

FACULTY PROFILE

Name: Dr. Jhalak Gupta

Designation: Assistant Professor, Department of Physics

Email: jhalakg@srmist.edu.in

Orchid Id: 0000-0002-1393-4406



➤ **Work Experience:** Currently working in SRM IST, Modinagar since Feb 2024

➤ **Professional Qualification:**

Degree	Institute/University	Specialization	Year of Passing
Ph.D.	AMU, Aligarh, U.P.	Physics	2023
M.Tech.	ZHCET, AMU, Aligarh, U.P.	Nanotechnology	2016
M.Sc.	AMU, Aligarh, U.P.	Physics (CMP)	2014
B.Sc.	N.M.S.N.Dass College, MJPRU, Budaun, U.P.	Physics, Mathematics	2012

➤ **Research Interest:**

- Synthesizing nanomaterials and nanocomposites via chemical routes
- Green approach for nanomaterials synthesis
- Electrode materials for supercapacitors
- Nanomaterials for photocatalysis and drug degradation
- Nanomaterials for energy storage via dielectric analysis

➤ **Publications (Journals & Conferences):**

1. **Jhalak Gupta**, Arham S. Ahmed ,“**Interfacial exchange coupling and defect driven magnetic and optical properties of Co₃O₄-NiO nanocomposites**”, Physica B, 599 (2020) ,412383.
2. Arham S. Ahmed,**Jhalak Gupta**, Abdul Hakeem Anwer, Mohammad Zain Khan, “**Investigation of dielectric and electrochemical properties of Co₃O₄-NiO nanocomposites with varying NiO content**”, Physica B, 629(2022), 412623.
3. **Jhalak Gupta** and Arham Shareef Ahmed, “**Temperature dependent analysis of dielectric behaviour of Co₃O₄/NiO nanocomposites with varying NiO concentration**”,Journal of material science: material in electronics 33,(2022),24182-24207.
4. Mohd Arshad, Arshad Iqbal,Tanveer Ahamad, **Jhalak Gupta**,M.Arshad, Arham Shareef Ahmed ,“**Biogenic Synthesis of Pure and Ag-doped CeO₂ Nanoparticles and Analysis of Their Dielectric Properties**”, Journal of Electronic Materials, 52(2023),5690-5706.
5. Tahira Khatoun, Navshad Alam, Vishal Singh Chandel, Ameer Azam, Seema Srivastava, **Jhalak Gupta** ,“**Exploring the synergistic effects of La³⁺ substitution on dielectric performance of manganese cobalt ferrite:Implications for advanced**

- electronic applications**”, Journal Ceramics International, 50(2023),7156-7167.
6. Azam Raza, **Jhalak Gupta**, Tanveer Ahamad, S.K. Najrul Islam, Mohammad Muaz, Syed Mohd Adnan Naqvi & Absar Ahmad, In: Khan, Z.H. Jackson, M. Salah, “**Dielectric, Optical, and Structural Analysis of Nanostructured Mn-Doped ZnO Using Phoenix Dactylifera**”, N.A.(eds) Recent Advances in Nanomaterials. ICN, Springer Proceedings in Materials, vol 27(2022).
 7. **Jhalak Gupta** and Arham S. Ahmad, “Investigation of photoluminescence and dielectric properties of pure and Fe doped nickel oxide nanoparticles”, AIP Conference Proceedings, 1953(1),030036.
 8. **Jhalak Gupta** and Arham S. Ahmad, “Structural, optical and dielectric properties of pure and chromium (Cr) doped nickel oxide nanoparticles”, AIP Conference Proceedings, 1953(1),030082.

➤ **Patent published and granted:**

Patent Published: A COMPOSITION FOR PREPARING STEARIC ACID-COATED PLASMONIC SILVER NANOPARTICLES AND A METHOD THEREOF

➤ **Awards and Achievements:**

- Gold medalist in M.Tech (Nanotechnology), A.M.U, Aligarh
- Gold medalist in M.Tech (among all branches), A.M.U, Aligarh
- GATE qualified in 2018.

➤ **Workshops/Seminars/FDPs**

1. Attended a International Conference as a Volunteer on Nanotechnology 2016 at Department Of Applied Physics, AMU Aligarh.
2. Condensed course on “Atomic & Molecular Radiation Physics: Astronomy To Biomedicine” during 10th February-11th March 2014.
3. Workshop on “Superstructure & R-Matrix Codes” conducted by Prof. Sultana N. Nahar & Prof. Anil K. Pradhan (The Ohio State University, USA) during 10th February-11th March 2014.
4. Attended a National School on “Computer-Assisted Spectroscopic Data Interpretation Techniques” organized by Department of Physics, Rashtrasant Tukadoji Maharaj Nagpur University, Nagpur.
5. Attended online workshop on “Rietveld refinement method” by UGC-DAE Consortium for Scientific Research during September 22 - 24, 2020, Mumbai
6. Attended online workshop on “Smart Nanotechnology for Societal Applications” organised by AMITY INSTITUTE OF NANOTECHNOLOGY, AMITY UNIVERSITY UTTAR PRADESH, NOIDA, UP. June 27th-30th June, 2022.
7. Attended an online webinar on “DELNET Resources & Services” organised jointly with Maulana Azad Library, Aligarh on 8th June, 2022.

8. Attended International webinar on “Emerging Trends in Material Science-2020” organized by Maharaja Bhoj Govt. PG College, Dhar, M.P during 5-7th July, 2020.
9. Participated in International e-Conference on Advanced Functional Materials and Optoelectronic Devices, organized by Centre for Renewable Energy, Veer Bahadur Singh Purvanchal University, Jaunpur, U. P., India during June 13-15, 2020.
10. Attended National Webinar Series on “Experimental & Computational Tools for Materials Research (ECTMR 2020)” during June 01 – 08, 2020, jointly organized by the Discipline of Natural Sciences, PDPM Indian Institute of Information Technology, Design & Manufacturing Jabalpur, and Department of Physics, Central University of Rajasthan.
11. Attended International webinar on “Nano-materials and Detection Technique of COVID-19” Organized by Department of Physics Babu Shivnath Agrawal (P.G.) College, Mathura (U.P.) India on 07 June, 2020

➤ **Work experience:**

❖ **Teaching at Under Graduate Level**

- Assistant Professor, Physics, SRM Institute of Science and Technology, Delhi- NCR Campus, Modinagar, Ghaziabad. **(February 2024 to till date)**