

*Controller of Examinations &
Associate Professor of Mathematics*



Name	<i>Dr.R.Sophia Porchelvi, M.Sc., M.Phil., Ph.D</i>		
Designation	<i>Controller of Examinations & Associate Professor of Mathematics</i>		
Qualification	<i>M.Sc., M.Phil., Ph.D in Mathematics</i>		
Age& DOB	<i>49 years&07.07.1966</i>		
Date of first appointment	<i>14.07.1996</i>		
Date of joining in govt service	<i>12.10.1998</i>		
Research Experience(years)	<i>14years</i>		
Area ofResearch	<ul style="list-style-type: none"> ➤ <i>Stochastic Processes(Queueing Models)</i> ➤ <i>Optimization Techniques</i> ➤ <i>MathematicalModelling</i> ➤ <i>Fuzzy Mathematics</i> ➤ <i>Image Processing(Stochastic models)</i> ➤ <i>Mathematical Probability & Statistical Technique</i> 		
ResearchGuidance(No.)		M. Phil	Ph. D. 8(on going)
	Guided	20	Awarded 1
	Guiding	-	Submitted 3
	<ul style="list-style-type: none"> ➤ <i>One student is working for Ph.D(FullTime) with Rajiv Gandhi National Fellowship from UGC(Rs.25,000/-permonth and HRA)</i> 		
Research Papers (No.):78	<p><u>International Journal</u></p> <ol style="list-style-type: none"> 1. <i>Sampath Kumar, V.S. and Sophia Porchelvi, R.(2005) Multidimensional Birth and Death representation of a queueing system with heterogeneous exponential servers, Computational Mathematics, Narosa Publishing House Pvt. Ltd., New Delhi, pp 225- 231. ISBN 81-7319-619-2.</i> 2. <i>Sophia Porchelvi, R., Nagoorgani, A. and Irene Hepzibah,R. (2010), "An Algorithmic Approach to Multi Objective Fuzzy Linear Programming Problem", published in "International Journal of Algorithms, Computing and Mathematics", 3(4),p.61-70.</i> 		

3. Sophia Porchelvi, R., Judith Kiruba, R. and Irene Hepzibah, R. (2010) , “A Shortest Path Algorithm for Optimal Boundary Extraction in Image Processing”, published in “**Journal of Ultra Scientist of Physical Sciences**”, 22(3).p.741-746, impact factor: 2.7.
4. Sophia Porchelvi, and R., Judith Kiruba, R. (2010) “A New Algorithm for Optimal Boundary Extraction in Image Processing”, published in “**International Journal of Computer, Mathematical Sciences and Applications**”, 4(3), p.269-275, impact factor: 4.655.
5. Sophia Porchelvi.R. and Vanitha.R. (2011) , “On studying a health problem using Fuzzy Matrices” , published in “**International Review of Fuzzy Mathematics**”,6(1),p.15-20.
6. Sophia Porchelvi,R., and Vasanthi.L(2012),, On Solving a Multiobjective Fuzzy Linear Programming Problem Using Modified Arithmetic”, published in “**International Review of Fuzzy Mathematics**”,Vol.7, No.1, p.21-25.
7. Sophia Porchelvi.R. and Vanitha.R.(2012),”On Studying a Symptom Disease Model Using FCM”, published in,”**International Review of Fuzzy Mathematics**”, 8(2), p.1-5.
8. Sophia Porchelvi. R. and Vanitha.R. (2012) “A Mathematical modeling of epidemic with excel” , published in “**Bulletin of Pure and Applied Sciences**”, 28(2), p.71-80, impact factor: 0.011, ICV: 91.92.
9. Sophia Porchelvi, R., and Vasanthi. L (2012) “On Solving a Fuzzy Linear Programming Using Simplex Procedure with Symmetric Trapezoidal Fuzzy Numbers” published in “**International Review of Fuzzy Mathematics**”, Vol.7, No.2, p.59-64.
10. “A Statistical survey and analysis report on people working in Match Box Industry-Kovilpatti and their level of satisfaction towards the working Environment and other aspects” published in “**International Review of Pure and Applied Mathematics**”,Vol.8, No.1, p.37-47, Impact Factor:0.233, H index: 23.

11. Sophia Porchelvi. R. and Sathya. S (2012) “On Solving Unconstrained Optimization Problem using Numerical methods”, published in “**International Journal of Algorithm and Computing and Mathematics**”, Vol.5,No.2, p. 32-38.
12. Sophia Porchelvi. R. and Vasanthi. L (2013) “On Solving a Multi Objective fuzzy variable linear programming problem using ranking functions” published in “**International Journal of Science and Research**”, Vol.2 , No.1, p.733-735, impact factor:0.547, ICV(2013): 6.14 points.
13. Sophia Porchelvi. R. and Vanitha.R. (2013) “On Studying Antibiotic in the Blood Stream by the Method of Dynamic Model”, published in the “**International Journal of Physical Sciences**” 25(1), 135-138, impact factor: 0.50, immediacy index: 0.02, google scholar h5- index:29.
14. Sophia Porchelvi. R., and Sathya. S (2013) “A Newton’s method for solving Nonlinear unconstrained optimization problems with two variables” published in **International journal of Science and Research**” Vol.2, No.1, 726-728, impact factor:0.547, ICV(2013): 6.14 points.
15. Sophia Porchelvi. R. and Vasanthi. L(2013), “A Multiobjective Fuzzy Linear Programming Problem Using Ranking Functions of Symmetric Trapezoidal Fuzzy Numbers” published in the “**International Journal of Scientific and Engineering Research**”, Vol. 4, No.10, 848-851, impact factor:0.18, ICV(2013): 7.5 points.
16. Sophia Porchelvi. R. and Sudha. G (2013), “A modified algorithm for solving shortest path problem with Intuitionistic fuzzy arc lengths”, published in the “**International Journal of Scientific and Engineering Research**”, 4(10), 844-847, impact factor:0.18, ICV(2013): 7.5points.
17. Sophia Porchelvi. R. and Rukmani. S (2013), “Solving multi-objective Intuitionistic linear programming using Triangular Intuitionistic fuzzy number”, published in the “**International Journal of Scientific and Engineering Research**”, Vol.4, No.9.p.87-89, impact factor:0.18, ICV(2013): 7.5 points.

