Curriculum-Vitae

Dr.R.Sophia Porchelvi, M.Sc., M.Phil., Ph.D
Associate Professor in Mathematics &
Controller of Examinations

A.D.M. College for Women (Autonomous)
Accredited with 'A' grade by NAAC
Nagapattinam – 611 001
E-mail: sophiaporchelvi@gmail.com
Cell: 9486860573

'To serve and lead the Institution with dedication and commitment'

My Strengths

- ➢ Dynamic, Determined and Goal oriented
- ➢ Good motivator and ability to handle multiple tasks
- ➢ Excellent Leadership Qualities
- ➢ Possess good management and communication skills
- ➢ Cordial relationship with Superiors and Colleagues
- ➢ Believe in Team Work
- ➢ Good Orator and writer

Educational Qualifications

Degree	Year	University	Division
Ph.D in Mathematics	2008	Manonmaniam Sundaranar University, Thirunelveli	Highly Commendable
M.Phil., Mathematics	1989	National College, Tiruchirappalli Bharathidasan University,	Distinction (87%)
M.Sc., Mathematics	1988	T.B.M.L College, Porayar Bharathidasan University	First Class (84.4%)
B.Sc., Mathematics	1986	T.B.M.L College, Porayar Bharathidasan University	First Class (82.3%)

Ph.D Thesis Title   : Some studies in Stochastic models and Related topics -Analyses and Applications

Academic /Teaching Experience

- **Associate Professor** of Mathematics, A.D.M. College for Women (Autonomous), Nagapattinam, from 12.10.1998 to till date.
- **Lecturer** in Mathematics, E.G.S.Pillay Engineering College, Nagapattinam from 04.07.1997 to 09.10.1998.
- **Lecturer** in Mathematics, T.B.M.L. College, Porayar and A.D.M. College for Women, Nagapattinam in leave vacancies (Regular Service).

Total Teaching Experience: **25** years

Regular Service: 23 years & 2 months   *Break- up-figures:* 2 years

Areas of Specialization

- Stochastic Processes & Operations Research

Areas of Research Interest

- Stochastic Processes (Queueing Models)
- Operations Research
- Multi Objective Optimization
- Fuzzy Mathematics (Fuzzy, Intuitionistic, Neutrosophic, Soft and Pythagorean sets)
- Image Processing (Stochastic models)
- Graph Theory (Labeling of Graphs)
- Mathematical Probability & Statistical Methods

Research Projects

- 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 (X Plan)** in January 2007 and it was completed.
- A student project entitled "**A Study on the Socio Economic Impact of Industrialization on the people of Virudhunagar District**" was sanctioned to the tune of Rs.10,000/- by **TNSCST** in May 2013 and it was completed.

Collaboration with other R&D Groups

- Tamilnadu Science and Technology Centre, Chennai

- CIMFR(CSIR), Dhanbad, Jharkhand

Research Guidance

Programme	Guided /Awarded	Thesis submitted/Viva	On going
M.Phil	18	---	----
Ph.D	16	4	6
One student completed Ph.D (Full Time) with UGC Rajiv Gandhi National Fellowship from			

Academic Honours and Awards

➢ 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.

➢ Won **World Championship - 2018** in Mathematical Analysis (Fuzzy Comprehensive Evaluation) out of 96 countries for the Research publication **"Analysis of Ground Water Quality by Fuzzy Comprehensive Evaluation in Cauvery Delta Region, Tamil Nadu, India"** in American Journal of Mathematical Analysis, 2017, Vol. 5, No. 1, pp1-6.

Seminars/ Courses /Workshops and Conferences Organized

➢ *Member, a two day **National Seminar on 'Mathematical Modeling to Social and Managerial Problems**' ADM College, Nagapattinam, 24,25th September2004.*

➢ *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, Tiruchirapalli, 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.
- ➢ *Convener,* a Two-day **Workshop** on *'Public Financial Management System with Special Reference to TSA'* organized by ADM College for Women, Nagapattinam on 23, 24th September 2021.

