DR. MANIL T. MOHAN
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Department of Mathematics
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PERSONAL DETAILS

Date of Birth	:	10^{th} May 1986
Nationality	:	Indian
Marital Status	:	Single
Permanent Address	:	Manil Bhavan, Mamood, Venjaramoodu, PO: 695607, Thiruvananthapuram, Kerala, India
Father's Name	:	K. Mohanan
Mother's Name	:	K. Thankamani

ACADEMIC POSITIONS

July 23, 2018–till date	Assistant Professor, Department of Mathematics, Indian Institute of Technology Roorkee-IIT Roorkee, INDIA.
May 1, 2018–July, 22, 2018	Department of Science and Technology (DST), Innovation in Science Pursuit for Inspired Research (INSPIRE) Faculty, Department of Mathematics, Indian Institute of Technology Roorkee-IIT Roorkee, INDIA.
June 1, 2009–July, 31, 2009	Faculty Improvement Program (FIP) Substitute Lecturer in Mathematics, Department of Mathematics, University College, Thiruvananthapuram, Kerala, INDIA.
Oct 28, 2008–Jan, 14, 2009	Guest Lecturer in Mathematics, Department of Mathematics, Mahatma Gandhi College(MG College), Thiruvananthapuram, Kerala, INDIA.

RESEARCH EXPERIENCE

August 1, 2017–January 31, 2018	Visiting Scientist, Statistics and Mathematics Unit, Indian Statistical Institute(ISI), Bangalore, INDIA.
June 2, 2015–June 1, 2017	National Academy of Sciences(NAS), National Research Council(NRC) Postdoctoral Fellow(PDF), Department of Mathematics and Statistics, Air Force Institute of Technology(AFIT), USA.
January 1, 2015–May 31, 2015	National Board of Higher Mathematics(NBHM) PDF, School of Mathematics, Indian Institute of Science Education and Research(IISER), Thiruvananthapuram, Kerala, India.
August 1, 2011–July 31, 2014	Council of Industrial and Scientific Research(CSIR) Senior Research Fellow(SRF), School of Mathematics, IISER-TVM, Thiruvananthapuram, Kerala, India.
August 1, 2009–July 31, 2011	CSIR Junior Research Fellow(JRF), School of Mathematics, IISER-TVM, Thiruvananthapuram, Kerala, India.

SCHOLASTIC RECORDS

- August $1, 2009$–August $7, 2014$: Doctor of Philosophy(PhD) in Mathematics.
  Indian Institute of Science Education and Research(IISER), Thiruvananthapuram, Kerala, India.
  - Course Work CGPA: $10/10$.
  - Thesis Title: *"Stochastic Analysis of General Hydrodynamic Models"*.
  - Thesis Supervisor: Dr. Utpal Manna, School of Mathematics, IISER-TVM.
  - Date of Defense: August 7, 2014.
- $2006 - 2008$: Master of Science(MSc) in Mathematics.
  Mar Ivanios College, Thiruvananthapuram (Kerala University), Kerala, India.
  - Percentage of Marks: 90.44% (Distinction).
  - Fourth Position - Kerala University.
  - Dissertation Title: *"A Study on Semigroups"*. Supervisor: Dr. James Alexander, Department of Mathematics, Mar Ivanios College, Thiruvananthapuram.
- 2003–2006: Bachelor of Science(BSc) in Mathematics(main), Statistics and Physics(subsidiary).
  Mar Ivanios College, Thiruvananthapuram (Kerala University), Kerala, India.
  - Percentage of Marks: 99.70% (Distinction).
  - First Rank - Kerala University, Sir T. Madhava Rao Gold Medal for the year 2006.
- $2001 - 2003$: Higher Secondary Education(HSE), Science(Mathematics, Physics, Chemistry, Biology).
  Govt. Higher Secondary School, Venjaramood (Kerala Board), Trivandrum, Kerala, India.
  - Percentage of Marks: 91.50% (Distinction).
  - School Topper.
- $2000 - 2001$: Secondary School Leaving Certificate(SSLC).
  Govt. Higher Secondary School, Venjaramood (Kerala Board), Trivandrum, Kerala, India.
  - Percentage of Marks: 89.00% (Distinction).
  - School Third.

