Name : Dr. P. Umamaheswari

**Designation**: Assistant Professor

**Department**: Mathematics

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

**Experience**: Teaching: 3 Years 7 Months Research: 7 Years

**Area of Specialization(s)** : Differential Equations

**Email (Official ID)** : pumamaheswari@drngpasc.ac.in



## **Academic Qualifications**

| Degree  | Branch      | Institution / University Name  | Year of<br>Graduation |
|---------|-------------|--|-----------------------|
| Ph.D.   | Mathematics | Department of Mathematics, Bharathiar University, Coimbatore.            | 2019                  |
| M.Phil. | Mathematics | Department of Mathematics, Bharathiar University, Coimbatore.            | 2015                  |
| M.Sc    | Mathematics | Department of Mathematics, Bharathiar University, Coimbatore.            | 2014                  |
| B.Sc    | Mathematics | Nehru Memorial College(Autonomous),<br>Bharathidasan University, Trichy. | 2012                  |

## **Research Publications (Indexed)**

## **International**

- P. Umamaheswari, K. Balachandran and N. Annapoorani, On the solution of stochastic fractional integrodifferential equations, Nonlinear Functional Analysis and Applications, 22 (2017) 335-354. (Scopus)
- P. Umamaheswari, K. Balachandran and N. Annapoorani, Existence of solutions of stochastic fractional integrodifferential equations, Discontinuity, Nonlinearity, and Complexity, 7(1) (2018) 55-65. (Scopus)
- P. Umamaheswari, K. Balachandran and N. Annapoorani, Solvability of stochastic fractional differential equations with deviating arguments, Journal of Applied Nonlinear Dynamics, (in press) 2018. (Scopus)
- P. Umamaheswari, K. Balachandran and N. Annapoorani, Existence and Stability Results for Caputo Fractional Stochastic Differential Equations with Levy Noise, Filomat, 2020.(SCIE)

### **Book Chapter**

• P. Umamaheswari, K. Balachandran and N. Annapoorani, Existence and stability results for stochastic fractional delay differential equations with Gaussian noise, Mathematical Modelling, Optimization, Analytic and Numerical Solutions, Springer, Singapore, 2020.

#### **Presentations in Conference**

- Existence and Stability results for system of Stochastic Fractional Differential Equations
  with Levy Noise, National Symposium on Impending Mathematical Techniques for Nonlinear
  PDEs in Collective Dynamics, PSG College of Arts and Science, Coimbatore, 24-Jan-23 to 25Jan-23.
- Existence of Solution of stochastic fractional differential equations with Levy Noise, International Virtual Conference on Emerging Trends in Applications of Mathematics 2021(ICETAM-2021), KG College of Arts and Science, Coimbatore, 16- Sep-21 to 17-Sep-21.
- Solution of stochastic fractional neutral integrodifferential equations with Gaussian Noise, International Conference on Indian Society of Industrial and Applied Mathematics (IC-ISIAM-2019), Bharathiar University and Anna University Regional Campus, Coimbatore, 5-Dec-19 to 7-Dec-19.
- Solution of stochastic fractional delay integrodifferential equations, International Conference and 14<sup>th</sup>Biennial Conference of Indian Society of Industrial and Applied Mathematics, Guru Nanak Dev University, Amritsar, 2-Feb-18 to 4-Feb-18.
- On the solution of general stochastic fractional differential equations, 4<sup>th</sup>National Conference on Advances in Differential Equations and Applications, Periyar University, Salem, 23-Mar-17 to 24-Mar-17.
- On the solvability of stochastic fractional integrodifferential equations, International Conference on Differential Equations and Applications (ICDEA 2017), Bharathiar University, Coimbatore, 15-Mar-17 to 16-Mar-17.
- On stochastic fractional differential equations, National Conference on Recent Advances in Theoretical and Computational Methods for Partial Differential Equations, Dr.N.G.P. Arts and Science College, Coimbatore, 6-Jan-17 to 7-Jan-17.
- Existence and uniqueness of solution for the stochastic fractional integrodifferential equations, National Conference on Computational and Theoretical Partial Differential Equations, National Institute of Technology, Goa,5-Oct-16 to 7-Oct-16.

## **Participation in Conference**

- International webinar on Dynamical Systems and its Applications, Bharathiar University, Coimbatore, 17-Aug-2020 to 21-Aug-2020.
- International Symposium on Computational Science and its Applications, Sharada University, Greater Noida, 5-Feb-18 to 6-Feb-18.
- International Conference on Nonlinear Dynamical Systems, Bharathiar University, Coimbatore, 24-Mar-16 to 26-Mar-16.

