

Curriculum vitae

Personal Details

Name: Dr Noor Jahan

Designation: Assistant Professor

Research interests: Ferrofluid, Nanomagnetic particles, MR fluid, Magneto-Rheology, Magnetohydrodynamics, Nanomagnetic fluid based devices, Photocatalytic and Thermoelectric properties

Address: Department of Physics and Astronomical Science, School of Physical and Material Sciences, Central University of Himachal Pradesh, Shahpur Campus, Kangra-176206, Himachal Pradesh, India.

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Citizenship: Indian.



Professional Qualifications

1. Ph.D., CSIR-National Physical laboratory, New Delhi (2018).
2. Post M.Tech., Jamia Millia Islamia university, New Delhi (2012).
3. Post M.Sc., Guru Nanak Dev University, Amritsar (2010).
4. Direct CSIR- SRF (2013-2016).

Employment History

S.No.	Designation	Institute	Year(s)
1.	Assistant Professor	Central university of Himachal Pradesh, Dharamshala, H.P	2020 to Present

Personal Distinctions

- ❖ Exhibitor in global R&D summit 2015 organized by FICCI and DST.
- ❖ CSIR-SRF- (2013-2016).
- ❖ Maulana Azad National Fellowship for Minority Students (2013)
- ❖ Merit-cum-Means Minority Scholarship during M. tech (2011-2012)
- ❖ DST scholarship during M.sc (2008-2010)
- ❖ Best poster award in National conference NCMNLU Nov 18,2015
- ❖ Best poster award in International Conference “9th international Advance in metrology conference” February 24-26,2016
- ❖ DST-Travel grant (2015)
- ❖ CICS –Travel grant (2015)

Invited Seminars and Invited Conference Presentations (last 5 years)

- **Invited talk** in 8th Edition of “International Conference on Nanotechnology for Better Living NBL-2023” scheduled from 25-29 May 2023, NIT Srinagar
- Invited talk in “International Conference on Physics for Sustainable development (ICPSD) 4th -5th April 2024”, Department of Physics & Astronomical Sciences, Central University of Jammu.
- **Invited talk** in “2nd International Conference on Materials for Sustainable Development and Technologies (ICMSDNT) 1-3 May 2024”, Department of Nanoscience & Materials, Central university of Jammu.
- Coordinator for organizing Declamation Competition under “Discrimination against Women Pakhwara” on 08 December 2022 at Shahpur Parisar.
- Coordinator for organizing social awareness lecture and gender equality wall inauguration to observe on “Awareness campaign on gender equality “on 29 March 2023 at Shahpur Parisar
- Organizing secretaries for organizing one day workshop on commemoration of Radhanath Sikdar as a Mathematician and Freedom Fighter on 1st November 2022 by CUHP in association with Gov. Degree College (GDC), Dharamshala

Teaching

BSc: Nano materials and Applications, Nano materials and Applications Lab, Electromagnetic theory, Electromagnetic theory Lab, Electricity and Magnetism lab, Thermal and statistical physics. Analog Electronic and Applications.

MSc: Nanoscience and Technology, Materials science –I, Materials science -II, Nanomaterials, Scientific Writing skills, General physics lab, Modern physics Lab

PhD: Characterization materials

Thesis Supervision: M.Sc. Thesis: 14 completed

Doctoral Thesis Supervision: 3 PhD students Ongoing

S. No.	Name of the student	Roll No.	Supervisor/Co-Supervisor	Completed/Ongoing
1.	Rahul Singh	CUHP20RDPHY03	Supervisor	Ongoing
2.	Rahul Sharma	CUHP21RDPHY12	Supervisor	Ongoing
3.	Shreya Sinha	CUHP21RDPHY15	Supervisor	Ongoing

University Administration

- Member of UCC committee w.e.f. 17 November 2021 to 26 December 2023.
- Member of Proctorial Board, Shahpur Campus for Session 2021-2024.
- Member of Admission Committee for BSc/M. Sc. Physics and RD student's admissions in Department of physics & Astronomical Sciences for Session 2022-2023.
- Member of DSC Committee in Department of Mathematics w.e.f. 2021 till date.
- Member of DSC Committee in Department of Environmental Science w.e.f. 01 February 2022 till date.
- Member of Departmental NAAC committee to prepare the data of Criteria III and V w.e.f. 16 February 2022 to 5 July 2023.
- Member of Registration Committee for All India Netball (Women) Competition and Inter-Zonal Kho-Kho (Mens) Championship held on 20-24 march 2022 and 27-30 march 2022 at CUHP, Dharmshala
- Member of Registration Committee for All India power lifting (Women) Competition Championship held on 9-12 march 2023 at CUHP, Dharmshala
- Member of Venue Committee for organizing Curtain Raiser Programme for commemoration of Radhanath Sikdar as a Mathematician and Freedom Fighter on 21 October 2022 at Shahpur Campus