18. Sophia Porchelvi R., Jamuna Devi. P, (2013), “Biomass for Energy production and Interval Transportation Problem to minimize transportation cost”, **International Organization of Scientific Research**, ISSN: 2319-7668, pp 31-35, impact factor: 1.759, H index: 16.
19. Sophia Porchelvi. R. and Vasanthi. L., (2014), “On Solving a Multi Objective Fuzzy Number Linear Programming Problem” Tiruchirappalli, published in the “**International Journal of Pure and Applied Mathematical Sciences**” 7(1), 9-13, impact factor: 0.635, H index: 24.
20. Sophia Porchelvi, R., and Sudha, G., (2014), “Computation of shortest path in a network using Triangular intuitionistic fuzzy numbers”, published in the **International Journal of Scientific and Engineering Research**, 5(4) , 1254-1257 , ISSN : 2229-5518, impact factor:0.18, ICV(2013): 7.5 points.
21. Sophia Porchelvi. R., and Sathya. S (2014), “A method for Minimization of Unconstrained Problems via Non Linear Equations” published in the Proceedings of the International Conference on “Mathematical Methods and Computation”, Jamal Mohamed College, Tiruchirappalli, “**Jamal Academic Research Journal- Special Issue**”, p.803-806, ISSN 0973 – 0303.
22. Sophia Porchelvi, R., Vasanthi,L., and Irene Hepzibah, R. (2014) “On solving a Multiobjective fractional linear programming problems”, **International Journal of Current Research**, 6(8),8095 - 8102,ISSN : 0975-833X, impact factor:0.675, H index: 5.
23. Sophia Porchelvi, R., Vasanthi,L., and Irene Hepzibah, R. (2014) “On solving a Multiobjective fractional linear programming problems”, **International Journal of Current Research**, 6(8),8095 - 8102,ISSN : 0975-833X, impact factor:0.675, H index: 5.
24. Sophia Porchelvi R., Jamuna Devi. P, (2014), “Decision making model to reduce the burden on Municipalities”, “**Elixer International Journal of Environment and Forestry**”, Vol.72, pp.25405-25409, impact factor:6.025, ICV: 74.39.

25. Sophia Porchelvi, R., and Sutha, G. (2014), "A New Approach for finding minimum path in a network using Triangular Intuitionistic Fuzzy number", **International Journal of Current Research**, Vol.6, No.8, pp. 844-847, impact factor:0.675, H index: 5.
26. Sophia Porchelvi, R., and Sutha, G. (2014), "Fuzzy Shortest Path Method using λ -triangular LR Intuitionistic Fuzzy numbers", **International Journal of Applied Mathematical Sciences**, Vol.7 No.1, pp. 33-39.
27. Sophia Porchelvi, R., and Sutha, G. (2014), "Modified Approach on Shortest Path in Intuitionistic Fuzzy Environment", **Indian Journal of Applied Research**, Vol.4 No.9, pp. 341-342, impact factor:0.454, ICV: 79.96.
28. Sophia Porchelvi, R., and Sudha, G., (2015), "Critical path analysis in a project network using ranking method in Intuitionistic fuzzy environment", **International Journal of Advance Research**, 3(3), 14-20, ISSN: 2320-9143, impact factor:5.336, H index: 10.
29. Sophia Porchelvi, R., and Sudha, G., (2015), "Shortest path problem in a network using Intuitionistic fuzzy number – A case study about Kanyakumari Roadways network", **Elixir Appl. Math.** 82, 32655 – 32657, impact factor:6.025, ICV(2015):74.39.
30. Sophia Porchelvi, R., and Sudha, G., (2015), "Critical path problem under Intuitionistic fuzzy environment", **International Journal of Applied Engineering Research**, 10(51), 975-978, ISSN: 0973 – 4562, impact factor:0.14, H index: 9.
31. Sophia Porchelvi, R., and Sathya, S. (2015), On Applying Numerical Methods to Unconstrained Optimization Problems, **International Journal of Applied Engineering Research**, Vol. 10 (51), 1002-1005, ISSN: 0973-4562, impact factor:0.14, H index: 9.
32. Sophia Porchelvi, R., and Sathya, S. (2015), On Solving Bivariate Unconstrained Optimization Problems using Interval Analysis, **International Journal of Scientific and Engineering Research**, Vol.6 (2), 842 and 843, ISSN: 2229-5518, impact factor:0.18, ICV(2013): 7.5 points.

33. Sophia Porchelvi. R, Jamuna Devi.P, (2015) "Group Decision Making for safe disposal of Commercial Fish waste", **International Journal of Scientific and Research Publications**, Volume 5, Issue 4, p.1-6, ISSN 2250 – 3153, impact factor:0.18, ICV(2013): 7.5 points.
34. Sophia Porchelvi. R, Jamuna Devi.P, (2015) "Mathematical Modeling and Optimization of Biomass energy production from the aquatic weed Water Hyacinth – Eichhornia Crassipes", **International Journal of Applied Engineering Research** ,Vol.10, No 51, p. 897-901, ISSN 0973 – 4562, impact factor:0.14, H index: 9.
35. Sophia Porchelvi. R, Sathya. K., (2015) "A Simple Integer Linear Programming Model for Hybrid Wind-Solar Systems", **International Journal of Applied Engineering Research** , Vol.10, No 51, p. 1051-1053, ISSN 0973 – 4562, impact factor:0.14, H index: 9.
36. Sophia Porchelvi. R, Rukmani.S., (2015) "On solving Multi-Objective Intuitionistic Fuzzy Linear Programming problem", **International Journal of Applied Engineering Research**,Vol.10, No 51, page 1046-1050, ISSN 0973 – 4562, impact factor:0.14, H index: 9.
37. Sophia Porchelvi. R, Uma. S., Irene Hepzibah. R., (2015) "Ranking function methods for Solving Fuzzy Multiobjective Linear Programming Problems", **International Journal of Applied Engineering Research** ,Vol.10, No 51, p. 935-939, ISSN 0973 – 4562, impact factor:0.14, H index: 9.
38. Sophia Porchelvi. R, Anna Sheela.A., (2015) "A New Algorithmic approach to linear multi objective fractional Transportation problem", **International Journal of Scientific and Engineering Research**, Vol.6, No 3, page 229 – 231, impact factor:0.18, ICV(2013): 7.5 points.
39. Sophia Porchelvi. R, Anna Sheela.A., (2015) "A Comparative study of optimum solution between Fractional Transportation and Fractional Transshipment problem", **International Journal of Science and Research**,Vol.4, No 3, page 1102-1105, impact factor:0.23, ICV(2015): 78.96.
40. Sophia Porchelvi. R, Anna Sheela.A., (2015) "Paradox in a Linear Multi-Objective Fractional Transportation Problem", **International Journal of Applied Engineering Research**,Vol.10, No 51, page 1037-1040, ISSN 0973 – 4562, impact factor:0.14, H index:9.

