

Curriculum vitae

Name: Dr. Nayan Mani Majumdar

Designation: Assistant Professor

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Sex: Male

EDUCATIONAL QUALIFICATIONS –

QUALIFICATION	YEAR OF PASSING	BOARD / UNIVERSITY	Specialization
HSLC	2012	SEBA	ADVANCED MATHEMATICS
H.S.	2014	AHSEC	PHYSICS, CHEMISTRY, MATHEMATICS
B.Sc.	2018	GAUHATI UNIVERSITY	MATHEMATICS (HONOURS)
M.Sc.	2020	GAUHATI UNIVERSITY	MATHEMATICS (APPLIED)
Ph.D.	2025	GAUHATI UNIVERSITY	APPLIED MATHEMATICS (FLUID DYNAMICS)
SLET	2022		MATHEMATICAL SCIENCE (MATHEMATICS)

Languages known: Assamese, Hindi, English

(Read, Write & Speak)

OTHER QUALIFICATIONS–

CERTIFICATE IN COMPUTER APPLICATION (C.C.B. & D.T.P.)

COURSE DURATION: 6 MONTHS

ACADEMIC EXPERIENCE-

- January 2021-November 2022: Assistant Professor (Contractual), J.N. College, Boko, Assam
- August 2025-June 2026: Guest Faculty, Cotton University, Guwahati
- September 2026- till date: Assistant Professor, Girijananda Chowdhury University, Guwahati

PUBLICATIONS:

Journal Article:

1. An analytical study of magnetohydrodynamic Casson fluid flow in a channel with induced magnetic field, radiative heat flux and viscous dissipation. *International Journal of Ambient Energy, Taylor & Francis* (2023)
2. A study of magnetohydrodynamic flow on a channel with induced magnetic field, Soret effect and heat radiation. *Z Angew Math Mech. (ZAMM)*, (2023).
3. Influence of thermophoretic deposition and viscous dissipation on magnetohydrodynamic flow with variable viscosity and thermal conductivity. *Heat Transfer, Wiley* (2023).
4. Non-Darcian MHD flow of ternary-hybrid Cu-TiO₂- Al₂O₃/H₂O nanofluid over an inclined sheet with activation energy. *Numerical Heat Transfer: Part B, Taylor & Francis* (2024)
5. An analytical approach to magnetohydrodynamic flow on an inclined channel with induced magnetic field and heat radiation. *Latin American Applied Research (LAAR)*, (2024)
6. A numerical analysis on magnetized dissipative non-Darcian Maxwell fluid with heat radiation through stretching horizontal surface. *Radiation Effects and Defects in Solids, Taylor & Francis* (2024)
7. Dissipative MHD flow of ternary hybrid Ag-TiO₂-Al₂O₃/H₂O nanofluid over an inclined sheet with activation energy. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, SAGE Journal* (2024)
8. Bio-convective Magnetohydrodynamic flow of tangent hyperbolic nanofluid over a stretching surface with convective heat and slip conditions. *Journal of Heat and Mass Transfer Research* (2025)
9. Magnetohydrodynamic flow of Casson fluid on an inclined permeable moving plate with viscous dissipation, thermal radiation, joule heating and Soret effect. *Latin American Applied Research (LAAR)*, (2024)
10. Bioconvective magnetohydrodynamic flow of tangent hyperbolic nanofluid across a stretched surface, with Arrhenius activation and convective heat and slip conditions. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, SAGE Journal* (2024)

