

Prof. Syamsundar Dhara

M.Sc. (IIT Madras), Ph.D. (Pursuing)

Head of the Department and Assistant Professor of Mathematics

Department of Mathematics

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Contact Information

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Subject Specialization	Applied Mathematics
Research Interests	Fluid Mechanics, Continuum Mechanics, Non-linear Dynamics, Bio-Mathematics.

Educational Qualification

- **M.Sc.** — Indian Institute of Technology Madras (IIT Madras) (1st Class)
- **Ph.D.** — Pursuing

Achievements and Awards

- Qualified **National Eligibility Test (CSIR-UGC NET)** in 2010, 2011 and 2012.
- Qualified **Graduate Aptitude Test in Engineering (GATE)** in 2010.
- Qualified **Joint Admission Test for M.Sc. (JAM)**.

Teaching Experience

Sl. No.	Post	Institution / University / Organisation	Department	Duration
1	Assistant Professor	Krishna Chandra College, Hetampur, Birbhum-731124 (Under Burdwan University)	Mathematics	10 February 2015 – 12 June 2017
2	Assistant Professor	City College, 102/1, Raja Rammohan Sarani, Kolkata-700009 (Under Calcutta University)	Mathematics	13 June 2017 – Present

Technical, Workshop and Academic Training

Sl. No.	Programme	Duration	Conducting HRDC / University
1	FIP (Faculty Induction Programme)	19/10/2020– 12/11/2020	UGC-HRDC, MANUU, Hyderabad
2	RC (Refresher Course)	25/11/2020– 08/12/2020	UGC-HRDC, DAVV, Indore
3	STC (Short Term Course)	01/10/2021– 09/10/2021	UGC-HRDC, NBU, Darjeeling
4	FDP (Faculty Development Programme)	10/02/2022– 16/02/2022	IQAC, Vidyasagar University
5	RC (Refresher Course)	04/05/2026– 16/05/2026	UGC-MMTTC, IGNTU, Amarkantak (MP)

Research Publications

- Syamsundar Dhara, Soumini Dolui and Soumen De (2026) Flowbehaviour of magnetized casson nanoblood containing penta hybrid nanoparticles through a squeezed arterial channel, International Journalfor Computational Methods in Engineering Science and Mechanics, (Taylor and Francis),27(1), 1-18. [SCOPUS, IF-2.1, Q2]
DOI: <https://doi.org/10.1080/15502287.2025.2606692>
- Dhara, S., Das, J., Dolui, S., and De, S. “Flow Behaviour of Magnetized Casson Nanomilk Containing Trihybrid Nanoparticles Through a Rotating Electromagnetic Channel: A Deep Neural Network Assisted Study.” Communicated.
- Dhara, S., Das, J., Dolui, S., and De, S. “Predictive Transport Characteristics of Magnetohydrodynamic Casson Micropolar Nanofluid Flow Using Neural Networks and Symbolic Regression.” Communicated.
- Dhara, S., and De, S. “Magnetohydrodynamic Bioconvective Transport of GO-Fe₃O₄/CSF Nanofluid in a Rotating Porous Microchannel.” Communicated.
- Dhara, S. and Halder, T. (2019). A Mathematical Modeling on Prey-Predator System. International Journal of Research and Analytical Reviews, 6(2), 99–101. Article ID: IJRAR19K8925.

List of Participation in Seminar, Conference and Workshop:

1. March 11, 2025: Presented a paper entitled, “Flow Behaviour of Magnetized Micropolar Carbon Nanotubes Ingrained Blood in a Squeezed Arterial Channel Under the Influence of Electric Double Layer” in the National Seminar on Recent Trends in Applied Mathematics and Computing - 2025 (RTAMC-2025), organized by the Department of Applied Mathematics, University of Calcutta, 92, A.P.C Road, Kolkata 700009 during March 11–12, 2025.
2. December 23, 2025: Presented a paper entitled, “Penta hybrid casson nanoblood flow through a squeezed vertical arterial channel in presence of magnetic field” in the Inter-

national Conference on Algebra, Analysis, Dynamics and their Application during 22 to 24 December-2025 at the Department of Mathematics (UG and PG), Midnapore College (Autonomous), WB, India.

3. March 10, 2026: Presented a paper entitled, “MHD Mixed Convection Flow of Casson Micropolar Tri-hybrid Nano-blood over a Vertical Arterial Inner Surface with Thermal Radiation and Heat Generation: Numerical Simulation via RKF45” in the National Seminar on Recent Trends in Applied Mathematics and Computing - 2025 (RTAMC-2025), organized by the Department of Applied Mathematics, University of Calcutta, 92, A.P.C Road, Kolkata 700009 during March 10–12, 2025.

Workshops/Events organized:

1. Conference: Future India: Science and Technology (2019), Organized by City College, Kolkata and Indian Science Congress Association, Kolkata Chapter
Role: Jt. Convener, Technical Committee.
Status: National.
 2. National Webinar on ODE with a case study, City College, Kolkata, Dated-24.07.2020
Role: Jt. Convener.
 3. Value added course-2025, Organized by the Department of Mathematics, City College, Kolkata.
Role: Course Coordinator.
 4. Summer internship-2026: An Introduction to MATLAB and its Applications, Organized by the Department of Mathematics, City College, Kolkata.
Role: Convener.
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