

Curriculum Vitae

Dr. Shwetambari Yadav

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CAREER OBJECTIVE

To pursue a challenging, academic and research-oriented career in Mathematics where I can utilize my expertise in fluid dynamics, porous media, and applied mathematics to contribute to high-quality teaching, impactful research, and interdisciplinary collaboration, while fostering innovation and guiding future scholars.

ACADEMIC DETAILS

- **Ph.D.**, Department of Mathematics, MNNIT Allahabad, Prayagraj, India-211004 with 8.5 CPI (**awarded on 19/12/2025**).
Thesis Title: *A Study on MHD Hybrid Nanofluid Flow Problems*.
- **Senior Research Fellow**, under the supervision of Dr. Supriya Yadav and Prof. Pramod Kumar Yadav, Department of Mathematics, MNNIT Allahabad, Prayagraj, India, Jan 2023 – Aug 2025.
- **Junior Research Fellow**, under the supervision of Dr. Supriya Yadav and Prof. Pramod Kumar Yadav, Department of Mathematics, MNNIT Allahabad, Prayagraj, India, Jan 2022 – Dec 2023.
- **Junior Research Fellow**, under the supervision of Dr. Anand Prakash, Department of Mathematics, IIT Indore, M.P., India, Dec 2020 – Dec 2021.
- **M.Sc. (Mathematics)**, Allahabad State University, Prayagraj, 2016 – 2018 with 65.5%.
- **B.Sc. (Mathematics, Physics, and Chemistry)**, Ewing Christian College, University of Allahabad, Prayagraj, 2013–2016 with 61.5%.
- **Intermediate**, Board of High School and Intermediate Education, Uttar Pradesh, 2010–2012 with 83.64%.
- **Secondary School**, Board of High School and Intermediate Education, Uttar Pradesh, 2010 with 79.16%.

TEACHING EXPERIENCE

- **Assistant Professor** Currently working as an Assistant Professor (Contractual) in the Department of Mathematics, Harcourt Butler Technical University (HBTU), Kanpur, Uttar Pradesh.
- **Assistant Professor** Former Assistant Professor, Department of Mathematics, University Institute of Sciences, Chandigarh University, Mohali, Punjab.
- **Guest Faculty** Assistant Professor, 2019–2020, Department of Mathematics, Allahabad Degree College, Prayagraj.
- **Lab Instructor** (Programming Language), 2023–2025, Department of Mathematics, MNNIT Allahabad, Prayagraj.
- **Tutorial Teacher** (Undergraduate Level), 2025, Department of Mathematics, MNNIT Allahabad, Prayagraj.

AWARDS AND ACHIEVEMENTS

- Qualified CSIR-NET(JRF), 2019 with AIR-114.
- Qualified GATE, 2022 with AIR-301.
- Twice Qualified IIT-JAM(MA), in 2016 and 2017.
- University Topper (Silver Medalist) in M.Sc. (2016-2018).

COMMUNICATION SKILLS, SOFT & TECHNICAL SKILLS

- **Languages:** Hindi (Native), English (Proficient)
- **Softwares:** Mathematica, MATLAB
- **Operating Systems:** MacOS, Linux, Windows
- **Programming:** C, C++, Python, Data Structures
- **Tools:** $\text{\LaTeX}$, MS-Office

RESEARCH INTERESTS

- Computational Fluid Dynamics
- Fluid Flow Problems
- Study of Nanofluid and Hybrid Nanofluid
- Magnetohydrodynamics
- Boundary-layer Theory
- Partial Differential Equations

