




# Bharathiar University

State University | "A<sup>++</sup>" Grade by NAAC | 46<sup>th</sup> Rank in MoE-NIRF  
Maruthamalai Road, Coimbatore, Tamil Nadu - 641 046.

<p><b>Dr M SUVINTHRA</b> Assistant Professor Department of Applied Mathematics Bharathiar University</p> <p>Tamil Nadu <b>E-mail:</b> suvinthra@buc.edu.in <b>Phone:</b> 8903242282 <b>Office Number:</b> 0422 2428627</p>	
<p><b>Research Area</b></p> <ul style="list-style-type: none"><li>• Probability and Stochastics</li><li>• Differential Equations</li><li>• Control Theory</li></ul>	<p><b>Courses Teaching</b></p> <ul style="list-style-type: none"><li>• Topology</li><li>• Partial Differential Equations</li><li>• Nonlinear Differential Equations</li><li>• Mathematical Methods</li><li>• Distribution Theory</li><li>• Fluid Dynamics</li><li>• Discrete Mathematics</li><li>• Operations Research</li><li>• Programming in C++</li><li>• Java Programming</li></ul>
<p><b>Research Experience:</b> 11</p>	<p><b>Teaching Experience:</b> 8</p>
<p><b>Research Credentials</b> (as on September 2024 – Source: Google scholar)</p> <p>H-index: 6                      Citations: 170                      i10-index: 6</p>	
<p><b>Publications</b></p> <p>International Journals: 23                      Books/Chapters: 1                      National Journals: 3</p>	
<p><b>Career</b></p> <p><b>At Bharathiar University</b></p> <p><b>1. Designation : Assistant Professor</b> Period : November 2016 - September 2025</p>	
<p><b>Education</b></p> <p><b>Ph. D.</b> Subject : Mathematics Institution : Bharathiar University Affiliated University : Bharathiar University Year of Award : October 2016</p> <p><b>M. Phil.</b> Subject : Mathematics Institution : Bharathiar University Affiliated University : Bharathiar University Year of Award : November 2013</p> <p><b>M. Sc.</b> Subject : Mathematics Institution : Bharathiar University Affiliated University : Bharathiar University Year of Award : May 2012</p>	



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Dr M SUVINTHRA , Assistant Professor , Department of Applied Mathematics

## B. Sc.

Subject : Mathematics

Institution : Avinashilingam University for Women

Affiliated University : Avinashilingam University for Women

Year of Award : May 2010

## Projects

## Research Guidance

### Completed

Ph.D. - 4 M.Phil. - 4 PG - 10

### Submitted

Ph.D. - 1

### On Going

Ph.D. - 2 PG - 33

## Institutional Responsibilities

### IQAC Department Coordinator

Period :Jul 2020 to Till date

Nature of Responsibility :

### Member, Institution's Innovation Council

Period :Sep 2020 to Till date

Nature of Responsibility :

## Visits

1. International Congress on Industrial and Applied Mathematics (ICIAM 2015), China - 2015-08-03 )
2. International Congress of Mathematicians (ICM 2018), Brazil ( 2018-07-31 - 2018-08-10 )
3. Heidelberg Laureate Forum (HLF 2018), Germany ( 2018-09-10 - 2018-09-14 )

## Publications

### International Journals - 23

#### 23. Optimal Control Problem for Inventory Production-Maintenance System of Decoupling Point in Segmented Market

International Journal of Applied and Computational Mathematics, 11,1-20 (August 2025)

S. Sowmica and M. Suvinthra

#### 22. Large deviations for stochastic predator-prey model with Lévy noise

Nonlinear Analysis: Modelling and Control, 29 (2024) 720-745 (June 2024)

C. S. Sridevi, M. Suvinthra and K. Balachandran

#### 21. Optimal control strategies for a two-item production-maintenance system with deterioration

Results in Control and Optimization, 14, 100385, 11 pages (March 2024)

S. Sowmica and M. Suvinthra

#### 20. Large deviation principle for the stochastic Cahn-Hilliard/Allen-Cahn equation with fractional noise

Stochastic Analysis and Applications, 42, 327-353 (March 2024)

G. Amali Paul Rose, M. Suvinthra and K. Balachandran

#### 19. On fractional diffusion equation with noise perturbation

International Journal of Dynamics and Control, 12, 98-106 (January 2024)

C. S. Sridevi, R. Mabel Lizzy and M Suvinthra

#### 18. Large deviations for stochastic fractional pantograph differential equation

International Journal of Dynamics and Control, 12, 136-147 (January 2024)

A. Siva Ranjani and M. Suvinthra



## 17. Large deviations for the stochastic functional integral equation with nonlocal condition

Arab Journal of Mathematical Sciences, 30, 81-94 (January 2024)  
Shruthi Gopal and M. Suvinthra

