

## FACULTY PROFILE

1. Name : **Y. SARADA**
2. Phone Number : (044) 2220 3302  
e-mail Id : saradag@annauniv.edu
3. Qualifications : Ph.D.
4. Teaching Experience : 12 years
5. Courses Taught :  
UG Level : *Engineering Maths/ Applied probability  
And stochastic processes related courses*
- PG Level : *Engineering Maths/Applied probability  
and stochastic processes/ Numerical  
methods / ODE / Advanced Calculus/  
Mathematical Finance/ Computer Science  
Science related courses*
- Advanced Level : *Ph.D. level course on specialization area*
6. Area of Research : *Applied Probability and Stochastic  
Modeling*
7. Research Guidance

Sl. No	Area of Research	Category (FT/PT)	Status (Completed/In Progress)
1.	<i>Reliability</i>	<i>FT</i>	<i>On going</i>

8. Publications : *See Annexure I*

9. Research Projects

Sl. No.	Funding Agency	Total Amount	Name of the Project	Period	Status (Completed/ In Progress)
-					
1.	<i>DST</i>	<i>Rs.9,84,660/-</i>	<i>Studies on optimal maintenance and replacement of deteriorating systems</i>	<i>4 years</i>	<i>Ongoing</i>

10. Books/Patents : Nil
11. Awards : *Awarded CSIR - SRF and Research Associateship*
12. Conferences : *See Annexure II*
13. Abroad Visit : *Nil*

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## ANNEXURE I (List of papers published)

- 1 A Shock model for the maintenance of systems and spare with random lead time. Communicated to the *International Journal of Mathematics*, for possible publication
- 2 Optimal warranty Cost Analysis with warranty options, **Accepted for publication** in *International Journal of Pure and Applied Mathematics*, to appear
- 3 Optimal replacement of systems subject to shocks and random threshold failure in *International Journal of Quality and Reliability Management*, **23**, Issue 9, October 2006, pp 1176-1191.
- 4 A geometric process maintenance model for a deteriorating system under warranty, Proceedings of the 2<sup>nd</sup> *International Conference on Reliability and Safety Engineering* , Dec 18-20, 2006, pp 257-263, Eds. R.B.Misra et al.
- 5 Replacement policies for a shock model with general repair, *Stochastic Modelling and Applications*, **4**, No.2, 32 - 4, 2001.
- 6 Replacement of repairable systems subject to shocks and general repair, *Proceedings of the national conference on Optimization techniques in industrial mathematics*, 144 – 152, 2001.
- 7 Maintenance of deteriorating systems subject to shocks, *Opsearch*, **37**, #3, 259 -266, 2000.
- 8 Bivariate optimal repair replacement policy for a deteriorating system, *Opsearch*, **36**, #4, 325-334, 1999.
- 9 Optimal inspection and Maintenance policies for a deteriorating system subject to random shocks, *Proceedings of the International Conference on Stochastic Processes and their Applications*, Eds: A. Vijayakumar and M. Sreenivasan, Anna University, Madras, India. 156-163, Narosa Publishing House, 1999.
- 10 Optimal stopping in a shock model, Trends in Radiation and Cancer Biology, *Proceedings of the International Conference on Radiation Biology: DNA damage, Repair and Carcinogenesis*, Eds: R.N.Sharan, NEHU, Shillong, India, Forschungszentrum Julich GmbH, Germany, **29**, 138-144, 1998.
- 11 Optimal replacement policies for a deteriorating system subject to general repair, *Proceedings of the International Conference on Stochastic Processes*, CUSA T, Kerala, India. Ed: A. Krishnamurthy, 117-124, 1998.
- 12 Replacement of repairable systems subject to shocks and general repair, *Journal of Mathematical and Physical Sciences*, **31**, 3, 145 – 157, 1997.
- 13 Optimal stopping in a shock model, *Optimization*. **38**, 127-132, 1996.
- 14 Optimal policies for systems subject to shocks and opportunity based imperfect preventive maintenance, *Int. J. of Management and systems*, **12**, 2, 199-210, 1996.
- 15 Time for failure free tests of systems subject to shocks and imperfect repair, *Opsearch*, **31**, #3, 228-236, 1994.
- 16 Some results on the life distribution properties of systems subject to shocks and general repair, *Microelectronics and Reliability*, **33**, #1, 1-6, 1993.
- 17 An optimal repair replacement policy for a deteriorating system, *Journal of Mathematical and Physical Sciences*, **26**, #6, 599-604, 1992.
- 18 Optimal replacement strategies of deteriorating systems with changing failure distributions, *Int.*

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- 19 Some notes on the stochastic feature extraction of briefly exposed visual displays, *Journal of Psychometry*, **5**, 25-33, 1992.

## **ANNEXURE II**

### **List of Conferences Attended**

1. International Indian Statistical Association (IISA) Joint Statistical Meeting and International Conference on Statistics, Probability and related areas (**2007**), CUSAT Cochin , 2.1.07 – 5.1.07
2. International Conference on Reliability and Safety Engineering organized by Reliability Engg Centre IIT Kharagpur and CFR Chennai(INCRESE **2006**), 18.12.2006 – 20.12.2007.
3. International Conference on Operations Research Applications in Infrastructure Development (ICORAID **2005**), 27.12.2005 – 29.12.2005
4. International Conference on Operations Research Applications in Infrastructure Development held at I I Sc, Bangalore, December 27-29, **2005**.
5. Seminar on Point Processes and Product Densities, held at CEG, Anna University, Chennai, August 8-9, **2003**.
6. Instructional Workshop and International Conference of Wavelets and their Applications held at CEG, Anna University, January 4 - 6, **2002**.
7. International conference on radiation damage, DNA repair, Carcinogenesis held at North Eastern Hill University, Shillong, April 7 - 10, 1998.
8. International conference on stochastic processes and their applications, Anna University, Chennai, January 8 - 10, 1998.

### Winter/Summer schools/workshops/short term courses attended

1. Workshop on Mathematical Finance (IISA),. CUSAT, Cochin, 6.1.**2007**
2. Workshop on Reliability and Warranty, ORSI Chennai Chapter, Anna University, December 20, **2004**.
3. Short term training programme on Fourier transform, wavelet transform and applications, IIT Madras, Dec 13 – 24, **2004**.
4. National Symposium on Mathematical Methods and Applications held at IIT Madras, Chennai on December 22<sup>nd</sup>, **2003**.
5. One day Symposium on Science and Technology leading to origin of Mankind, held at Periyar Science and Technology Centre, Chennai, on August 21<sup>st</sup>, **2003**
6. Workshop on Brownian motion, Indian Statistical Institute, Bangalore, June 9-14, **2003**.
7. Summer school on Operations research and its applications, Indian Statistical Institute, Bangalore, 18 Jun - 7 Jul, **2001**.
8. Short term course on TQM implementation strategies for educational institutions in India, Anna University, Chennai, 8 - 9 May, 1998.
8. Workshop on differential equations and Dynamical systems, IIT Madras, Chennai, 25 Nov - 5 Dec, 1998.

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