



DESHBANDHU COLLEGE
(UNIVERSITY OF DELHI)
KALKAJI, NEW DELHI - 110019
Faculty Details Proforma for College Website

Title	Dr.	First Name	Monika	Last Name	Sharma	Photograph
Designation	Assistant Professor					
Address	Physics Department, Deshbandhu College					
Phone No. Office						
Residence	H-45, 1 st Floor, Kalkaji, New Delhi-110019					
Mobile	8383811692					
Email	monikasharma1604@gmail.com					
Web-Page						
Educational Qualifications						
Degree	Institution				Year	
Ph.D.	Indian Institute of Technology Delhi				2015	
M.Phil. /M.Tech	National Institute of Technology, Kurukshetra				2009	
PG	University of Delhi				2005	
UG	University of Delhi				2003	
Any other qualification	B.Ed (Kurukshetra University)				2006	
Career Profile						
Assistant Professor (Ad-Hoc)			14 August 2014 – Till Now			
Deshbandhu College, University of Delhi.						
Administrative Assignments						
<ul style="list-style-type: none"> • Organizing Member of International conference on Bhartiya Women: Past, Present and Future, 2019 organized by Deshbandhu College. • Organizing Member of International conference on Physics, Society and Technology 2019 organized by department of physics, Deshbandhu College. • Member of Cultural Committee in Sabrang 2015 oragnized by Deshbandhu College. • Member of Physics Society of Deshbandhu College. 						
Areas of Interest/Specialization						
Nano-electronics: Spintronics, MMIC-Microwave monolithic Integrated Circuits based nano devices, magnetic materials.						
Subjects Taught						
Digital Electronics	Solid State Physics	Mechanics	Elements of Modern Physics			
Communication System	Waves and Oscillations	Electricity and Magnetism	Scilab, C++			
Research Guidance						
List against each head (If applicable):						
1. Supervision of awarded Doctoral Thesis						
2. Supervision of Doctoral Thesis, under progress						
3. Supervision of awarded M.Phil. dissertations						

4. *Supervision of M.Phil. dissertations, under progress*

Publications Profile

List against each head (If applicable) (as Illustrated with examples)

1. *Books/Monographs (Authored/Edited)*

- Manish Sharma, Sachin Pathak, Monika Sharma, "FMR Measurements of Magnetic Nanostructures", Ferromagnetic Resonance – Theory and Applications, ISBN 978-953-511186-3, InTech, 2013.
- Monika Sharma and Bijoy K. Kuanr, "Electrodeposition of Ferromagnetic Nanostructures," Electroplating of Nanostructures, InTech, 2015, ISBN 978-953-51-43444.

2. *Research papers published in Refereed/Peer Reviewed Journals*

a) *Research papers published in Academic Journals other than Refereed/Peer Reviewed Journals*

b) *Research papers published in Refereed/Peer Reviewed Conferences*

- Monika Sharma, and Bijoy K. Kuanr, "Microwave devices based on template-assisted NiFe nanowires: Fabrication and characterization," Journal of Physics D: Applied Physics, xx, 2019, ISSN: 022-2207. DOI: 10.1088/1361-6463/ab55a4.
 - Monika Sharma, Ananjan Basu, and Bijoy K. Kuanr, "Magnetization reversal switching in nanocylinders using dynamic techniques," *Journal of Magnetism and Magnetic Materials*, 476, 2019, pp. 234-242. ISSN: 0304-8853. DOI: 10.1016/j.jmmm.2018.12.074.
 - Monika Sharma, Bijoy K. Kuanr, V. Veerakumar, Ananjan Basu, and Z. Celinski, "Magnetization dynamics and reversal mechanisms in Ni nanowire and nanotube arrays," *IEEE Transactions on Magnetics*, vol. 50, No. 11, 2014, pp. 2801404. ISSN: 0018-9464.
 - Monika Sharma, Bijoy K. Kuanr, Manish Sharma and Ananjan Basu, "Tunable EMI noise suppressor based on Ni nanowire arrays," *Physica B*, vol. 448, 2014, pp. 316-319. ISSN: 09214526. <http://dx.doi.org/10.1016/j.physb.2014.02.026>.
 - Monika Sharma, Bijoy K. Kuanr, Manish Sharma and Ananjan Basu, "New Opportunities in microwave electronics with ferromagnetic nanowires," *Journal of Applied Physics*, vol. 115, 2014, pp. 17A518. ISSN (printed): 0021-8979, ISSN (electronics): 1089-7550. <http://dx.doi.org/10.1063/1.4866235>.
 - Monika Sharma, Bijoy K. Kuanr, Manish Sharma and Ananjan Basu, "Relation between static and dynamic magnetization effects and resonance behaviour in Ni nanowire arrays," *IEEE Transaction on Magnetics*, vol. 50, No. 4, 2014, pp. 4300110. ISSN: 0018-9464. DOI: 10.1109/TMAG.2013.2287223.
 - Monika Sharma, Bijoy K. Kuanr, Manish Sharma and Ananjan Basu, "Tunable coplanar waveguide microwave devices on ferromagnetic nanowires," *Journal of Materials, Mechanics and Manufacturing*, vol. 2, no. 1, 2014, pp. 88. ISSN: 1793-8198, DOI: 10.7763/IJMMM.2014.V2.88.
 - Nitu Kumar, Vinod Kumar, Manju Arora, Monika Sharma, Bhikham Singh and R.P. Pant, "Synthesis of Mn_{0.2}Zn_{0.8}Fe₂O₄ particles by high energy ball milling and their applications", *Indian Journal of Engineering and Material Sciences*, vol.16, 2009, pp. 410-414. ISSN: 0975-1017.
- c) *Research papers Published in Conferences/Seminar other than Refereed/Peer Reviewed Conferences*
- Sameeksha Bhatnagar, Ravi Kumar, Monika Sharma, and Bijoy K. Kuanr, "Reduced Graphene Oxide/ZnO nanostructures based rectifier diode," *AIP conference Proceedings*,

