




University Faculty Details Page on DU Web-site

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Title	Prof./Dr.	First Name	MAHESH PRASAD	Last Name	SRIVASTAVA	Photograph
Designation		PROFESSOR ,Coordinator UGC-SAP and Formerly Chairman, Board of Research Studies in Sciences and Head of the Department				
Department		PHYSICS AND ASTROPHYSICS				
Address (Campus) (Residence)		MAIN CAMPUS, UNIVERSITY OF DELHI, DELHI-110007				
		C-22/29-31, PROBYN ROAD, UNIVERSITY OF DELHI QTRS, DELHI-110007.				
Phone No (Campus) (Residence) optional		0091-11-27667725/1364				
		0091-11-27667815				
Mobile		0091-9313740621				
Fax		0091-11-27667061				
Email		mps02@rediffmail.com mps@physics.du.ac.in				
Web-Page						
Education						
Subject		Institution		Year		Details
Ph.D.		INDIAN INSTITUTE OF SCIENCE, BANGALORE		1969		Thesis topic: Some Problems in Plasma Physics and Rarefied Gas Dynamics
M. Sc.		UNIVERSITY OF LUCKNOW		1965		Subjects: Physics with Advanced Electronics
B.Sc.		UNIVERSITY OF LUCKNOW		1963		Subjects: Physics, Chemistry, Mathematics and General English
Career Profile						
Organisation / Institution		Designation		Duration		Role
University of Delhi		Lecturer		1970-80		Research, teaching and Ph. D supervision
University of Delhi		Reader		1980-88		Research, Teaching and Ph.D. supervision
University of Delhi		Professor		1988-to date		Research, Teaching and Ph.D. Supervision
Research Interests / Specialization						
Nanoscience, Nanotechnology, Nanofabrication by Plasma Route; Plasma Applications to Microelectronics, Tribology, Phase changes, thin film deposition and other industrial applications. Experimental and Theoretical Plasma Physics, Environment Friendly Plasma Technologies, Astrophysical and space Plasmas and allied areas						
Teaching Experience (Subjects/Courses Taught)						
1970-to date: Forty years. Some of the courses taught are Plasma Physics, Classical Mechanics, Quantum Mechanics, Electronics, Electromagnetic Theory , Astrophysics, Solid state Physics etc						
Honors & Awards						
<ol style="list-style-type: none"> 1. Gold Medal for the M. Sc. (Physics) examination 1965 2. President of Plasma Science Society of India 1999-2000 3. Vice-President of Asian African Association for Plasma Training Kuala Lumpur, Malaysia, 1988 to 2004 and reelected in 2008 to date. 4. Vice-President of Plasma Science Society of India 1990-91. 5. Visiting Professor to Oxford University during October 2000 						