## 16. Large deviations for stochastic pantograph integrodifferential equation

Filomat, 37, 6751-6766 (January 2023)  
A Siva Ranjani, M Suvinthra and K Balachandran

## 15. Moderate deviations for stochastic Kuramoto–Sivashinsky equation

Stochastics and Dynamics, 6, 2250023, 22 pages (September 2022)  
G. Amali Paul Rose, M. Suvinthra and K. Balachandran

## 14. Analysis of stochastic neutral fractional functional differential equations

Boundary Value Problems, 2022, 49, 26 pages (July 2022)  
A. Siva Ranjani, M. Suvinthra, K. Balachandran and Y. Ma

## 13. Moderate deviations for stochastic tidal dynamics equations with multiplicative Gaussian noise

Applicable Analysis, 101, 1456-1490 (March 2022)  
A. Haseena, M. Suvinthra, Manil T. Mohan and K. Balachandran

## 12. Large deviations for stochastic Kuramoto–Sivashinsky equation with multiplicative noise

Nonlinear Analysis: Modelling and Control, 26, 642-660 (July 2021)  
G. Amali Paul Rose, M. Suvinthra and K. Balachandran

## 11. Large deviations for stochastic integrodifferential equations of the Itô type with multiple randomness

Filomat, 32, 473-487 (January 2018)  
A. Haseena, M. Suvinthra and N. Annapoorani

## 10. On Large Deviations of Stochastic Integrodifferential Equations with Brownian Motion

Discontinuity, Nonlinearity, and Complexity, 6, 281-294 (December 2017)  
A. Haseena, M. Suvinthra and N. Annapoorani

## 9. Controllability of Nonlinear Stochastic Fractional Systems with Levy Noise

Discontinuity, Nonlinearity, and Complexity, 6, 409-420 (December 2017)  
R. Mabel Lizzy, K. Balachandran and M. Suvinthra

## 8. Controllability of nonlinear stochastic fractional systems with distributed delays in control

Journal of Control and Decision, 4, 153-167 (July 2017)  
R. Mabel Lizzy, K. Balachandran and M. Suvinthra

## 7. Large deviations for stochastic fractional integrodifferential equations

AIMS Mathematics 2, 348-364 (June 2017)  
M. Suvinthra, K. Balachandran and R. Mabel Lizzy

## 6. Large deviations for stochastic predator-prey model with nonlinear functional response

Journal of Applied Probability, 54, 507-521 (June 2017)  
M. Suvinthra and K. Balachandran

## 5. Large deviations for nonlinear Ito type stochastic integrodifferential equations

Journal of Applied Nonlinear Dynamics, 6, 1-15 (April 2017)  
M. Suvinthra and K. Balachandran

## 4. Stability and Hopf bifurcation of a diffusive predator-prey model with hyperbolic mortality

Complexity, 21, 34-43 (September 2016)  
M. Sambath, K. Balachandran and M. Suvinthra

## 3. Analysis of stochastic diffusive predator prey model with hyperbolic mortality rate

Discontinuity, Nonlinearity, and Complexity, 5, 223-237 (September 2016)  
M. Suvinthra, K. Balachandran and M. Sambath

## 2. Large deviations for stochastic differential equations with deviating arguments

Nonlinear Functional Analysis and Applications, 20, 659-674 (December 2015)  
M. Suvinthra, K. Balachandran and J.K. Kim



## 1. Large deviations for stochastic tidal dynamics equation

Communications on Stochastic Analysis, 9, 477-502 (December 2015)  
M. Suvinthra, S.S. Sriharan and K. Balachandran

## National Journals - 3

### 3. Large Deviations for Stochastic Functional Differential Equations with Infinite Delay

Journal of Industrial and Applied Mathematics, 11, 222-233 (December 2020)  
Shruthi Gopal and M. Suvinthra

### 2. Large deviation principle for stochastic generalized KdV equation with additive noise

Indian Journal of Industrial and Applied Mathematics, 10, 178-193 (December 2019)  
G. Amali Paul Rose, M. Suvinthra and K. Balachandran

### 1. Large Deviation Principle for Stochastic Thermoelastic System Coupled Sine-Gordon Equation Driven by

#### Lévy Noise

Indian Journal of Industrial and Applied Mathematics, 10, 204-216 (December 2019)  
C. S. Sridevi and M. Suvinthra

## Books/Chapters - 1

### 1. Large deviations for stochastic fractional differential equation

Theory and Applications of Non-integer Order Systems, Lecture Notes in Electrical Engineering, 407, 113-122 (August 2016)  
M. Suvinthra