Dr. K. V. VIJAYASHREE

Assistant Professor

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Present Position

Assistant Professor, Department of Mathematics, College of Engineering Guindy, Anna University, Chennai from October-2008.

Previous Positions

> Lecturer, Department of Mathematics, College of Engineering Guindy, Anna University, Chennai during February-2005 and October-2008.

Other Employment

- Research Associate, Indian Institute of Technology, Madras for 1 year.
- > Senior Research Fellow, Indian Institute of Technology, Madras for 1 year.

Degree

 M.Sc. in MATHEMATICS, Indian Institute of Technology, Chennai, Indian Institute of Technology, Chennai (1996 - 1998).

Research Degree

 Ph.D. in Applied Probability and Stochastic Processes from Faculty of Humanities and Science, Indian Institute of Technology, Chennai, Indian Institute of Technology, Chennai (1999 - 2003).

Title: Markov Modulated Fluid Queues.

Research Guidance

Number of Ph.D Scholars Guiding: 2 Number of M.E./ M.Tech. Projects: 10

Guided

Number of M.E./ M.Tech. Projects: 2

Guiding

Papers Published in Journals

Research Papers Published in International Journals : 7
Research Papers Published in National Journals : 0

- Parthasarathy, P.R., Vijayashree, K.V. and Lenin, R.B., "An M/M/1 Driven Fluid Queue -Continued Fraction Approach", Queueing Systems, published by Springer. Vol. 42, pp. 189-199 (2002).
- 2. P.R. Parthasarathy and K.V. Vijayashree, "Fluid Queues Driven by Birth and Death Process with Quadratic Rates", International Journal of Computers and Mathematics, published by Taylor and Francis. Vol. 80, pp. 1385-1395 (2002).
- 3. P.R. Parthasarathy and K.V. Vijayashree, "Fluid Queues Driven by an Discouraged Arrivals Queue", International Journal of Mathematics and Mathematical Sciences, published by Hindawi Publishers. Vol. 2002, pp. 1509-1528 (2003).
- 4. P.R. Parthasarathy and K.V. Vijayashree, "Fluid Queues Driven by Birth and Death Process with Alternating Flow Rates", Mathematical Problems in Engineering, published by Hindawi Publishers. Vol. 2001, pp. 469-489 (2004).
- 5. Sericola. B., P.R. Parthasarathy and K.V. Vijayashree, "Exact Transient Solution of an M/M/1 Driven Fluid Queue", International Journal of Computer Mathematics, published by Taylor and Francis. Vol. 82, pp. 659-671 (2005).
- 6. P.R. Parthasarathy, K.V. Vijayashree and Sericola. B., "Fluid Queues Driven by Birth and Death Process Suggested by Chain Sequence ", Journal of Applied Mathematics and Stochastic Analysis, published by Hindawi Publishers. Vol. 2005, pp. 143-158 (2005).
- 7. R. Sudhesh and K.V. Vijayashree, "Stationary and Transient Analysis of M/M/1 G Queues", International Journal of Mathematics in Operations Research, Vol. 5, pp. 282-299 (2013).

Papers Presented in Programmes

Research Papers Presented in International Programmes : 3
Research Papers Presented in National Programmes : 0

- 1. P.R. Parthasrathy and K.V. Vijayashree, "Fluid Queues Driven by Birth and death Processes" presented in a International level workshop on Modelling and Simulation in Life Sciences, Material and Technology, organised by IIT Chennai, India.
- 2. P.R. Parthasrathy and K.V. Vijayashree, "Fluid Queue fed by an on-off source" presented in a International level conference on IEEE Indicon 2005 Conference, organised by IIT Madras, India from 11-Dec-2005 to 13-Dec-2005.
- 3. R. Sudhesh and K.V. Vijayashree, "Transient Analysis of an M/M/1 Queueing Model Subject to Disaster" presented in a International level conference on International Conference on Mathematical and Computational Models, organised by PSG College of Technology, Coimbatore, India from 19-Dec-2011 to 21-Dec-2011.