RESEARCH INTERESTS

- Stochastic Analysis–Large and moderate deviation theory, Invariant measures, Ergodicity, etc.
- Stochastic (Partial) Differential Equations–Local and global solvability, Support theorems, Stochastic stability, etc.
- Partial Differential Equations–Solvability, stability and asymptotic behavior of parabolic and hyperbolic systems.
- Control Theory–Deterministic and stochastic control theory in finite and infinite dimensions, Optimal control theory, etc.
- Mathematical Fluid Dynamics–Solvability of compressible and incompressible fluid flow equations, asymptotic analysis, stochastic analysis and controllability of fluid flows, etc (including viscoelastic fluid flow equations).
- Optimization problems with orthogonal matrix constraints.

PUBLICATIONS

Accepted/Appeared

2020 28. T. Biswas, S. Dharmatti and **M. T. Mohan**, Maximum principle for some optimal control problems governed by 2D nonlocal Cahn-Hillard-Navier-Stokes equations, Accepted in *Journal of Mathematical Fluid Mechanics*, 2020.

27. T. Biswas, S. Dharmatti and **M. T. Mohan**, "Second order optimality conditions for optimal control problems governed by 2D nonlocal Cahn-Hilliard-Navier-Stokes equations", Accepted in *Nonlinear Studies*, 2020.

26. **M. T. Mohan**, "Well posedness, large deviations and ergodicity of the stochastic 2D Oldroyd model of order one", Published online in *Stochastic Processes and their Applications*, 2020.

25. **M. T. Mohan**, "Global and exponential attractors for the 3D Kelvin-Voigt-Brinkman-Forchheimer equations", Published online in *Discrete and Continuous Dynamical Systems-Series B*, 2020.

24. S. Arora, S. Singh, J. Dabas and **M. T. Mohan**, "Approximate controllability of semilinear impulsive functional differential systems with nonlocal conditions", Published online in *IMA Journal of Mathematical Control and Information*, 2020.

23. **M. T. Mohan**, "An extension of the Beale-Kato-Majda criterion for the 3D Navier-Stokes equation with hereditary viscosity", Accepted in *Pure and Applied Functional Analysis*, 2020. Invited article in the special issue on *Partial Differential Equations and Applications* in memory of *Professor Aizik Volpert*.

22. **M. T. Mohan**, "On the two dimensional tidal dynamics system: stationary solution and stability", Published online in *Applicable Analysis*, 2020.

21. **M. T. Mohan**, "On the three dimensional Kelvin-Voigt fluids: global solvability, exponential stability and exact controllability of Galerkin approximations", Published online in *Evolution Equations and Control Theory*, 2020.

20. **M. T. Mohan**, "Deterministic and stochastic equations of motion arising in Oldroyd fluids of order one: Existence, uniqueness, exponential stability and invariant measures", *Stochastic Analysis and Applications*, **38** (1), 1–61, 2020.

2019 19. K. Yamazaki and **M. T. Mohan**, "Well-posedness of Hall-magnetohydrodynamics system forced by Lévy noise", *Stochastics and Partial Differential Equations: Analysis and Computations*, **7** (3), 331–378, 2019.

18. **M. T. Mohan**, K. Sakthivel and S. S. Sritharan, "Ergodicity for the 3D stochastic Navier-Stokes equations perturbed by Lévy Noise", *Mathematische Nachrichten*, **292** (5), 1056–1088, 2019.

17. **M. T. Mohan** and S. S. Sritharan, "Stochastic Navier-Stokes equation perturbed by Lévy noise with hereditary viscosity", *Infinite Dimensional Analysis, Quantum Probability and Related Topics*, **22** (1), 1950006 (32 pages), 2019.

16. **M. T. Mohan**, "On some p-almost Hadamard matrices", *Operators and Matrices*, **13** (1), 253–281, 2019.

15. K. T. Arasu and **M. T. Mohan**, "Entropy of orthogonal matrices and minimum distance orthostochastic matrices from the uniform van der Waerden matrices", *Discrete Optimization*, **31** (1), 115–144, 2019.

2018 14. **M. T. Mohan**, "Global strong solutions of the stochastic three dimensional inviscid simplified Bardina turbulence model", *Communications on Stochastic Analysis (COSA)*, **12** (3), 249–270, 2018.