vol. 1832, 2017, pp. 050060. doi: 10.1063/1.4980293.

- Monika Sharma, Sachin Pathak, Sukhvinder Singh, Manish Sharma and Ananjan Basu, "Highly Ordered Magnetic Nickel Nanowires: Structural Properties and Ferromagnetic Resonance Measurements," AIP Conference Proceedings, vol. 1347, 2011, pp. 153-156. ISSN: 0094-243X. <http://dx.doi.org/10.1063/1.3601807>.

3. *Other publications (Edited works, Book reviews, Festschrift volumes, etc.)*

Conference Organization/ Presentations

List against each head (If applicable)

1. *Organization of a Conference:*

- Member of organizing committee International Conference on Bhariya Women: Past, Present and Future 2019, to be held on 23-24 February, organized by Deshbandhu College.
- Member of organizing committee International Conference on Physics, Society and Technology (ICPST) 2019, to be held on 17-19 January, organized by Department of Physics, Deshbandhu College.

2. *Participation as Paper/Poster Presenter*

- Sonali Soni, Shivani Patel, Monika Sharma, and Bijoy K. Kuanr, "Annealing temperature effects on NiO/ITO hetero-junction diodes for transparent electronics," International Conference on Physics, Society and Technology (ICPST) 2019, presented a poster, January 17-19, Conference Centre, University of Delhi, New Delhi, India.
- Participated in National Workshop on Technical Terminology in Science Teaching by Commission for Scientific and Technical Terminology, Ministry of Human Resource Development, Department of Higher Education held on October 26-27, 2017 in Deshbandhu College, University of Delhi.
- Participated as Member Organising committee and Resource Person in the INSPIRE Internship Program 2014, 2015, and 2017 organized by Deshbandhu College, University of Delhi.
- "Synthesis and characterization of Mn doped ZnO thin films by sol-gel technique", Innovation Conclave, Acharya Narendra Dev College, University of Delhi. 25-26 October, 2016.
- Fabrication of diluted magnetic semiconductors and its application in spintronic devices", International conference on Advances in Nanomaterials and Nanotechnology, Jamia Millia Islamia, 4th – 5th November, 2016.
- Participated in National Seminar on Recent Trends in Nano-Bio interface (2015), December 18, JNU, New Delhi, India.
- Monika Sharma, Bijoy K. Kuanr, and Ananjan Basu, "Synthesis and characterization of highly ordered NiFe/Cu multilayer nanowires," International Conference on Recent Advances in Nanoscience and Nanotechnology (ICRANN) 2014, presented a poster and submitted a full length paper, December 15-16, JNU, New Delhi, India.
- Monika Sharma, Bijoy K. Kuanr, and Ananjan Basu, "Synthesis and characterization of highly ordered Y-shape Ni nanowires and nanotubes," International Conference on Recent Advances in Nanoscience and Nanotechnology (ICRANN) 2014, presented a poster and submitted a full length paper, December 15-16, JNU, New Delhi, India.
- Monika Sharma, Bijoy K. Kuanr, V. Veerakumar, Ananjan Basu, and Z. Celinski, "Magnetization dynamics and reversal mechanisms in Ni nanowire and nanotube arrays," IEEE International Magnetism Conference (Intermag) 2014, presented a poster and submitted a full length paper, May 4-8, Dresden, Germany.
- Monika Sharma, Bijoy K. Kuanr, Manish Sharma and Ananjan Basu, "Tunable EMI noise suppressor based on Ni nanowire arrays," International Conference on Magnetic Materials and Applications (MagMA) 2013, presented a poster and submitted a full paper, December 5-7, IIT Guwahati, India.
- Monika Sharma, Bijoy K. Kuanr, Manish Sharma and Ananjan Basu, "New Opportunities in

microwave electronics with ferromagnetic nanowires,” International Conference on Magnetism and Magnetic Materials (MMM) 2013, presented a poster and submitted a full paper, November 4-8, Denver, Colorado, USA.