Resource Person / Chair person

- ➢ *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.
- ➢ *Chair person & 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.
- ➢ *Chair person,* 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 Kerela 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.*

- ➢ ***Chair person,*** *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.*

- ➢ ***Chair person,*** *a two day* ***International Conference*** *on 'Mathematical Methods and Computation' organized by the PG & Research Department of Mathematics, Jamal Mohamed College, Tiruchirappalli, on 11ᵗʰ December 2017.*

- ➤ **Resource Person,** *a one day **National Conference on 'Mathematical Modeling and its Applications'** organized by the PG & Research Department of Mathematics, Bon Secours College for Women, Thanjavur, on 14th February 2018.*

- ➤ **Resource Person,** *a one day **National Conference on 'Mathematical Visualisation - 2018'** organized by the Department of Mathematics, Avvaiyar Govt. College for Women, on 13th March 2018.*

- ➤ *Delivered a talk on **'Mathematical Modeling and its Applications'** and acted as the Guest of Honour at the **Ganith Inter-department Competition,** organized by the Department of Mathematics, Idhaya College for Women, Kumbakonam, on 28th March 2018.*

- ➤ *Acted as the **Quiz coordinator** for the **Inter Collegiate Quiz Competition** organized by the Post graduate & Research Department of Mathematics, Government Arts College (Autonomous), Kumbakonam, on 19.12.2006.*

- ➤ *Conducted **Mathematical Quiz programmes** in the Ramanujan Mathematical Association, A.D.M. College for Women, Nagapattinam.*

- ➤ *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.*

- ➤ *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.*

- ➤ *Acted as the **Quiz Master** for the **Inter School Competition** organized by the Post graduate & Research Department of Mathematics, ADM College for Women, Nagapattinam, on 01.03.2021.*

Membership in academic/professional bodies

- ➤ **Member**, *Academic Audit, Govt. Arts College for Women (Auto), Kumbakonam, 2013.*

- ➤ **External Member**, *IQAC, Govt. College for Women (Auto), Kumbakonam, 2011-2014.*

- ➤ **Life Member**, *Kerela Mathematical Association, Kerela, 2014.*

- ➤ **Member,** *Global Economic Research Foundation, India.*

- ➤ **Member**, *Doctoral Committee, PhD candidates of various Research Supervisors, Bharathidasan University, Tiruchirapalli.*

- ➤ **Examiner,** *PG Mathematics Board, Bharathidasan University, Tiruchirapalli.*

- ➤ *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 other Autonomous Colleges.
- ➤ *Research advisor,* M.Phil & PhD degree programmes, Bharathidasan, Manonmaniam Sundaranar & Bharathiar Universities.
- ➤ *Board Member for R&D Modern Research Publication*, India - *'International Journal of Multidisciplinary Research and Modern Education'.*
- ➤ *Board of studies member,* Mathematics board, A.D.M.College, Nagapattinam.
- ➤ *External Expert (Member), IQAC* of TBML College, Porayar*.*
- ➤ *NAAC Advisor,* Vivekananda Arts & Science College for Women, Sirkali*.*

Campus Leadership

- ➤ **N.S.S. Programme officer,** 1999-2001
- ➤ **Convener,** Certificate Courses under Canada India Institutional Cooperation Project, 2003-2005
- ➤ **Editor,** ADMC Newsletter, 2007-2012
- ➤ **Deputy Controller of Examinations**, August 2008 to December 2009
- ➤ **Web Coordinator,** ADMC Website, 2009 onwards
- ➤ **UGC Coordinator,** since 2011

  As UGC Coordinator, instrumental in bringing funds for Indoor and Outdoor Stadium, B.Voc Programmes and UGC PARAMARSH Scheme.
- ➤ **RUSA Coordinator,** from 2013 to 2017
- ➤ **Controller of Examinations**, since 31st December 2015
- ➤ **B.Voc, Nodal Officer**, since 2018

  As B.Voc Nodal Officer,

  - Convened three National level Seminars
  - Made Collaborations with Sector Skill Council and sent students for Training and Assessment.
  - Initiated the establishment of Multimedia Lab and Studio for E-Content development.
- ➤ **UGC - PARAMARSH Scheme, Coordinator**, since 2019

  As UGC PARAMARSH Coordinator,

  - Five MOUs were signed with Mentee Institutions.
  - Five Seminars, Three Webinars and Two MOCK Visits were organized.