13. K. T. Arasu and **M. T. Mohan**, "Optimization problems with orthogonal matrix constraints", *Numerical Algebra, Control and Optimization (NACO)*, **8**(4), 413–440, 2018.

12. **M. T. Mohan** and S. S. Sritharan, "Stochastic quasilinear symmetric hyperbolic system perturbed by Lévy noise", *Pure and Applied Functional Analysis*, **3**(1), 137–178, 2018. Invited article in special issue on Control, *Optimization and PDE* dedicated to *Professor Viorel Barbu* on the occasion of his 75th birthday.
11. S. Doboszczak, **M. T. Mohan** and S. S. Sritharan, "Existence of optimal controls for compressible viscous flow", *Journal of Mathematical Fluid Mechanics*, **20**(1), 199–211, 2018.

2017
10. U. Manna, **M. T. Mohan** and S. S. Sritharan, "Stochastic non-resistive magnetohydrodynamic system with Lévy noise", *Random Operators and Stochastic Equations*, **25**(3), 155–194, 2017.
9. **M. T. Mohan** and S. S. Sritharan, "$\mathbb{L}^p-$solutions of stochastic Navier-Stokes equations subject to Lévy noise with $\mathbb{L}^m(\mathbb{R}^m)$ initial data", *Evolution Equations and Control Theory (EECT)*, **6**(3), 409–425, 2017.
8. **M. T. Mohan** and S. S. Sritharan, "Stochastic quasilinear evolution equations in UMD Banach spaces", *Mathematische Nachrichten*, **290**(13), 1971–1990, 2017.

2016
7. **M. T. Mohan** and S. S. Sritharan, "Ergodic control of stochastic Navier-Stokes equation with Lévy noise", *Communications on Stochastic Analysis (COSA)*, **10**(3), 389–404, 2016.
6. **M. T. Mohan** and S. S. Sritharan, "Stochastic Euler equations of fluid dynamics with Lévy noise", *Asymptotic Analysis*, **99**(1–2), 67–103, 2016.
5. **M. T. Mohan** and S. S. Sritharan, "New methods for local solvability of quasilinear symmetric hyperbolic system", *Evolution Equations and Control Theory (EECT)*, **5**(2), 273–302, 2016.

2015
4. U. Manna, **M. T. Mohan** and S. S. Sritharan, "Stochastic Navier-Stokes equations in unbounded channel domains", *Journal of Mathematical Fluid Mechanics*, **17**, 47–86, 2015.

2013
3. U. Manna and **M. T. Mohan**, "Two-dimensional magnetohydrodynamic systems with jump processes: Well posedness and invariant measures", *Communications on Stochastic Analysis (COSA),* **7**(1), 153–178, 2013.
2. U. Manna and **M. T. Mohan**, "Large deviations for the shell model of turbulence perturbed by Lévy noise", *Communications on Stochastic Analysis (COSA)*, **7**(1), 39–63, 2013.

2011
1. U. Manna and **M. T. Mohan**, "Shell model of turbulence perturbed by Lévy noise", *Nonlinear Differential Equations and Applications (NoDEA)*, **18**, 615–648, 2011.

Conference Proceedings

2018
1. **M. T. Mohan** and S. S. Sritharan, "Frequency truncation method for quasilinear symmetrizable hyperbolic systems", Proceeding of ICMAA-2016, *Journal of Analysis*, **28**, 117–140, 2020.

RESEARCH SCHOLARS GROUP

- Kush Kinra (PhD Ongoing)
- Ankit Kumar (PhD Ongoing)
- Pardeep Kumar (PhD Ongoing)
- Sumit Arora (Co-supervisor, PhD Ongoing)

INVITED TALK/LECTURE/SEMINAR/COLLOQUIUM/RESOURCE PERSON

2020 49. "*On the convective Brinkman-Forchheimer equations*" (Plenary Talk), National Conference on Partial Differential Equations and Applications, Periyar University, Salem, Tamil Nadu, India, March 5–6, 2020.

48. "*Lecture series of stochastic differential equations*" (Lecture series), Department of Mathematics, Periyar University, Salem, Tamil Nadu, India, March 2, 2020.