41. Sophia Porchelvi, R., and Vinothini, P., (2015), "On Taking & Using Insurance Policies at the right time – a Study using Fuzzy Matrices", ***Elixir Appl. Math.*** 82, 32658 – 32660, impact factor:6.025, ICV(2015):74.39.
42. Sophia Porchelvi, R., and Vinothini, S., (2015), "On Evaluating the Performance of Students using Fuzzy Techniques", ***Elixir Appl. Math.*** 82, 32665 – 32669, impact factor:6.025, ICV(2015):74.39.
43. Sophia Porchelvi. R, Jamuna Devi.P, (2015), "Regression Model for the people working in Firework Industry - Virudhunagar District", ***International Journal of scientific and Research Publications***, Vol. 5, No.4, p.1-6, ISSN 2250 – 3153, impact factor:5.971, ICV(2015):5.72, H index: 24.
44. Sophia Porchelvi, R., Irene Hepzibah, R., and Vidhya, R. (2015), "Modified New Operations for Interval Valued Intuitionistic Fuzzy numbers: Linear programming Problems with pentagonal Intuitionistic Fuzzy numbers" was published in "***Iranian International Journal***", impact factor:0.534.
45. "On Analysing Anaemia using Fuzzy Matrices" was published in "***International journal of Fuzzy Mathematical Archive***", Vol. 9, No.2, 2015, pp 203-209. ISSN: 2320 –3242 (P), impact factor:1.137.
46. "An Application of Fuzzy Matrices in Medical Diagnosis" was published in "***International journal of Fuzzy Mathematical Archive***", Vol. 9, No.2, 2015, pp 211-216, ISSN: 2320 –3242 (P), impact factor:1.137.
47. "The Solution Procedure "PASEB" for Solving Fuzzy Multi Objective Linear Programing Problem" was published in "***International journal of Fuzzy Mathematical Archive***", Vol. 9, No.2, 2015, pp 197-202, ISSN: 2320 –3242 (P), 2320 –3250 (online), impact factor:1.137.
48. "On Solving a Multi-Objective Intuitionistic Fuzzy Linear Fractional Programming Problem" was published in "***International journal of Fuzzy Mathematical Archive***", Vol. 9, No.2, 2015, pp 189-196, ISSN: 2320 –3242 (P), 2320 –3250 (online), impact factor:1.137.

49. ***“Solution Procedures for Multi-Objective Intuitionistic Fuzzy Linear and Fractional Linear Programming Problems using Weighting Factor”*** was published in *“International journal of Fuzzy Mathematical Archive”*, Vol. 9, No.2, 2015, pp 179-187, ISSN: 2320 –3242 (P), 2320 –3250 (online), impact factor:1.137.
50. ***“A Linear Fractional Interval Transportation Problem with and Without Budgetary Constraints”*** was published in *“International journal of Fuzzy Mathematical Archive”*, Vol. 9, No.2, 2015, pp 165-170, ISSN: 2320 – 3242 (P), 2320 –3250 (online), impact factor:1.137.
51. ***“A Study on socio-economic and demographic factors on anemia among rural women”*** was published in *Elixir International Journal*, February 2016, impact factor:6.025, ICV(2015):74.39.
52. ***“A Simple Integer Linear Programming Model for Hybrid Wind-Solar Systems”***, was published in *International Journal of Applied Engineering Research* , Vol.10, No 51, 2015, p. 1051-1053, ISSN 0973 – 4562, impact factor:0.14, H index: 9
53. ***“Linear Programming Model for Energy Efficient in Buildings”*** was published in *Elixir International Journal*, February 2016, impact factor:6.025, ICV(2015):74.39.
54. ***“Goal Programming model for the people working in match box industry and firework industry – Virudhunagar district”***, was published in *“Proceedings of International Conference on Advances in Science, Mathematics, English and its Applications 8 and 9th May 2015”*, ISBN no 978–93–84893–27-9, impact factor:2.3.
55. ***Iterative Goal Programming Approach for Solving Multi-objective Intuitionistic Fuzzy Linear Programming Problem***, was published in *“Asian Journal of Research in Social Sciences and Humanities, Vol.6, No.9, 2016”*, impact factor:4.557, ICV:5.05.
56. ***“Solving Intuitionistic Fuzzy Multi-Objective Linear Programming”***, was published in *“International Journal of Pure and Applied Mathematics”*, 1314-3395, (online), impact factor: 0.635, H index: 24.