Research Projects

S. No.	Title of the project	Funding Agency	Amount	Year	PI/Co-PI	Status
1.	Size and composition dependence of nano-spinel ferrite properties and their applications in ferrofluids and humidity sensing devices	UGC New Delhi	Rs. 10,00,000/-	2021-2024	PI	Completed

Publications

S.No.	Author(s)/ Corresponding author	Title	Name of Journal	Volume	Page	Year	Impact Factor
1.	Noor Jahan (Corresponding Author)	Correlating the Dipolar Interactions Induced Magneto-Viscoelasticity and Thermal Conductivity Enhancements in Nanomagnetic Fluids	<i>Small</i>	19	2205741	2023	15.15
2.	Noor Jahan (Corresponding Author)	Doping Stimulated Ferromagnetic Ordering and Tailoring Dielectric Properties of $Ba_{1-x}Ce_xTiO_3$ in RSC Material Advances.	<i>RSC Material Advances.</i>	5	8638-8651	2024	5.2
3.	Noor Jahan (Corresponding Author)	Multifunctional oleic acid functionalized iron oxide nanoparticles for antibacterial and dye degradation applications with magnetic recycling”	<i>RSC Material Advances.</i>	Published (In press)		2025	5.2
4.	Noor Jahan (Corresponding Author)	Experimental and First-principle study of optimized cylindrical-shaped ZnO/gC 3 N 4 heterojunction for Photocatalytic Degradation of Methylene Blue dye	<i>ACS Omega</i>	Accepted		2025	4.7
5.	Noor Jahan (Co- Author)	Preparation and performance of a Sr ²⁺ doped LaMnO ₃ cathode for low temperature solid oxide fuel cells	<i>Journal of Material today proceeding</i>	103	374-378	2023	1
6.	Noor Jahan (1 st Author)	The effect of particle concentration on viscoelastic properties of ferrogel	<i>Colloids and Surfaces A</i>	539	273-279	2018	5.2
7.	Noor Jahan (1 st Author)	Enhancement in Viscoelastic Properties of Flake-Shaped Iron Based magnetorheological Fluid Using Ferrofluid	<i>Colloids and Surfaces A</i>	529	88–94	2017	5.2
8.	Noor Jahan (1 st Author)	Dipolar interaction and magneto-viscoelasticity in nanomagnetic fluid	<i>Nanoscience and Nanotechnology</i>	17	1–6	2017	1.5
9.	Noor Jahan (Co- Author)	Magnetic Fluid Based High Precision Temperature Sensor,	<i>IEEE Sensor</i>	17	2670-2675	2017	3.5
10	Noor Jahan (Co- Author)	Improved magnetoviscous properties of bidispersed Magneto-rheological fluids”	<i>RSC</i>	96	53960-53966	2015	3.9
11	Noor Jahan (Co- Author)	Room Temperature Ferromagnetic behaviors of Indium-doped SnO ₂ Dilute Magnetic Semiconductor Nano crystalline thin films.	<i>Journal of Chalcogenide Letters</i>	9	73	2012	1.2

Books Chapters

S.No	Title	Author Name	Publisher	Year of Publication
1	Exploring the rheological properties of viscoelastic materials” has been accepted	Noorjahan	<i>IntechOpen.</i>	2024
2	Textile Industries and environmental challenges: an overview	Noorjahan	<i>Springer Nature</i>	2024
3	Understanding Dye Pollution” in Springer Nature.	Noorjahan	<i>Springer Nature</i>	2024
4	Synthesis and characterization of GO/Fe ₃ O ₄ nanocomposite for photocatalytic degradation of organic dyes in wastewater treatment	Noorjahan	<i>Springer Nature</i>	2023

Paper Presented in International / National Conferences/ Workshop:

