

CURRICULUM VITAE

1. Name : **Dr. R. UTHAYAKUMAR**
2. Designation : **Associate Professor**
3. Date of Birth : 19-May-1967
4. Sex : Male
5. Marital Status : Married
6. Nationality : Indian
7. Address for Communication : Department of Mathematics,
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8. Educational Qualifications

University/Institution	Year of Passing	Degree Obtained	Areas of Specialization	Class	% of Marks
Gandhigram Rural Institute – Deemed University, Gandhigram.	2000	Ph.D.*	Optimization and Functional Analysis	--	--
Madurai Kamaraj University, G.T.N. Arts College, Dindigul.	1994	PGDCA	Computer Science and Applications	First	76
Madurai Kamaraj University, Madurai.	1992	B.Ed.	Education	First	60
Madurai Kamaraj University, Madurai.	1991	M.Phil.	Mathematics	Second	55
Madurai Kamaraj University, American College, Madurai.	1989	M.Sc.	Mathematics	First	69
Madurai Kamaraj University, G.T.N. Arts College, Dindigul.	1987	B.Sc.	Mathematics	First (Medalist)	80

***Title of Ph.D. Thesis:** Study on Convergence of Optimization Problems

School Name	Year of Passing	Level	Subjects	Class	% of Marks
St. Mary's Hr. Sec. School Dindigul	1984	HSC	Mathematics Physics Chemistry Biology Languages	First Class	71
St. Mary's Hr. Sec. School Dindigul	1982	SSLC	Mathematics Science Social Science Languages	First Class	79

9. Professional Experience

Designation	University/Institution	Period
Associate Professor	Gandhigram Rural Institute – Deemed University, Gandhigram.	28.08.2010 to till date
Reader	Gandhigram Rural Institute – Deemed University, Gandhigram.	28.08.2007 to 27.08.2010
Senior Lecturer	Gandhigram Rural Institute – Deemed University, Gandhigram.	28.08.2002 to 27.08.2007
Lecturer	Gandhigram Rural Institute – Deemed University, Gandhigram.	03.08.1998 to 27.08.2002
Lecturer	RVS College of Engineering & Technology, Dindigul.	19.12.1997 to 01.08.1998
Senior Research Fellow, NBHM & DAE Project	Gandhigram Rural Institute – Deemed University, Gandhigram.	22.12.1994 to 19.12.1997
Lecturer in Mathematics and Computer Science	GTN Arts College, Dindigul.	20.01.1992 to 21.12.1994
Lecturer	Arul Anandar Arts College, Karumathur.	16.10.1990 to 14.11.1990

Teaching Experience : 21 Years

Research Experience : 17 Years

10. Research Guidance

Areas of Research:

- *Mathematical Modeling*
- *Fractal Analysis*
- *Operations Research*
- *Inventory Management and Control*
- *Supply Chain Management*

- Recognized as a **Research Supervisor** in **Mathematics** to guide Ph.D. Scholars in the Gandhigram Rural Institute – Deemed University, Gandhigram.

Discipline	No. of Candidates Registered for Ph.D.		No. of Candidates Submitted Ph.D. Thesis	No. of Candidates Awarded Ph.D. Degree
	Full-time	Part-time		
Mathematics	5	2	1	6

11. Research Projects

Research Projects Completed

UGC – Major Research Project

Principal Investigator of the UGC – Major Research Project, Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram.

Title of the Project : **Estimating the chaotic dynamics in the Human Brain via Fractal Dimensions**

Project Sanctioned No. : F. No. 33-114/2007 (SR)

Funding Agency : University Grants Commission (UGC),
New Delhi – 110 002.

Period of the Project : 01.04.2008 to 31.05.2011.

Total Amount : Rs. 7, 26, 800 /-

Department Level Research Projects Completed

UGC – Special Assistance Programme (DRS-I)

Deputy Coordinator of the UGC-SAP (DRS-I) Project, Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram.

Title : **Optimization Theory and Mathematical Modeling**
Project No. : F.510/6/DRS/2004 (SAP-I)
Funding Agency : University Grants Commission, New Delhi.
Period : 1st April 2004 to 31st March 2009 (5 Years)
Amount : Rs. 26 Lakhs

Department Level Research Projects Ongoing

UGC – Special Assistance Programme (DRS-II)

Deputy Coordinator of UGC-SAP (DRS-II) Project, Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram.

Title : **Stability Theory and Mathematical Modeling**
Project No. : F.510/2/DRS/2009 (SAP-I)/dated 09.10.2009.
Funding Agency : University Grants Commission, New Delhi.
Period : 1st April 2009 to 31st March 2014 (5 Years)
Amount : Rs. 41 Lakhs

12. Membership

Member of the Scientific Bodies:

1. Life Member in the Ramanujan Mathematical Society.
2. Member of the Academic Council, Gandhigram Rural Institute – Deemed University, Gandhigram.

Member of the Board of Studies:

1. Gandhigram Rural Institute – Deemed University, Gandhigram.
2. Manonmaniam Sundaranar University, Tirunelveli.
3. Mother Teresa Women's University, Kodaikanal.
4. Arulmigu Palaniyandavar Arts College for Women (Autonomous), Palani.
5. Arul Anandar College (Autonomous), Karumathur (University Nominee, Madurai Kamaraj University, Madurai).

Member of the Board of Examiners and Question Paper Setters:

1. Gandhigram Rural Institute – Deemed University, Gandhigram.
2. University of Madras, Chennai.
3. Madurai Kamaraj University, Madurai.
4. Bharathidasan University, Trichirappalli.
5. Bharathiar University, Coimbatore.
6. Manonmaniam Sundaranar University, Tirunelveli.
7. Mother Teresa Women’s University, Kodaikanal.
8. Annamalai University, Annamalainagar, Chidambaram.
9. Avinashilingam Deemed University for Women, Coimbatore.
10. Scott Christian College (Autonomous), Nagercoil.
11. St. Xavier’s College (Autonomous), Palayamkottai.
12. Gobi Arts & Science College (Autonomous), Gobichettipalayam.
13. Bharathidasan Govt. College for Women (Autonomous), Puducherry.
14. The Madura College (Autonomous), Madurai.
15. Vivekananda College (Autonomous), Tiruvedakam West, Madurai.

Member of the Selection Committee:

1. Mother Teresa Women’s University, Kodaikanal.
2. Pannaikadu Veeramammal Paramasivam College, Batalakundu, Dindigul.
3. Parvathy’s Arts and Science College, Dindigul.
4. Kendriya Vidyalaya, Gandhigram Rural University Campus, Gandhigram.

Member of the Inspection Committee:

1. Sri Adi Chunchanagiri Women’s College, Cumbum (University Nominee, Mother Teresa Women’s University, Kodaikanal).
2. St. Antony’s College of Arts and Science for Women, Dindigul (University Nominee, Mother Teresa Women’s University, Kodaikanal).
3. Nadar Saraswathi College of Arts and Science, Theni (University Nominee, Mother Teresa Women’s University, Kodaikanal).
4. M.V.M. Govt. Arts College for Women, Dindigul (University Nominee, Mother Teresa Women’s University, Kodaikanal).

13. Books Edited

1. P. Balasubramaniam and **R. Uthayakumar**, “**Intelligent Optimization Modeling**”, Allied Publishers, Chennai, 2006.
(ISBN: 81-8424-104-6)

2. P. Balasubramaniam and R. Uthayakumar, “**Mathematics, Computing and Modeling**”, Allied Publishers, Chennai, 2007.
(ISBN: 81-8424-213-1)
3. P. Balasubramaniam and R. Uthayakumar, “**Mathematical Modelling and Scientific Computation**”, Communications in Computer and Information Science (CCIS Volume No.: 283), Springer-Verlag Berlin Heidelberg, Germany, 2012.
(Print ISSN: 1865-0929 / Electronic ISSN: 1865-0937 / Print ISBN: 978-3-642-28925-5 / Electronic ISBN: 978-3-642-28926-2)

14. Course Materials Prepared for Distance Education

1. Gandhigram Rural Institute – Deemed University, Gandhigram, Dindigul.

1. M.Phil. – Research Methodology
2. M.Phil. – Specialization: Fractal Theory
3. M.Sc. – Topology
4. M.Sc. – Functional Analysis
5. M.Sc. – Optimization Techniques

2. Mother Teresa Women’s University, Kodaikanal.

1. M.Sc. – Topology and Functional Analysis
2. M.Sc. – Computer Oriented Numerical Methods
3. B.Sc. – Calculus
4. B.Sc. – Statistics

15. List of Publications

International Refereed Scientific Journals

2005

1. P. Kanniappan and R. Uthayakumar, **SP Hadamard well-posedness for convex programs**, Pure and Applied Mathematika Sciences, LXI (1-2), 2005.

2006

2. R. Uthayakumar and P. Parvathi, **A Deterministic Inventory Model for Deteriorating Items with Partially Backlogged and Stock and Time Dependent Demand Under Trade Credit**, International Journal of Soft Computing, 1(3), 199–206, 2006.
(Medwell Journals, Print ISSN: 1816-9503)

3. **R. Uthayakumar and P. Parvathi, A Deterministic Inventory Model for Deteriorating Items with Time Dependent Demand, Backlogged partially when Delay in Payments is Permissible**, International Journal of Mathematical Sciences, 5(2), 201–219, 2006.
(Serials Publications, ISSN: 0972-754X)
4. **R. Uthayakumar and A. Thangam, Two-echelon inventory system with lost sales, stochastic lead time and approximated Poisson demand**, European Journal of Scientific Research, 14(4), 527–536, 2006.
(EuroJournals, ISSN: 1450-216X)

2007

5. **R. Uthayakumar and P. Parvathi, Determination of Replenishment Cycle Time for an EOQ Model with Shortages and Deteriorating Items**, International Journal of Mathematical Science, 6(3-4), 289–303, 2007.
(Serials Publications, ISSN: 0972-754X)
6. **A. Thangam and R. Uthayakumar, A continuous review two-echelon supply chain with stochastic lead times**, Tamsui Oxford Journal of Management Sciences, 23(4), 01–18, 2007.
(Aletheia University, Taiwan, ISSN: 0258-5375)
7. **R. Uthayakumar and P. Paramanathan, Fractal Dimension of irregular Digitalized Curves by divider method**, Applied Mathematics and Computation, 189(1), 68–71, 2007.
(Elsevier, ISSN: 0096-3003; Impact Factor: 1.534; No. of Citations: 1)
8. **R. Uthayakumar and P. Paramanathan, An algorithm for computing Fractal Dimension of Rectifiable Irregular graphs**, Applied Mathematics and Computation, 190(1), 305–308, 2007.
(Elsevier, ISSN: 0096-3003; Impact Factor: 1.534)
9. **R. Uthayakumar and K. Annadurai, Controllable Lead Time and Lost Sales Rate Reduction with Varying order cost in Stochastic inventory system**, International Journal of Applied Mathematical Analysis and Applications, 2(1-2), 71–81, 2007.
(Serials Publications, ISSN: 0973-3868)

2008

10. **R. Uthayakumar and P. Parvathi, Inventory Models with mixture of Backorders involving Reducible Lead Time and Setup Cost**, OPSEARCH, 45(1), 12–33, 2008.
(Operational Research Society of India, ISSN: 0030-3887)

