# P.R. Vittal

Old 36, New 4, Loganathan Colony, Mylapore,

Chennai, Tamil Nadu, India – 600004

Phone: +91-44-2498-3975; +91-9444849343

Email: vittal ramaseshan@yahoo.com

### Curriculum Vitae

### **Research Interests**

Differential Equations, Probability & Statistics, Stochastic Processes.

#### **Education**

- Ph.D from Matscience, Chennai (India), 1976-1980
   Thesis: Probability & Stochastic Processes
- M.Sc in Mathematics, Chennai (India), 1960-1961

#### **Academic Positions held**

- Professor & Head, Mathematics Dept, Vivekananda College (Evening), Chennai (2000-2005)
- Principal, Vivekananda College, Chennai (1994-1996)
- Head of Mathematics Department, Vivekananda College, Chennai (1989-1996)
- Visiting Professor, Western Carolina University, USA (1988-1989)
- Professor, Vivekananda College, Chennai (1980-1996)
- Lecturer, Vivekananda College, Chennai (1962-1980)
- Lecturer, Islamiah College, Vaniambadi (1961-62)

### **Present Academic Appointments**

- Visiting Faculty Institute of Chartered Accountants of India, Chennai, India
- Visiting Faculty at Institute of Financial Analyst, Chennai, India.
- Visiting Faculty at Madras School of Management Sciences, Chennai, India.
- Visiting Faculty at University of Madras, Chennai, India (Dept. of Statistics and Actuarial Sciences)
- Visiting Faculty at Chaitanya College, Hyderabad, India.
- Visiting Faculty at Harischandra Research Institute, Allahabad, India.
- Visiting Scientist at Indian Statistical Institute at Bangalore, Kolkata and New Delhi, India.

#### **Publications**

- Published about 20 papers in National & International Journals
- Presented papers in about 38 conferences

• Presented papers in International Conferences at Stanford University (USA), Cornell University(USA), Florida University (USA), University of Georgia (USA), University of Tennessee (USA), West Carolina University (USA), York University (Canada), Toronto University (Canada)

### **Selected Conference Presentations**

- First Passage Time Problems & Diffusion Approximation, University of Florida at Gainesville (2005)
- Boundary Value Problems in Stochastic Modelling, York University, Canada (1992)
- Neuron Firing Problem at Cornell University 1988
- Ruin Problems in Insurance Models, Stanford University (1988)
- Stochastic Models in Storage Problems, University of Georgia (1989)
- Stochastic Differential Equations, University of Clemson (1989)
- Probability, Statistics and Computer Applications, University of Kashmir(2008)
- Statistics, Operations Research and Computer Applications, Sri Venkateshwara University, Tirupathi(2008)

### **Selected Journal Papers**

- Neuronal Spike Trains with Exponential Decay (1981), Neurol. Research Vol.3 (139-166) (USA) Vasudevan.R. Vittal, P.R. and Vijayakumar.A.
- Interspike Interval Density of the Leaky Integrator Model Neuron with a pareto distribution of PSP Amplitudes and with simulation of Refractory Time (1982) J.Theoretical Neurobiol.1, 219-227 (Australia). Vasudevan.R & Vittal P.R.
- Time dependent barriers and First Passage Times in various Neuronal Models, Neurol. Research Vol.5, (179-205) (USA) Vasudevan R., Vittal P.R. (1983)
- Combinants, Bell Polynomials & Applications (1984), Journal of Theoretical Physics.A.Math.Gen.Vol 17, (989-1002) (Great Britain) – Vasudevan R, Vittal P.R. and Parthasarathy K.V.
- Storage Problems in Continuous Time with random inputs, random outputs and Deterministic Release, (1985), J.Applied Mathematics & Computation Vol.16 (309-326) (USA) Vasudevan R, Vittal P.R.
- First Passage Problems with Restricted Reserve and Two components of income Scand.J. of Actuarials, Vittal P.R., Vasudevan R
- On a First Passage Problem (Matscience Report No. 91-1978) Vasudevan R., Vittal P.R. and Vijayakumar A.
- Imbedding Approach to First Passage Problems for bounded processes. Proceedings of the symposiums on Queues, Inventories and Reliability, Annamalai University (1978) Vasudevan R., Vittal P.R. and Vijayakumar A.
- Imbedding Approach to First Passage Problems for bounded processes the case of Poisson Jumps with decay, Proceedings of TamilNadu Academy of Sciences Vol2 (1979). Vasudevan R., Vittal P.R. and Vijayakumar A.
- A level crossing problem (Matscience Report No. 96-1978) Vasudevan R., Vittal P.R. and Vijayakumar A.

- On a class of two barrier problem (Matscience Report No. 97-1979) Vasudevan R., Vittal P.R. and Vijayakumar A.
- A level crossing problem for a random process New Approach. Proceedings of TamilNadu Academy of Sciences, Vol 3 (1980).
- Some problem in collective risk theory and their ruin probability (Matscience Report No. 108-1980) Vasudevan R., Vittal P.R. and Vijayakumar A.
- Dam Models with exponential release rule, (Matscience Report No. 104-1981) -Vasudevan R., Vittal P.R. and Vijayakumar A.
- Stochastic Dynamics and Passage Time to Diffusion Approximation (Differential Equations and Dynamical System, 2008) – Vittal P.R., Jagadeesan T. and Muralidhar V.

#### **Professional Activities**

- Statistical Analyst in a World Bank Project on 'Water and Sanitation Improvement Project for Karnataka State, India. (June 2006 to till date)
- Fellow of TamilNadu of Academy of Sciences

# **Research Experience**

Guided students for M.Phil & Ph.D (a total of 6 students)
Presently Advisor to a student for Ph.D at University of Madras, Statistics Dept.

# **Books Authored**

- Business Mathematics (For Chartered Accountants)
- Business Mathematics (For Chartered Accountants Foundation Course)
- Business Mathematics (B.Com)
- Business Statistics (B.Com)
- Business Mathematics & Statistics (B.B.A & B.B.M)
- Business Statistics & Operations Research (M.B.A)
- Introduction to Operations Research (M.B.A)
- Calculus (B.Sc Mathematics)
- Algebra (B.Sc Mathematics)
- Trigonometry (B.Sc Mathematics)
- Vector Analysis (B.Sc Mathematics)
- Differential Equations (B.Sc Mathematics)
- Fourier Series and Fourier transforms
- Operations Research (C.A)
- Real Analysis (B.Sc)
- Quantitative Techniques
- Statistical Methods
- Mathematical Statistics