57. ***“A Fuzzy Shortest Path Algorithm For Optimal Boundary Extraction In Image Processing”***, was published in ***“Asian Journal of Research in Social Sciences and Humanities”***, Vol.6, No.9, 2016, impact factor:4.557, ICV:5.05.
58. ***“Mathematical Modeling of The Spread of An Epidemic Disease –Mumps”***, ***“Asian Journal of Research in Social Sciences and Humanities”***, Vol. 6, No.9 September 2016, pp.2002-2016, ISSN 2249-7315, impact factor:4.557, ICV:5.05.
59. ***“A Mathematical Diet Problem For The Nutritional Health Disorder”***, was published in ***“Asian Journal of Research in Social Sciences and Humanities”***, Vol. 6, No.9 September 2016, pp.1994-2001, ISSN 2249-7315, impact factor:4.557, ICV:5.05.
60. ***“Cost Benefit Analysis of installing Renewable Energy”***, was published in ***“International journal of scientific and research publications”***, volume 5, issue 4. April 2015, ISSN 2250-3153, impact factor:5.971, ICV(2015):5.72, H index: 24.
61. ***“Multi objective decision making model for modern dairy farm using solar pv system”***, was published in ***“International Conference On Mathematical Computer Engineering”*** at VIT university held On 14-15 December.
62. ***“Solving Linear Fractional Programming Problem Using LU Factorization Method”***, was published in ***Asian Journal of Research in Social Sciences and Humanities*** , vol.6,no.10,october 2016 , pp : 1929-1938, ISSN:2249-7315, impact factor:4.557, ICV:5.05.
63. ***“A Diversified Approach For Solving An Assignment Problem”*** , ***Asian Journal of Research in Social Sciences and Humanities*** ,vol.6,no.10,october 2016 , pp : 1945-1954, ISSN:2249-7315, impact factor:4.557, ICV:5.05.

Overall impact factor: 107.57/ 51 journals

Overall ICV : 717.68/ 24 journals

Overall H index : 256/ 18 journals

International Conference Proceedings

1. Sophia Porchelvi, R., Irene Hepzibah, R., and Nagoorgani, A. (2011), ***Multiobjective Fuzzy nonlinear programming problem via Taylor Series Approach***, published in the ***Proceedings of International conference on „Stochastic Modeling and Simulation***, Allied publishers Pvt.Ltd., Delhi, p.142-146, ISBN978-81-8424-743-5.
2. Sophia Porchelvi, R., Irene Hepzibah, R., and Vasanthi, L. (2011), ***MultiObjective Linear Programming in a Fuzzy Environment***, published in the ***Proceedings of International conference on „Stochastic Modeling and Simulation***, Allied publishers Pvt.Ltd., Delhi, p.147-150, ISBN978-81-8424-743-5.
3. Sophia Porchelvi, R., Karthi, R., and Jamuna Devi, P. (2012), ***Problems Faced By Tourist in Nagapattinam District- A Statistical Analysis*** published in, ***IEEE Conference Publications***, p.56–62.
4. Sophia Porchelvi, R., Sathya, S., and Jamuna Devi, P. (2013), ***Extension of the modified family of Schroder method for multiple roots of nonlinear equation with two variables***, published in the ***Proceedings of IEEE-International Conference on Research and Development Prospects on Engineering and Technology, India***, ISBN:978-1-4673-4948-2.
5. Sophia Porchelvi, R., Vasanthi, L., and Jamuna Devi, P. (2013) ***Multiobjective Linear Programming in a fuzzy environment***, ***Proceedings of IEEE-International Conference on Research and Development Prospects on Engineering and Technology (ICRDPET)***, E.G.S.Pillay Engineering college, Nagapattinam, India.

6. Sophia Porchelvi.R. and Vanitha.R.(2014),, *On Analyzing TB/HIV Co- Infection using fuzzy cognitive map* “
Published In the Proceedings of the International Conference on ”Mathematical Methods and Computation “
Jamal Mohamed College, Tiruchirappalli,, **Jamal Academic Research Journal-Special Issue**”, p.541-545,
ISSN 0973 – 0303.

7. Sophia Porchelvi.R. and Sudha.G(2014),,, **Intuitionistic Fuzzy Critical Pathina Network**”, published in
the Proceedings of the International Conference on
“Mathematical Methods and Computation”, Jamal Mohamed College ,Tiruchirappalli, ” **Jamal Academic Research Journal-Special Issue**”, p.692-696, ISSN 0973 –
0303.

8. Sophia Porchelvi.R. and Vasanthi.L(2014),,, **Simplex Method for Fuzzy Linear Programming Problem with Trapezoidal Fuzzy Numbers Using Ranking Functions**”
published in the Proceedings of the International Conference on ”Mathematical Methods and Computation “Jamal Mohamed College, Tiruchirappalli, ”
Jamal Academic Research Journal-Special Issue”, p.697-700,
ISSN 0973 – 0303.

9. Sophia Porchelvi.R, Jamuna Devi.P,(2015) “Goal Programming model for the people working in match box industry and firework industry–Virudhunagar district”,
Proceedings of International Conference on,, *Advances in Science Mathematics, English and its Applications*, 8, 9th
May 2015, ISBN No. 978-93-84893-27-9.

National Conference Proceedings

1. Sophia Porchelvi.R.(2008) *An Algorithmic Approach to Fuzzy Integer Programming Problem*, **Proceedings of the National Conference on ” Fuzzy Mathematics and Graph Theory**”, Gigo Publications, p.110-115, ISBN 81-88338-07.

2. *Sophia Porchelvi, R. (2009), „ On Solving a Socially Relevant Fuzzy Goal Programming model using Taylor Series Approach”, Proceedings of the International Conference on „ Mathematical Methods and Computation” Allied publishers Pvt. Ltd., Delhi, p.472-478, ISBN978-81-8424-466-3.*
3. *Sophia Porchelvi, R. (2009), „Application of Optimization Techniques to Image Processing”, Proceedings of the National Conference on ”Fuzzy Mathematics, Graph Theory and Applications”, Gigo Publications , p. 36-39, ISBN81-88338-08.*
4. *Sophia Porchelvi, R., and Sudha, G., (2013), „An approach to Find the optimal paths using trapezoidal Intuitionistic fuzzy number”, published in the ” Proceedings of the National Conference on Recent advances in Mathematical Analysis and Applications”, K.S.R.College, Thiruchengode, India, ISBN978-93-82338-70-3.*
5. *Sophia Porchelvi, R., and Sathya, S. (2013), On solving nonlinear equations using Numerical Methods, Proceedings of National conference on Recent Advances in Mathematical Analysis & Applications, K.S.Ramasamy College of Arts and Science (Autonomous), Tiruchengode, Tamilnadu, India. ISBN: 978-93-82338-69-7.*
6. *”Applications And Analysis of Solar drying Models” was Published in the Proceedings of the UGC Sponsored National Seminar conducted at ADM College for Women, Nagapattinam, on 4, 5th July 2013.*

