

## Faculty Profile

**Name:** Dr. Vishal Mathur  
**Designation:** Assistant Professor  
**Teaching Area:** Physics-I, Physics-II, Electronic Devices and Circuits  
Electromagnetic Field and Waves, R.F. Microwave Engineering.  
**Research Interests:** - Material Science- Nanoscience & Nano Tehnology  
**Education:** M.Sc. (Physics), University of Rajasthan, Jaipur , 2002.  
Ph.D. (Science-Physics), University of Rajasthan, Jaipur, 2010.



### Professional Experience: (12 Years)

1. July 2002- Sep 2005: Lecturer, S. S. Jain Subodh P.G. College, Jaipur
2. Oct 2005-June 2013, Faculty Member, Kautilya Institute of Technology & Engineering, Sitapura, Jaipur
3. July 2013- Sep 2013: Faculty Member, S. S. Jain Subodh P.G. College, Jaipur
4. Oct 2013 to till date: THE ICFAI UNIVERSITY, JAIPUR, INDIA

### Publications:

#### BOOK PUBLISHED (03)

1. "A Textbook of Engineering Physics-II" published in 2015 through University Science Press, An Imprint of Laxmi Publications Pvt. Ltd., Delhi, as per prescribed revised syllabus of Rajasthan Technical University, Kota, Rajasthan with ISBN 978-93-83828-44-9.
2. "Review on Material Science Research Characterization Techniques (Vol. I)", A Brief Introduction to FTIR, XRD, SEM, HDTCA, DMA, Electrometer & Optical Spectroscope Experimental Techniques, Published in 2014 through Lambert Academic Publishing with ISBN: 978-3-659-56482-6.
3. "A Textbook of Engineering Physics-I" published in 2011 through University Science Press, An Imprint of Laxmi Publications Pvt. Ltd., Delhi, as per prescribed syllabus of Rajasthan Technical University, Kota, Rajasthan, with ISBN 978-93-80856-75-9.

#### Research PAPERS PUBLISHED IN CONFERENCE PROCEEDINGS (11)

1. Vishal Mathur, Rana Mukherji , R.K.Chaurasia , Kananbala Sharma , "Structural Characterization of PS, PMMA and PS/PMMA Polymeric Blend", Proceedings of 1st International Conference on Innovative Advancements in Engineering and Technology, March 7 - 8, 2014.
2. Rana Mukherji, R.K.Chaurasia, Vishal Mathur , Manishita Das Mukherji, Puneet Kalia, " Reconfigurable Application Specific Instruction Set Processors - A New Paradigm for Embedded System Design", Proceedings of 1st International Conference on Innovative Advancements in Engineering and Technology, March 7 - 8, 2014.
3. R.K.Chaurasia, Rana Mukherji, Vishal Mathur, Manishita D.Mukherji, Ranjan Mishra, "Performance Analysis of IEEE 802.11b using different modulation schemes with efficient coding schemes", Proceedings of 1st International Conference on Innovative Advancements in Engineering and Technology, March 7 - 8, 2014.
4. Vishal Mathur, Sandhya Gupta, Kananbala Sharma, "Mechanical Performance of CdS/Polystyrene Nanocomposite", Published in Seminar on Modern Trends in science and Technology proceeding Dec28-29,(2012); Poush 13-14,2069 / Biratnagar, Nepal Page no. 36.
5. Sandhya Gupta, Vishal Mathur, Kananbala Sharma, "Structural and Mechanical study of chalcogenide (CdS , ZnS) coated PET films. Published in Seminar on Modern Trends in science and Technology proceeding Dec28-29,(2012); Poush 13-14,2069 / Biratnagar, Nepal Page no. 24.
6. Vishal Mathur, Manasvi Dixit, N. S. Saxena and Kananbala Sharma "Phase Transition and Mechanical Properties of PS/PVC/CdS Polymeric Nanocomposites", Published in A. I. P. proceeding volume 1249 (2010), Page no. 141-144.
7. Manasvi Dixit, Vishal Mathur, Mahesh Baboo, Kananbala Sharma and N.S. Saxena, "Miscibility and Thermophysical Properties of Blend of Poly methyl methacrylate with Polyvinylchloride", Published in A. I. P. proceeding volume 1249 (2010), Page no 63-66.
8. M. Dixit, V. Mathur, S. Gupta, P.K. Jain, N. S. Saxena and K. B. Sharma, "Studies on The Mechanical Performance of PMMA and PVC Blend", Presented in ICEP Conference, Jaipur. Published in Proceeding of "Electroactive Polymers: Materials & Devices" Vol. 3; Macmillan Publishers, New Delhi, (2009) Page no.. 258-265.