47. "*George Andrews' game and Fibonacci numbers*" (Invited Talk), Department of Science and Humanities, Muthayammal Engineering College, Rasipuram, Tamil Nadu, India, March 2, 2020.

2019 46. "*Deterministic and stochastic equations of motion arising in Oldroyd fluids of order one: Existence, uniqueness, exponential stability and invariant measures*" (Invited Talk), International Conference in Conjunction with 15th Biennial Conference of Indian Society of Industrial and Applied Mathematics (ISIAM), Symposium on PDEs and applications, Bharatiar University, Tamil Nadu, India, December 7, 2019.

45. "*George Andrews' game and Fibonacci numbers*" (Invited Talk), Nurturance programme for NCERT National Talent Search (NTS) awardees (students of class XI) 2019, IIT Roorkee, December 1, 2019.

44. "*A unified approach to compressible fluid and magnetohydrodynamics and their stochastic counterpart*" (Invited Talk), Department of Mathematics, Ramaiah University of Applied Sciences, Bangalore, India, May 30, 2019.

43. "*The Beale-Kato-Majda criterion for the 3-D Navier-Stokes equation with hereditary viscosity*" (Invited Talk), National Conference on Differential Equations and Dynamical Systems, Department of Mathematics, National Institute of Technology (NIT) Puducherry, Karaikal, Tamil Nadu, India, April 5-6, 2019.

42. "*Ergodicity for the 3D stochastic Navier-Stokes equations perturbed by Lévy noise*" (Invited Talk), National Conference on Dynamical Systems and its Applications, PSG College of Arts and Science, Coimbatore, Tamil Nadu, India, March 22-23, 2019.

41. "*An introduction to measure theoretic probability*", Invited talk in the PG Department of Mathematics, PSG College of Arts and Science, Coimbatore, Tamil Nadu, India, March 22, 2019.

40. "*Necessary conditions for distributed optimal control of two dimensional tidal dynamics system with state constraints*" (Plenary Talk), Second National Conference on Control and Inverse Problems, Department of Mathematics, Central University of Tamil Nadu, Thiruvarur, March 1–2, 2019.

2018 39. "Optimization Problems with Orthogonal Matrix Constraints" (Invited talk), International Conference on Numeric Analysis, Computing and Application in Science Engineering and Technology (ICNUMACA'18), 17-20 December 2018.

38. "*Ergodicity for the 3D stochastic Navier-Stokes equations perturbed by Lévy Noise*"(Invited Talk), Fourth International Conference on "Statistics for Twenty-First Century (ICSTC - 2018), December 13-15, 2018.

37. "*Stochastic Quasilinear Evolution Equations in UMD Banach Spaces*" (Invited Talk), Department of Mathematics, Cochin University of Science and Technology (CUSAT), Kerala, INDIA, July 17, 2018.

36. "*Invariant Measures and Ergodicity*" (Invited Talk), Department of Mathematics, Bharatiar University, Tamil Nadu, INDIA, June 6, 2018.

35. "*Some Recent Progress in Quasilinear Hyperbolic Systems: New Local Solvability Methods and Stochastic Analysis*" (Invited Talk), National Conference on Recent Trends in Applied Mathematics (NCRTAM 2018), Department of Applied Mathematics, Bharatiar University, Coimbatore, Tamil Nadu, INDIA, March 23, 2018.

34. "*Stochastic Quasilinear Evolution Equations in UMD Banach Spaces*" (Invited Talk), Indian Institute of Science Education and Research, Thiruvananthapuram, INDIA on February 16, 2018.
33. "*Stochastic Quasilinear Evolution Equations in UMD Banach Spaces*" (Resource Person), National Seminar on Stochastic Differential Equations and Applications, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, Coimbatore, Tamil Nadu, INDIA, February, 9, 2018.