<p>Books published</p>	<ul style="list-style-type: none"> ➤ <i>Chapters in Books:</i> A Chapter entitled ‘Chance constrained fuzzy goal programming with penalty functions for academic resource planning in University Management using genetic algorithm’ authored by Prof.BijayBaralPal, Dr.R.SophiaPorchelvi,and Prof.PapunBis was, has been accepted for publication in the edited volume entitled ‘Nature Inspired Computing and Optimization: Theory and Applications’, Springer Publishing, Germany. ➤ <i>Books Authored:</i>I have authored a book for Prentice Hall of India entitled ‘Integral Transforms and Partial Differential Equations with Mat lab Codings’
<p>Major/MinorProjects</p>	<ul style="list-style-type: none"> ➤ <i>A Minor Research Project entitled “Stochastic Methods in Queueing theory and its applications to Social and Managerial Problems” was sanctioned to the tune of Rs.50,000/- by UGC(XPlan) in January 2007 and it was completed.</i> ➤ <i>A student project entitled “A Study on the SocioEconomic Impact of Industrialization on the people of Virudhunagar District” was sanctioned to the tune of Rs.10,000/- by TNSCST in May2013 and it was completed.</i>
<p>Conference Participation</p>	<ul style="list-style-type: none"> ➤ <i>AUGCsponsoredNationalSeminaron“MicroControllerand itsApplications”atA.D.M.College,Nagapattinam, 3,4thSeptember 2004.</i> ➤ <i>ASeminaron“RecentTrendsinResearchinStatistics”at ManonmaniamSundaranar University,Thirunelveli,23,24th March 2005</i>

- A UGC Sponsored State Level Seminar on **“Mathematical Methods and Fuzzy Applications”** at Jamal Mohamed College, Trichirappalli, 27th February 2006.
- A Three-day Workshop on **“Curriculum Development and Evaluation”** Sponsored by UGC and Tamil Nadu State Council for Higher Education, Chennai and organized by the Academic Staff College, Bharathidasan University Tiruchirappalli, at A.D.M. College, Nagapattinam 16-18, March 2006.
- A UGC Sponsored Regional Workshop on **“Strategies and Techniques of Teaching Communication skills to the Rural Learners”** at A.D.M. College, Nagapattinam, 23, 24th July 2007.
- An International Conference on **Mathematics and Computer Science** at Loyola College, Chennai, 25, 26th July 2008.
- A two-day workshop on **“Access to e-Resources and Digital Library Consortium”**, organized by the University Library and INFLIBNET centre, at Bharathidasan University, Trichirappalli, 1, 2nd August 2008
- AUGC sponsored National Seminar on **“Remote Sensing and Digital Image Processing”** at A.D.M. College, Nagapattinam, 3, 4th July 2009.
- An Orientation Course on **“Research Activities for Science Teachers”** organized at Bharathidasan University, Tiruchirappalli, 23, 24th March 2012.
- AUGC Sponsored National Seminar on **“Micro Finance – A Performance Appraisal”**, at A.D.M. College, Nagapattinam, 30, 31st March 2012.
- A workshop on **„Quality Research Report Writing”** Organized by the Curriculum Development Cell, Bharathidasan University, Tiruchirappalli, 28th February 2014.

	<ul style="list-style-type: none"> ➤ A <i>meeting of RUSA(Rashtriya Ucchatar Shiksha Abhiyan) for Principals</i>, conducted by Tamilnadu State Council for Higher Education at Loyola College, Chennai, on 9th June 2014. ➤ A <i>one day workshop organized for the Principals of Affiliated Colleges of the Bharathidasan University on “Indian Higher Education Quality: Concerns and Funding Options”</i> at UGC Academic Staff College, Bharathidasan University, Tiruchirappalli, 4th July 2014. ➤ A <i>workshop sponsored by MHRD on “Free Software Training to UG and PG students through Distance Learning Program by Spoken Tutorial (ICT based Software Training)”</i> organized by Bharathidasan University in Collaboration with IIT, Bombay, on 30th January 2015.
<p>Papers Presented : 42</p>	<ol style="list-style-type: none"> 1. Presented a paper on “Multi-dimensional Birth and death representation of a Queueing system with heterogeneous servers” at the “National Conference on Recent trends in Computational Mathematics”, Gandhigram Rural Institute, Gandhigram, held on 18, 19th March 2004. 2. Presented a paper on “Analysis of a single server Queueing system and certain performance measures” in the “National Seminar on Mathematical Modeling to Social and Managerial Problems”, at A.D.M. College for Women, Nagapattinam, during 24, 25th September 2004. 4. Presented a paper on “An Algorithmic Approach to Fuzzy Integer Programming Problem” in the “National Conference on Fuzzy Mathematics and Graph Theory”

at Jamal Mohamed College, Tiruchirappalli, on 27, 28th March 2008.

- 4. Presented a paper on "Thamil Mozhi Valarchiyil Ayalnattinar in Panghu" in the "Seventh International Conference on Historic Tamil" organized at A.D.M. College for Women, Nagapattinam, during 29, 30th May 2009.*
- 5. Presented a paper on "Where is a problem, There is a Solution-Water Hyacinthis an Amazing Resource of Renewable Energy" in the "National Seminar on Renewable Energy-an Amazing Resource", at A.D.M. College for Women, Nagapattinam, during 20, 21st January 2011.*
- 6. Presented a paper on "Applications of Mathematics in Energy Sectors" in the "National Seminar on Renewable Energy-an Amazing Resource", at A.D.M. College for Women, Nagapattinam, during 20, 21st January 2011.*
- 7. Presented a paper on "Bernoulli Numbers" in the "International Seminar on Advances in Engineering and Technology" at E.G.S.P. Engineering College, Nagapattinam, during 27, 28th May 2011.*
- 8. Presented a paper on "The socio Economic Impact of Industrialization on the people of Virudhunagar District" in the UGC Sponsored National Seminar on "Strategizing the Future Challenges of Women" at A.D.M. College for Women, Nagapattinam, on 30, 31st March 2012.*
- 9. Presented a paper on "Tranquebar Tourism – a Study" in the UGC Sponsored "National Seminar on Tourism Marketing", at A.D.M. College for Women, Nagapattinam, on 29th March 2012.*