6. **Visiting Professor to University of Illinois** at Chicago, USA during summer term of 2001 and during spring and summer term of 2002.
7. **Visiting Professor to University of Sydney, Australia during May-June, 2008.**
8. **Visiting Professor to Osaka University, Japan** during January-March 2010.
9. **Associate Member** of International Center for Theoretical Physics, Trieste, Italy, 1983.
10. **Member** of many International learned bodies such as American Physical Society since 1976 to date and formerly Member of American Geophysical Union. Membership of New York Academy of Sciences 1992 was presented by the Academy.
11. **Member of International Organizing Committee** for the Joint Conference of VII International Kiev Conference on Plasma Theory and VII International Congress on Waves and Instabilities in Plasmas held in Kiev, USSR, April 6-12, 1987 (a periodic International Conference of Commission XVI of IUPAP and IUPAP sponsored).
12. **Co Chairman of International Organizing Committee** for the Joint Conference of VIII International Kiev Conference on Plasma Theory and VIII International Congress on Waves and Instabilities in Plasmas held at New Delhi, India Nov.22-28, 1989 (a periodic International Conference of Commission XVI of IUPAP and IUPAP sponsored).
13. **Member, International Advisory Committee** for 1992 International conference on Plasma Physics held at Innsbruck, Austria, July 29 August 3, 1992 (a periodic International Conference of Commission XVI of IUPAP and IUPAP sponsored).
14. **Member, International Advisory Committee** for 1994 International Conference on Plasma Physics held at Foz D Iguacu, Brazil, Oct 31 – Nov 4, 1994 (a periodic International Conference of Commission XVI of IUPAP and IUPAP sponsored).
15. **Invited by the Member of the Nobel Committee for Physics** on behalf of the Royal Swedish Academy of Sciences for submission of the **proposals** for the award of **The Nobel Prize for Physics for 1996.**
16. **Member, Expert group of Department Of Science and Technology** for Vision: Plasma Physics, 1996 – 2001.
17. **Member, Planning Committee of Department of Science and Technology** for IIInd 5 year Cycle of SERC Schools in Plasma Physics.
18. **Member, International Advisory Committee** for 1996 International Conference on Plasma Physics held at Nagoya, Japan Sept 9-13, 1996 (a periodic International Conference of Commission XVI of IUPAP and IUPAP sponsored).
19. **Member, International Advisory Committee** for Regional Conference on Plasma Research in 21st Century held at Bangkok, Thailand, May 7-12, 2000.
20. **Member, International Advisory Committee** for International Conference on Plasma Physics –2000 held at Quebec, Canada, October 23-27, 2000 (a periodic International Conference of Commission XVI of IUPAP and IUPAP sponsored).
21. **PLATINIUM JUBILEE LECTURER** of the Physics Section of 87th Indian Science Congress Association, held at University of Poona, January 3-7, 2000.
22. **Member, International Advisory Committee** for International Conference on Plasma Physics-2002 held at Sydney, Australia, July 15-19, 2002 (a periodic International Conference of Commission XVI of IUPAP and IUPAP Sponsored).
23. **Member, International Advisory Committee** for International Conference on Plasma Physics-2004 held in Nice, France, October 2004.
24. **Member Expert Group of University Grants Commission** for assessment of COSIST Grants to various Universities.
25. **Member Expert Group of University Grants Commission** for Review of Centre of Advanced Study (CAS) Programs under SAP grants.
26. **Member, Expert Review committee of University Grants Commission for XI th Plan Grants to Bangalore University 2008.**
27. **Member, Editorial Board for Indian Journal of Pure and Applied Physics:2008-10**
28. **Coordinator, UGC-SAP (2004--2009)**
29. **Member, International Executive Committee of the International Symposium on Applied Plasma Science 2009, Hamburg, Germany.**
30. **Executive Member of Institute of Applied Plasma Sciences, Japan 2009 to date**
31. **Member, National Advisory Committee for 24th National Symposium on Plasma Science and Technology, Hamirpur, 2009**
32. **Associate Editor to Plasma Applications and Hybrid Functionally Materials, Korea, 2010**
33. **Member, Editorial Board for Frontier of Applied Plasma Technology, Japan, 2010**
34. **Member, National Advisory Committee for 25th National Symposium on Plasma Science and Technology, Guwahati, 2010**

Publications (LAST FIVE YEARS)