1. International workshop on ferrofluid-2024, From 25-27 September 2024 in Germany
2. Improved magneto-viscoelasticity of cross-linked PVA hydrogels using magnetic nanoparticles, Noorjahan, International Conference on Nanotechnology for Better Living NBL-2023” from 25-29 May 2023 in NIT Srinagar
3. Synthesis And Characterization of Polyaniline Decorated Iron Based Magnetorheological Fluids with Enhanced Sedimentation Stability, Noorjahan “2nd International Conference on Advanced Nanomaterials and Nanotechnology” held during November 20-21, 2023 at Vienna, Austria, online mode
4. The Effect of Dipolar Interaction on Magnetorheological Properties, Noorjahan, International Conference on Physics for Sustainable Development (ICPSD-2024), Department of Physics & Astronomical Sciences, Central University of Jammu. April 4th-5th, 2024
5. Delving into the rheological aspects and sedimentation stability of PolyAniline-Stabilized Fe Based Magnetorheological Fluids, Noorjahan, 2nd International Conference on Materials for Sustainable Development and Technologies (ICMSDNT) 1-3 May 2024, Department of Nano science & Materials, Central University of Jammu.
6. The effect of dilution on dipolar interaction and viscoelastic behavior of magnetic nanofluid, Noorjahan, Dhruv Bakshi, G. A. Basheed, and R.P.Pant “9th international Advance in metrology conference CSIR-NPL, India” February 24-26, 2016
7. The effect of dipolar interaction on viscoelastic properties of magnetic nanofluid ic-rmm2, Noorjahan, Dhruv Bakshi, G. A. Basheed, and R.P.Pant 2nd International Conference on Rheology and Modelling of Materials in Miskolc-Lillafüred, Hungary, October 5-9, 2015
8. The effect of induced size on physical properties of Fe₃O₄ based ferrofluid, Noorjahan, Komal Jain Mahesh Chand, Rajni porwal and R. P. Pant “Second International Conference on Nanostructured Materials and Nanocomposites (ICNM 2014) 19-21 December 2014 at Mahatma Gandhi University, Kottayam, Kerala, India”.
9. Attended international Meeting Nanotechnology ISO/Tc229 meeting held at IHC ,India from 3-7 Nov 2014. Noorjahan
10. Synthesis and characterization of Mn-Zn ferrite based ferrofluids for biomedical applications” Noorjahan, Mahesh Chand, Ajay Shankar and R. P. Pant NSE-MD-2014 Feb. 21-22-2014 G.V.M GIRLS College, Sonapat
11. Investigation of mechanism of chain like structure formation in kerosene based MR Fluid” Piyoosh Tripathi, Noorjahan, Mahesh Chand, Sonia, G.A. Basheed and R. P. Pant, NSE-MD-2014. Feb 21-22-2014. G.V.M GIRLS College, Sonapat
12. Fe₃O₄-MWCNT based aqueous hybrid A. Shankar, T.K. Gupta, M. Chand, K. Jain, Sonia, Noorjahan, S.Thakur, R.P.Pant NSE-MD-2014, Feb. 21-22, 2014. G.V.M GIRLS College, Sonapat
13. Induced size effect on magnetic properties of Ni_{0.4}Zn_{0.6}Fe₂O₄, Komal Jain, Sonia, Noorjahan, Piyoosh Tripathi, Ajay Shankar and R. P. Pant. NSE-MD-2014. Feb 21- 22, 2014. G.V.M GIRLS College, Sonapat

14. Size induced effect on physical properties of Fe_3O_4 based ferrofluid, **Noorjahan**, Mahesh Chand, Ajay Shankar, Komal Jain and R.P.Pant, National conference on nanotechnology and renewable energy (April 28-29, 2014) , Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi .
15. Investigation of mechanism of chain like cluster formation in mr fluid, *Piyoosh Tripathi*, Mahesh Chand, **Noorjahan**, Ajay Shankar, G A Basheed and R. P. Pant *National* Conference on Nanotechnology and renewable energy (April 28-29, 2014), Faculty of Engineering and Technology, Jamia Millia Islamia, New Delhi.
16. Spin dynamic investigation of Fe_3O_4 based ferrofluid in polymer matrix, Moscow international symposium on magnetism MISM-2014; Sonia ,K.Jain, A.Shankar, M. Chand , **Noorjahan**, S.R. Dhakate and R.P. Pant
17. Certificate of UGC Workshop, Banaras Hindu university (BHU) (2014)