- *A UGC sponsored **National Seminar** on **"Micro Controller and its Applications"** at A.D.M.College, Nagapattinam, 3,4th September 2004.*

- *A **Seminar** on "**Recent Trends in Research in Statistics**" at Manonmaniam Sundaranar University, Thirunelveli, 23,24th March 2005.*

- *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.*

- *A UGC 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.*

- *A UGC 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.*

- *A **meeting** of **RUSA (Rashtriya Ucchatar Shiksha Abhiyan) for Principals,** conducted by Tamilnadu State Council for Higher Education at Loyola College, Chennai, on 9th June 2014.*

- *A one day **workshop organized for the Principals** of Affiliated Colleges of the Bharathidasan University on '**Indian Higher Education Quality: Concerns and***

Funding Options' at UGC Academic Staff College, Bharathidasan University, Tiruchirappalli, 4th July 2014.

➤ *A workshop sponsored by MHRD on 'Free Software Training to UG and PG students through Distance Learning Program by Spoken Tutorial (ICT based Software Training)' organized by Bharathidasan University in Collaboration with IIT, Bombay, on 30th January 2015.*

➤ *A two day workshop on 'Revised NAAC Norms and Procedures' jointly organized by Bharathiar University & Association of Principals of Colleges of Bharathiar University, on 26,27th October 2018 at Bharathiar University, Coimbatore.*

➤ *A Training Programme on 'EAT Module of Public Financial Management System (PFMS) for HEIs' organized by University Grants Commission, SERO, Hyderabad, at Loyola College, Chennai, on 10th March 2019.*

➤ *A two day National Level Training on 'Evaluation Reforms in Higher Education' organized by University Grants Commission, SERO, Hyderabad, at the University of Hyderabad, Gachibowli, Hyderabad, on 18, 19th July 2019.*

Orientation / Refresher Courses Attended

➤ *Attended a Orientation course from 4.8.1999 to 31.8.1999 at Pondicherry University, Pondicherry.*

➤ *Attended a Refresher Course at Manonmaniam Sundaranar University, Thirunelveli, from 15.2.2002 to 7.3.2002.*

➤ *Attended a Refresher Course at Bharathidasan University, Tiruchirappalli, from 22.11.2007 to 12.12.2007.*

Presented in Seminars / Workshops / Conferences

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 Queuing 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 September2004.*

3. 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 Ayalnattinarin 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 Hyacinth is 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 Multi objective 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 Fire work 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 – Eichchornia Crasspes'** 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 Intutionistic 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 2015.*

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 Multi Objective Linear Programing 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, West*

Bengal, India and the Proceedings will be published by 'Advances in Intelligent and soft computing', Spinger.

39. *Presented a paper on **'A Mathematical Modelling on Diet Planning and Preventing Diseases'** at the **International Conference on Mathematical Computer Engineering - ICMCE 2015**, 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.*

40. *Presented a paper on **''Multi Objective Decision Making Model for Modern Dairy Farm Using Solar PV System''** at the **International Conference on Mathematical Computer Engineering - ICMCE 2015**, 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.*

41. *Presented a 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 – NICOM 2016** and has been selected for publiction in **'Nature Inspired Computing and Optimization: Theory and Applications', Springer-Verlag, Heidelberg, Germany***

42. *Presented apaper 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).*

43. *Presented a paper entitled **'Mathematical Model for consensus in Group Decision Making under Linguistic Assessment using Triangular Intuitionistic Fuzzy Numbers' organized at AVC College of Engineering** on 23rd March 2018.*

44. *Presented a paper entitled **'Mathematical Model for consensus in Group Decision Making under Linguistic Assessment using Triangular Intuitionistic Fuzzy Numbers' organized at AVC College of Engineering** on 23rd March 2018.*

45. Presented a paper entitled **'An Analysis of facts, causes and consequences of Divorce using RTD Matrix'** organized at AVC College of Engineering on 23rd March 2018.

Publications

Journals	**146** (List Enclosed)
Conference Proceedings	International: **9** National: **6**
Book Authoured	**1**
Book Chapters	**2**

List of Publications

1. 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.

2. 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.

3. 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.

4. Sophia Porchelvi, R., and Vasanthi. L (2012) **'On Solving a Multi objective Fuzzy Linear Programming Problem Using Modified Arithmetic'**, published in *'International Review of Fuzzy Mathematics'*, Vol.7, No.1, p.21-25.

5. 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.

6. 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.

7. 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.