Sponsored Projects Completed

1. "Queueing Models for Computer Systems", funded by CTDT, Anna University, Chennai (February-2011 - February-2012). Project Cost: 50.00.

Programme Organized

- 1. Coordinator, National level Short Course on "Faculty Development Training Programme on "Probability and Queueing Theory" from 29-Nov-2010 to 07-Dec-2010.
- 2. Organiser, International level workshop on "Recent Trends in Stochastic Modelling and Mathematical Finance" from 22-Dec-2011 to 24-Dec-2011.

Programme Attended

- 1. Attended a National level Short Course on "Instructional Workshop on Ordinary and Partial Differential Equations" organized by IISc, Bangalore, India from 15-Jun-1998 to 05-Jul-1998.
- 2. Attended a National level Short Course on "Summer School on Operations Research and its Applications" organized by ISI, Bangalore, India from 18-Jun-2001 to 07-Jul-2001.
- 3. Participated in a National level workshop on "Workshop on Mathematica and Software Package HYP and HYPQ" organized by Institute of Mathematical Sciences, Chennai, India from 16-Sep-2002 to 20-Sep-2002.
- 4. Participated in a International level conference on "International Conference on Operations Research Applications in Infrastructure Development" organized by Operations research Society of India, India from 20-Dec-2005 to 29-Dec-2005.
- 5. Participated in a National level workshop on "One day workshop in Effective Teaching" organized by Anna University, Chennai, India from 17-Mar-2006 to 17-Mar-2006.
- 6. Participated in a International level workshop on "Winter School on Modelling, Computing and Simulation in Enginering" organized by IIT, Chennai, India from 11-Dec-2006 to 15-Dec-2006.
- 7. Participated in a International level workshop on "Indo-German Workshop on Computational Methods and Models Driven by Industrial Problems" organized by IIT, Chennai, India from 17-Nov-2008 to 28-Nov-2008.
- 8. Participated in a International level workshop on "International Workshop on Cloud Computing" organized by MIT, Anna University, Chennai, India from 20-Oct-2010 to 20-Oct-2010.
- 9. Participated in a National level workshop on "Care, Communication and Counselling Students" organized by Center for Women Empowerment, Anna University, Chennai, India from 21-Feb-2011 to 25-Feb-2011.
- 10. Attended a National level Short Course on "Mathematics Lecture for College/University Teachers" organized by Institute of Mathematical Sciences, Chennai, India from 29-Nov-2012 to 30-Nov-2012.

Honours

- 1. "Prof. M.N. Gopalan Award" given by Operations Research Society of India, Bangalore Chapter from India (2005).
- 2. "Tamil Nadu Young Women Scientist Award" given by Science City, Department of Higher Education from India (2007).

Experience Abroad

1. Visited International Center for Theoretical Physics (ICTP), Trieste, Italy from 13-May-2002 to 31-May-2002. Purpose of visit: To attend a School and Conference on Probability Theory.

Invited Lectures

- Delivered a Lecture on "Random Variables, Random processes and Queueing Th" in FDTP on Probability and Queueing theory organized by CFD, Anna University, Chennai, Department of Mathematics, Chennai (29-Nov-2010).
- 2. Delivered a Lecture on "Fourier Transforms" in FDTP on Transforms and Partial Differential Equations organized by CFD, Anna University, Chennai, Department of Mathematics, Chennai (30-Nov-2011).
- 3. Delivered a Lecture on "Random Processes" in FDTP on Probability and Queueing theory organized by Anna University, Chennai, University College of Engineering, Villupuram (03-Dec-2012).
- 4. Delivered a Lecture on "Fluid Queues Modulated by Certain Interesting Queu" in International Conference on Stochastic Modelling and Simulation organized by Vel Tech Technical University, Vel Tech Technical University, Avadi, Chennai (19-Dec-2012).