2017
32. "*Navier-Stokes Equations with Hereditary Viscosity: Local Solvability, Beale-Kato-Majda Criterion and Stochastic Analysis*" (Resource Person), National Conference on Stochastic Differential Equations and its Applications, Dr.N.G.P. Arts and Science College, Coimbatore, INDIA, December 27, 2017.
31. "*Hadamard, Conference and Weighing Matrices*" (Resource Person), National Seminar on "Hadamard, Conference Matrices and Technical Strategies in Mathematics" at Milad-E-Sherief Memorial College, Kayamkulam, Kerala, INDIA, December 18–20, 2017.
30. "*An Extension of the Beale-Kato-Majda Criterion for the 3-D Navier-Stokes Equation with Hereditary Viscosity*", Stat-Math. Symposium by Doctoral and Post-Doctoral Fellows, Indian Statistical Institute, Bangalore Centre, September 18, 2017.
29. "*Some Recent Progress in Quasilinear Hyperbolic Systems: New Local Solvability Methods and Stochastic Analysis*" (Institute Colloquium); Indian Statistical Institute, Bangalore Centre, India on August 31, 2017.
28. "*Some Recent Progress in Quasilinear Hyperbolic Systems: New Local Solvability Methods and Stochastic Analysis*" (Invited Talk); TIFR-CAM, Bangalore, India on July 12, 2017.
27. "*Ordinary and Partial Differential Equations*" (Invited Talk), Research Methodology and Mathematical Approaches for Engineering Research, Mohandas College of Engineering and Technology, Anad, Thiruvananthapuram, Kerala, India on July 07, 2017.
26. "*Some Recent Progress in Quasilinear Hyperbolic Systems: New Local Solvability Methods and Stochastic Analysis*" (Invited Talk); School of Mathematics, IISER-TVM, Kerala, India on July 06, 2017.
25. "*A Motivation to Probability Theory and Large Deviation Theory*" (Invited Talk); St Gregorios College, Kottarakara, Kerala, India on June 30, 2017.
24. Lecture Series on"*Stochastic Differential Equations in Biological Models*", Department of Mathematics, Bharatiar University, Coimbatore, Tamil Nadu, India, June 21–25, 2017.
23. "*Stochastic Quasilinear Evolution Equations in UMD Banach Spaces*" (Invited Talk); Special Session on Analysis on the Navier-Stokes equations and related PDEs, Spring Western Sectional Meeting (AMS) Washington State University, Pullman, WA, USA on 22nd April 2017.
22. "*Some Recent Progress in Quasilinear Hyperbolic Systems: New Local Solvability Methods and Stochastic Analysis*" (Invited Talk); Department of Mathematics and Statistics, Wright State University, Dayton, USA on 10th February 2017.
21. "*The Feynman-Kac Formula*" (Invited Talk); Department of Mathematics and Statistics, Wright State University, Dayton, USA on 13th January 2017.

2016
20. "*Some Recent Progress in Quasilinear Hyperbolic Systems: New Local Solvability Methods and Stochastic Analysis*" (Invited Talk); Indian Institute of Science Education and Research Trivadrum (IISER-TVM) , Thiruvananthapuram, Kerala, India on 08th December 2016.
19. "*An Introduction to Calculus of Variations*" (Invited Talk); Mar Ivanios College, Thiruvananthapuram, Kerala, India on 08th December 2016.