10. Presented a paper entitled "A Multiobjective Fuzzy Linear programming problem using Ranking functions of Symmetric trapezoidal fuzzy numbers" in the UGC Sponsored National Seminar conducted at ADM College for Women, Nagapattinam, on 4,5th July 2013.
11. Presented a paper entitled "A modified algorithm for solving shortest path problem with Intuitionistic fuzzy arc lengths" in the UGC Sponsored National Seminar on 4,5th July 2013 at ADM College for Women, Nagapattinam.
12. Presented a paper entitled "Energy from Municipal Solid Waste A study Report" in the UGC Sponsored National Seminar on 4,5th July 2013 at ADM College for Women, Nagapattinam.
13. Presented a paper entitled "Solving Multi Objective Intuitionistic Linear Programming using Triangular Intuitionistic Fuzzy Number" in the UGC Sponsored National Seminar conducted at ADM College for Women, Nagapattinam, on 4,5th July 2013.
14. Presented a paper entitled "Applications and Analysis of Solar drying Models" in the UGC Sponsored National Seminar conducted at ADM College for Women, Nagapattinam, on 4,5th July 2013.
15. Presented a paper entitled "A Statistical Survey and Analysis Report on People working in Matchbox and Firework Industry–Virudhunagar District" in the UGC Sponsored National Seminar conducted at ADM College for Women, Nagapattinam, on 4,5th July 2013.
16. Presented a paper entitled "Mathematical Modeling and Computer Simulation of Air Pollution Dispersion in and Around Coal Washery Complexes of Multi-Sources" in the UGC Sponsored National Seminar conducted at ADM College for Women, Nagapattinam, on 4,5th July 2013.

17. Presented a paper entitled "Solving Nonlinear Equations Using Numerical Methods with Third-Order Convergence" in the UGC Sponsored National Seminar conducted at ADM College for Women, Nagapattinam, on 4,5th July 2013.
18. Presented a paper entitled "Fuzzy Cognitive Maps with Real World Problem" in the UGC Sponsored National Seminar conducted at ADM College for Women, Nagapattinam, on 4,5th July 2013.
19. Presented a paper on "The Bethlehem Church, Porayar—a study" in the UGC Sponsored National Seminar on 12,13th July 2013 at ADM College for Women, Nagapattinam.
20. Presented a paper on "Decision Making in Managing Municipal Solid Waste" in the National Conference on "Contemporary Management Practices in Competitive World" organized by the Department of Management Studies, EGSP Engineering College, Nagapattinam, on 25.02.2014.
21. Presented a paper on "Decision Making Model to reduce the Burden on Municipalities" in the International Conference on "Innovative Research in Engineering and technology 2014" conducted at EGSP Engineering College, Nagapattinam, on 02.05.2014 & 03.05.2014.
22. Presented a paper on "Critical path analysis in a project network using ranking method in Intuitionistic fuzzy environment" in the International Conference on "Applied Science in Mathematics, English and its applications", organized by EGSP Engineering College, Nagapattinam, on 8,9th May 2015.
23. Presented a paper on "Shortest path problem in a network using Intuitionistic fuzzy number—A case study" in the International Conference on "Applied Science in Mathematics, English and its applications", organized by

EGSP Engineering College, Nagapattinam, on 8,9th May 2015.

24. Presented a paper on "Shortest path problem in a network using Intuitionistic fuzzy number– A case study" in the International Conference on "Applied Science in Mathematics, English and its applications", organized by EGSP Engineering College, Nagapattinam, on 8,9th May 2015.
25. Presented a paper on "On Applying Numerical Methods to Unconstrained Optimization Problems" in the International Conference on "Applied Science in Mathematics, English and its applications", organized by EGSP Engineering College, Nagapattinam, on 8,9th May 2015.
26. Presented a paper on "On Solving Bivariate Unconstrained Optimization Problems using Interval Analysis" in the International Conference on "Applied Science in Mathematics, English and its applications" organized by EGSP Engineering College, Nagapattinam, on 8,9th May 2015.
27. Presented a paper on "Group Decision Making for safe disposal of Commercial Fish waste" in the International Conference on "Applied Science in Mathematics, English and its applications", organized by EGSP Engineering College, Nagapattinam, on 8,9th May 2015.
28. Presented a paper on "Mathematical Modeling and Optimization of Biomass energy production from the aquatic weed Water Hyacinth-Eichhornia Crassipes" in the International Conference on "Applied Science in Mathematics, English and its applications", organized by EGSP Engineering College, Nagapattinam, on 8,9th May 2015.

29. Presented a paper on "A Simple Integer Linear Programming Model for Hybrid Wind-Solar Systems" in the International Conference on "Applied Science in Mathematics, English and its applications", organized by EGSP Engineering College, Nagapattinam, on 8,9th May 2015.
30. Presented a paper on "On Solving Multi-Objective Intuitionistic Fuzzy Linear Programming Problem" in the International Conference on "Applied Science in Mathematics, English and its applications", organized by EGSP Engineering College, Nagapattinam, on 8,9th May 2015.
31. Presented a paper on "Paradox in a Linear Multi-Objective Fractional Transportation Problem" in the International Conference on "Applied Science in Mathematics, English and its applications", organized by EGSP Engineering College, Nagapattinam, on 8,9th May 15
32. Presented a paper on "On Analysing Anaemia using Fuzzy Matrices" at the UGC & NBHM sponsored National Conference on "Applied Mathematics and Computer Simulation–Recent Trends" on 7,8th October 2015 at TBML College, Porayar
33. Presented a paper on "An Application of Fuzzy Matrices in Medical Diagnosis" at the UGC&NBHM sponsored National Conference on "Applied Mathematics and Computer Simulation–Recent Trends" on 7,8th October 2015 at TBML College, Porayar
34. Presented a paper on "The Solution Procedure "PASEB" for Solving Fuzzy MultiObjective Linear Programming Problem" at the UGC & NBHM sponsored National Conference on "Applied Mathematics and Computer Simulation–Recent Trends" on 7,8th October 2015 at TBML College, Porayar