11. G. Jayalalitha, V. Shanthoshini Deviha and **R. Uthayakumar**, **Fractal model for blood flow in cardiovascular system**, Computers in Biology and Medicine, 38(6), 684–693, 2008.
(Elsevier, ISSN: 0010-4825; Impact Factor: 1.112; No. of Citations: 5)
12. A. Thangam and **R. Uthayakumar**, **A two-level supply chain with partial backordering and approximated Poisson demand**, European Journal of Operational Research, 187(1), 228–242, 2008.
(Elsevier, ISSN: 0377-2217; Impact Factor: 2.158; No. of Citations: 6)
13. A. Thangam and **R. Uthayakumar**, **Evaluation of Supply Chain Structures using a Delayed Product Differentiation Process**, The International Journal on Advanced Manufacturing and Technology, 39(3-4), 401–408, 2008.
(Springer, Print ISSN: 0268-3768 / Electronic ISSN: 1433-3015; Impact Factor: 1.068)
14. A. Thangam and **R. Uthayakumar**, **Analysis of Partial Trade Credit Financing in a Supply chain by EPQ-based models**, Advanced Modeling and Optimization, 10(2), 177–198, 2008.
(ICI Publishing House, Bucharest, Romania, ISSN: 1841-4311)
15. A. Thangam and **R. Uthayakumar**, **Handling emergency orders from the supplier of a two-echelon supply chain**, Tamsui Oxford Journal of Management Sciences, 24(1), 49–64, 2008.
(Aletheia University, Taiwan, ISSN: 0258-5375)
16. P. Paramanathan and **R. Uthayakumar**, **An algorithm for Computing the Fractal Dimension of Waveforms**, Applied Mathematics and Computation, 195(2), 598–603, 2008.
(Elsevier, ISSN: 0096-3003; Impact Factor: 1.534; No. of Citations: 3)
17. P. Paramanathan and **R. Uthayakumar**, **Application of fractal theory in analysis of Human electroencephalogram signals**, Computers in Biology and Medicine, 38(3), 372–378, 2008.
(Elsevier, ISSN: 0010-4825; Impact Factor: 1.112; No. of Citations: 11)
18. P. Paramanathan and **R. Uthayakumar**, **Size Measure Relationship method for fractal analysis of signals**, Fractals, 16(3), 235–241, 2008.
(World Scientific, Print ISSN: 0218-348X / Electronic ISSN: 1793-6543; Impact Factor: 0.442)

2009

19. **R. Uthayakumar** and P. Parvathi, **A continuous review inventory model with controllable backorder rate and investments**, International Journal of Systems Science, 40(3), 245–254, 2009.
(Taylor & Francis, Print ISSN: 0020-7721 / Electronic ISSN: 1464-5319; Impact Factor: 0.948; No. of Citations: 1)
20. G. Jayalalitha and **R. Uthayakumar**, **Border detection of skin cancer cells with fractal dimension**, Fractals, 17(2), 171–180, 2009.
(World Scientific, Print ISSN: 0218-348X / Electronic ISSN: 1793-6543; Impact Factor: 0.442)
21. A. Thangam and **R. Uthayakumar**, **Two-echelon trade credit financing for perishable items in a supply chain when demand depends on both selling price and credit period**, Computers and Industrial Engineering, 57(3), 773–786, 2009.
(Elsevier, ISSN: 0360-8352; Impact Factor: 1.543; No. of Citations: 2)
22. A. Thangam and **R. Uthayakumar**, **A two-level distribution inventory system with stochastic lead time at the lower echelon**, The International Journal on Advanced Manufacturing and Technology, 41(11-12), 1208–1220, 2009.
(Springer, Print ISSN: 0268-3768 / Electronic ISSN: 1433-3015; Impact Factor: 1.068; No. of Citations: 3)
23. A. Thangam and **R. Uthayakumar**, **Modeling of continuous review supply chain in an uncertain environment**, International Journal of Information and Management Sciences, 20(1), 137–159, 2009.
(Graduate Institute of Management Sciences, Tamkang University, Taiwan, ISSN Print: 1017-1819; No. of Citations: 4)
24. A. Thangam and **R. Uthayakumar**, **Optimal Pricing Strategies for an Inventory System with Perishable Items and Waiting Time Dependent Order Cancellations**, International Journal of Information Systems and Supply Chain Management, 2(4), 80–95, 2009.
(IGI Global, Print ISSN: 1935-5726 / Electronic ISSN: 1935-5734)
25. **R. Uthayakumar** and K.V. Geetha, **Replenishment Policy for Single Item Inventory Model with Money Inflation**, OPSEARCH, 46(3), 345–357, 2009.
(Springer, Print ISSN: 0030-3887 / Electronic ISSN: 0975-0320; No. of Citations: 1)
26. **R. Uthayakumar** and K.V. Geetha, **A Replenishment Policy for Non-instantaneous Deteriorating Inventory System with Partial Backlogging**, Tamsui Oxford Journal of Mathematical Sciences, 25(3), 313–332, 2009.
(Aletheia University, ISSN: 1561-8307 No. of Citations: 1)

27. K.V. Geetha and **R. Uthayakumar**, **Optimal inventory control policy for items with time-dependent demand**, American Journal of Mathematical and Management Sciences, 29(3&4), 457-476, 2009.
(American Sciences Press, ISSN: 0196-6324)
28. M. Valliathal and **R. Uthayakumar**, **An EOQ model for perishable items under stock and Time-dependent selling rate with shortages**, Journal of Engineering and Applied Sciences, 4(8), 8–14, 2009.
(ARPJ Journals, ISSN 1819-6608)
29. M. Valliathal and **R. Uthayakumar**, **A Deterministic Two-Warehouse Inventory Model For Deteriorating Items With Stock-Level-Dependent Demand Rate**, ASOR Bulletin, 28(3), 10–24, 2009.
(The Australian Society of Operations Research, ISSN: 1446-6678)
30. M. Valliathal and **R. Uthayakumar**, **Effects of inflation and time discounting on an EOQ model for perishable items under time-dependent selling rate and time-dependent partial backlogging**, International Journal of Applied Mathematical Analysis and Applications, 4(2), 117–126, 2009.
(Serials Publications, ISSN: 0973-3868)
31. M. Valliathal and **R. Uthayakumar**, **A finite horizon deterministic economic production quantity models for deteriorating items with inventory level dependent demand rate and shortages**, Indian Journal of Mathematics and Mathematical Sciences, 5(2), 195–206, 2009.
(Serials Publications, ISSN: 0973-3329)

2010

32. G. Jayalalitha and **R. Uthayakumar**, **Fractal Approach to Understand PFO And DCS in Sport Divers**, Fractals, 18(4), 499–511, 2010.
(World Scientific, Print ISSN: 0218-348X / Electronic ISSN: 1793-6543; Impact Factor: 0.442)
33. A. Thangam and **R. Uthayakumar**, **Optimal pricing and lot-sizing policy for a two-warehouse supply chain system with perishable items under partial trade credit financing**, Operational Research, 10(2), 133–161, 2010.
(Springer, Print ISSN: 1109-2858 / Electronic ISSN: 1866-1505)
34. A. Thangam and **R. Uthayakumar**, **An inventory model for deteriorating items with inflation induced demand and exponential partial backorders—a discounted cash flow approach**, International Journal of Management Science and Engineering Management, 5(3), 170–174, 2010.
(World Academic Press, Print ISSN: 1750-9653 / Electronic ISSN: 1750-9661)

35. K.V. Geetha and **R. Uthayakumar**, **Economic design of an inventory policy for non-instantaneous deteriorating items under permissible delay in payments**, Journal of Computational and Applied Mathematics, 233(10), 2492–2505, 2010.
(Elsevier, ISSN: 0377-0427; Impact Factor: 1.029; No. of Citations: 3)
36. P. Paramanathan and **R. Uthayakumar**, **Fractal Interpolation on the Koch curve**, Computers and Mathematics with Applications, 59(10), 3229–3233, 2010.
(Elsevier, ISSN: 0898-1221; Impact Factor: 1.472)
37. P. Paramanathan and **R. Uthayakumar**, **Fractal Interpolants on the s-Sets**, Fractals, 18(3), 343–348, 2010.
(World Scientific, Print ISSN: 0218-348X / Electronic ISSN: 1793-6543; Impact Factor: 0.442)
38. K. Annadurai and **R. Uthayakumar**, **Controlling setup cost in (Q, r, L) inventory model with defective items**, Applied Mathematical Modelling, 34(6), 1418–1427, 2010.
(Elsevier, ISSN: 0307-904X; Impact Factor: 1.371; No. of Citations: 1)
39. K. Annadurai and **R. Uthayakumar**, **Reducing lost-sales rate in (T, R, L) inventory model with controllable lead time**, Applied Mathematical Modeling, 34(11), 3465–3477, 2010.
(Elsevier, ISSN: 0307-904X; Impact Factor: 1.371)
40. K. Annadurai and **R. Uthayakumar**, **Ordering cost reduction in probabilistic inventory model with controllable lead time and a service level**, International Journal of Management Science and Engineering Management, 5(6), 403–410, 2010.
(World Academic Press, Print ISSN: 1750-9653 / Electronic ISSN: 1750-9661)
41. M. Valliathal and **R. Uthayakumar**, **A finite horizon EPQ model for deteriorating items with shortages under permissible delay in payments**, International Journal of Applied Decision Sciences, 3(4), 338–365, 2010.
(Inderscience, Print ISSN: 1755-8077 / Electronic ISSN: 1755-8085)
42. M. Valliathal and **R. Uthayakumar**, **The production - inventory problem for ameliorating /deteriorating items with non- linear shortage cost under inflation and time discounting**, Applied Mathematical Sciences, 4(6), 289–304, 2010.
(Hikari, ISSN: 1312-885X)
43. M. Valliathal and **R. Uthayakumar**, **A finite horizon EOQ models with time-varying demand and partial backlogging under deterioration and stock-dependent demand**, International Journal of Mathematical Sciences, 9(1-2), 73–82, 2010.
(Serials Publications, ISSN: 0972-754X)
44. M. Valliathal and **R. Uthayakumar**, **Fuzzy Inventory Model for Retailer's Optimal Replenishment Policies under Inflationary Condition**, International Journal of Pure and Applied Sciences and Technology, 1(1), 49–69, 2010.
(Gauhati University, ISSN: 2229-6107)

45. M. Valliathal and **R. Uthayakumar**, **A finite horizon EPQ model for deteriorating items with shortages**, CIT Journal of Research, 1(2), 169–174, 2010.
(Chhattisgarh Institute of Technology, ISSN: 0976-3244)

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46. **R. Uthayakumar** and P. Parvathi, **Inventory Model with Pricing Tactics for Demand in Auto-correlated Products**, The International Journal on Advanced Manufacturing and Technology, 52(5-8), 833–840, 2011.
(Springer, Print ISSN: 0268-3768 / Electronic ISSN: 1433-3015; Impact Factor: 1.068)
47. **R. Uthayakumar** and P. Parvathi, **A two-stage supply chain with order cost reduction and credit period incentives for deteriorating items**, The International Journal on Advanced Manufacturing and Technology, 56(5-8), 799–807, 2011.
(Springer, Print ISSN: 0268-3768 / Electronic ISSN: 1433-3015; Impact Factor: 1.068)
48. G. Jayalalitha and **R. Uthayakumar**, **Fractal Approach to Identify the Grade of Cervical Cancer**, Fractals, 19(1), 125–139, 2011.
(World Scientific, Print ISSN: 0218-348X / Electronic ISSN: 1793-6543; Impact Factor: 0.442)
49. A. Thangam and **R. Uthayakumar**, **Two-echelon trade credit financing in a supply chain with perishable items and two different payment methods**, International Journal of Operational Research, 11(4), 365–382, 2011.
(Inderscience, Print ISSN: 1745-7645 / Electronic ISSN: 1745-7653)
50. K. Annadurai and **R. Uthayakumar**, **An inventory model for deteriorating items with credit period dependent demand under two-level trade credit financing**, Journal of Advanced Research in Applied Mathematics, 3(1), 24–46, 2011.
(Institute of Advanced Scientific Research, USA, Electronic ISSN: 1942-9649)
51. M. Valliathal and **R. Uthayakumar**, **Optimal pricing and replenishment policies of an EOQ model for non-instantaneous deteriorating items with shortages**, The International Journal on Advanced Manufacturing and Technology, 54(1-4), 361–371, 2011.
(Springer, Print ISSN: 0268-3768 / Electronic ISSN: 1433-3015; Impact Factor: 1.068)
52. M. Valliathal and **R. Uthayakumar**, **Designing a new computational approach of partial backlogging on the economic production quantity model for deteriorating items with non-linear holding cost under inflationary conditions**, Optimization Letters, 5(3), 515–530, 2011.
(Springer, Print ISSN: 1862-4472 / Electronic ISSN: 1862-4480; Impact Factor: 1.01, No. of Citations: 1)