8. Sophia Porchelvi R., Karthi. R, Jamuna Devi (2012), **'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.

9. *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.*

10. *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.

11. *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.*

12. *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.*

13. *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.**

14. *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.*

15. *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.*

16. *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.*

17. *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.*

18. *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.

19. *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.*

20. *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.*

21. *Sophia Porchelvi R., Jamuna Devi. P, (2014),* **'Modeling and Optimizing the Transhipment problem of Municipal solid waste management',** *International Journal of Engineering Research', Vol.2, No.8, pp.117-130*

22. *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.*

23. *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.*

24. *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.*

25. *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.*

26. *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.*

27. *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.*

28. *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.

29. *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.

30. *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.

31. *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.

32. *Sophia Porchelvi. R, Jamuna Devi.P, (2015)* **'Mathematical Modeling and Optimization of Biomass energy production from the aquatic weed Water Hyacinth – Eichchornia Crasspes'***, International Journal of Applied Engineering Research* ,Vol.10, No 51, p. 897-901, ISSN 0973 – 4562.

33. *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.

34. *Sophia Porchelvi. R, Rukmani.S., (2015*) **'On solving Muti-ObjectiveIntuitionistic Fuzzy Linear Programming problem'***, International Journal of Applied Engineering Research*,Vol.10, No 51, page 1046-1050, ISSN 0973 – 4562.

35. *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.

36. *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.

37. *Sophia Porchelvi. R, Anna Sheela.A., (2015)* **'A Comparative study of optimum solution between Fractional Transportation and Fractional Transhipment problem'***, International Journal of Science and Research*,Vol.4, No 3, page 1102-1105.

38. *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.

39. *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.

40. *Sophia Porchelvi, R., and Vinothini, S., (2015),* **'On Evaluating the Performance of Students using Fuzzy Techniques'**, *Elixir Appl. Math*. 82, 32665 – 32669.

41. *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.

42. *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'**.

43. *Sophia Porchelvi, R.,* **"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).*

44. *Sophia Porchelvi, R.,* **"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).*

45. *Sophia Porchelvi, R.,* **'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).*

46. *Sophia Porchelvi, R.,* **'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).*

47. *Sophia Porchelvi, R.,* **'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).*

48. *Sophia Porchelvi, R.,* **'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).*

49. *Sophia Porchelvi, R.,* '**A Study on socio-economic and demographic factors on anemia among rural women'** *was published in* **Elixir International Journal, February 2016**

50. *Sophia Porchelvi, R.,* **'A Simple Integer Linear Programming Model for Hybrid Wind-Solar Systems',** *International Journal of Applied Engineering Research , Vol.10, No 51, 2015, p. 1051-1053, ISSN 0973 – 4562.*

51. *Sophia Porchelvi, R.,* **'Linear Programming Model for Energy Efficient in Buildings'** *was published in* **Elixir International Journal, February 2016**

52. *.SophiaPorchelvi. R., Rukmani S.,(2016),* **IterativeGoalProgramming Approach for SolvingMulti- Objective Intuitionist Fuzzy Linear Programming Problem**, *published in* **AsianJournalof Researchin Social Sciencesand Humanities,** *Vol.6, Issue. 9, pp.2017-2029.*

53. *Sophia Porchelvi. R., Banumathy. A., (2016),* **A FuzzyShortestPath AlgorithmFor Optimal Boundary ExtractionIn Image Processing**, *published in* **AsianJournalof Researchin Social Sciencesand Humanities,** *Vol.6, Issue. 9, pp.163 – 169.*

54. *Sophia Porchelvi. R.,(2016),* **MathematicalModelingof TheSpread of AnEpidemic Disease –Mumps**, *published in* **AsianJournalof Researchin Social Sciencesand Humanities,** *Vol.6, Issue. 9,pp. 2002-2016.*

55. *Sophia Porchelvi. R.,Anna Sheela. A.,(2016),* **Solving Linear Fractional Programming Problem Using LU Factorization Method**, *published in* **AsianJournalof Researchin Social SciencesandHumanities,** *Vol.6, Issue. 10, pp.1929-1938.*

56. *Sophia Porchelvi. R.,Anna Sheela. A.,(2016),* **Solving multi objective fractional linear programming problem using LU factorization method**, *published in* **Global Journal of Pure and Applied Mathematics,** *Vol.12, No.3,pp.994-997.*