35. Presented a paper on "On Solving a Multi-Objective Intuitionistic Fuzzy Linear Fractional Programming Problem" at the UGC & NBHM sponsored National Conference on "Applied Mathematics and Computer Simulation-Recent Trends" on 7,8th October 2015 at TBML College, Porayar
36. Presented a paper on "Solution Procedures for Multi-Objective Intuitionistic Fuzzy Linear and Fractional Linear Programming Problems using Weighting Factor" at the UGC&NBHM sponsored National Conference on "Applied Mathematics and Computer Simulation-Recent Trends" on 7,8th October 2015 at TBML College, Porayar
37. Presented a paper on "A Linear Fractional Interval Transportation Problem with and Without Budgetary Constraints" at the UGC&NBHM sponsored National Conference on "Applied Mathematics and Computer Simulation-Recent Trends" on 7,8th October 2015 at TBML College, Porayar
38. Submitted a paper entitled "Multi Objective Bilevel Programming Approach to Environmental-Economic Power Generation and Dispatch using Genetic Algorithm" for presentation in the First International Conference on "Intelligent computing and communication-2016" organized at University of Kalyani, WestBengal, India and the Proceedings will be published by "Advances in Intelligent and soft computing", Springer.
39. Presented a paper on,, "A Mathematical Modelling on Diet Planning and Preventing Diseases" at the International Conference on Mathematical Computer Engineering-ICMCE2015, VIT University, Chennai, on 14,15th December 2015 and has been selected for

	<p><i>Publication in a Scopus indexed Journal as mentioned by the conference committee.</i></p> <p>40. <i>Presented a paper on “MultiObjective Decision Making Model for Modern Dairy Farm Using Solar PV System” at the International Conference on Mathematical Computer Engineering-ICMCE2015, VIT University, Chennai, on 14,15th December 2015 and has been selected for publication in a Scopus indexed Journal as mentioned by the conference committee.</i></p> <p>41. <i>Submitted paper on “Chance Constrained Fuzzy Goal Programming with Penalty Functions for Academic Resource Planning in University Management using Genetic Algorithm” for presentation in the First International Workshop on Nature Inspired Computing for Optimization and Management–NICOM2016 and has been selected for publication in “Nature Inspired Computing and Optimization: Theory and Applications”, Springer-Verlag, Heidelberg, Germany</i></p> <p>42. <i>Submitted a paper entitled “Solving Intuitionistic Fuzzy Multi-Objective Linear Programming Problems using Ranking Function” for presentation in a one day National Conference on “Mathematical Modeling and Fuzzy Logic Applications” at RVS Technical Campus - Coimbatore, India, on 20th February 2016 and has been accepted for publication in “International Journal of Pure and Applied Mathematics “Kuwait (Annexure– II:S.No.9287 of Anna University).</i></p>
Conference Organized	<p>➤ Member, a twoday National Seminar on “Mathematical Modeling to Social and Managerial Problems” ADM College, Nagapattinam, 24,25th September 2004.</p>

	<ul style="list-style-type: none"> ➤ Convener, a Two-day Workshop on “Educational Technology and E-content Development” organized by IQAC in collaboration with Department of Educational Technology, Bharathidasan University at ADM College, 20, 21st December 2006. ➤ Member, Scientific Committee, a two day International Conference on “Mathematical Methods and Computation” organized at Jamal Mohamed College, Tiruchirappalli, 24, 25th July 2009. ➤ Convener, a Two-day Workshop on “Skill Development and Community work” under ADM Student’s Outreach Programme in collaboration with a Senior Programme officer, UNESCO, Kenya, 06, 07th July 2011. ➤ Organizing Secretary, a Two-day National Seminar on The Strategic Role of Mathematical and Statistical Models” in collaboration with CSIR Institute, Jharkhand, 4, 5th July 2013. ➤ Member, Scientific Committee, a two day International Conference on “Mathematical Methods and Computation” organized by Jamal Mohamed College, Tiruchirappalli, 13, 14th February 2014. ➤ Member, Advisory Committee, a two day UGC&NHBM sponsored National Conference on “Applied Mathematics and Computer Simulation–Recent Trends” on 7, 8th October 2015 at TBML College, Porayar. ➤ Member, the first International Workshop on “Nature Inspired Computing for Optimization and Management –NICOM” at Bhubaneswar on 21, 22nd May 2016.
Resource Person / Chair person	<ul style="list-style-type: none"> ➤ Chair person, a two day International Conference on Advances in Engineering, Science and Management”, organized by EGSP Engineering College, Nagapattinam, on 27, 28th May 2011.

- **Chairperson & Keynote speaker**, a two day **International Conference** on “Advances in Engineering, Science and Management”, organized by EGSP Engineering College, Nagapattinam, on 30, 31st March 2012.
- **Resource Person**, One day State Level **Workshop** on “**Soft Computing**” organized by AVC College of Engineering & Technology, Mayiladuthurai, 2nd May 2012 for College Teachers.
- **Chairperson**, a two day **International Conference** on “Mathematical Methods and Computation” organized by Jamal Mohamed College, Tiruchirappalli, on 13, 14th February 2014.
- **Resource Person**, A two day UGC sponsored **National Seminar** on “Recent Trends in Operations Research” organized by Assumption College, Changanacherry, Kerala, in collaboration with the Kerala Mathematical Association, 17, 18th January 2014.
- **Resource Person**, One day **Workshop** on “Frontier Areas in Symbolic Computing and Cloud Computing” organized by Government College for Women (Autonomous), Kumbakonam, 31st January 2014.
- **Resource Person**, **Faculty Development Training Programme (FDTP)** sponsored by Anna University and organized by AVC College of Engineering, Mayiladuthurai, 3rd December 2014.
- **Resource Person**, **Faculty Development Training Programmes (FDTP)** sponsored by Anna University and organized by EGSP Engineering College, Nagapattinam, 27th June 2014 and 2nd January 2015.
- **Resource person**, a two day **International Conference** on “Applied Science in Mathematics, English and its applications”, organized by EGSP Engineering College, Nagapattinam, on 8, 9th May 2015.