53. M. Valliathal and **R. Uthayakumar**, **An EOQ Model for Rebate Value and Selling Price-Dependent Demand Rate with Shortages**, International Journal of Mathematics in Operational Research, 3(1), 99–123, 2011.
(Inderscience, Print ISSN: 1757-5850 / Electronic ISSN: 1757-5869)
54. M. Valliathal and **R. Uthayakumar**, **Effects of ramp type demand and Weibull deterioration rate on retailers' optimal pricing and lot-sizing policies for deteriorating items with partial backlogging**, International Journal of Data Analysis Techniques and Strategies, 3(4), 375–405, 2011.
(Inderscience, Print ISSN: 1755-8050 / Electronic ISSN: 1755-8069)
55. **R. Uthayakumar** and M. Valliathal, **Fuzzy Economic Production Quantity Model for Weibull Deteriorating Items with Ramp Type of Demand**, International Journal of Strategic Decision Sciences, 2(3), 55–90, 2011.
(IGI Global, Print ISSN: 1947-8569 / Electronic ISSN: 1947-8577)
56. M. Valliathal and **R. Uthayakumar**, **A new study of an EOQ model for deteriorating items with shortages under inflation and time discounting**, Iranian Journal of Operations Research, 2(2), 48–62, 2011.
(Iranian Operations Research Society)
57. M. Valliathal and **R. Uthayakumar**, **Simple approach of obtaining the optimal pricing and lot-sizing policies for an EPQ model on deteriorating items with shortages under inflation and time-discounting**, Istanbul University Journal of the School of Business Administration, 40(2), 304–320, 2011.
(Istanbul University, ISSN: 1303-1732)
58. D. Easwaramoorthy and **R. Uthayakumar**, **Improved Generalized Fractal Dimensions in the Discrimination between Healthy and Epileptic EEG Signals**, Journal of Computational Science, 2(1), 31–38, 2011.
(Elsevier, ISSN: 1877-7503)
59. D. Easwaramoorthy and **R. Uthayakumar**, **Analysis on Fractals in Fuzzy Metric Spaces**, Fractals, 19(3), 379–386, 2011.
(World Scientific, Print ISSN: 0218-348X / Electronic ISSN: 1793-6543; Impact Factor: 0.442)
60. **R. Uthayakumar** and D. Easwaramoorthy, **Hutchinson-Barnsley Operator in Fuzzy Metric Spaces**, International Journal of Engineering and Natural Sciences, 5(4), 203–207, 2011.
(World Academy of Science, Engineering and Technology, Print ISSN: 2010-4006 / Electronic ISSN: 2010-4014)
61. **R. Uthayakumar**, G. Arockia Prabakar and S. Abdul Azis, **Fractal analysis of soil pore variability with two dimensional binary images**, Fractals, 19(4), 401–406, 2011.
(World Scientific, Print ISSN: 0218-348X / Electronic ISSN: 1793-6543; Impact Factor: 0.442)

2012

62. **R. Uthayakumar** and D. Easwaramoorthy, **Analysis on Fractals in Intuitionistic Fuzzy Metric Spaces**, International Journal of Mathematical and Computational Sciences, 6, 195–201, 2012.
(World Academy of Science, Engineering and Technology, Print ISSN: 2010-4103 / Electronic ISSN: 2010- 4111)
63. **R. Uthayakumar** and D. Easwaramoorthy, **Hutchinson-Barnsley Operator in Intuitionistic Fuzzy Metric Spaces**, International Journal of Mathematical and Computational Sciences, 6, 208–215, 2012.
(World Academy of Science, Engineering and Technology, Print ISSN: 2010-4103 / Electronic ISSN: 2010- 4111)
64. **R. Uthayakumar** and M. Rameswari, **Economic Order Quantity for Deteriorating Items with Time Discounting**, The International Journal on Advanced Manufacturing and Technology, 58(5-8), 817–840, 2012.
(Springer, Print ISSN: 0268-3768 / Electronic ISSN: 1433-3015; Impact Factor: 1.068)
65. **R. Uthayakumar**, G. Arockia Prabakar and S. Abdul Azis, **Multifractal scaling of crack images from pyrolytic acid dried sludge**, Journal of Computational Science, 3(1–2), 67–73, 2012.
(Elsevier, ISSN: 1877-7503)
66. K. Annadurai and **R. Uthayakumar**, **Analysis of partial trade credit financing in a supply chain by EOQ-based model for decaying items with shortages**, The International Journal of Advanced Manufacturing Technology, Accepted for Publication.
(Springer, Print ISSN: 0268-3768 / Electronic ISSN: 1433-3015; Impact Factor: 1.068)
67. M. Valliathal and **R. Uthayakumar**, **Designing and computing optimal policies on production model for non-instantaneous deteriorating items with shortages**, International Journal of Production Research, Accepted for Publication.
(Taylor & Francis, Print ISSN: 0020-7543 / Electronic ISSN: 1366-588X; Impact Factor: 1.033)
68. M. Valliathal and **R. Uthayakumar**, **Computation of optimal replenishment policies of an economic order quantity model for deteriorating items with shortages under supplier's credit linked to maximum inventory level**, International Journal of Industrial and Systems Engineering, Accepted for Publication.
(Inderscience, Print ISSN: 1748-5037 / Electronic ISSN: 1748-5045)

69. **R. Uthayakumar** and M. Rameswari, **Supply chain model with variable lead time under credit policy**, The International Journal on Advanced Manufacturing and Technology, Accepted for Publication.
(Springer, Print ISSN: 0268-3768 / Electronic ISSN: 1433-3015; Impact Factor: 1.068)
70. **R. Uthayakumar** and M. Rameswari, **An Integrated Inventory model for a single vendor and single buyer with order-processing cost reduction and process mean**, International Journal of Production Research, Accepted for Publication.
(Taylor & Francis, Print ISSN: 0020-7543 / Electronic ISSN: 1366-588X; Impact Factor: 1.033)
71. **R. Uthayakumar** and M. Rameswari, **An Economic Production Quantity Model for Defective Items with Trapezoidal type Demand Rate**, Journal of Optimization Theory and Applications, Accepted for Publication.
(Springer, Impact Factor: 1.011)

International Conferences

2006

1. **R. Uthayakumar** and P. Paramanathan, **Detection of Critical Brain Sites using Fractal Analysis**, Proceedings of 14th International Conference on Advanced Computing and Communications, 560–563, 2006.
(IEEE Xplore Digital Library, Print ISBN: 1-4244-0716-8)

2007

2. G. Jayalalitha and **R. Uthayakumar**, **Estimating the Skin cancer using Fractals**, Proceedings of the International Conference on Computational Intelligence and Multimedia Applications, 307–312, 2007.
(IEEE Xplore Digital Library, Print ISBN: 0-7695-3050-8)
3. G. Jayalalitha, V. Shanthoshini Deviha and **R. Uthayakumar**, **Fractal model of the blood vessel in cardiovascular system**, Proceedings of 15th International Conference on Advanced Computing and Communications, 175–182, 2007.
(IEEE Xplore Digital Library, Print ISBN: 0-7695-3059-1)
4. P. Paramanathan and **R. Uthayakumar**, **Detecting Patterns in Irregular Time Series with Fractal Dimension**, Proceedings of the International Conference on Computational Intelligence and Multimedia Applications, 323–327, 2007.
(IEEE Xplore Digital Library, Print ISBN: 0-7695-3050-8)

2009

5. G. Jayalalitha and **R. Uthayakumar**, **Signature recognition by fractals**, Proceedings of the International Conference on Mathematical Methods and Computation, 613–621, 2009.
6. G. Jayalalitha and **R. Uthayakumar**, **Recognition of Cervical Cancer Based on Fractal Dimension**, Proceedings of the International Conference on Advances in Recent Technologies in Communication and Computing, 532–536, 2009.
(IEEE Xplore Digital Library, Print ISBN: 978-1-4244-5104-3; No. of Citations: 1)

2010

7. D. Easwaramoorthy and **R. Uthayakumar**, **Modification of Generalized Fractal Dimensions in the Analysis of Epileptic EEG Signals**, Proceedings of the International Conference on Mathematics and Computer Science, 447–452, 2010.
(G.K. Publisher, ISBN: 978-81-908234-2-5)
8. D. Easwaramoorthy and **R. Uthayakumar**, **Estimating the Complexity of Biomedical Signals by Multifractal Analysis**, Proceedings of the IEEE Students' Technology Symposium, 6–11, 2010.
(IEEE Xplore Digital Library, Print ISBN: 978-1-4244-5975-9)
9. D. Easwaramoorthy and **R. Uthayakumar**, **Analysis of EEG Signals using Advanced Generalized Fractal Dimensions**, Proceedings of the Second International Conference on Computing, Communication and Networking Technologies, 1–6, 2010.
(IEEE Xplore Digital Library, Print ISBN: 978-1-4244-6591-0)
10. D. Easwaramoorthy and **R. Uthayakumar**, **Analysis of Biomedical EEG Signals using Wavelet Transforms and Multifractal Analysis**, Proceedings of the 1st IEEE International Conference on Communication Control and Computing Technologies, 544–549, 2010.
(IEEE Xplore Digital Library, Print ISBN: 978-1-4244-7769-2)
11. D. Easwaramoorthy and **R. Uthayakumar**, **Fractal Analysis in Fuzzy Metric Spaces**, Proceedings of the International Conference on Emerging Trends in Mathematics and Computer Applications, 112–116, 2010.
(Allied Publishers, ISBN: 978-81-8424-649-0)
12. G. Arockia Prabakar and **R. Uthayakumar**, **Natural Way Effluent Treatment Using Fractal Dimension**, Proceedings of the 1st IEEE International Conference on Communication Control and Computing Technologies, 623–627, 2010.
(IEEE Xplore Digital Library, Print ISBN: 978-1-4244-7769-2)

2011

13. P. Paramanathan and **R. Uthayakumar**, **Tumor Growth in the Fractal Space-Time with Temporal Density**, Proceedings of the International Conference on Logic, Information, Control & Computation, Communications in Computer and Information Science (CCIS 140), 166–173, 2011.
(Springer-Verlag Berlin Heidelberg, Print ISSN: 1865-0929 / Electronic ISSN: 1865-0937 / Print ISBN: 978-3-642-19262-3 / Electronic ISBN: 978-3-642-19263-0)
14. D. Easwaramoorthy and **R. Uthayakumar**, **Intuitionistic Fuzzy Fractals on Complete and Compact Spaces**, Proceedings of the International Conference on Logic, Information, Control & Computation, Communications in Computer and Information Science (CCIS 140), 89–96, 2011.
(Springer-Verlag Berlin Heidelberg, Print ISSN: 1865-0929 / Electronic ISSN: 1865-0937 / Print ISBN: 978-3-642-19262-3 / Electronic ISBN: 978-3-642-19263-0)