57. *Sophia Porchelvi. R.,Anna Sheela. A.,(2016),* **A DiversifiedApproach ForSolving AnAssignmentProblem**, *published in* **AsianJournal ofResearch inSocial Sciences andHumanities,** *Vol.6, Issue. 10, 1945-1954*

58. *Sophia Porchelvi. R. Banumathy. A.,,(2016),* **Generalized Dijkstra's Algorithm For Shortest Path Problem In Intuitionistic Fuzzy Environment**, *published in*

International Journal of Advance Research in Science and Engineering,Vol.7,Issue.6, 82-88

59. *Sophia Porchelvi. R.,(2016),* **A Mathematical Diet Problem For The Nutritional Health Disorder***, published in* **Asian Journal of Research in Social Sciences andHumanities,** *Vol.6,Issue. 9, pp.1994-2001*

60. *Sophia Porchelvi. R.,(2016),* **An Assessment of Drinking Water Quality in CauveryDelta Region and Palar Region, Tamil Nadu***, published in* **Scholedge International Journal of Multi disciplinenary & Allied Studies,** *Vol.3. Issue.12, pp.238-254*

61. *Sophia Porchelvi. R., Uma. S.,(2017),* **Solving Intuitionistic Fuzzy Multi- Objective Linear Programming Problems Using Ranking Function***, published in* **International Journal of Pure and Applied Mathematics,** *Vol.114 No. 5, pp.103-96.*

62. *Sophia Porchelvi. R., Uma. S.,(2017),* **On Solving Multi-Objective Intuitionstic Fuzzy Linear Programming Problem***, published in* **International Journal of Pure and Applied Mathematics,** *Vol. 114 No. 5, pp.113-106.*

63. *Sophia Porchelvi. R.,(2017),* **A New Solvable Procedure for FLCP with symmetric Trapezoidal Intuitionist Fuzzy Numbers Approach***, published in* **International Journal of Pure and Applied Mathematics,** *Vol. 18 No.6, pp. 345-352.*

64. *Sophia Porchelvi. R., (2017),* **Solving FQPP as a Intuitionist Fuzzy Linear Complimentary Problem without Introducing Artificial Variable***, published in* **International Journal of Pure and Applied Mathematics,** *Volume 114 No. 5, pp. 141 – 148.*

65. *Sophia Porchelvi. R., Anna Sheela. A.,(2017),* **Upper Bounds of Linear Fractional Capacitated Transportation Problem and its Paradox***, published in* **Global journal of Pure & Applied Mathematics,** *Vol.13 Number 2, pp. 69-77.*

66. *Sophia Porchelvi. R.,(2017),* **Fuzzy Modeling and HIV Infection of Tamil Nadu and Andhra Pradesh in India***, published in* **Global journal of Pure and Applied Mathematics,** *Vol. 13, Number 2,pp. 199-217*

67. *Sophia Porchelvi. R., Anitha. M.,(2017),* **Transportation of Urea: A case study using Multi Objective Transportation Problem***, published in* **Global journal of Pure and Applied Mathematics,** *Vol.13, Number 2,pp. 299-317*

68. *Sophia Porchelvi. R., Uma. S.,(2017),* **On solving Multi – Objective Linear Programming Problem with Hexagonal Intuitionistic Fuzzy Number***, published in* **Global journal of Pure and Applied Mathematics,** *Vol.13, Number 2,pp. 225-231.*

69. *Sophia Porchelvi. R.,*(2017), **Mathematical Modeling for Retail Product rating using Triangular Intuitionistic Fuzzy Numbers**, *published in* **Global journal of Pure and Applied Mathematics,** *Vol.13, Number 2,pp. 445-453.*

70. *Sophia Porchelvi. R., Uma. S.,*(2017), **On solving Multi – Objective Linear Programming Problem with Pentagonal Intuitionistic Fuzzy Number**, *published in* **Global journal of Pure and Applied Mathematics,** *Vol.13, Number 2,pp. 489-495.*

71. *Sophia Porchelvi. R.,*(2017), **Solving Fuzzy Non-linear unconstrained Optimization Problem using Newton's Method**, *published in* **Global journal of Pure and Applied Mathematics,** *Vol.13, Number 2,pp. 552-557.*