#### **National**

- Third National Conference on Control and Inverse Problems, Central University of Kerala, Central University of Tamil Nadu, Periyar University, 25-Feb-22 to 26-Feb-22.
- Webinar on Vedic Mathematics, Bhopal School of Social Sciences, Bhopal, 30-Dec-21.
- Webinar on Optimal Control of Partial Differential Equations and Applications, Indian Institute of Information Technology, Kottayam, Kerala, 3-July-2020.
- National Webinar on Recent Advancements in Graph Theory, Hemchandracharya North Gujarat University, Gujarat 16-June-2020.
- Fourth National Conference on Computational Biology, DRDO-BU CLS, Bharathiar University, Coimbatore,7-Sep-17.
- National conference on Recent Trends in Theory and Applications of Partial Differential Equations, Bharathiar University, Coimbatore, 26-Mar-15 to 27-Mar-15.
- National Conference on Partial Differential Equations and Applications, Bharathiar University, Coimbatore, 30-Jan-14 to 31-Jan-14.

## Participation in Seminars/Workshop

- UGC Approved Short term Professional Development Programme on Implementation of NEP 2020, Indira Gandhi national Open University, New Delhi, 21-Sep-22 to 29-Sep-22.
- Two Days online Workshop on An Insight into Mathematical Modelling in Information and Communication Engineering- Version 2, Sri Sivasubramania Nadar College of Engineering, Chennai, 27-Jan-22 to 28-Jan-22.
- NPTEL E awareness workshop, NPTEL, 6-Jan-22.
- International Workshop on Wavelets and its Applications: Image Processing, Data Science and PDEs, Manay Rachna University, Faridabad and IIT, Indore, 6-Dec-21 to 10-Dec-21.
- National Webinar on Research Advances in Mathematics, Bharathiar University, Coimbatore, 22-Mar-21 to 24-Mar-21
- National Workshop on Stochastic Differential Equations and Applications, Periyar University, Salem, 10-Mar-21 to 13-Mar-21.

- IIC online session, IIC of MHRD's Innovation Cell, New Delhi, 28- Apr-2020 to 22- May- 2020.
- Online National Workshop on Basics of Documentation on Latex, Stella Maris College Autonomous, Chennai, 24- April-2020 to 25-April-2020, 29-April-2020 to 30-April-2020.
- Indian Women and Mathematics: Regional Workshop on Research and Opportunities, Cochin University of Science and Technology, Kerala, 2-Jan-18 to 3-Jan-18.
- Lecture Series on Stochastic Differential Equations in Biological Models by Manil T Mohan, Air Force Institute of Technology, Ohio, USA, DRDO-BU CLS, Bharathiar University, Coimbatore.21-Jun-17 to 25-Jun-17.
- Lecture series on Quasi-linear Partial Differential Equations of Fluid Dynamics and Physics, by Prof. SivaguruS.Sritharan, NPS, Monterey, California, USA, Bharathiar University, Coimbatore.30-Jun-14 to 11-Jul-14.
- Special lecture series on Mathematics of Turbulence, Random Waves and Quantum field by Prof. Sivaguru S.Sritharan, NPS, Monterey, California, USA, at Bharathiar University, Coimbatore,16-Jul-12 to 27-Jul-12.

# **Participation in Faculty Development Programme**

- FDP on Descriptive Statistics Using R, NPTEL-AICTE, SEP-22 to Oct-22.
- National Level Three Days FDP on Graph Theory, Vellalar College for Women, Erode, 21-Dec-21 to 23-Dec-21.
- Online FDP on Research Methodology and Pedagogy in Tertiary Education, Dr. N.G.P.
   Arts and ScienceCollege, Coimbatore, 15-June-21 to 21-June-21.
- One week International FDP on Applicable Mathematics in Programming in Science and Technology, Mohammed Sathak AJ College of Engineering, Chennai, 7-June-21 to 12-June-21.
- Three Days FDP on Applications of Mathematics, Hindustan College Engineering and Technology, 13-June-20 to 15-June-20.
- FDP on Recent Trends in Computational Mathematics, Mohammed Sathak AJ College of Engineering, Chennai, 27- May-20 to 29-May-20.
- Faculty Awareness Program on NAAC Accreditation, RD's Shri Chhatrapati
   Shivajiraje College of Engineering, Pune, 10- May-20 to 15-May-20.
- One week FDP on Python, Dr. N.G.P. Arts and ScienceCollege, Coimbatore and Spoken Tutorial, IIT, Bombay, 4-May-20 to 10-May-20.
- Recent Advances in Mathematics, Department of Mathematics, Dr. N.G.P. Arts and Science College, Coimbatore, 2-Mar-20 to 3-Mar-20.
- NAAC Revised Accreditation Framework and OBE Assessment Methodology, Dr. N.G.P. Arts and Science College, Coimbatore, 27-May-19 to 2-Jun-19.

# Conference / Seminar / Workshop Organized

## National

- Emerging Trends in Mathematics with Computer Applications, Dr. N.G.P. Arts and Science College, Coimbatore, 12-Sep-19 to13-Sep-19.
- National Conference on Recent Trends in Basic and Applied Sciences, Dr. N.G.P. Arts and Science College, Coimbatore, 2-Mar-20 to 3-Mar-20.

# **Membership in Professional Bodies**

| Name of the Professional Body                         | Nature of membership | Duration       |
|---|----------------------|----------------|
| Indian Society for Industrial and Applied Mathematics | Life Member          | February 2018- |
|   |                      | till date      |