2012

15. **R. Uthayakumar** and G. Jayalalitha, **Mathematical Modelling of Liver Cancer using Fractals**, Proceedings of the Heber International Conference on Applications of Mathematics and Statistics, 178–185, 2012.
(Excel India Publishers, ISBN: 978-93-81361-71-9)
16. **R. Uthayakumar** and K.V. Geetha, **Optimal Inventory Policy with Shortages and Time Dependent Holding Cost**, Proceedings of the Heber International Conference on Applications of Mathematics and Statistics, 251–257, 2012.
(Excel India Publishers, ISBN: 978-93-81361-71-9)
17. **R. Uthayakumar** and D. Easwaramoorthy, **Multivalued Fractals in Intuitionistic Fuzzy Metric Spaces**, Proceedings of the Heber International Conference on Applications of Mathematics and Statistics, 404–410, 2012.
(Excel India Publishers, ISBN: 978-93-81361-71-9)
18. **R. Uthayakumar** and M. Rameswari, **An EOQ Model with Price-Varying Quadratic Demand and Partial Backlogging**, Proceedings of the International Conference on Mathematical and Computational Models, 180–190, 2012.
(Narosa Publishing House, ISBN: 978-81-8487-164-7)
19. **R. Uthayakumar** and M. Rameswari, **EOQ Model for Exponential Demand with Profit Maximization**, Proceedings of the International Conference on Mathematical and Computational Models, 151–160, 2012.
(Narosa Publishing House, ISBN: 978-81-8487-164-7)

20. **R. Uthayakumar** and M. Rameswari, **Supply-chain Coordination with Order-processing Cost Reduction for Deteriorating Items**, Proceedings of the Heber International Conference on Applications of Mathematics and Statistics, 258–262, 2012.
(Excel India Publishers, ISBN: 978-93-81361-71-9)
21. **R. Uthayakumar** and M. Rameswari, **An Easy Method to compute EPQ Model with Imperfect Production Process without Derivatives by Cost Comparisons**, Proceedings of the International Conference on Mathematics in Engineering and Business Management, 307–313, 2012.
22. **R. Uthayakumar** and M. Rameswari, **Improvement of Quality with the Reduction of Order Processing Cost by Just-In-Time Purchasing**, Proceedings of the International Conference on Mathematical Modelling and Scientific Computation, Communications in Computer and Information Science (CCIS 283), 148–155, 2012.
(Springer-Verlag Berlin Heidelberg, Print ISSN: 1865-0929 / Electronic ISSN: 1865-0937 / Print ISBN: 978-3-642-28925-5 / Electronic ISBN: 978-3-642-28926-2)
23. **R. Uthayakumar** and K.F. Mary Latha, **Coordination Between a Vendor and a Buyer Considering Trade Credit Ordering Cost Reduction and Shortages for Deteriorating Items**, Proceedings of the International Conference on Mathematical and Computational Models, 151–160, 2012.
(Narosa Publishing House, ISBN: 978-81-8487-164-7)
24. **R. Uthayakumar** and G. Arockia Prabakar, **Estimation of Fracture and Texture Images using Lacunarity and Multifractal Technique**, Proceedings of the Heber International Conference on Applications of Mathematics and Statistics, 716–721, 2012.
(Excel India Publishers, ISBN: 978-93-81361-71-9)

National Conferences

2005

1. P. Kanniappan and **R. Uthayakumar**, **Convergence of B-Vex Optimization Problems**, Proceedings of the XII Ramanujan Symposium on Recent Trends in Analysis, 78–87, 2005.
(Ramanujan Institute for Advanced Study in Mathematics, University of Madras)
2. P. Kanniappan and **R. Uthayakumar**, **Mathematical Models for Blood Flow in Cardiovascular System**, Proceedings of the National Conference on Recent Trends in Computational Mathematics, 158–164, 2005.
(Narosa Publishing House, ISBN: 81-7319-619-2)

2006

3. **R. Uthayakumar** and P. Parvathi, **Trade Credit Policy and Replenishment Cycle Time of an EOQ Model**, Proceedings of the National Conference on Intelligent Optimization Modeling, 254–266, 2006.
(Allied Publishers, ISBN: 81-8424-104-6)
4. **R. Uthayakumar** and P. Parvathi, **A continuous Review Inventory Model with Controllable Setup Cost, Lead time and with Unknown Demand Distribution**, Proceedings of National Conference on Management Science and Practice, 87–106, 2006.
(Allied Publishers, ISBN: 81-8424-186-0)
5. **R. Uthayakumar** and P. Paramanathan, **Applications of Fractal Techniques in EEG Signal Analysis**, Proceedings of the National Conference on Intelligent Optimization Modelling, 159–164, 2006.
(Allied Publishers, ISBN: 81-8424-104-6)

2007

6. **R. Uthayakumar**, **Economic order quantity for deteriorating items with time discounting**, Proceedings of the Conference on Theory and Practice of Operational Research in Information Technology & Supply Chain Management, 125–136, 2007.
(ORSI-Bangalore Chapter, IISc)
7. **R. Uthayakumar** and P. Parvathi, **Two echelon system for differential items under single management with shortages under inflation**, Proceedings of the Conference on Theory and Practice of Operational Research in Information Technology & Supply Chain Management, 109–120, 2007.
(ORSI-Bangalore Chapter, IISc)
8. **R. Uthayakumar** and P. Parvathi, **Inventory model with Pricing Tactics for Demand in Auto-Correlated Products**, Proceedings of National Conference on Mathematics, Computing and Modeling, 247–254, 2007.
(Allied Publishers, ISBN: 81-8424-213-1)
9. G. Jayalalitha and **R. Uthayakumar**, **Mathematical Modeling of Skin Cancer using Fractals**, Proceedings of National Conference on Mathematics, Computing and Modeling, 144–152, 2007.
(Allied Publishers, ISBN: 81-8424-213-1)
10. A. Thangam and **R. Uthayakumar**, **A Two Level Supply Chain with Lost Sales, Stochastic Lead Time at the Lower Echelon**, Proceedings of National Conference on Mathematics, Computing and Modeling, 235–246, 2007.
(Allied Publishers, ISBN: 81-8424-213-1)

11. **R. Uthayakumar** and A. Thangam, **A two-level supply chain with a mixed continuous periodic review replenishment policies**, Proceedings of the Conference on Theory and Practice of Operational Research in Information Technology & Supply Chain Management, 15–20, 2007.
(ORSI-Bangalore Chapter, IISc)
12. **R. Uthayakumar** and K.V. Geetha, **Ordering Policy for Non-instantaneous deteriorating items with partial backlogging**, Proceedings of the Conference on Theory and Practice of Operational Research in Information Technology & Supply Chain Management, 99–108, 2007.
(ORSI-Bangalore Chapter, IISc)
13. K. V. Geetha and **R. Uthayakumar**, **An EOQ model for non-instantaneous deteriorating items with stock dependent consumption rate under inflation and time discounting**, Proceedings of National Conference on Mathematics, Computing and Modeling, 201–210, 2007.
(Allied Publishers, ISBN: 81-8424-213-1)
14. K. V. Geetha and **R. Uthayakumar**, **Analysis of Inventory Systems with Stock-Dependent Demand under Inflation**, Proceedings of the Fourth National Conference on Mathematical and Computational Models, 75–86, 2007.
15. K. Annadurai and **R. Uthayakumar**, **Mixture inventory model involving controllable setup cost and lost sales with defective items**, Proceedings of the Conference on Theory and Practice of Operational Research in Information Technology & Supply Chain Management, 91–98, 2007.
(ORSI-Bangalore Chapter, IISc)
16. **R. Uthayakumar** and K. Annadurai, **Optimal investment strategy to control lead time and lost sales rate reduction with varying order cost in periodic inventory model**, Proceedings of National Conference on Mathematics, Computing and Modeling, 226–234, 2007.
(Allied Publishers, ISBN: 81-8424-213-1)

2008

17. K. Annadurai and **R. Uthayakumar**, **Setup cost reduction in distribution-free inventory model with defective items**, Proceedings of the National Conference on Applied Mathematics, 81–86, 2008.

2012

18. **R. Uthayakumar** and D. Easwaramoorthy, **Fractal-Wavelet Based Denoising of EEG Signals**, Proceedings of the National Conference on Signal and Image Processing – 2012, 17–24, 2012.

(Excel India Publishers, ISBN: 978-93-81361-90-0)

16. Reviewer for following Journals

1. Applied Mathematics and Computation (Elsevier)
2. Applied Mathematical Modeling (Elsevier)
3. Journal of Computational and Applied Mathematics (Elsevier)
4. Computers in Biology and Medicine (Elsevier)
5. Medical Engineering & Physics (Elsevier)
6. Psychiatry Research (Elsevier)
7. Applied Soft Computing (Elsevier)
8. International Journal of Production Economics (Elsevier)
9. Omega (Elsevier)
10. The International Journal on Advanced Manufacturing and Technology (Springer)
11. OPSEARCH (Springer)
12. International Journal of System Science (Taylor & Francis)
13. Computational and Mathematical Methods in Medicine (Hindawi)
14. Mathematical Problems in Engineering (Hindawi)
15. International Journal of Mathematical Modelling and Numerical Optimisation (Inderscience)
16. African Journal of Business Management (Academic Journals)
17. British Journal of Mathematics & Computer Science (SCIENCEDOMAIN International)

17. Invited Lectures

1. Delivered a Lecture on “**Mathematics in Real Life**” at Lakshmi College of Education, Gandhigram under the auspices of Inaugural Ceremony of Mathematics Association on 11.02.2002.
2. Delivered a Lecture on “**Operations Research**” at Nadar Saraswathi College of Arts and Science, Theni on 08.04.2002.
3. Delivered a Lecture on “**Applications of Mathematics in Engineering**” in the Inaugural Function of Mathematics Club at PSNA College of Engineering and Technology, Dindigul on 28.07.2003.
4. Delivered a Lecture on “**Analytical Thinking**” in the Mathematics Association Function at Sri Kaliswari College, Sivakasi on 31.01.2004.

5. Delivered a Lecture on **“Diophantine Equations and its Applications”** at Jayaraj Annapackiam College for Women, Periyakulam, Theni on 27.08.2004.
6. Delivered a Lecture on **“Ramanujan and Number Theory”** at Lakshmi College of Education, Gandhigram under the auspices of Inaugural Ceremony of Mathematics Association as well as Srinivasa Ramanujan Birthday celebration on 22.12.2004.
7. Delivered a Lecture on **“Fuzzy Sets”** at Department of Mathematics, M.V.M. Govt. Arts College for Women, Dindigul on 11.02.2005.
8. Delivered a Lecture on **“Optimization Techniques for Engineering Applications”** at R.V.S. College of Engineering and Technology on 11.03.2005.
9. Delivered a Lecture on **“Fuzzy Logic and its Applications”** at Jayaraj Annapackiam College for Women, Periyakulam, Theni on 30.09.2005.
10. Delivered a Lecture on **“Mathematical Logic and its Applications to the Computer Science”** at Parvathi’s College of Arts and Science, Dindigul on 21.12.2005.
11. Delivered a **Valedictory Address** in the Inter-Collegiate Meet **“ES’KURV’06”** at Department of Mathematics, Pannaikadu Veerammal Paramasivam College, Batalakundu, Dindigul on 06.01.2006.
12. Delivered a **Valedictory Address** in the Inter-Collegiate Competition **“MATAAC’06”** at Department of Mathematics, Arul Anandar College (Autonomous), Karumathur, Madurai on 01.02.2006.
13. Delivered a Lecture on **“Mathematics in Research”** in the State Level Seminar organized by the Department of Mathematics, Tiruppur Kumaran College for Women, Tiruppur on 14.02.2006.
14. Delivered a Lecture on **“Number Theory and Cryptography”** at Cardamom Planters’ Association College, Bodinayakanur on 01.04.2006.
15. Delivered a Lecture on **“Statistics and its Applications”** in the Vacation Training Programme on Bioresources for School Children at Thiagarajar College (Autonomous), Madurai on 26.05.2006.
16. Delivered an **Inaugural Address** in the Inauguration Function of Mathematics Association at Department of Mathematics, Arul Anandar College (Autonomous), Karumathur, Madurai on 08.08.2006.
17. Delivered a Lecture on **“Logic in IT”** in the UGC Sponsored State-Level Seminar on **“Applications of Mathematics in IT”** organized by the Department of Mathematics, Arul Anandar College (Autonomous), Karumathur, Madurai on 20.02.2007.
18. Delivered a Lecture on **“Effective Teaching of Mathematics”** in the Faculty Orientation Programme at Parvathi’s Arts and Science College, Dindigul on 04.08.2007.