18. "*An Introduction to Calculus of Variations and Optimal Control Theory*" (Resource Person); Workshop on Calculus of Variations and Optimal Control Theory, St. Thomas College, Kozhencherry, Pathanamthitta, Kerala, India on 07$^{\text{th}}$ December 2016.
17. "*Some Recent Progress in Quasilinear Hyperbolic Systems: New Local Solvability Methods and Stochastic Analysis*" (Invited Talk); Indian Institute of Science (IISc), Banglaore, Karnataka, India on 06$^{\text{th}}$ December 2016.
16. "*An Introduction to the Mathematical Theory of Optimal Control Theory*" (Inaugural Address and Invited Speaker); International Seminar on Recent Research Trends in Mathematics, Government College for Women, Thiruvananthapuram, Kerala, India on 05$^{\text{th}}$ December 2016.
15. "*Some Recent Progress in Quasilinear Hyperbolic Systems: New Local Solvability Methods and Stochastic Analysis*" (Invited Talk); 1$^{\text{st}}$ Northeastern Analysis Meeting(NEAM-2016), The College at Brockport, Brockport, New York, USA on 15$^{\text{th}}$ October 2016.
14. "*New Methods for Local Solvability of Quasilinear Symmetric Hyperbolic System*" (Invited Talk); Department of Mathematics, Indian Institute of Space and Technology(IIST) Trivandrum, Thiruvananthapuram, Kerala, India on 01$^{\text{st}}$ April 2016.
13. "*Stochastic Euler Equations of Fluid Dynamics with Lévy Noise*" (Invited Talk); School of Mathematics, IISER-TVM, Thiruvananthapuram, Kerala, India on 31$^{\text{st}}$ March 2016.
12. "$\mathbb{L}^p-$*solutions of the Stochastic Navier-Stokes Equations Subject to Lévy Noise with* $\mathbb{L}^m(\mathbb{R}^m)$ *Initial Data*" (Invited Talk); Department of Mathematics, Mar Ivanios College, Thiruvananthapuram, Kerala, India on 28$^{\text{th}}$ March 2016.
11. "$\mathbb{L}^p-$*solutions of the Stochastic Navier-Stokes Equations Subject to Lévy Noise with* $\mathbb{L}^m(\mathbb{R}^m)$ *Initial Data*" (Invited Talk); Department of Mathematics, Government Women's College, Thiruvananthapuram, Kerala, India on 28$^{\text{th}}$ March 2016.
10. "$\mathbb{L}^p-$*solutions of the Stochastic Navier-Stokes Equations Subject to Lévy Noise with* $\mathbb{L}^m(\mathbb{R}^m)$ *Initial Data*" (Invited Talk); International Conference on Nonlinear Dynamical Systems (ICNDS-2016), Department of Mathematics, Bharatiar University, Coimbatore, Tamil Nadu, India on 26$^{\text{th}}$ March 2016.
9. "*New Methods for Local Solvability of Quasilinear Symmetric Hyperbolic System*" (Brown Bag); Air Force Institute of Technology(AFIT), Ohio, USA on 28$^{\text{th}}$ January 2016.

2015
8. "*Stochastic Non-Resistive Magnetohydrodynamic System with Lévy Noise*" (Invited Talk); Workshop on Stochastic PDEs, Department of Mathematics, University of Pittsburgh, Pennsylvania, USA on 05$^{\text{th}}$ December 2015.
7. "*Stochastic Euler Equations of Fluid Dynamics with Lévy Noise*" (Brown Bag); Air Force Institute of Technology(AFIT), Ohio, USA on 09$^{\text{th}}$ November 2015.
6. "*Rigorous Aspects of Magnetohydrodynamic Equations*" (Brown Bag); Air Force Institute of Technology(AFIT), Ohio, USA on 25$^{\text{th}}$ June 2015.
5. Titles: *"Stochastic Navier-Stokes Equations in Unbounded Channel Domains*" and "*Stochastic Hydrodynamic Models: Existence, Uniqueness and Large Deviations*" (Invited Talk); National Conference on Recent Trends in Theory and Applications of Partial Differential Equations, Department of Mathematics, Bharathiar University, Coimbatore, Tamil Nadu, India on 27$^{\text{th}}$ March 2015.

2014
4. "*Large Deviations*" (Lecture Series); Research Group in Applied Mathematics and Stochastics, Department of Mathematics and Natural Sciences, Bergische Universität Wuppertal, Germany from December 8–22, 2014.
3. *"Stochastic Navier-Stokes Equations in Unbounded Channel Domains*" (Invited Talk); Research Group in Applied Mathematics and Stochastics, Department of Mathematics and Natural Sciences, Bergische Universität Wuppertal, Germany on 11$^{\text{th}}$ December 2014.

2. *"Stochastic Navier-Stokes Equations in Unbounded Channel Domains"* (Invited Talk); Tata Institute of Fundamental Research–Centre For Applicable Mathematics(TIFR-CAM), Bangalore, Karnataka, India on 21st August 2014.

2013 1. *"Stochastic Navier-Stokes Equations in Unbounded Channel Domains"* (Seminar); School of Mathematics, IISER-TVM, Thiruvananthapuram, Kerala, India on 22nd August 2013.

PAPER/POSTER PRESENTED

2016 5. "*Some Recent Progress in Quasilinear Hyperbolic Systems: New Local Solvability Methods and Stochastic Analysis* (paper); International Conference on Mathematical Analysis & its Applications (ICMAA-2016), Department of Mathematics, Indian Institute of Technology Roorkee, India, November 28 - December 02, 2016.

