Mrs. Shruthy Myson

M.Sc., M.Phil.

3 year of Academic Experience

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Mrs. Shruthy Myson is a dedicated researcher and educator with a strong academic background in Fluid Mechanics. Holding an M.Phil. degree, Mrs. Shruthy is currently pursuing a Ph.D., further advancing expertise in the field. With 6 years of extensive research experience, she has contributed significantly to the advancement of knowledge through the publication of 5 research articles in peer-reviewed journals and the authorship of one book chapter.

In addition to research accomplishments, Mrs. Shruthy has 3 year of teaching experience at the undergraduate level, fostering academic growth and inspiring students through effective instruction and mentorship. Her commitment to academic excellence and research innovation is demonstrated through an active engagement in scholarly activities and ongoing professional development.

Areas of expertise (subjects handled):

- Fluid Mechanics
- Multi-point Boundary Value Problem
- Differential Calculus using MAXIMA
- Calculus of Several Variables using PYTHON
- Introduction to PYTHON Programming
- Probability & Statistics
- Fluid Dynamics

FDP, Seminars Webinars MOOC course and Workshops Attended:

- Two days International Webinar on "Fluid Dynamics and its Applications" organized by Government First Grade College on 28th and 29th May 2020.
- Webinar on "Introduction to FEM" organized by Motilal Nehru National Institute of Technology on June 8, 2020.
- Two-day Webinar on "Applications of Mathematics in Mechanical Engineering" conducted by KPRIET from 11-12 June 2020.
- National Webinar on "Recent Trends in Computational Mathematics and its Applications" organized by Sri Guru Tegh Bahadur Khalsa College from 17-18 June 2020.
- National Webinar on "Fluid Dynamics" organized by Manipal University, Jaipur on 23rd June 2020.
- National Webinar on "Fluid Mechanics and its Applications in Engineering Science" organized by PES Institute of Technology and Management during 24-27 June 2020.
- National Webinar on "Fluid Mechanics" organized by KGiSL Institute of Technology held on 29-30 June 2020.

- Webinar on “Perspectives in Fluid Dynamics” organized by Bishop Caldwell College on 11 July 2020.
- International Winter School on “Fluid Dynamics, Heat Transfer and Applications” organized by Department of Mathematics, NIT Uttarakhand during January 18-29, 2021.
- Webinar on “Development of Governing Equations of Fluid Flow” conducted by KPRIET held from 2-3 August 2021.
- International Workshop on “Non-Linear Stability of Thermoconvective Flows” organized by CHRIST (Deemed to be University) during 9-14 January, 2023.
- Completed the Coursera course on Fundamentals of Fluid-Solid Interactions.

Conferences presented:

- Presented “Effect of radiation on Rayleigh Bénard Convection in a couple stress dielectric fluid with an anisotropic medium in the International Conference on Science, Engineering, Technology and Social Sciences organized by K E College, Kerala during 10-11 March 2019.
- Presented “Convective instability analysis of couple stress dielectric fluid saturated anisotropic porous medium with radiation effect” in the International Conference on Emerging Trends in Computational Fluid Dynamics (ICETCFD) organized by CHRIST (Deemed to be University, Bangalore during 27-28 February 2020.
- Presented “Sensitivity analysis of heat transfer in nanoliquid flow through a multilayer channel with Joule heating and viscous dissipation using Response Surface Methodology” in the 2nd International Conference on Recent Trends in Applied and Computational Mathematics (ICRTACM-2021), Department of Mathematics, REVA University, Bengaluru during 8-9 October, 2021.
- Presented “Sensitivity analysis of heat transfer in nanoliquid flow through a multilayer channel with Joule heating and viscous dissipation using Response Surface Methodology” in International Conference in Recent Trends in Mathematics and its Applications (ICRTMA-2021), the Department of Mathematics, GITAM (Deemed to be University), Bengaluru during 2-3 December, 2021.
- Presented “Study of multilayer flow of a non-newtonian fluid sandwiched between hybrid nanofluid in a vertical slab with nonlinear boussinesg approximation” in International Conference on Recent Advances in Mathematical Fluid Dynamics (ICRAMDF -2022), Department of Mathematics, Malaviya National Institute of Technology, Jaipur, Rajasthan during 2-4 December, 2022.
- Study of multilayer flow of a non-newtonian fluid sandwiched between hybrid nanofluid in a vertical slab with nonlinear boussinesq approximation” in Multi-Disciplinary Online International Conference (QUAESITIO-2022), Department of Mathematics, St. Stephen’s College, Uzhavoor, Kottayam during 15-22 December, 2022.
- Study of multilayer flow of a bi-viscous bingham fluid sandwiched between hybrid nanofluid in a vertical slab with nonlinear boussinesq approximation” in National Conference of Mathematics and its Application in Science (NCMAS-2022), Department of Mathematics, Uttarakhand Open University, Haldwani, Uttarakhand during 22-23 December, 2022.

Conferences organized:

- Eight-day Webinar on "An Introductory Course on Fluid Dynamics" by Department of Mathematics, CHRIST (Deemed to be University), Bangalore – 560029.
- Workshop on "Programming Essentials for Mathematics using Python" by Department of Mathematics, CHRIST (Deemed to be University), Bangalore – 560029.

List of Publications

Journal Papers

- Shruthy Myson, B. Mahanthesh and K. Vajravelu, "Study of multilayer flow of non-Newtonian fluid sandwiched between nanofluids", Partial Differential Equations in Applied Mathematics, vol. 13, p. 101053, 2025.
- Shruthy Myson and B. Mahanthesh, "Sensitivity analysis of nonlinear convective heat transport of a hybrid nanoliquid sandwiched by micropolar liquid using RSM", Waves in Random and Complex Media, pp. 1-29, 2023.
- B. Mahanthesh, Shruthy Myson and K. Vajravelu, "Study of multilayer flow of a bi-viscous Bingham fluid sandwiched between hybrid nanofluid in a vertical slab with nonlinear Boussinesq approximation", Physics of Fluids, vol. 34, no. 12, p. 122006, 2022.
- Shruthy Myson and Smita S Nagouda, "Convective instability analysis of couple-stress dielectric fluid saturated anisotropic porous medium with radiation effect", Multidiscipline Modeling in Materials and Structures, vol. 16, no. 5, pp. 1019-1039, 2020.
- Shruthy Myson and B. Mahanthesh, "Rayleigh-Bénard convection in Casson and hybrid nanofluids: An analytical investigation", Journal of Nanofluids, vol. 8, no. 1, pp. 222-229, 2019.

Book Chapter

- Shruthy Myson, "Optimization procedure for multilayer heat transfer in nanoliquid with Joule heating using Response Surface Methodology", Methods of Mathematical Modeling, ed. Hemen Dutta, Academic Press, Elsevier, 2025.

Reviewer in Journal

- Reviewer in "Waves in Random and Complex Media" with an H-index of 54. Taylor & Francis Ltd. is the publisher.
- Reviewer in "Physics of Fluids" is a SCOPUS indexed journal with an impact factor of 4.3. It is a Q1 journal.

Awards/Fellowship

- Received best paper award at the International Conference in Recent Trends in Mathematics and its Applications (ICRTMA-2021) held on 2nd and 3rd December 2021 organized by Department of Mathematics, School of Science, GITAM Deemed to be University, Bengaluru.
- Received fellowship to pursue PhD from the Directorate of Minorities, Government of Karnataka for a tenure of 3 years.