

Name : Dr. P. Umadevi
Designation : Assistant Professor
Department : Mathematics
Qualification : M. Sc., M. Phil., PGDCA., Ph. D.

Experience:

Teaching: 6 Years Industry: Nil Research: 5 Years

Area of Specialization(s) : Computational Fluid Dynamics, Heat Transfer, Nanofluids

Email (Official ID) : umadevi@drngpasc.ac.in

Academic Qualifications

Degree	Branch	Institution / University Name	Year of Graduation
Ph. D.	Mathematics	Bharathiar University	2016
M. Phil.	Mathematics	Navarasam Arts and Science College for Women	2009
M. Sc.	Mathematics	Karuppannan Mariappan College of Arts and Science	2007
B. Sc.	Mathematics	Navarasam Arts and Science College for Women	2005

Additional Qualifications

Diploma / Vocational / Certification	Area of Specialization	Institution / University / Agency Name	Year
PGDCA	Computer Applications	Navarasam Arts and Science College for Women	2008
NPTEL Online Certification	An Introduction to Cardiovascular Fluid Mechanics	IIT Guwahati	2018
NPTEL Online Certification	Data Base Management System	IIT Kharagpur	2018

Research Guidance

Programme	No. of Scholars	
	Completed	Pursuing
M. Phil.	-	1

Research Publications (Indexed)

International

- 1) Nagarajan Nithyadevi, Periyasamy Umadevi, **Natural Convection Around A Heat Conducting And Generating Solid Body Inside A Square Enclosure With Different Thermal Boundaries**, Journal of Korean Society of Industrial and Applied Mathematics, Vol. 19 (4) pp. 459-479, December -2015. (Indexed in Google Scholar)
- 2) Nithyadevi Nagarajan, Umadevi Periyasamy, **Natural Convection in a Tilted Square Enclosure having Heat Generating Solid Body and with Various Thermal Boundaries**, Procedia Engineering, Vol. 127, pp. 1235-1242, January 2015. (Indexed in SCOPUS).
- 3) P. Umadevi, N. Nithyadevi, **Magneto-Convection Inside an Enclosure having a Heat Generating Solid Square Body and with Various Thermal Boundaries**, Proceedings of the International Conference on Computing in Mechanical Engineering, DOI:10.3850/9789810962784-1570135337, February 2016. (Indexed in Google Scholar)
- 4) P. Umadevi, N. Nithyadevi, **Magneto-Convection of Water-Based Nanofluids inside an Enclosure having Uniform Heat Generation and Various Thermal Boundaries**, Journal of the Nigerian Mathematical Society, Vol. 35(1), pp. 82-92, April 2016. (Indexed in Google Scholar)
- 5) Umadevi. P, Nithyadevi, **Convection in a Sinusoidally Heated Square Enclosure Utilizing Ag Water Nanofluid with Heat Generating Solid Body**, International Journal of Mechanical Sciences, Vol. 131–132, pp. 712–721, ISSN: 0020-7403, Impact Factor: 2.884, August -2017. (Indexed in SCI, SCIE, SCOPUS and Google Scholar),

Other Publications: International / National

- 1) Periyasamy Umadevi, Nagarajan Nithyadevi, **Convection in a Tilted Square Enclosure with Various Boundary Conditions and Having Heat Generating Solid Body at its Center**, International Journal of Mathematical Modeling and Computations, Vol. 07 (2), pp 130 – 144, November 2007, Impact Factor: 1.2448.

Presentations in Conference

- 1) **Fuzzy Topology**, National Conference on Recent Trends in Fuzzy Sets, Navarasam Arts & Science College for Women, 25- Sep- 10.