<u>Books / Monographs</u>			
<u>Year of Publication</u>	<u>Title</u>	<u>Publisher</u>	<u>Co-Author</u>
<u>In Indexed/ Peer Reviewed Journals</u>			
<u>Year of Publication</u>	<u>Title</u>	<u>Journal</u>	<u>Co-Author</u>
2007	Turbulent compressible convection with rotation, Penetration below a convection Zone	Astrophysical and Space Science Vol.307, pp.399-407	S.P, Pal, H.P Singh, K.Wing, L.Chan
2007	Nanomaterial and Nanoparticles Deposition On different substrates using Dense Plasma Focus Device	Advances in Applied Plasma Science, Vol.6 pp. 227-230	-----
2008	Turbulent Compressible convection with rotation penetration above a convection zone	Astrophysics and Space Science, Vol. 314 pp.231-39	S.P Pal, H.P.Singh K. Wing, L.Chan
2009	Plasma Route to Nanoscience and Nanotechnology Frontiers	Journal of Plasma Fusion and Research series Vol. 8, pp. 512-16	-----
2009	Nanoparticles and Nanostructured cobalt deposition using Dense Plasma Focus device and their characterization	Journal of Plasma Fusion and Research series Vol. 8, pp.526-29	W.P.Singh and Savita Roy
2009	Extremely non-equilibrium synthesis of luminescent zinc oxide nanoparticles through energetic ion condensation in a dense plasma focus device	Journal of Physics D: Applied Physics Vol. 42 pp.155202 (7pp)	Y.Malhotra, S.Roy, C.R.Kant and K.Ostrikov
2009	Deposition of Germanium Nanostructures using Dense Plasma Focus Device and their Characterization	Advances in Applied Plasma Science, Vol. 7, pp. 247-50	B.D. Naroem and S. Roy
2009	Fabrication of Bilayer Magnetic/Graphite Nanostructures using Dense Argon on Silicon <111> Substrates	Advances in Applied Plasma Science, Vol. 7, pp. 247-50	Yashi Malhotra
2010	Formation of Iron nanoparticles on quartz substrate using Dense Plasma Focus device	Journal of Physics: CS Vol 208 pp.012105	W.P.Singh and Savita Roy
2010	Deposition and surface characterization of nanoparticles of zinc oxide in nitrogen ion atmosphere	Journal of Physics: CS Vol. 208 pp. 012106	Yashi Malhotra and Savita Roy
2010	Deposition of Aluminium nanoparticles using dense plasma focus device	Journal of Physics: CS Vol.208, pp 012103	B.D.Naroem and S.Roy
2010	Plasma Processing of Nanomaterials under	Application and	-----

<p>Extremely Non- Equilibrium Plasma Conditions with high Temperature and Density</p>	<p>Hybrid Functionally Materials Vol. 19 pp. 3-6</p>
<p><u>Articles</u></p>	
<p><u>Conference Presentations</u></p> <ol style="list-style-type: none"> (1) M.P.Srivastava, (invited lectures) Diamond like Carbon and other nanomaterials deposition using Dense Plasma Focus Device, their Characterization and applications in " Application of nanocrystalline Diamond and Diamond like Carbon Materials", Ed. N.R. Ray, 131-136, 2006 (2) Invited lecture delivered during "THE SIXTH INTERNATIONAL SYMPOSIUM ON APPLIED PLASMA SCIENCE held at Nikko, JAPAN from September 24-28,2007 (3) Delivered an Invited Lecture entitled "Plasma Route to Preparation of thin Films and Nanofabrication and their characterization " at the School of Electrical, Electronics and Computer Engineering, Faculty of Engineering, Computing and Mathematics, The University of Western Australia, Australia on June 5, 2008. (4) Delivered an Invited lecture during International Workshop on Plasma Diagnostics and Applications held at Nanyang Technological University, Singapore from July 2-3, 2009. (5) Delivered an invited lecture during Seventh International Symposium on Applied Plasma Science (ISAPS'09) held at University of Hamburg, Germany, August 31 -September 4, 2009. (6) Delivered a lecture entitled "Carbon dioxide decomposition by Plasma route" at JWRI, Osaka University, Japan on February 8, 2010. (7) Delivered a lecture entitled "Plasma Route to Nanostructures" at Department of Electrical Engineering, University of Saga, Saga, Japan on February 10, 2010 (8) Presented an oral paper in 3rd International Conference on Plasma Nano Technology and Science held at Meijo University, Nagoya, Japan, February 11-12, 2010. (9) Delivered a Plenary Lecture entitled "Plasma Processing of Nanomaterials under Extremely Non-Equilibrium Plasma Conditions with high Temperature and Density" during Third International Workshop on Plasma Application and Hybrid Functionally Materials and 17th Annual Meeting of Institute of Applied Plasma Science held at Centum Hotel , Korea during February 26-28,2010 	
<p>Total Publication Profile optional</p>	
<p><u>Books</u></p>	
<p><u>In Indexed/ Peer Reviewed Journals</u> Seventy four</p>	
<p><u>Articles</u></p>	
<p><u>Conference Presentations</u> Thirty six</p>	
<p>Public Service / University Service / Consulting Activity</p>	