19. Delivered a Special Lecture on “**Applications of Mathematics**” in the Inter-Collegiate Competition “**MATHS QUEST’08**” organized by the Department of Mathematics, Sri Subramanya College of Engineering and Technology, Palani on 05.04.2008.
20. Delivered a Lecture on “**Recent Trends in Optimization Techniques for Advanced Manufacturing System**” at R.V.S College of Engineering and Technology, Dindigul on 16.06.2008.
21. Delivered a Lecture on “**Fractal Theory**” in the UGC – sponsored Refresher Course on Mathematics at Department of Mathematics, Bharathidasan University, Tiruchirappalli on 24.11.2008.
22. Delivered a Lecture on “**Optimization Techniques in the Real Life Applications**” at Department of Mathematics, G.V.G College for Women, Udumalpet on 12.12.2008.
23. Delivered a Lecture on “**Mathematics Education – Content Enrichment Training**” to the School Teachers of 6th, 7th and 8th Standard, at Nehruji Memorial Higher Secondary School, Dindigul on 09.02.2009.
24. Delivered a Lecture on “**Fractal Analysis**” in the Mathematics Association Function at Department of Mathematics, M.V.M Government Arts College for Women, Dindigul on 13.03.2009.
25. Delivered a Lecture on “**Fractal Theory**” at Department of Mathematics, Manonmaniam Sundaranar University, Tirunelveli on 19.03.2009.
26. Delivered a Lecture on “**Fractal Geometry**”, at Department of Mathematics, Bharathidasan University, Tiruchirappalli on 23.03.2009.
27. Delivered a Lecture on “**Graph Theory and its Applications**”, at Department of Mathematics, Arulmigu Palaniandavar Arts College for Women, Palani on 31.03.2009.
28. Delivered a Lecture on “**Analytical Geometry**” at Department of Mathematics, Nadar Saraswathi College of Arts and Science, Theni on 24.12.2009.
29. Delivered a Lecture on “**Fractal Analysis**” at Department of Mathematics, Govt. Arts College, Karur on 24.02.2010.
30. Delivered a Lecture on “**Fractal Analysis**” in the State Level Seminar on Emerging Trends in Mathematics at Arul Anandar College, Karumathur, Madurai on 08.03.2010.
31. Delivered a Lecture on “**Inventory Management**” in the Staff Development Programme on Current Trends and Applications of Resource Management Techniques in Engineering and Technology at Department of Mathematics, Mepco Schlenk Engineering College, Sivakasi on 27.05.2010.

32. Delivered a Lecture on **“Real Analysis”** in the Department of Mathematics, Nadar Saraswathi College of Arts & Science, Theni on 26.07.2010.
33. Delivered a Lecture on **“Gimmicks in Maths”** organized by Rotary Club of Dindigul West at Krish Vigyan Kendra, Gandhigram on 28.08.2010.
34. Delivered a Lecture on **“Fractals”** at Department of Mathematics, P.S.G.R Krishnammal College for Women, Peelamedu, Coimbatore on 18.09.2010.
35. Delivered a Lecture (Popular Lecture Series – 12 of GRI-DU) on **“Fractal Geometry”** at Department of Mathematics, Arulmigu Palani Andavar College for Women, Palani on 14.10.2010.
36. Delivered a Lecture on **“Fractal Geometry”** in UGC – Sponsored Refresher Course in Mathematics at Department of Mathematics, Bharathidasan University, Tiruchirappalli on 21.11.2010.
37. Delivered a Lecture on **“Inventory System”** at Department of Mathematics, Nirmala College for Women (Autonomous), Coimbatore on 02.12.2010.
38. Delivered a **Valedictory Address** in the National Level Seminar on Operations Research and its Applications organized by the Department of Mathematics at Arulmigu Palaniandavar Arts College for Women, Palani on 10.01.2011.
39. Delivered a Lecture on **“Mathematics in Epileptic Research”** in the State Level Seminar on “Explore – The Unexplored” in view of Mathematics organized by the Department of Mathematics, Sri Parasakthi College for Women, Courtallam on 24.02.2011.
40. Delivered a Guest Lecture on **“Dynamic Programming”** at Nadar Saraswathi College of Arts and Science, Theni on 29.06.2011.
41. Delivered a Lecture on **“Optimization Techniques – Inventory Management and Control”** in the National Seminar on Fuzzy Mathematical Modelling and Optimization Techniques, organized by the Department of Mathematics at Anna University of Technology, Tiruchirappalli on 27.07.2011.
42. Delivered a Guest Lecture on **“Fractal Geometry” in the “Virudhunagar District Cluster of Colleges Joint Faculty Programme in Mathematics”** at Ayya Nadar Janaki Ammal College, Sivakasi on 25.08.2011.
43. Delivered a Special Lecture on **“Various Inventory Models and Supply Chain System”** in the UGC Sponsored National Conference on Applicable Mathematics at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, Theni on 21.12.2011.
44. Delivered a Lecture on **“Coalitional Games and its Applications in Cooperative Wireless Networks”** in the NBHM Sponsored Two Days National Seminar on Game Theoretical Models for Problem Solving in Wireless Networks at National Engineering College, Kovilpatti on 21.01.2012.

45. Delivered a Lecture on **“Ramanujan and Theory of Numbers”** in the GRI-DU Popular Lecture Series – 4 at Arulmigu Palaniandavar Arts College for Women (Autonomous), Palani on 01.02.2012.
46. Delivered a Lecture on **“Fuzzy Sets”** to the 9th and 10th Standard High School In-service Teachers in the Mathematics Training Programme at RVS College of Education, R.V.S. Nagar, Dindigul on 21.02.2012.
47. Delivered a Lecture on **“Ramanujan Mathematics”** at Department of Mathematics, Rev. Jacob Memorial Christian College, Santhipuram, Ambilikkai, Dindigul on 27.02.2012.
48. Delivered a Lecture on **“Ramanujan and Number Theory”** in the Mathematical Association Meeting at Department of Mathematics, M.V.M. Government Arts College for Women, Dindigul on 01.03.2012.
49. Delivered a Lecture on **“Fractal Analysis and Mathematical Modeling”** in the State-Level UGC Sponsored Seminar on “Emerging Trends in Mathematics” at the Department of Mathematics, Arul Anandar College (Autonomous), Karumathur, Madurai on 01.03.2012.
50. Delivered a Lecture on **“Mathematical Modelling”** in the GRI-DU Popular Lecture Series – 20 at Arulmigu Palaniandavar College of Arts and Culture, Palani on 05.03.2012.
51. Delivered a Special Lecture on **“Fractal Analysis”** in the State Level Seminar at Department of Mathematics, Arulmigu Palaniandavar College of Arts & Culture, Palani on 21.03.2012.

18. National/International Conferences Papers Presented/Attended

1. Presented a paper entitled **“Convergence of Constrained Optimization Problems in a Banach Space”** in the XIIth Annual Conference of the Ramanujan Mathematical Society at Shimoga, Karnataka from 22.05.1997 to 24.05.1997 and received Best Paper Award for Young Mathematicians.
2. Presented a paper entitled **“Convergence of Constrained Non-Convex Optimization Problems”** in the Annual Conference of the Ramanujan Mathematical Society held at Manonmaniam Sundaranar University, Tirunelveli from 04.06.1998 to 06.06.1998.
3. Attended a Seminar on **“Applications of Mathematics”** at Vivekananda College, Tiruvedakam West, Madurai on 22.01.2002.
4. Attended a **“Workshop on Applications of Mathematics to Engineering”** at PSNA College of Engineering and Technology, Dindigul from 05.09.2002 to 06.09.2002.

5. Attended a UGC Sponsored State Level Seminar on **“Mathematics – An Elixir for all Sciences”** at Seethalakshmi Ramasamy College, Tiruchirappalli from 10.12.2003 to 11.12.2003.
6. Presented a paper entitled **“A graphical approach to teach Calculus”** in the International Conference on Teaching of Calculus at Department of Mathematics, University of Kerala, Kerala from 12.01.2004 to 14.01.2004.
7. Presented a paper entitled **“SP Hadamard Well-Posedness for Convex Programs”** in the XI Ramanujan Symposium on Banach Algebra and Operator theory at Ramanujan Institute for Advanced Study in Mathematics, University of Madras, Chennai from 03.03.2004 to 05.03.2004.
8. Presented a paper entitled **“Mathematical Models for Blood Flow in Cardiovascular System”** in the National Conference on Recent Trends in Computational Mathematics at Gandhigram Rural Institute – Deemed University, Gandhigram from 18.03.2004 to 19.03.2004.
9. Attended a Seminar on **“Mathematical Methods for Management Sciences”** at Madurai Kamaraj University, Madurai held on 20.09.2004.
10. Attended a Seminar on **“The Echo of Analysis”** at Nirmala College, Coimbatore on 22.09.2004.
11. Presented a paper entitled **“Convergence of B- vex Optimization Problems”** in the XII Ramanujan Symposium on Recent Trends in Analysis at Ramanujan Institute for Advanced Study in Mathematics, University of Madras, Chennai from 02.03.2005 to 04.03.2005.
12. Presented a paper entitled **“A Deterministic Inventory Model for Deteriorating Items with Time Dependent Demand, Backlogged Partially when Delay in Payments is Permissible”** in the International Conference on Operations Research and its Applications in Infrastructure Development at Indian Institute on Science, Bangalore from 27.12.2005 to 29.12.2005.
13. Presented a paper entitled **“Trade Credit Policy and Replenishment Cycle Time of an EOQ Model”** in the National Conference on Intelligent Optimization Modeling at Gandhigram Rural Institute – Deemed University, Gandhigram from 03.03.2006 to 04.03.2006.
14. Presented a paper entitled **“Applications of Fractal Techniques in EEG Signal Analysis”** in the National Conference on Intelligent Optimization Modeling at Gandhigram Rural Institute – Deemed University, Gandhigram from 03.03.2006 to 04.03.2006.
15. Presented a paper entitled **“Analysis of Cantor Set”** in the UGC Sponsored National Workshop on Coding Theory, Graph Theory and Fractal Geometry organized by the Department of Mathematics, St. Joseph’s College, Irinjalakuda, Kerala in association with Kerala Mathematical Association from 21.03.2006 to 25.03.2006.

16. Presented a paper entitled "**Measuring Complexity of the EEG Signal using Fractals**" in the UGC Sponsored National Workshop on Coding Theory, Graph Theory and Fractal Geometry organized by the Department of Mathematics, St. Joseph's College, Irinjalakuda, Kerala in association with Kerala Mathematical Association from 21.03.2006 to 25.03.2006.
17. Presented a paper entitled "**A continuous Review Inventory Model with Controllable Setup Cost, Lead time and with Unknown Demand Distribution**" in the National Conference on Management Science and Practice at KLMDC, Indian Institute of Management, Ahmedabad from 31.03.2006 to 01.04.2006.
18. Presented a paper entitled "**A Continuous Review Inventory Model with Controllable Backorder Rate and Investment in Reducing Lead Time, Yield variability and Setup Cost**" in the International Conference on Global Manufacturing and Innovation at Coimbatore Institute of Technology, Coimbatore from 27.07.2006 to 29.07.2006.
19. Presented a paper entitled "**An Optimal Replenishment Policy for Non-Instantaneous Deteriorating Items with Shortages and Time value of Money**" in the International Conference on Global Manufacturing and Innovation at Coimbatore Institute of Technology, Coimbatore from 27.07.2006 to 29.07.2006.
20. Presented a paper entitled "**Two Stochastic Inventory Problems with Partial Backlogging Using Fractional Programming**" in the International Conference on Global Manufacturing and Innovation at Coimbatore Institute of Technology, Coimbatore from 27.07.2006 to 29.07.2006.
21. Presented a paper entitled "**Inventory Control with Fuzzy Lead Time and Stock Dependent Demand**" in the International Conference on Global Manufacturing and Innovation at Coimbatore Institute of Technology, Coimbatore from 27.07.2006 to 29.07.2006.
22. Presented a paper entitled "**A Deterministic Inventory Model for Deteriorating Items with Partially Backlogged and Stock and Time Dependent Demand Under Trade Credit**" in the International Conference on Global Manufacturing and Innovation at Coimbatore Institute of Technology, Coimbatore from 27.07.2006 to 29.07.2006.
23. Presented a paper entitled "**Two-Echelon Inventory System with Lost Scales, Variable Lead Time and Approximately Poisson Demand**" in the International Conference on Global Manufacturing and Innovation at Coimbatore Institute of Technology, Coimbatore from 27.07.2006 to 29.07.2006.
24. Presented a paper entitled "**Perishable Inventory Control in Supply Chain with Two Independent Poisson Demands**" in the International Conference on Global Manufacturing and Innovation at Coimbatore Institute of Technology, Coimbatore from 27.07.2006 to 29.07.2006.