- 2) **Magneto-Convection in a Partially Heated Enclosure with Temperature Dependent Heat Source**, 57th Congress of ISTAM (Indian Society of Theoretical and Applied Mechanics), Defense Institute of Advanced Technology, Pune, 17 to 20-Dec-12.
- 3) **Magneto-Convection in a Differently Heated Vertical Walls in a Square Cavity with the Presence of Temperature Dependent Heat Source**, National Conference on Partial Differential Equations and Applications, Department of Mathematics, Bharathiar University, Coimbatore, 30 & 31-Jan-14.
- 4) **Numerical Analysis of Natural Convection in an Enclosure Having Heat Conducting and Generating Solid Obstacle with Various Thermal Boundaries**, National Conference on Recent Trends in Theory and Applications of Partial Differential Equations, Department of Mathematics, Bharathiar University, Coimbatore, 26 & 27-Mar-15.
- 5) **Magneto-Convection inside an Enclosure having a Heat Generating Solid Body and with Various Thermal Boundaries**, International Conference on Computing in Mechanical Engineering (ICCME-2015), SCMS School of Engineering and Technology, Kochi, 10 to 13-Aug-15.
- 6) **Natural Convection in a Tilted Square Enclosure having Heat Generating Solid Body and with Various Thermal Boundaries**, International Conference on Computations in Heat and Mass Transfer (ICCHMT-2015), NIT Warangal, Telungana, 30-Nov-15 to 2-Dec-15.
- 7) **Effect of Angle of Inclination on Convection inside Enclosure Including a Heat Generating Solid Body**, 61st Congress of Indian Society of Theoretical and Applied Mechanics, VIT University, Vellore, 12 to 14-Dec-16.
- 8) **Convection in a Differently Heated Enclosure with Heat Generating Solid Body**, National Seminar on Recent Developments in Pure and Applied Mathematics, Department of Mathematics, Karpagam University, Coimbatore, 15-Sep-17.
- 9) **Role Of Operations Research In Medical Decision Making**, National Conference in Opportunities and Challenges of Operation Research in Healthcare, Dr. N.G.P. Arts and Science College, Coimbatore, 9-Feb-18.

- 10) **Convection in a Differently Heated Enclosure with Heat Conducting and Generating Solid Body in Presence of Magnetic Field**, International Conference on Mathematical Modeling, Analysis and Computing, Thiruvallur University, 13 & 14-Dec-18.

Participation in Conference

National

- 1) **Computational Biology**, Bharathiar University, Coimbatore, 15 & 16-Feb-13.
- 2) **Computer Communication and Information Technology**, Dr. N.G.P. Arts and Science College, Coimbatore, 28-Sep-16.
- 3) **Computational and Theoretical Partial Differential Equations**, NIT Goa, 5 to 7-Oct-16.
- 4) **Recent Advances in Theoretical and Computational Methods for Partial Differential Equations**, Dr. N.G.P. Arts and Science College, Coimbatore, 6 to 7-Jan-17.
- 5) **Computational Biology**, DRDO-BU CLS, Bharathiar University, 7- Sep-17.

Participation in Seminars

- 1) **Large Deviations Theory: Connections to Control Theory, Fluid Dynamics, Nonlinear PDE and Statistics**, Bharathiar University, 16 to 22-Feb-12.
- 2) **Partial Differential Equations**, Bharathiar University, Coimbatore, 28 & 29-Feb-12.
- 3) **Mathematics on Turbulence, Random Waves and Quantum Fields**, Bharathiar University, 16 to 27-Jul-12.
- 4) **Quasi-Linear Partial Differential Equations of Fluid Dynamics and Physics**, Bharathiar University, 30-Jun-14 to 11-Jul-14.
- 5) **International Symposium on Neoteric Notion in Algebra**, Nandha Arts and Science College, 21-Sep-16

Participation in Workshop

- 1) **Modeling, Computing and Optimization**, Department of Mathematics, IIT Madras, 3 to 12-Sep-16.
- 2) **Applications of Tools using R-Language - A Hands on Training**, Dr. N.G.P. Arts and Science College, Coimbatore, 23 & 24-Sep-16.
- 3) **SCILAB - An Open Source Tool Equivalent to MATLAB**, Dr. N.G.P. Arts and Science College, Coimbatore, 23-Sep-17.

Participation in Faculty Development Programme

- 1) **National Level Teachers Enrichment Workshop on Galois Theory and Complex Analysis**, TIFR and IIT Bombay, St. Berchmans College, Kerala, 30-Apr-18 to 5-May-18.
- 2) **Quality Initiatives in Higher Education**, Dr. N.G.P. Arts and Science College, Coimbatore, 3 to 9-Dec-18.

Editorial / Review Board Member

- 1) Review Board Member, Journal of Applied Mathematics and Information Sciences, since 2019.

Membership in Professional Bodies

Name of the Professional Body	Nature of membership	Duration
Indian Society of Industrial and Applied Mathematics	Life-time	-