- Differential Equations

RESEARCH PAPERS

1. **Shwetambari Yadav**, Supriya Yadav, Pramod Kumar Yadav. “*The mixed convection thermally radiated hybrid nanofluid flow through an inclined permeable shrinking plate with slip condition and inclined magnetic effect*” **Chinese Journal of Physics** vol. 89, p. 1041-1050 (2024).
<https://doi.org/10.1016/j.cjph.2023.12.039>. (SCIE)
2. Supriya Yadav, **Shwetambari Yadav**, A. N. Filippov, Pramod Kumar Yadav. “*Three-Dimensional Mixed Convection Flow of a Hybrid Nanofluid over a Moving Plate Incorporating the Influences of Inclined Magnetic Field*” **Colloid Journal** vol. 88(2), p. 277-301 (2026) DOI:10.1134/S1061933X25601878 (SCIE).
3. **Shwetambari Yadav**, Pawan Kumar Patel. “*Effects of Dufour, Soret and Inclined MHD on the Flow of Hybrid Nanofluid Flow Past an Inclined Flat Plate with Mixed Convection and Thermal Radiation*” **International Communications in Heat and Mass Transfer** vol. 178(5), 111891 (2026) DOI:<https://doi.org/10.1016/j.icheatmasstransfer.2026.111891> (SCIE).
4. **Shwetambari Yadav**, Supriya Yadav, Pramod Kumar Yadav. “*Numerical analysis of thermally radiated mixed convection MHD flow of hybrid nanofluid over an inclined plate with viscous dissipation*” **Journal of Nanofluids** (accepted) (Scopus).
5. **Shwetambari Yadav**, Supriya Yadav, Pramod Kumar Yadav. “*Numerical study of MHD mixed convection flow of a micropolar hybrid nanofluid over an inclined plate with viscous dissipation effects*” **Surfaces and Interfaces** (revision submitted).
6. **Shwetambari Yadav**, Pramod Kumar Yadav. “*Homotopy Based Investigation of Thermal Mass Transport and Entropy Optimization in Three-Dimensional Hybrid Nanofluid Flow Induced by Exponential Stretching Surface*” **Chaos, Solitons & Fractals** (communicated).

PAPERS & POSTERS PRESENTED IN CONFERENCES

1. Attended and presented a poster entitled “The mixed convection thermally radiated hybrid nanofluid flow through an inclined permeable shrinking plate with slip condition and inclined magnetic effect”, in Shodh Sangam-2025 on May 06, 2025, at Motilal Nehru National Institute of Technology, Allahabad, Prayagraj, India.
2. Attended and presented a research paper entitled “Thermally radiated mixed convection flow of a micropolar hybrid nanofluid over an inclined permeable stretching plate, incorporating the influences of viscous dissipation and velocity slip effects”, in 71th Annual Conference of Bharat Ganita Parishad: Recent Advances in Mathematics & Applications during November 16-17, 2024 at Lucknow University, Lucknow, India.

3. Attended and presented a research paper entitled “The mixed convection thermal radiation inclined MHD hybrid nanofluid flow through the permeable shrinking inclined plate with slip condition”, in International Conference on Recent Advances in Fluid Mechanics and Nanoelectronics (ICRAFMN-2023) held on Manipal Institute of Technology (MIT) Bengaluru, in association with the National Institute of Technology Uttarakhand during July 12–14, 2023.
4. Attended and presented a research paper entitled “Inclined MHD slip flow of hybrid nanofluid over inclined plate with thermal radiation and viscous dissipation” in the 68th conference of the Indian Society of Theoretical and Applied Mechanics (ISTAM) during December 07-09, 2023, at the National Institute of Technology Warangal, India.

WORKSHOPS & TRAINING PROGRAMS ATTENDED

1. Participated in a five-day national workshop course on “AI & ML Methods in Advanced Computing (AIMLAC-2025)”, organised by the Department of Mathematics, National Institute of Technology, Allahabad, during November 03-07, 2025.
2. Workshop on “Advances in Fluid Mechanics and its Applications”, NIT Uttarakhand, Oct 2024.
3. Attended the Symposium on “International Women in Mathematics Day”, IIT Patna, Feb 2024.
4. FDP “Hands-on Training in Modelling Fluid Flow Problems (HTMF-2023)”, VIT Vellore, Nov 2023.
5. STTP “Python Programming for Students, Engineers & Researchers”, SVNIT Surat, Dec 2022.
6. Workshop “Advanced Numerical Techniques for Differential Equations (ANTDE-2022)”, MNIT Jaipur, Jun 2022.