25. Presented a paper entitled **“Detection of Critical Brain Sites using Fractal Analysis”** in the 14th International Conference on Advanced Computing and Communication organized by the Advanced Computing & Communications Society and National Institute of Technology, Surathkal, Karnataka from 20.12.2006 to 23.12.2006.
26. Presented a paper entitled **“A two level supply chain with mixed continuous – periodic review policy and lost sales”** in the International Conference on Operations Research as Competitive Edge at Heritage Institute of Technology, Kolkata from 05.01.2007 to 07.01.2007.
27. Presented a paper entitled **“Inventory model with Pricing Tactics for Demand in Auto-Correlated Products”** in the National Conference on Mathematics, Computing and Modeling at Gandhigram Rural Institute – Deemed University, Gandhigram from 03.03.2007 to 04.03.2007.
28. Presented a paper entitled **“Mathematical Modeling of Skin Cancer using Fractals”** in the National Conference on Mathematics, Computing and Modeling at Gandhigram Rural Institute – Deemed University, Gandhigram from 03.03.2007 to 04.03.2007.
29. Presented a paper entitled **“A Two Level Supply Chain with Lost Sales, Stochastic Lead Time at the Lower Echelon”** in the National Conference on Mathematics, Computing and Modeling at Gandhigram Rural Institute – Deemed University, Gandhigram from 03.03.2007 to 04.03.2007.
30. Presented a paper entitled **“An EOQ model for non-instantaneous deteriorating items with stock dependent consumption rate under inflation and time discounting”** in the National Conference on Mathematics, Computing and Modeling at Gandhigram Rural Institute – Deemed University, Gandhigram from 03.03.2007 to 04.03.2007.
31. Presented a paper entitled **“Optimal investment strategy to control lead time and lost sales rate reduction with varying order cost in periodic inventory model”** in the National Conference on Mathematics, Computing and Modeling at Gandhigram Rural Institute – Deemed University, Gandhigram from 03.03.2007 to 04.03.2007.
32. Presented a paper entitled **“Economic order quantity for deteriorating items with time discounting” in the** Conference on Theory and Practice of Operational Research in Information Technology & Supply Chain Management at Department of Mechanical Engineering, Thiagarajar College of Engineering, Madurai from 06.09.2007 to 08.09.2007.
33. Presented a paper entitled **“Two echelon system for differential items under single management with shortages under inflation” in the** Conference on Theory and Practice of Operational Research in Information Technology & Supply Chain Management at Department of Mechanical Engineering, Thiagarajar College of Engineering, Madurai from 06.09.2007 to 08.09.2007.

34. Presented a paper entitled **“A two-level supply chain with a mixed continuous periodic review replenishment policies”** in the Conference on Theory and Practice of Operational Research in Information Technology & Supply Chain Management at Department of Mechanical Engineering, Thiagarajar College of Engineering, Madurai from 06.09.2007 to 08.09.2007.
35. Presented a paper entitled **“Ordering Policy for Non-instantaneous deteriorating items with partial backlogging”** in the Conference on Theory and Practice of Operational Research in Information Technology & Supply Chain Management at Department of Mechanical Engineering, Thiagarajar College of Engineering, Madurai from 06.09.2007 to 08.09.2007.
36. Presented a paper entitled **“Mixture inventory model involving controllable setup cost and lost sales with defective items”** in the Conference on Theory and Practice of Operational Research in Information Technology & Supply Chain Management at Department of Mechanical Engineering, Thiagarajar College of Engineering, Madurai from 06.09.2007 to 08.09.2007.
37. Presented a paper entitled **“Estimating the Skin cancer using Fractals”** in the International Conference on Computational Intelligence and Multimedia Applications at Department of Electronics and Communication Engineering, Mepco Schlenk Engineering College, Sivakasi from 13.12.2007 to 15.12.2007.
38. Presented a paper entitled **“Detecting Patterns in Irregular Time Series with Fractal Dimension”** in the International Conference on Computational Intelligence and Multimedia Applications at Department of Electronics and Communication Engineering, Mepco Schlenk Engineering College, Sivakasi from 13.12.2007 to 15.12.2007.
39. Presented a paper entitled **“Analysis of Inventory Systems with Stock-Dependent Demand under Inflation”** in the Forth National Conference on Mathematical and Computational Models at PSG College of Technology, Coimbatore from 13.12.2007 to 15.12. 2007.
40. Presented a paper entitled **“”** in the Forth National Conference on Mathematical and Computational Models at PSG College of Technology, Coimbatore from 13.12.2007 to 15.12. 2007.
41. Presented a paper entitled **“Fractal model of the blood vessel in cardiovascular system”** in the 15th International Conference on Advanced Computing and Communications at Department of Computer Science and Engineering, IIT Guwahati from 18.12.2007 to 21.12.2007.
42. Presented a paper entitled, **“Setup cost reduction in distribution-free inventory model with defective items”** in the National Conference on Applied Mathematics at B.S. Abdur Rahman Crescent Engineering College, Chennai from 03.01.2008 to 04.01.2008.

43. Presented a paper entitled **“A Generalised EOQ Model for Non Instantaneous Deteriorating Items with Permissible Delay in Payments”** in the 4th International Conference on Logistics and Supply Chain Management at PSG College of Technology, Coimbatore from 07.08.2008 to 07.08.2008.
44. Presented a paper entitled **“A Two-Stage Supply Chain with Credit Period Incentives and Order Cost Reduction for Deteriorating Items”** in the International Conference on Operations Research Applications in Engineering and Management at Department of Management studies, Anna University, Tiruchirappalli from 27.05.2009 to 29.05.2009.
45. Presented a paper entitled **“An EOQ Inventory Model with Deteriorating Items and Storage-Time Dependent Holding Cost”** in the International Conference on Operations Research Applications in Engineering and Management at Department of Management studies, Anna University, Tiruchirappalli from 27.05.2009 to 29.05.2009.
46. Presented a paper entitled **“Optimal Strategy for an Integrated Vendor-Buyer Inventory Model with Trade Credit and Quality Improvement”** in the International Conference on Operations Research Applications in Engineering and Management at Department of Management studies, Anna University, Tiruchirappalli from 27.05.2009 to 29.05.2009.
47. Presented a paper entitled **“Signature recognition by fractals”** in the International Conference on Mathematical Methods and Computation, at PG and Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli from 24.07.2009 to 27.07.2009.
48. Presented a paper entitled **“Recognition of Cervical Cancer Based on Fractal Dimension”** in the International Conference on Advances in Recent Technologies in Communication and Computing at Kottayam, Kerala from 27.10.2009 to 27.10.2009.
49. Presented a paper entitled **“Modification of Generalized Fractal Dimensions in the Analysis of Epileptic EEG Signals”** in the International Conference on Mathematics and Computer Science at Loyola College, Chennai from 05.02.2010 to 06.02.2010.
50. Presented a paper entitled **“Estimating the Complexity of Biomedical Signals by Multifractal Analysis”** in the IEEE Student’s Technology Symposium at Indian Institute of Technology-Kharagpur, Kharagpur from 03.04.2010 to 04.04.2010.
51. Presented a paper entitled **“Analysis of EEG signals Using Advanced Generalized Fractal Dimensions”** in the Second International Conference on Computing Communication and Networking Technologies at Chettinad College of Engineering and Technology, Karur from 29.07.2010 to 31.07.2010.
52. Attended an **“IMSc Conference on Modeling Infectious Diseases”** at the Institute of Mathematical Sciences, Chennai from 20.09.2010 to 22.09.2010.

53. Presented a paper entitled **“Analysis of Biomedical EEG Signals using Wavelet Transforms and Multifractal Analysis”** in the 1st IEEE International Conference on Communication Control and Computing Technologies at Syed Ammal Engineering College, Ramanathapuram from 07.10.2010 to 09.10.2010.
54. Presented a paper entitled **“Natural Way Effluent Treatment Using Fractal Dimension”** in the 1st IEEE International Conference on Communication Control and Computing Technologies at Syed Ammal Engineering College, Ramanathapuram from 07.10.2010 to 09.10.2010.
55. Presented a paper entitled **“Fractal Analysis in Fuzzy Metric Spaces”** in the International Conference on Emerging Trends in Mathematics and Computer Applications at Mepco Schlenk Engineering College, Sivakasi from 16.12.2010 to 18.12.2010.
56. Presented a paper entitled **“Single-vendor Multi-buyers coordination models in supply chain management”** in the National conference on Recent Trends in Pure & Applied Mathematical Science at Sri Khandan Arts and Science College, Erode on 24.02.2011.
57. Presented a paper entitled **“Tumor Growth in the Fractal Space-Time with Temporal Density”** in the International Conference on Logic, Information, Control & Computation at The Gandhigram Rural Institute – Deemed University, Gandhigram from 25.02.2011 to 27.02.2011.
58. Presented a paper entitled **“Intuitionistic Fuzzy Fractals on Complete and Compact Spaces”** in the International Conference on Logic, Information, Control & Computation at The Gandhigram Rural Institute – Deemed University, Gandhigram from 25.02.2011 to 27.02.2011.
59. Presented a paper entitled **“Multivalued Fractals in Fuzzy Metric Spaces”** in the National Conference on Advances in Mathematical Analysis and Applications at K.S. Rangasamy College of Arts and Science, Tiruchengode from 12.08.2011 to 13.08.2011.
60. Presented a paper entitled **“A Modified EPQ model with imperfect production process without derivatives”** in the National Conference on Advances in Mathematical Analysis and Applications at K.S. Rangasamy College of Arts and Science, Tiruchengode from 12.08.2011 to 13.08.2011.
61. Presented a paper entitled **“Lacunarity Indices as a Measure of Texture Images”** in the National Conference on Advances in Mathematical Analysis and Applications at K.S. Rangasamy College of Arts and Science, Tiruchengode from 12.08.2011 to 13.08.2011.

