

**Name : Dr.S.Aiswarya**

**Designation : Assistant Professor**

**Department : Mathematics (Aided)**

**Qualification : M.Sc., M.Phil., Ph.D.,**

**Experience : Teaching – 16 years**

**Research : 10 years**



**Area of Specialization:** Fluid Dynamics – Stability Theory, Non-Newtonian Fluids

**Email (Official ID) : aishwaryas@psgrkcw.ac.in**

#### Academic Qualifications

Degree	Specialization	University	Year of Graduation
Ph.D	Fluid Dynamics	Bharathiar University	2019
M.Phil	Fluid Dynamics	Bharathiar University	2009
M.Sc	Mathematics	Bharathiar University	2008
B.Sc	Mathematics	Bharathiar University	2006

#### Additional Qualifications

Diploma/ Vocational/ Certification	Area of Specialization	Institution/University/Agency Name	Year
Certification	Coursera – Data Science Math Skills	Duke University	2023
Certification	Coursera – Gamification Learning with Genially	Coursera Project Network	2023
Certification	Coursera – IBM Data Topology	IBM	2023

#### Research Guidance

Programme	No. of Scholars	
	Completed	Pursuing
M.Phil	3	-
Ph.D	-	2

## Research Publications (Indexed)

- ❖ Linear Stability of Thermo Convection in a Nanofluid Through a Porous Medium, Communications in Mathematics and Applications, 12 (3), (2021), pp. 677 – Web of Science.
- ❖ Hall and Ion Slip Influence on Mixed Convective Magnetohydrodynamic Oscillatory Flow through a Permeable Medium in Presence of Thermal Diffusion, International Journal for Modern Trends in Science and Technology, 6, (2020), pp. 26-33 - UGC Care (4.175)
- ❖ Stability of Natural Thermal Convection in a Rotating Nanofluid Saturated by a Permeable Medium, International Journal of Mechanical and Production Engineering Research and Development, 10, (2020), pp. 1419-11434 – Scopus (0.89)
- ❖ Effect of Diffusion Thermo and Radiation Absorption on Micropolar Fluid with Hall Current in a Rotating Frame of Reference, International Journal of Research in Advent Technology, 6(12), (2018), pp. 3803 – 3811 - UGC Care (3.18)
- ❖ Effect of Hall Current on Thermal Stability of Superposed Fluid and Porous Layer, Journal of Com. and Mat. Sci. (An International Research Journal), 9(12), (2018), pp. 1990-2003.
- ❖ Effect of Rotation on Thermal Stability of Superposed Fluid and Porous Layer, International Journal of Engineering Research and Technology, 11(5), (2018), pp. 791-804 - Scopus (0.145)
- ❖ Stability of Thermosolutal Free Convection on Electrically Conducting Superposed Fluid and Porous Layer, International Journal of Applied Engineering Research, 13(17), (2018), pp. 13022-13030.
- ❖ Magnetohydrodynamic Stability of Superposed Fluid and Porous Layer, International Journal of Mechanical Engineering and Technology (IJMET), 9(7), (2018), pp. 776 – 786. Scopus (0.73)
- ❖ Linear Stability of Free Convective Superposed Fluid and Porous Layer, International Journal of Applied Mathematical Analysis and Applications, 13(1), (2017), pp. 43 – 56 - UGC Care (0.45)
- ❖ Linear Stability of Rotating Viscoelastic Fluid Saturated Porous Layer, International Journal of Computational and Applied Mathematics, 12(1), (2017), pp. 129-139 - UGC Care (1.883)

- ❖ Heat and Mass transfer of MHD free convective flow through a Porous Medium with Periodic Permeability, International of Journal of Mathematical Sciences, 10(1-2), (2011), pp.21-34 - UGC Care (0.46)

### **Projects Completed**

- ❖ Book Writing Project (2018) – 'Statistics with Excel' – ₹20,000 – Completed
- ❖ Minor Project (2019) – 'Stability of Nanofluids through Porous Medium' – ₹40,000 – Completed
- ❖ NCSTC Project (2019–2021) – 'AI and Robotics' – ₹3,00,000 – Completed

### **Book Published**

- ❖ 'Statistics with Excel' (Blue Hill Publishers, 2018) – ISBN 9788193993606

### **Training Programmes / FDPs Attended**

- ❖ Internal Auditor Course on ISO 9001:2008 – TUV Rheinland (2015)
- ❖ Refresher Courses on Fluid Dynamics & Differential Equations sponsored by IAS, INSA, NASI (2012, 2017)
- ❖ Workshops on Robotics, Mathematical Modelling, Big Data, and ICT Tools (2016–2020)

### **Invited Talks**

- ❖ An Overview of Stability Theory - Hindustan College of Arts and Science, Coimbatore (June 2020).
- ❖ Euler Club Inauguration -Venkatalakshmi Matric Hr. Sec. School, Coimbatore (August 2021).
- ❖ “Insights into Number Theory” at Rabiammal Ahamed Maideen College for Women, Thiruvarur (June 2021).
- ❖ “Wonders of Fluid Dynamics” at P.K.R Arts College for Women, Gobichetipalayam (Feb 2025).