2015 4. "*Stochastic Non-Resistive Magnetohydrodynamic System with Lévy Noise*" (paper); 68th Annual Meeting of the APS Division of Fluid Dynamics, Boston, Massachusetts, USA, November 22-24, 2015; Bulletin of the American Physical Society, Volume 60, No. 21, Abstract A8(6), Page No. 53.

2014 3. "*Some Notes on the Navier-Stokes Equations in Unbounded Channel Domains*" (paper); Post Graduate Department of Mathematics, St. Gregorios College, Kottarakkara, Kerala, India, January 21, 2014; Proceedings of the Golden Jubilee Seminar Series in Emerging Trends in Pure and Applied Disciplines, 105–114.

2012 2. "*Shell Model of Turbulence perturbed by Lévy Noise: Existence, Uniqueness and Large Deviations*" (paper); ICTS Winter School on Control Theory and Stochastic Analysis, School of Mathematics, IISER-TVM, Thiruvananthapuram, Kerala, India, December 03-20, 2012.

1. "*Shell Model of Turbulence perturbed by Lévy Noise : Existence, Uniqueness and Large Deviations*" (poster); 8th World Congress in Probability and Statistics, Istanbul, Turkey, July 09-14, 2012; Proceedings of the 8th World Congress in Probability and Statistics, Abstract 595, No. 283.

ACHIEVEMENTS

- INSPIRE (Innovation in Science Pursuit for Inspired Research) Faculty Award (Award No: IFA17-MA110) from the Department of Science and Technology, Govt of India, 2018.
- National Research Council (NRC) Postdoctoral Fellowship under Research Associate Programs (RAP); National Academy of Sciences of United States of America(USA), 2015.
- NBHM Postdoctoral Fellowship; National Board of Higher Mathematics(NBHM), India, 2014.
- Institute Postdoctoral Fellowship; Department of Mathematics, Indian Institute of Technology(IIT) Bombay, India, 2014.
- Visited the Research Group in Applied Mathematics and Stochastics; Department of Mathematics and Natural Sciences, Bergische Universität Wuppertal, Germany, December 8–22, 2014, DAAD-grant No. 57157540, "German Tunisian Doctoral Training in Applied Stochastics".
- Shyama Prasad Mukherjee(SPM) Fellowship; Council of Scientific and Industrial Research(CSIR) with Rank 2 in June 2014.
- International Travel Support(ITS) Scheme from Department of Science and Technology(DST), Government of India and CSIR Foreign Travel Grant; for attending and presenting a poster at the "8th World Congress on Probability and Statistics", Istanbul, Turkey, July, 2012.
- CSIR Junior Research Fellowship(JRF) with Rank 11 in December, 2008 and Lectureship(NET) in June, 2008.

- ➢ UGC Merit Scholarship for securing 1^{st} rank in B.Sc Mathematics, University Grants Commission(UGC), Government of India, for the period of 2 years (2006–2008).
- ➢ Sir T. Madhava Rao Gold Medal for securing first rank in BSc Mathematics; Kerala University, Kerala, India, 2006.
- ➢ Kerala University Merit Scholarship for undergraduate students during 2003–2006 and Kerala University Merit Scholarship for post-graduate students during 2006–2008.

COURSES TAUGHT

Spring 2020	• MAN 533, *Integral Equations and Calculus of Variations*, MSc Mathematics, Spring 2019 (Ongoing). • MAN 006, *Probability and Statistics*, Spring 2019 (One Session, Ongoing).
Autumn 2019	• MAN 914, *Stochastic Partial Differential Equations*, Pre-PhD course, Autumn 2019 (Faculty Score: 4.93/5). • MAN 501/MAN 511, *Theory of Ordinary Differential Equations*, MSc Mathematics and Integrated MSc Applied Mathematics, Autumn 2019 (Faculty Score: MAN 501- 4.52/5, MAN 511- 4.52/5). • MAN 001, *Mathematics I*, First Year BTech, Autumn 2019 (Faculty Score: 4.23/5).
Spring 2019	• MAN 913, *Sobolev Spaces and Applications*, Pre-PhD course, Spring 2019 (Faculty Score: 4.90/5). • MAN 533, *Integral Equations and Calculus of Variations*, MSc Mathematics, Spring 2019 (Faculty Score: 4.92/5). • MAN 006, *Probability and Statistics*, Spring 2019 (One Session, Faculty Score: 4.46/5).
Autumn 2018	• MAN 205, *Ordinary and Partial Differential Equations*, Integrated MSc Applied Mathematics, Autumn 2018 (Faculty Score: 4.71/5). • MAN 001, *Mathematics I*, First Year BTech, Autumn 2018 (One Session, Faculty Score: 3.67/5).