72. *Sophia Porchelvi. R., Rukmani. S.,*(2017), **Case Study: Decision Making in Mushroom Cultivation"**, *published in* **Global journal of Pure and Applied Mathematics,** *Vol.13, Number 2,pp. 889-899.*

73. *Sophia Porchelvi. R., Banumathi. A.,*(2017), **Fuzzy DIJKSTRA'S Algorithm for Shortest Path Problem in Image Segmentation"**, *published in* **Global journal of Pure and Applied Mathematics,** *Vol.13, Number 2,pp. 1034-1039.*

74. *Sophia Porchelvi. R.,*(2017), **Biomass from Water Hyancith Mathematical Modeling using Regression**, *published in* **Global journal of Pure and Applied Mathematics',** *Vol. 13, Number 2, pp.1040-1047.*

75. *Sophia Porchelvi. R.,*(2017), **A New Algorithmic Approach for Algebraic Elimination Method to solve Fuzzy Linear Complementarity Problem**, *published in* **Global journal of Pure and Applied Mathematics,** *Vol.13, Number 2, pp.445-453.*

76. *Sophia Porchelvi. R.,*(2017), **Variable Dimension Algorithmic approach to solve Intuitionistic Fuzzy Linear Complementarity Problem**, *published in* **Global journal of Pure and Applied Mathematics,** *Vol.13, Number 2, pp.496-504.*

77. *Sophia Porchelvi. R.,*(2017), **A study on Diet Planning and Preventing Diseases with Linear Programming**, *published in* **Global journal of Pure and Applied Mathematics,** *Vol. 13, Number 2, pp.1141-1145.*

78. *Sophia Porchelvi. R.,*(2017), **A Multi objective Fuzzy Linear Programming Problem Using Ranking Functions of Symmetric Trapezoidal Fuzzy Numbers**, *published in* **International Journal of Scientific and Engineering Research,***Vol. 4, No.10, pp.848-851.*

79. *Sophia Porchelvi. R.,*(2017), **Assessment by Multivariate Statistical Analysis of Ground Water Physicochemical Parameters of Cauvery Delta Region, Tamil Nadu,**

India , *published in* **Annals of Pure and Applied Mathematics,** *Vol. 15.No. 1, pp.123-131*

80. *Sophia Porchelvi. R., Anitha. M.,(2017),* **Paradox in a Linear Multi Objective Transportation Problem**, *published in***Annals of Pure and Applied Mathematics,** *Vol. 15, No. 2, pp.185-192***.**

81. *Sophia Porchelvi. R.,(2017),* **Analysis of Ground Water Quality by Fuzzy Comprehensive Evaluation in Cauvery Delta Region, Tamil Nadu, India**, *published in* **American Journal of Mathematical Analysis,** *Vol. 5, No. 1, pp.1-6.*

82. *Sophia Porchelvi. R., Umamaheswari. M.,(2017),* **A New Proposed Method For Solving Intuitionistic Fuzzy Parametric Linear Complimentarily Problems**, *published in* **International Journal of Current Research and Modern Education,** *special Issue, July, pp.70-74.*

83. *Sophia Porchelvi. R., (2017),* **A Linear Population model For Diabetes Mellitus**, *published in* **Bulletin of Pure and Applied Sciences,** *Vol. 36E, No.2, pp.311-315.*

84. *Sophia Porchelvi. R.,(2018),* **On Solving MCDM Using Ranking Order Of Topsis**, *published in* **IOSR Journal Of Humanities And Social Science,** *Vol.23,pp. 56-59.*

85. *Sophia Porchelvi. R., Slochana. M.,(2018),* **An analysis of dengue fever using fuzzy matrix**, *published in* **International Journal of Fuzzy Mathematical Archieve, Vol 15, No. 2, pp 115-121**

86. *Sophia Porchelvi. R., Slochana. M.,Snekaa. B.,(2018),* **A study on Cardio vascular disease by using fuzzy cognitive maps**, *published in* **Asia Pacific Journal of Research,** *Vol no.1, Iss no:LXXXVI,pp 303-307*

87. *Sophia Porchelvi.R., Slochana. M.,(2018),* **An analysis of facts, causes and consequences of Divorce using RTD matrix**, *published in* **International Journal of Advance Research in Science and Engineering,** *Vol no.7, Issue no.6, pp 6-12.*