62. Presented a paper entitled **“Fractals via Multifunctions on Intuitionistic Fuzzy Metric Space”** in the UGC Sponsored National Seminar on Topology, Fractals, Their Fuzzy Generalizations and Applications – 2011 at St. Dominic’s College, Kanjirapally, Kottayam, Kerala from 13.10.2011 to 14.10.2011.
63. Presented a paper entitled **“An EOQ Model with Price-Varying Quadratic Demand and Partial Backlogging”** in the International Conference on Mathematical and Computational Models – 2011 at PSG College of Technology, Coimbatore from 19.12.2011 to 21.12.2011.
64. Presented a paper entitled **“EOQ Model for Exponential Demand with Profit Maximization”** in the International Conference on Mathematical and Computational Models – 2011 at PSG College of Technology, Coimbatore from 19.12.2011 to 21.12.2011.
65. Presented a paper entitled **“Coordination Between a Vendor and a Buyer Considering Trade Credit Ordering Cost Reduction and Shortages for Deteriorating Items”** in the International Conference on Mathematical and Computational Models – 2011 at PSG College of Technology, Coimbatore from 19.12.2011 to 21.12.2011.
66. Presented a paper entitled **“Mathematical Modelling of Liver Cancer using Fractals”** in the Heber International Conference on Applications of Mathematics and Statistics at Bishop Heber College, Tiruchirappalli from 05.01.2012 to 07.01.2012.
67. Presented a paper entitled **“Optimal Inventory Policy with Shortages and Time Dependent Holding Cost”** in the Heber International Conference on Applications of Mathematics and Statistics at Bishop Heber College, Tiruchirappalli from 05.01.2012 to 07.01.2012.
68. Presented a paper entitled **“Multivalued Fractals in Intuitionistic Fuzzy Metric Spaces”** in the Heber International Conference on Applications of Mathematics and Statistics at Bishop Heber College, Tiruchirappalli from 05.01.2012 to 07.01.2012.
69. Presented a paper entitled **“Supply-chain Coordination with Order-processing Cost Reduction for Deteriorating Items”** in the Heber International Conference on Applications of Mathematics and Statistics at Bishop Heber College, Tiruchirappalli from 05.01.2012 to 07.01.2012.
70. Presented a paper entitled **“Estimation of Fracture and Texture Images using Lacunarity and Multifractal Technique”** in the Heber International Conference on Applications of Mathematics and Statistics at Bishop Heber College, Tiruchirappalli from 05.01.2012 to 07.01.2012.
71. Presented a paper entitled **“Fractal-Wavelet Based Denoising of EEG Signals”** in the National Conference on Signal and Image Processing – 2012 at The Gandhigram Rural Institute – Deemed University, Gandhigram from 09.02.2012 to 10.02.2012.

72. Presented a paper entitled “**An Easy Method to compute EPQ Model with Imperfect Production Process without Derivatives by Cost Comparisons**” in the International Conference on Mathematics in Engineering and Business Management – 2012 at Jeppiaar Engineering College and Stella Maris College, Chennai from 09.03.2012 to 10.03.2012.
73. Presented a paper entitled “**Improvement of Quality with the Reduction of Order Processing Cost by Just-In-Time Purchasing**” in the International Conference on Mathematical Modelling & Scientific Computation – 2012 at The Gandhigram Rural Institute - Deemed University, Gandhigram from 16.03.2012 to 18.03.2012.

19. Conferences\Workshops\Seminars Organized

1. Organized a UGC-SAP (DRS) Sponsored **National Conference on Intelligent Optimization Modeling** (NCIOM-2006) held at Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 03.03.2006 to 04.03.2006.
2. Co-Convener of the UGC-SAP (DRS) Sponsored **National Conference on Mathematics, Computing and Modeling** (NCMCM-2007) held at Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 03.03.2007 to 04.03.2007.
3. Co-Convener of the UGC-SAP (DRS) Sponsored **National Workshop on Soft Computing** (NWSC-2008), held at Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 21.01.2008 to 27.01.2008.
4. Co-Convener of the UGC-SAP (DRS) Sponsored **National Workshop on Mathematical Modeling and Computational Mathematics** (NWMCM-2009), held at Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 23.02.2009 to 28.02.2009.
5. Co-Convener of the UGC-SAP (DRS) Sponsored **National Workshop on Soft Computing and Mathematical Modeling** (NWSCMM-2010), held at Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 15.02.2010 to 20.02.2010.
6. Conference Chair of the **International Conference on Mathematical Modelling and Scientific Computation** (ICMMSC-2012), held at Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 16.03.2012 to 18.03.2012.

20. Chaired Sessions in Conference

1. Chaired the Technical Session in a “UGC Sponsored **National Conference on Recent Trends in Computational Mathematics – 2004**” organized by Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 18.03.2004 to 19.03.2004.
2. Chaired the Technical Session in a “UGC-SAP (DRS) Sponsored **National Conference on Intelligent Optimization Modeling – 2006**” organized by Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 03.03.2006 to 04.03.2006.
3. Chaired the Technical Session in a “UGC-SAP (DRS) Sponsored **National Conference on Mathematics, Computing and Modeling – 2007**” organized by Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 03.03.2007 to 04.03.2007.
4. Chaired the Technical Session in an “**International Conference on Operations Research Applications in Engineering and Management – 2009**” organized by Department of Management Studies, Anna University, Tiruchirappalli from 27.05.2009 to 29.05.2009.
5. Chaired the Technical Session in a “**National Conference on Image Processing – 2010**” organized by Department of Computer Science and Applications, Gandhigram Rural Institute – Deemed University, Gandhigram from 12.02.2010 to 13.02.2010.
6. Chaired the Technical Session in an “**International Conference on Emerging Trends in Mathematics and Computer Applications – 2010**” organized jointly by Department of Mathematics and Department of Computer Applications, Mepco Schlenk Engineering College, Sivakasi from 16.12.2010 to 18.12.2010.
7. Chaired the Technical Session in an “**International Conference on Logic, Information, Control & Computation – 2011**” organized by the Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 25.02.2011 to 27.02.2011.
8. Chaired the Technical Session in an “**International Conference on Mathematical Modelling and Scientific Computation – 2012**” organized by the Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 16.03.2012 to 18.03.2012.

21. Recognition

1. Qualified in the **Tamil Nadu State Level Eligibility Test (SLET)** for Lectureship in Universities/Colleges during September 1991.
2. Received **Best Paper Award for Young Mathematicians** in the XIIth Annual Conference of the Ramanujan Mathematical Society at Shimoga, Karnataka from 22.05.1997 to 24.05.1997.
3. Received **Medal for the First Rank** in B.Sc. – Mathematics.
4. Received **Bharat Jyoti Award 2010** for Meritorious Services, Outstanding Performance and Remarkable Role by the India International Friendship Society, New Delhi.
5. Received **Shiksha Rattan Puraskar 2010** for Meritorious Services, Outstanding Performance and Remarkable Role by the India International Friendship Society, New Delhi.

22. Fellowships Received

1. Worked as a Senior Research Fellow, NBHM & DAE Project entitled **“Study on Stability of Solutions and Convergence of Optimization Problems”**.
Duration: 22.12.1994 to 19.12.1997 (3 years).

23. Courses Attended

1. Attended a course on **“Study Skills”** at GTN Arts College, Dindigul on 03.03.1986.
2. Attended a UGC Sponsored Refresher Course on **“Applicable Mathematics”** for 21 days at Department of Mathematics, Gandhigram Rural Institute – Deemed University, Gandhigram from 05.11.2003 to 25.11.2003.
3. Attended a UGC Sponsored Refresher Course on **“Applicable Mathematics”** for 21 days at Department of Mathematics, Gandhigram Rural Institute - Deemed University, Gandhigram from 15.11.2004 to 05.12.2004.
4. Attended a UGC Sponsored Refresher Course on **“Rural Development – Multi Disciplinary Perspective”** for 21 days at Gandhigram Rural Institute – Deemed University, Gandhigram from 13.11.2007 to 03.12.2007.

24. Collaborative Research

1. During my research work I had visited **Indian Institute of Technology (IIT), Kanpur, IIT Bombay, Indian Institute of Science, Bangalore** and various research Institutions in India for research discussions with experts.
2. **“IISc-TIFR Short Term Visitors Programme”**: Collaborative Research with **Prof. A.S. Vasudeva Murthy in the area of “Mathematical Modeling”** at Tata Institute of Fundamental Research, Bangalore Centre – Indian Institute of Science, Bangalore from 15.06.2005 to 30.06.2005.

25. Contributions to Teaching

COURSES HANDLED FOR M. Phil. – MATHEMATICS

1. Research Methodology
2. Mathematical Analysis and Modeling
3. Fractal Theory

COURSES HANDLED FOR M.Sc. – MATHEMATICS

1. Linear Algebra
2. Real Analysis
3. Mathematical Analysis
4. Topology
5. Graphs & Net Works
6. Optimization Techniques

COURSES HANDLED FOR M.C.A & M.Sc. – IT

1. Discrete Structures
2. Numerical & Statistical Methods
3. Mathematical Foundations of Computer Science

COURSES HANDLED FOR B.Sc. – MATHEMATICS

1. Linear Algebra
2. Abstract Algebra
3. Real Analysis
4. Complex Analysis
5. Differential Equations
6. Calculus
7. Vector Calculus

8. Analytical Geometry of 3-Dimension, Trigonometry
9. Numerical Methods
10. Mathematical Statistics
11. Mechanics
12. Operations Research
13. Ancillary Mathematics
14. Programming Languages

SOFTWARE EXPOSURE

1. LANGUAGES

BASIC, FORTRAN, COBOL, PASCAL, C, C++,

2. PACKAGES

DBASE III+, LOTUS 1-2-3, ORACLE

3. UTILITIES

WORDSTAR, PAGEMAKER, MS-WORD.

4. OPERATING SYSTEMS

DOS, WINDOWS 98.

5. MATHEMATICAL SOFTWARE

LINDO, MAPLE, MATHEMATICA, MATLAB

26. Thesis/Dissertations/Projects Guided

Ph.D. – Mathematics

1. **Study on a Class of Inventory Models for Single Item**, Submitted by P. Parvathi on August – 2009 (Awarded on 15.09.2009).
2. **Inventory Control in a Class of Supply Chain Systems**, Submitted by A. Thangam on February – 2010 (Awarded on 02.08.2010).
3. **Mathematical Modelling in Biology - Using Fractals**, Submitted by G. Jayalalitha on April – 2010 (Awarded on 24.03.2011).
4. **Study of Inventory Management and Control in a Class of Deterministic Inventory Models for Single Item**, Submitted by M. Valliathal on July – 2010 (Awarded on 29.03.2011).

5. **Study on Static and Dynamic Inventory Models in a Supply Chain**, Submitted by K.V. Geetha on October – 2010 (Awarded on 05.05.2011).
6. **Study on Dimensions of Fractal Sets, Waveforms and Applications**, Submitted by P. Paramanathan on October – 2010 (Awarded on 13.09.2011).
7. **Study on a Class of Inventory Models for Single Item Under Supply Chain Environment**, Submitted by K. Annadurai on December – 2011.

M.Phil. – Mathematics

1. Fractals and Markov chains via Domain Theory (August – 2006).
2. Rough Sets and Impreciseness in Information Classification – LPP Application (August – 2006).
3. Detection and Localization of Skin Cancer (August – 2006).
4. Mandelbrot set- Dimension Analysis (August – 2006).
5. Fuzzy time series model of negative and multiplicative fuzzy numbers (August – 2006).
6. Solving the system of linear and non-linear equations using Hopfield networks (August – 2006).
7. Algorithm for solving individual and serial supply chain Multi-Criteria inventory problem (August – 2006).
8. Solution of system of Linear equations and non linear unconstrained optimization problem – A neural network approach using MATLAB (August – 2006).
9. Increased in Rapid Eye Movement Sleep (August – 2006).
10. Image processing and fractal dimension with implementation procedure (August – 2006).
11. Analysis of Cantor Set (August – 2006).
12. Neural Network Representation of Fuzzy Linear Programming Problem (March – 2007).
13. Fractals in Medicine (August – 2007).
14. Fractal Dimensions to Quality Signature Recognition (August – 2007).
15. Countable Iterated Function Systems and Fractal Gray Code (September – 2007).
16. The Hausdorff measures of some fractals (September – 2007).
17. Distances and Connectedness in Topological Self-similar sets (September – 2007).
18. The connected and auto-correlated domination number of a graph (2008).
19. Double split domination in a graph (2008).
20. On that graph that equal domination number & connected domination (2008).
21. A note on domination block graph domination non-split domination (2008).
22. Edge sum number and edge reconstruction problems (2008).
23. Set Domination and Point Set Domination Number in Graph Theory (2008).
24. Fractals and Harmonic Measures (September – 2008).
25. Fractal Measure, dimension and its applications (September – 2008).