11. An investigation on non-Darcian Williamson nanofluid flow stimulated by activation energy resulting from a slick elastic sheet encased in a porous medium. *Journal of the Korean Physical Society, Springer (2024)*
12. A numerical approach to MHD Maxwell fluid flow over a vertical plate in a non-Darcian porous regime with Arrhenius activation energy and viscous dissipation effect. *Multiscale and Multidisciplinary Modeling, Experiments and Design, Springer (2025)*
13. Role of Activation Energy on Magnetized Dissipative Non-Darcian Maxwell Fluid Through Stretching Surface: Numerical Analysis. *International Journal of Applied and Computational Mathematics, Springer (2025)*
14. Influence of variational viscosity and thermal radiation on Ohmic dissipative magnetohydrodynamic flow over a stretching sheet in a non-Darcy porous medium. *Radiation Effects and Defects in Solids, Taylor & Francis (2025)*
15. Thermal-Fluid Analysis of Methanol-Based Casson Quadra-Hybrid Nanofluid Flow Over a Stretching Cylinder Using the Yamada-Ota Model. *International Journal of Ambient Energy, Taylor & Francis (2025)*
16. 2D and 3D Representations of Heat and Mass Transfer Characteristics in Bioconvective Magnetohydrodynamic Flow With Activation Energy Over a Non-Darcy Porous Regime. *Heat Transfer, Wiley (2026)*.
17. Dissipative MHD Flow of Ternary-hybrid Ag–TiO₂–CuO/H₂O Nanofluid Over an Inclined Sheet with Joule Heating and Activation Energy. *Journal of Engineering Physics and Thermophysics, Springer (2026): 1-14*.
18. Comprehensive Analysis of Bioconvective MHD Boundary Layer Flow in a Non-Darcian Porous Medium with Variable Properties. *Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering, SAGE Journal (2026)*

Book Chapter:

1. A Study of Radiation Effect on Magneto hydrodynamic Flow with Induced Magnetic Field and Heat Radiation. *Proceedings of the National Conference of Mathematics and its Application in Science (NCMAS 2022) (ISBN:978-93-92469-16-9)*
2. An investigation of viscoelastic nanofluid flow due to a stretched sheet with Activation energy and slip velocity. *FUNDAMENTAL FRONTIERS: EXPLORING CORE SCIENCES (ISBN: 978-93-91883-59-1)*
3. Bioconvective MHD Casson fluid flow with motile microorganisms on a moving flat plate embedded in a porous medium. *Applied Engineering Mathematics: Fluid and Solid Mechanics in Life Science (2025)*
4. Numerical Inquiry of MHD Williamson Nanofluid Flow with Viscous Dissipation and Chemical Reactions Immersed in Porous Media. *Magnetohydrodynamic Control and Optimization in Fluid Dynamics, (435–454) 2026 Scrivener Publishing LLC*.

LIST OF CONFERENCES:

1. *International Conference on Nonlinear Analysis and Applications (2022), Assam Don Bosco University, Assam, India*
2. *International Conference on Recent Advances in Mathematical Fluid Dynamics (2022), Malaviya National Institute of Technology, Jaipur, India*
3. *National Conference of Mathematics and its Application in Science (NCMAS 2022), Uttarakhand Open University, Haldwani, Nainital*
4. *International Conference on Applied Mathematics in Science and Engineering (AMSE-2024), ITER, Bhubaneswar, Odisha, India*
5. *National Conference on Advances in Mathematical Sciences (NCAMS 2024), Gauhati University, Guwahati, India*
6. *International Conference on Emerging Role of Mathematics in Science and Technology. J.N. College, Assam, India*

WORKSHOP ATTENDED:

1. One Week Workshop on Advances in Fluid Mechanics and its Applications organized by the Department of Mathematics, National Institute of Technology, Uttarakhand, during October 21-25, 2024.

RESEARCH EXPERIENCE AND AWARDS:

1. Excellence in Research Award For Publishing on High Quality (Q1 & Q2) Journals, Gauhati University (2026)

Reviewer Assignments: 08 nos.

Physics of Fluids, AIP Publishing: 01

Discover Nano, Springer Nature: 02

Journal of Thermal Analysis and Calorimetry, Springer Nature: 02

Annali dell' Università di Ferrara, Springer Nature: 01

Discover Surfaces, Springer Nature: 01

Nanotechnology Reviews, De Gruyter: 01



Date: 22/09/2026

Signature