Nehru Enclave Metro Station on the Magenta Line.

DETAILS OF PROGRAMME FEES

Participants Fees: ₹3000/- (Non-refundable)

Step 1: Online Payment of the Registration Fee through NEFT/RTGS to the following account:

Account Name: Principal, Ramanujan College

Account Number: 0156000100585618

Bank & Branch: Punjab National Bank, Kalkaji

IFSC: PUNB0015600

MICR Code: 110024052

Step 2: Online Filling of the Registration Form giving the personal and transaction details at the web link: <https://forms.gle/4aHrZ7F1eXu7uciKA>

The programme fee will be refunded, in case the participant is not selected. However, the programme fee of selected participants will not be refunded.

ORGANISING BOARD OF THE FACULTY DEVELOPMENT PROGRAMME

DIRECTOR, TEACHING LEARNING CENTRE, RAMANUJAN COLLEGE

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CONVENER, FACULTY DEVELOPMENT PROGRAMME

DR. AMIT KUMAR SINGH, Director, Ramanujan Centre for Applied Mathematics and Research

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MS. SHEETAL SINGH, Assistant Professor, Department of Computer Science

FOR MORE INFORMATION, CONTACT:

Mr. Akhil: 9958274573

Mr. Prashant: 8527370455

Ramanujan College
(Accredited Grade 'A' by NAAC)
University of Delhi
Kalkaji, New Delhi - 110019
Ph: +91-11-26430192

Email: ramanujancollege2010@gmail.com, tlc@ramanujan.du.ac.in

Website: <https://ramanujancollege.ac.in/>