MASTER OF SCIENCE (MSc) PROJECT

- ➢ Sumit Mahajan, *Existence and uniqueness of weak solutions to the Burgers-Huxley equation with memory*, Spring 2020 (Ongoing).
- ➢ Manish Kumar, *Ekeland's variational principle and its applications to optimal control theory*, Spring 2019 (currently Manish Kumar is pursuing his PhD in Mathematics at IIT Roorkee).

CONFERENCE/SEMINAR/WORKSHOP ORGANIZED

- ➢ Co-convener, *National Conference on Stochastic Differential Equations and Applications (NCSDEA-19)* held at Indian Institute of Space Science and Technology(IIST), Trivadrum, India jointly with Indian Institute of Technology Roorkee(IITR), India from June 6 –7, 2019 (Convener-Dr. K. Sakthivel, IIST, Trivandrum, India) sponsored by SERB, Department of Science and Technology (DST), India and National Board for Higher Mathematics (NBHM), India.
- ➢ Organized Brown Bag seminar series at AFIT for three quarters, Fall 2016, Winter 2017 and Spring 2017.

PROFESSIONAL SKILLS AND ACTIVITIES

- ◇ Programming Languages: C, C++ and MATLAB.

- ◇ Language Skills: English, Malayalam (mother tongue) and Hindi.
- ◇ Life time member of Indian Society of Industrial and Applied Mathematics (ISIAM), India.

ADMINISTRATIVE DUTIES

- ➢ Department Faculty Search Committee (DFSC)-Convener, IIT Roorkee, 01st March 2019-till date.
- ➢ OC Mathematical Colloquium, IIT Roorkee, 01st April 2019-till date.
- ➢ Deputy OC Time Table, IIT Roorkee, 01st September 2018-till date.

ACADEMIC COLLABORATIONS

- ◇ Dr. Utpal Manna, Indian Institute of Science Education and Research, Trivandrum, India.
- ◇ Prof. Dr. Sivaguru S. Sritharan, Air Force Institute of Technology, USA.
- ◇ Prof. Dr. B. Rajeev, Indian Statistical Institute, Bangalore Centre, India.
- ◇ Dr. Stefan Doboszczak, Air Force Institute of Technology, USA.
- ◇ Prof. Dr. K. T. Arasu, Wright-State University, USA.
- ◇ Dr. K. Sakthivel, Indian Institute of Space Science and Technology, Trivandrum, India.
- ◇ Dr. Kazuo Yamazaki, University of Rochester, USA.
- ◇ Dr. Dharmatti Sheetal, IISER-TVM, India.

ACADEMIC VISITS

- ➢ Research group in Applied Mathematics and Stochastics, Department of Mathematics and Natural Sciences, Bergische Universität Wuppertal, Germany from December 8–22, 2014.
- ➢ School of Mathematics, Indian Institute of Science Education and Research Thiruvananthapuram, India from June 13-July 14, 2017 and February 14-17, 2018.
- ➢ Department of Mathematics, Indian Institute of Space Sciences and Technology, Trivandrum, India from July 20-31, 2017, September 20-October 6, 2017, February 5-12, 2018, March 7-12, 2018, April 2-6, 2018, April 16-27, 2018, June 18-28, 2019 and December 16-31, 2019.
- ➢ Mathematics and Statistics Unit, Indian Statistical Institute Bangalore Centre, India from April 7-14, 2018 and May 25-31, 2019.

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I hereby declare that the information and details furnished above are true and correct to the best of my knowledge and belief.

March 17, 2020
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