26. Uniform Fractals and Applications of Generalized Fractal Dimensions in Electroencephalogram (April – 2009).
27. On the total domination critical graphs (April – 2009).
28. Flow critical and limited packing in graphs (April – 2009).
29. Vertex Fusion and Directed Split Stars in Domination (April – 2009).
30. On the Total Domination Critical Graphs (2009).
31. Laplacian Spectrum and Domination Number of a Graph (April – 2009).
32. Fractals in Nature (July – 2009).
33. Fractal Analysis of Body Cells and Signals (July – 2009).
34. A Study on Fractal Dimension with Fractal Interpolation Function (July – 2009).
35. Fractal Dimension and its Applications (July – 2009).
36. Fractal Dimensions in the Analysis of Multivariate data and time series (December – 2009).
37. Fractal Analysis in Bio Medicines, Magnetic Films and Sludge waste water (December – 2009).
38. Upper and Lower Bounds on the Signed Total Domination Number of a Graph (April – 2010).
39. Characterization of Electroencephalogram Signals with Various Parameters (July – 2010).
40. Fractal Differential Equations and Estimating the Dimension using Fractals (July – 2010).
41. A Study on Various Measures of Cantor Sets (July – 2010).
42. A Study on Hausdorff Measure of Fractals (July – 2010).
43. On the K-ordered Hamiltonicity and on the K-Orientability of Random Graphs (November – 2010).
44. Analysis of the Different Kinds of Grouped Graph (January – 2011).
45. 2-Rainbow, Acyclic Domination and Maximum Independent Set in P_5 -Free Graph (April – 2011).

M.Sc. – Mathematics & Computer Applications

1. Financial Accounting System for Urban Co-operative bank at Dindigul using Visual Basic (1999).
2. Shares Accounting System for Sakthi Sugars Limited using Visual Basic (2000).
3. Production Management for SWEAMAN EXIM textile at Uranganpatti, Madurai using Visual Basic (2000).
4. Disposal Stores System for BHEL, Tiruchirappalli using Visual Basic (2001).
5. Branch Performance of RMTTC, Dindigul using Java (2001).
6. Salaries and Wages Administration System in Visual Basic 6.0 for Hamsaveni System Links Private Limited, Coimbatore (2002).
7. System for Medical Purchase Order in Visual Basic 6.0 in the oracle 8.0 for Bharat Heavy Electricals Limited, Tiruchirappalli (2002).
8. Job World – Integrated Software Solutions, Chennai (2004).

9. Chemical Maintenance – Techno Solutions, Chennai (2005).
10. Online Share Marketting – Energe Software Technologies, Chennai (2005).
11. Cryptanalysis of a Public Key Encryption Scheme Based on the Polynomial Reconstruction Problem – Mathematical Modelling and Computer Simulation – National Aerospace Laboratory, Bangalore (2005).
12. JFREE chart Assistance (2006).
13. Machine Maintenance (2006).
14. Factory Management System (2006).
15. Vibrant Object Construction in Web Server (2006).
16. Production process and Inventory Management (2007).

M.Sc. Tech. – Industrial Mathematics with Computer Applications

17. Multi Platform Intension Desktop (April – 2008).
18. ICE (Internet Celebrations) (April – 2008).
19. Intranet Mail Server (April – 2009).
20. Software License Monitoring System (April – 2009).
21. Online Radio Frequency Identity Card Public Distribution System (April – 2010).
22. Project Portfolio Management (April – 2010).

M.Sc. – Mathematics

23. Inventory Model for Deteriorating Items (March – 2010).
24. An Economic Order quantity (EOQ) Model with Permissible delay in payments (March – 2010).
25. An Integrated Single Vendor Single Buyer Inventory Model (March – 2011).
26. A Simple Method to Compute EOQ and Derivation of EOQ / EPQ Inventory Models with Two Backorders Costs using Algebraic Method (March – 2011).
27. An EOQ Model for Perishable and Deteriorating Items under Different Demands (March – 2011).
28. Trade Credits Inventory Model to Good and Bad Credit Customers with Preservation Technology Investment for Deteriorating Items (March – 2012).
29. A Study on Two-Stage Supply Chain Integrated Inventory Model (March – 2012).
30. A Study on Economic Order Quantity with Imperfect Quality and Cost Allocation Model for Optimizing Supply Chain (March – 2012).
31. Two-Echelon Supply Chain Model with Service Level Constraint and Controllable Lead Time Discount Coordination (March – 2012).
32. A Study on EOQ Model with Trapezoidal Demand and Vendor-Buyer Coordination (March – 2012).
33. Two-Stage Integrated Supply Chain Inventory Model with Price-Sensitive Demand and Random Yield Considerations (March – 2012).

34. A Study on Collaborative Perishable Inventory System with Imperfect Quantity and Shortage Back Ordering (March – 2012).

B.Sc. – Mathematics

1. A case study on Goal Programming (March – 1999).
2. Profit Maximization of Soap Industry at Dindigul (March – 1999).
3. Solution of Numerical, Algebraic and Transcendental Equations (March – 2000).
4. Group Codes (March – 2001).
5. Simulation at a glance (March – 2002).
6. Analysis of Time Series (March – 2003).
7. Cryptography and Number Theory (March – 2004).
8. Mathematical Models for Blood Flow in Cardiovascular System (March – 2004).
9. Mathematical Modelling for Liver Surgery Planning (March – 2005).
10. Testing for Goodness of Fit (March – 2005).
11. Modeling of a Hen EGG during Incubation (March – 2006).
12. Stochastic Process and its Applications (March – 2007).
13. Algebraic Curves and their Properties (March – 2009).
14. Chaos at a Glance (March – 2010).
15. Application of Mathematics in Social Choice (March – 2010).
16. Continuous and Discontinuous Functions (March – 2011).
17. Different Mathematical Shapes (March – 2011).
18. Study on Numbers (March – 2011).
19. Ramanujan's Work – at a Glance (March – 2011).
20. Applications of Fuzzy Logic in Real Life (March – 2011).
21. Fractal Constructions and Dimensions (March – 2012).
22. Sequence and Series of Functions (March – 2012).

27. Thesis/Dissertations/Projects Evaluated

Ph.D. – Mathematics

No. of Ph.D. Thesis Evaluated: 1

M.Phil. – Mathematics

1. A study on different classes of Arithmetic Graphs and their Labelings, Bharathiar University, 2009.
2. Study on fuzzy topological spaces, Bharathiar University, 2009.

3. A study on fuzzy maps, Bharathiar University, 2009.
4. Mean Labeling of Graphs, Madurai Kamaraj University, 2009.
5. A study on pre-open sets and p-closed spaces, Avinashilingam Deemed University for Women, 2010.
6. Fuzzy Inventory Models with Back Orders, Avinashilingam Deemed University for Women, 2010.
7. A study on weak and strong forms of some irresolute maps, Bharathiar University, 2010.
8. A study on common fixed point theorems in fuzzy metric spaces, Bharathiar University, 2010.
9. Analysis of multi-item inventory models using geometric programming, Bharathiar University, 2010.
10. Application of Heuristic Models for Operations Research Problems, Bharathiar University, 2010.
11. A study on O-Generalized Semi-open and O-Generalized Semi-closed Function, Bharathiar University, 2010.
12. Steady Mass Transfer Flow over a Stretching Surface with Chemical Reaction and Suction/Injection, Bharathiar University, 2010.
13. A study on Fuzzy Mappings, Bharathiar University, 2010.
14. Effect of Unsteady MGD Free Convection Flow on Heat and Mass Transfer past an Infinite Vertical Plate with Constant Suction, Bharathiar University, 2010.
15. A Study on Slightly β -Continuous Functions in Topological Spaces, Bharathiar University, 2011.
16. A Study on Generalized, Ideal Generalized and $I_S * G$ -Closed Sets in Ideal Topological Spaces, Bharathiar University, 2011.
17. Optimal Inventory Policies for EOQ Models Involving Deteriorating Items, Power Demand and Partial Backlogging, Bharathiar University, 2011.
18. Harmonious Colouring of Central Graph of Dutch – Windmill and Sunlet Graphs, Bharathiar University, 2011.

28. Administrative Experience

1. Acted as a **Head-in-Charge** of the Department of Mathematics, GRI-DU from 10.02.2006 to 20.08.2006.
2. Served as a **Co-ordinator** for the UGC-SAP (DRS – II) and FIST (DST) Programmes, Department of Mathematics, The Gandhigram Rural Institute – Deemed University, Gandhigram from 12.09.2011 to 12.03.2012.

29. Foreign Visit

1. Deputed as a resource person for **In-service Teacher Training Programme at Sri Pada Teachers Training College, Hatton, Sri Lanka** from 09.08.2010 to 20.10.2010.

30. Experiences in Extension Work

1. **Student Advisor for Inter-Collegiate Competitions.**
2. Actively involved in **Tamil Nadu Professional Course Entrance Examinations' Coaching** for Plus Two Students organized by the Gandhigram Rural Institute – Deemed University, Gandhigram from 1995 to 2005 and acted as a Subject Co-ordinator.
3. Served as a **NSS Programme Officer** from January 2005 to January 2006.
4. **Subject Co-ordinator for NET Coaching Centre for SC/ST/Minorities in Mathematics**, Gandhigram Rural Institute – Deemed University, Gandhigram from the Academic Year 2008 – 2009.
5. **Over all Co-ordinator for National Science Day Celebrations 2011** organized by the Faculty of Rural Oriented Sciences, Gandhigram Rural Institute – Deemed University, Gandhigram held from 21.02.2011 to 28.02.2011.
6. **Chairperson & Co-ordinator of Technical Committee for Maths & Statistics in the XI Tamil Nadu Science Congress – 2011** organized by the Gandhigram Rural Institute – Deemed University, Gandhigram held from 26.06.2011 to 27.06.2011.
7. **Co-ordinator of the Math Fest "Integration 2012"** organized by the Mathematics Association, Department of Mathematics, The Gandhigram Rural Institute – Deemed University, Gandhigram held on 24.02.2012.

31. Camps

- 1) **Camp During January 1999**
Socio – Economic survey and school teaching were carried out at **Vizhampatty** village (**In-Charge**).
- 2) **Camp During January 2000**
Socio – Economic survey at **Muthanampatti** village conducted by International Child-care Trust (ICT). **K. Pudur**.
- 3) **Camp During August 2000**
Socio-economic survey and Tree Plantation at Karunanidhi Nagar, a Hamlet nearby **Chatrapatti**.

- 4) **Camp During January 2001**
Socio-economic survey and Medical Camp at **Kannivadi**.
- 5) **Camp During August 2001**
Socio-economic survey and AIDS awareness programme at **Uluppakudi**.
- 6) **Camp During January 2002**
Socio-economic survey and health camp at **Karisalpatti**.
- 7) **Camp During December 2002**
Socio-economic survey and sanitation at **Ariyapithampatti (In-Charge)**.
- 8) **Camp During January 2003**
Socio – Economic survey and school teaching were carried out at **Konoor** village.
- 9) **Camp During October 2003**
Socio-economic survey at **Kalikkampatti**.
- 10) **Camp During January 2004**
Socio – Economic survey and school teaching were carried out at **Ulagampatti (In-Charge)**.
- 11) **Camp During August 2004**
Socio-economic survey at **M.M.Kovilur**.
- 12) **Camp During October 2005**
Socio-economic survey and health camp at **Athoor**.
- 13) **Camp During October 2006**
Socio-economic survey and health camp at **Anumantharayankottai**.
- 14) **Camp During October 2008**
Socio-economic survey and health camp at **Karisalpatti**.
- 15) **Camp During September 2008**
Village Placement Programme conducted at **Panjampatti (In-Charge)**.
- 16) **Camp During September 2009**
Socio-economic survey and health camp at **Thopampatti**.
- 17) **Camp During September 2010**
Socio-economic survey and health camp at **Karisalpatti**.
- 18) **Camp During September 2011**
Socio-economic survey and health camp at **Karisalpatti**.