1. Warden, International Students House, University of Delhi, 1980-85.
2. Member Governing Body, Gwyer Hall, University of Delhi, 1971-73.
3. Member Governing Body, Kamla Nehru College, University of Delhi, 1997-98.
4. Member (External) Faculty of Science, University of Rajasthan, Jaipur (1993-95).
5. Member (External) Faculty of Science, University of Lucknow, Lucknow(1999-2001).
6. Member (External) Faculty of Science, Devi Ahilya University, Indore (1999-2001).
7. Member (External) Faculty of Science, Benaras Hindu University, Varanasi (2005-to date)
8. Member, Academic Council, University of Delhi, Delhi (2001-03)-representation from Professors out of their SENIORITY and as HOD Physics (2004-07).
9. Member External for Board of Studies in Physics, Allahabad University, Allahabad. (2006-09)
10. Member , Governing Body, Deshbandhu College, University of Delhi, 2007-to date
11. Head of the Department of Physics and Astrophysics, University of Delhi, November 2004 -07.
12. Chairman, Board of Research Studies (Sciences) Faculty of Science, Delhi University, 2006-07.
13. Chancellor's nominee of the Selection Committee in a University in Haryana.
14. Member, Standing Committee on Academic Matters to the Academic Council (2004-07).
15. Member ,Business Advisory Committee of the Academic Council (2004-07)
16. Member, Faculty of Science, Delhi University (1988-to date)
17. Member, Delhi University Court (1988-to date)
18. Member National Curriculum Committee, C.B.S.E. (2004-to date)
19. Convenor, Physics Syllabus Committee, C.B.S.E. (2004- to date)
20. Member, Examination Committee, C.B.S.E. (2005-to date)
21. Member Expert Group of University Grants Commission for assessment of COSIST Grants and CAS program of SAP grants to various Universities.
22. Member, Expert Review Committee of University Grants Commission for XI th Plan Grants
23. Expert for evaluation for projects of University Grants Commission
24. Video UGC Lecture transmitted at different regional network centers with discussions.
25. As a Science Mentor of INSPIRE Program of Department of Science and Technology, Govt of India.
26. As an Expert Member for selection committee of IAS, PCS of different states, DRDO Scientist , IIT's and Universities.
27. As a Member of National Advisory committee for organizing plasma conference under Plasma Science Society of India.

Professional Societies Memberships

American Physical Society, American Geophysical Union, New York Academy of Science and Life Members of Plasma Science Society of India, Indian Science Congress Association and The National Academy of Sciences of India

Projects (Major Grants / Collaborations)
Principal Investigator-C.S.I.R project, 1991-93
Other Details
<ol style="list-style-type: none"> 1.Nucleated and developed Experimental Plasma Research Laboratory at the Department of Physics 2.Two PATENTS on Diamond Like Carbon (DLC) 3.Member of a committee appointed by Vice-Chancellor, Delhi University in establishing the Internet Centre at Central Science Library in 1997. 4. Participated on National Television interview/ discussion on various T.V channels e.g. Doordarshan, Aaj Tak, CNN IBN, ETV etc. on various scientific topics from time to time. 5. Part of a global network for Plasma Route to Nanofabrication.

(Signature of Faculty Member)

(Signature & Stamp of Head
of the Department)