9. Manasvi Dixit, Vishal Mathur, Sandhya Gupta, Mahesh Baboo, Kananbala Sharma, N.S. Saxena, "Mechanical Properties of Polymethyl methacrylate and Poly vinyl chloride Blends", Published in proceeding of the 53rd DAE Solid State Physics Symposium (2008) p.1253-1254.
10. Manasvi Dixit, Sandhya Gupta, Vishal Mathur, K. S. Rathore, Kananbala Sharma and N.S. Saxena, "Study of relaxation behaviour of CdS dispersed Poly methyl methacrylate"  
(Presented in NCSMT Conference, Haridwar)
11. Manasvi Dixit, Vishal Mathur, Kananbala Sharma, N.S. Saxena, "Study of the Miscibility and the Mechanical Properties of Polymethyl methacrylate and Polycarbonate Blends"  
(Presented in MR-09 Conference in IIT Mumbai)

#### PAPERS PUBLISHED IN INTERNATIONAL JOURNALS (15)

1. Vishal Mathur, Dinesh Patidar, Kananbala Sharma, "Effect of nano CdS dispersion on thermal conductivity of PS/PVC and PS/PMMA polymeric blend nanocomposites", Applied Nanoscience, 1-6, DOI 10.1007/s13204-014-0357-7.
2. Vishal Mathur, Kananbala Sharma, "Probing Nanoscale Morphology of PS/PMMA/CdS & PS/PVC/CdS Polymeric Nanocomposites through Small Angle X-Ray Scattering Analysis", Modern Instrumentation, 3, 2014, 25-28.
3. Vishal Mathur, Kananbala Sharma, "Small Angle X-Ray Scattering Analysis of PS/CdS, PVC/CdS & PMMA/CdS Polymeric Nanocomposites", e-Journal of Surface Science and Nanotechnology 12,2014, 420-422
4. Vishal Mathur, Manasvi Dixit and Kananbala Sharma, "Structural Characterization of PS, PVC and PS/PVC Polymeric Blend", SKIT Research Journal, An International Journal of Engineering, Science, Humanities And Management, 4(1) 2014, 76-77, ISSN 2278-2508.
5. Vishal Mathur, Rana Mukherji , R.K.Chaurasia , Kananbala Sharma ,"Structural Characterization of PS, PMMA and PS/PMMA Polymeric Blend", INROADS- An International Journal of Jaipur National University, 3(1s), 2014, 69- 71, Print ISSN : 2277-4904. Online ISSN: 2277-4912.
6. Vishal Mathur, Kuldeep S. Rathore and Kananbala Sharma, "Evaluation of Energy Band Gap, Thermal Conductivity, Phase Transition Temperature and Elastic Response of PS/CdS Semiconducting Optical Nanocomposite", World Journal of Nanoscience and Engineering .2 (3) 2013, 93-99.
7. Vishal Mathur and Kananbala Sharma, "Evaluation of morphological effect on thermal and mechanical performance of PS/PMMA/CdS nanocomposite systems", Advances in Nanoparticles, 2 (3), 2013, 205-216.
8. Vishal Mathur and Kananbala Sharma, "Structural, Morphological and Tensile Study of CdS/Polystyrene (PS) Nanocomposite", Journal of Research Updates in Polymer Science (2), 2013, 105-109.
9. Vishal Mathur, Manasvi Dixit, Kuldeep S. Rathore, N. S. Saxena and Kananbala Sharma "Morphological and Mechanical characterization of PMMA-CdS Nanocomposite", Frontier of Chemical Engineering, 5(2) 2011,258-263.
10. Vishal Mathur, Manasvi Dixit, K.S.Rathore, N. S. Saxena and Kananbala Sharma "Tensile Study of PVC-CdS Semiconducting Nanocomposite", Optoelectronics and Advanced Materials-Rapid Communications, 3 (7) (2009) 685-687.
11. Vishal Mathur, Manasvi Dixit, Kuldeep S. Rathore, N. S. Saxena and Kananbala Sharma "Morphological Effects on Mechanical properties of Polystyrene-Polyvinylchloride blends", Phase Transitions volume 82, No.11, November 2009, 769-779.
12. Manasvi Dixit, Vishal Mathur, Sandhya Gupta, Mahesh Baboo, Kananbala Sharma and N. S. Saxena, "Investigation of Miscibility and Mechanical Properties of PMMA/PVC Blends", Optoelectronics and Advanced materials-Rapid Communications, 8 (10) (2009)1099-1105.
13. Manasvi Dixit, Sandhya Gupta, Vishal Mathur, Kuldeep S Rathore, Kananbala Sharma and N. S. Saxena, "Study of glass transition temperature of PMMA and CdS-PMMA composite", Chalcogenide letters 6 (3) (2009) 131-136.
14. Manasvi Dixit, Vishal Mathur, Sandhya Gupta, Mahesh Baboo, Kananbala Sharma and N. S. Saxena, "Morphology, miscibility and mechanical properties of PMMA/PC blends", Phase Transitions Vol. 82, No. 12, December 2009, 866-878.
15. Manasvi Dixit, Sandhya Gupta, Vishal Mathur, Kananbala Sharma and Narendra S Saxena, "Activation energy of  $\alpha$ - and  $\beta$ -relaxation process of PMMA and CdS-PMMA nanocomposite", Journal of Nanostructured Polymers and Nanocomposite, 6 (1), 2009, 28-35.

#### Membership:-

- Life time membership of Thermo-Physical Society of India (TPSI).
- Member of American Nano Society.
- Member of Editorial Board of "Journal of Plastic and Polymer Technology (PAPT)", Science and Engineering Publishing Company.
- Member of Editorial Board of "Energy Review", Pak Publishing Group.
- Member of Editorial Board of "Journal of Chemical Engineering and Chemistry Research", Ethan Publishing Company.