### **Refresher Courses and Oriented Programmes Attended**

- ❖ Science Academies’ Refresher Course on “Theoretical and Computational Fluid Dynamics” – PSGRKCW (Aug–Sep 2012).
- ❖ Faculty Induction Programme – HRD University of Hyderabad (Nov 2022).
- ❖ Interdisciplinary Refresher Course on “Advanced Research Methodology” – Teaching Learning Center Ramanujan College, New Delhi ( April – May 2024).

## **Programmes Organized**

- ❖ Spoken Tutorial Workshops (2016–2020): 56 FOSS Courses, 2809 beneficiaries.
- ❖ NBHM Sponsored National Conference on Mathematics and Computer Techniques in Industries (Mar 2016) – Organizing Committee Member.
- ❖ National Seminar on Emerging Trends in Theoretical and Computational Mathematics (Mar 2017) – Organizing Committee Member.
- ❖ National Seminar on Current and Future Directions in Applied Mathematics (Feb 2018) – Organizing Committee Member.
- ❖ Two-day Workshop on NET/SET (Oct 2018) – Coordinator.
- ❖ National Seminar on Arising Developments in Graph Theory (Dec 2018) – Organizing Committee Member.
- ❖ Workshop on LaTeX – A Tool for Research (Jul 2019) – Workshop Committee Member.
- ❖ Two-day Workshop on NET/SET on ODE and Complex Analysis (Aug 2019) – Coordinator.
- ❖ Seminar on Research Problem Definition & IPR Awareness (Oct 2019) – Organizing Secretary.
- ❖ FDP on Real Analysis (Feb 2020) – Workshop Team Member.
- ❖ Two-day Virtual Workshop on LaTeX – A Documenting Research Tool (Aug 2020) – Workshop Coordinator.
- ❖ Science Academies', DST, NBHM, and UGC-sponsored events (2011–2021): Organized Lecture Workshops, INSPIRE Internship, International Conferences, and UGC STRIDE Capacity Building Programmes.

## **Workshops / Seminars / Conferences Attended**

- ❖ Science Academies' Lecture Workshop on Differential Equations and Applications – PSGRKCW (Dec 2011).
- ❖ Faculty Development Programme – Kongunadu College of Arts and Science (Aug 2012).
- ❖ Workshop on Achieving Excellence in Research – PSGRKCW (Jul 2013).
- ❖ Lecture Workshops on Functional Analysis and Fluid Dynamics – PSG Tech (Jan 2014).
- ❖ International Conference on Applications of Mathematics in Engineering, Science and Technology – PSGRKCW (Jan 2015).

- ❖ UGC Workshop on Statistical Tools using SPSS – Kongunadu College (Feb 2016).
- ❖ The Architect – Teacher Skill Enhancement Programme – Karl Kubel Institute (Sep 2016).
- ❖ Science Academies' Workshop on Mathematical Modelling – PSGRKCW (Dec 2016).
- ❖ National Seminar on Applied Mathematics – PSGRKCW (Feb 2018).
- ❖ International Conference on Mathematical Modeling in Nature and Social Sciences – GVG Vishalakshi College (Feb 2019).
- ❖ FDP on Big Data Analytics in Bioinformatics – PSGRKCW (Feb 2020).
- ❖ Multiple Online FDPs/Webinars on AI, ICT Tools, Applied Mathematics, and Research Proposals – Various Institutions (Apr–Aug 2020).
- ❖ Seven days Virtual International FDP on Research Insights for Academic Excellence – KPR College of Arts Science and Research (Aug 2023).
- ❖ FDP on Generative AI Tools – PSGRKCW (July 2024).
- ❖ One day State Level Conference on National Institutional Ranking Framework to Improve Rankings – ASFASM (Oct 2024).
- ❖ Five days National Level FDP (virtual) on AI Driven E-content Development on Effective Engagement of Digital Natives -Arul Anandar College (Sep 2025).

#### **Reviewer in Referred Journals**

- ❖ Advances in Science, Technology and Engineering Systems Journal (ASTESJ)

#### **Contribution to the College**

- ❖ NAAC Team Member – Criteria IV from 2019 to till date
- ❖ Spoken Tutorial Workshop Organizer – conducted around 200 workshops from 2016 – 2020.
- ❖ e -Yantra Robotics lab step-up initiative(eLSi), IIT Bombay - Team member
- ❖ E-Content Team Member – 2011 – 2014.
- ❖ Handled classes for CA/CPT Competitive Examination for the year 2016 - 2017
- ❖ Internal Auditor from the year 2015 - 2022.