- Monika Sharma, Bijoy K. Kuanr, Manish Sharma and AnanjanBasu, “Tunable coplanar waveguide microwave devices on ferromagnetic nanowires,” International Conference on Nano Science and Technology (ICNST) 2013, present an oral talk and submitted a full paper, September 16-17, New Delhi.
- Monika Sharma, Bijoy K. Kuanr, Manish Sharma and AnanjanBasu, “Tunable noise suppressor based on Ni nanowire arrays,” International Conference on Materials for Advanced Technologies (ICMAT) 2013, presented poster and submitted a full paper, June 30 – July 5, Suntec City, Singapore (2013).
- Sachin Pathak, Monika Sharma, and Manish Sharma, “Magnetization dynamics in highly ordered ferromagnetic multilayered nanowires array”, IEEE International Magnetics Conference (Intermag) 2012, presented poster and submitted a full paper, May 7-11, Vancouver, Canada (2012).
- Monika Sharma, Manish Sharma and Ananjan Basu, “Comparison of ferromagnetic resonance studies in Ni thin films and array nanowires”, 16th International Workshop on the Physics of Semiconductor Devices (IWPSD) – 2011, Dec 19-22 held in IIT Kanpur, presented poster.
- Sachin Pathak, Monika Sharma, Manish Sharma and Ananjan Basu, “FMR and Electron Spin Resonance Studies in Electrodeposited Multilayered Magnetic Nanowire Arrays”, IEEE International Magnetics Conference (Intermag) 2011, presented poster and submitted a full paper, Apr 25-29, Taipei, Taiwan (2011).
- Monika Sharma, Sachin Pathak, Manish Sharma and Ananjan Basu, “Planar Magnetic Microwave Devices using Ferromagnetic Nanowires Substrate”, IEEE International Magnetics Conference (Intermag) 2011, presented poster and submitted a full paper, Apr 25-29, Taipei, Taiwan (2011).
- Monika Sharma, Sachin Pathak, Manish Sharma and Ananjan Basu, “Ferromagnetic Nanowires for Microwave Applications”, International Conference on Quantum Effects in Solids of Today (I-ConQuEST – 2010), presented poster in National Physical Laboratory, Dec 20-23, New Delhi (2010).
- Monika Sharma, Sachin Pathak, Sukhvinder Singh, Manish Sharma and Ananjan Basu, “Highly Ordered Magnetic Nickel Nanowires: Structural Properties and Ferromagnetic Resonance Measurements”, International Conference on Magnetic Materials (ICMM – 2010), presented poster and submitted full paper, Oct 25 – 29, Kolkata (2010).
- Monika Sharma, Trilok Singh and Rajendra Singh, “Growth and characterization of electrodeposited CdO nanostructures and nanowires”, Proceedings of 15th International Workshop on the Physics of Semiconductor Devices (IWPSD) – 2009, Dec 15 – 19, New Delhi, 2009.

Research Projects (Major Grants/Research Collaboration)

Project Investigator of Innovation Project granted by University of Delhi, titled – “Spintronic Devices for Data Storage Applications,” 2015 with a grant of 4.5 Lacs.

Awards and Distinctions

- Student Travel Award for attending 58th MMM Conference at Denver, Colorado, USA.
- Awarded excellent paper presentation certificate in International Conference on Nanoscience and Technology (ICNST-2013).
- Awarded “Level B” Proficiency in the operation of Scanning Electron Microscope at IIT Delhi (2012).
- Awarded Academic Certificate in B.Sc. (2002) for getting 2nd highest marks in the college.
- HRD Scholarship: A recipient of MHRD scholarship for pursuing M.Tech at NIT Kurukshetra.
- All INDIA GATE rank 260/5239 (Feb-2007). Ref. No. – 304450.
- Qualified CSIR-NET rank – 325/543 (June-2011). Ref. No. – 19-06/2011(i) EU-IV, S.No. 3061152971.

Association With Professional Bodies

- *Editing*
- *Reviewing*
- *Advisory*
- *Committees and Boards*
- *Memberships*
- *Office Bearer*

Other Activities

- Awarded 1st Prize in Choreo in M.Tech.(2008).
- Awarded 1st Prize in Apparel Designing in M.Tech.(2008).
- Awarded 3rd Prize in Rangoli in M.Tech.(2008).
- Awarded excellent paper presentation certificate in International Conference on Nanoscience and Technology (ICNST-2013).
- Awarded "Level B" Proficiency in the operation of Scanning Electron Microscope at IIT Delhi (2012).
- Awarded Academic Certificate in B.Sc. (2002) for getting 2nd highest marks in the college.
- HRD Scholarship: A recipient of MHRD scholarship for pursuing M.Tech at NIT Kurukshetra.

Monika

Signature of Faculty
Member