- *Delivered special lectures and invited talks in Seminars and Association meetings conducted by neighbouring Institutions.*
- *Delivered a guest lecture on “Applications of Probability, Random Variables and Random Processes” organized at MEPCO Schlenk Engineering College, Sivakasi, for all the PG students(M.E& M.C.A) on 1.9.2008 and gave a special lecture on “Queueing models” at the Mathematics club.*
- *Delivered a guest lecture on “Applications of Mathematics in Engineering Fields” organized at A.V.C Engineering College, Mayiladuthurai, on 09.11.2010.*
- *Delivered a guest lecture on “Mathematical Softwares and its Applications” organized at S.T.E.T.College for Women, Mannargudi, on 03.03.2011.*
- *Delivered a guest lecture on “Probability, Queuing Theory and Random Processes” at EGSP Engineering College, Nagapattinam, on 21.02.2015.*
- *Chairperson, a two day UGC&NHBM sponsored National Conference on “Applied Mathematics and Computer Simulation –Recent Trends” on 7,8th October 2015 at TBML College, Porayar.*
- *Resource Person, Faculty Development Training Programme (FDTP-AICTE) sponsored by Anna University and organized by the Department of Computer Science, AVC College of Engineering, Mannampandal, 2nd December 2015.*
- *Resource Person, a one day State level seminar on “Recent Applications of Mathematics” at Sir Issac Newton College, Pappakoil, on 9th January 2016.*
- *Acted as the Quiz coordinator for the Inter Collegiate Quiz Competition organized by the Post graduate&*

	<p><i>Research Department of Mathematics, Government Arts College (Autonomous), Kumbakonam, on 19.12.2006.</i></p> <ul style="list-style-type: none"> ➤ <i>Conducted Mathematical Quiz programmes in the Ramanujan Mathematical Association, A.D.M.College for Women, Nagapattinam.</i> ➤ <i>Invited as the Chief Guest and Quiz Master for the “National Level Quiz Competition” in Mathematics, organized by the Department of Mathematics and the Mathematics Club of MEPCO Schlenk Engineering College, Sivakasi, on 22.12.2008.</i> ➤ <i>Acted as the Quiz coordinator for the Inter Collegiate Quiz Competition organized by the Post graduate & Research Department of Mathematics, Government Arts College for Women(Autonomous), Kumbakonam, on 23.02.2010.</i>
Awards/Honours Received	<ul style="list-style-type: none"> ➤ <i>Received “Bharat Seva Ratan Gold Medal Award” for “Individual Achievement in Education” in the National Seminar on,, Intellectual Excellence and Individual Achievement” conducted at Chennai on 06.07.2013 by Global Economic Progress and Research Association, India.</i>
Extension Activities	<ul style="list-style-type: none"> ➤ <i>N.S.S. Programme officer, 1999-2001</i> ➤ <i>ADM Student’s Outreach Programme, Coordinator, 2011-2013</i>
Administrative Position in college	<ul style="list-style-type: none"> ➤ <i>Deputy Controller of Examinations, August 2008 to December 2009</i> ➤ <i>UGC coordinator, since 2011</i> ➤ <i>Assumed charge as the Controller of Examinations of ADM College from 31st December 2015.</i>

<p>Membership in academic/professional bodies</p>	<ul style="list-style-type: none"> ➤ <i>Member, Academic Audit, Govt.Arts College for Women(Auto), Kumbakonam, 2013.</i> ➤ <i>External Member, IQAC, Govt.College for Women(Auto), Kumbakonam, 2011-2014.</i> ➤ <i>Life Member, Kerela Mathematical Association, Kerela,2014.</i> ➤ <i>Member, Global Economic Research Foundation, India.</i> ➤ <i>Member, Doctoral Committee, PhD candidates of various Research Supervisors, Bharathidasan University, Tiruchirapalli.</i> ➤ <i>Examiner, PG Mathematics Board, Bharathidasan University, Tiruchirapalli.</i> ➤ <i>Member, Question Paper Setter’s Board, of the M.C.A. Board of Madurai Kamaraj University, M.Sc Computer Science Board of Bharathiyar University and otherAutonomous Colleges.</i> ➤ <i>Research advisor, M.Phil & PhD degree programmes, Bharathidasan, Manonmaniam Sundaranar &Bharathiar Universities.</i> ➤ <i>Board Member for R&D Modern Research Publication, India International Journal of Multidisciplinary Research and Modern Education”.</i> ➤ <i>Board of studies member, Mathematics board, A.D.M.College, Nagapattinam.</i>
<p>Others(relevant to academic activity)</p>	<p><u>CampusLeadership</u></p> <ul style="list-style-type: none"> ➤ <i>Convener, Certificate Courses under Canada India Institutional Cooperation Project, 2003-2005</i> ➤ <i>Editor, ADMC Newsletter, 2007-2012</i> ➤ <i>Web Coordinator, ADMC Website, 2009 onwards</i> ➤ <i>UGC coordinator, since2011</i> ➤ <i>RUSA coordinator, since 2013</i> ➤ <i>Student’sCounselor,since2012</i>

	<p><u>Collaboration with other R&D Groups</u></p> <ul style="list-style-type: none"> ➤ Visited Central Institute of Mining and Fuel Research (CSIR Institute), Dhanbad, Jharkhand, and involved in a certain research work on “Mathematical models” from 10.11.2015 to 17.11.2015. ➤ Tamilnadu Science and Technology Centre, Chennai
For Correspondence	<p><u>Official Address:</u></p> <p>Dr. R. Sophia Porchelvi, M.Sc., M.Phil., Ph.D., Associate Professor of Mathematics, ADM College for Women (Autonomous), Nagapattinam-611001</p> <p><u>Residential Address:</u></p> <p>Dr. R. Sophia Porchelvi, M.Sc., M.Phil., Ph.D., No.1, Raja Vetha Illam, Main Road, Kathanchavadi, Porayar – 609 307 Nagapattinam District Mobile No. 9486860573 Email. sophiaporchelvi@gmail.com</p>