88. *Sophia Porchelvi.R.,(2018),* **An application of Fuzzy programming approach to multi objective transportation problem**, *published in* **International Journal of Information &Computing Science** *Vol.5, Issue 12, pp 327-335.*

89. *Sophia Porchelvi.R.,(2018),* **Transportation of fresh water- A case study using multi objective transportation problem**, *published in* **International Journal of research and analytical reviews,** *Vol 5, no.4, pp 115-121.*

90. *Sophia Porchelvi.R.,(2018),* **Linear programming method for solving optimized nutrients feed formulation in Gift Tilapia**, *published in* **IOSR journal of Humanities and Social Sciences,** *Vol 23, no.10, pp 28-33*

91. *Sophia Porchelvi.R.,(2018),* **A Comparative Study between Various Approaches on MCDM Models**, *published in* **Journal of Applied Science & Computations,** *Vol 5, pp.599-607.*

92. *Sophia Porchelvi.R,(2018),* **Study on Job Preferences Given in Job Change Decision of Startup Company Workers in Chennai Using Integrated Fuzzy Multi Criteria Decision Making Methodology**, *published in* **Annals of Pure and Applied Mathematics,** *Vol. 17, pp 137-146.*

93. *Sophia Porchelvi.R.,(2018),* **Multi criteria decision making under intuitionistic environment using ranking order of Soft TOPSIS**, *published in* **International Journal of Scientific research and reviews,** *Vol 7, no.4, pp 1618-1623.*

94. *Sophia Porchelvi.R.,(2018),* **On solving multi criteria decision making problem using Ranking order of Soft TOPSIS method**, *published in* **International Journal of research and analytical reviews,** *Vol 5, no.4, pp 261-268.*

95. *Sophia Porchelvi.R.,(2018),* **Multi-Objective Transportation Models: A Case study**, *published in* **IOSR Journal of Humanities and Social Sciences,** *e-ISSN 2279-0837,Vol. 23, Issue 8, pp. 54-60.*

96. *Sophia Porchelvi.R.,(2018),* **Optimal solution for Assignment Problem by Average Total Opportunity Cost Method**, *published in* **Journal of Mathematics and Informatics',** *Vol. 13, pp. 21-27.*

97. *Sophia Porchelvi.R.,(2018),* **An analysis of soil content for plant nutrients by using fuzzy soft sets**, *published in* **IOSR Journal of Engineering',** *Vol.08., Issue 8, pp.66-68.*

98. *Sophia Porchelvi.R., (2018),* **An analysis of suitable crystal for electro optic (EO) Applications by using fuzzy soft sets**, *published in* **IOSR Journal of Engineering',** *Vol.08, Issue 6, pp.54-57.*

99. *Sophia Porchelvi.R.,(2018),* **On Solving a Multi-Objective Linear Programming Problem formulated for the feed of Indian Spiny loach**, *published in* **International Journal of Innovation in Engineering Research & Management,** *Vol.no:05, issue no:2, pp.01-06*

100. *Sophia Porchelvi.R.,(2018),* **On Solving Fully Fuzzy Multi-Objective Linear Programming Problem By Using Symmetric Trapezoidal Fuzzy Numbers**, *published in,* **International Journal of Current Research and Modern Education,** *special issue, pp.65-69.*

101. *Sophia Porchelvi.R., Umamaheswari. M.,(2017),* **A New Proposed Method For Solving Intuitionistic Fuzzy Parametric Linear Complimentarity Problems**, *published in* **International Journal of Current Research and Modern Education,** *Special Issue, pp.70-74*

102. *Selvavathi.P.,Sophia Porchelvi.R.,(2018),* **A Comparative study on Multi-objective Fuzzy Pattern Recognition Model and the DRASTIC Model for assessing Ground water Vulnerability**, *published in* **International Journal of Current Research and Modern Education,** *Vol-03, Issue-1,p.447-456.*

103. *Sophia Porchelvi.R., Irine. J., Regupathi. R., (2018),* **On solving a Multi-observer Multi objective Decision Making Problem Using Fuzzy Soft sets in selecting Optimized Edible fish**, *published in* **Asia Pacific Journal of Research,** *Vol: 1, No.87, pp. 43-50.*

104. *Irine. J., Sophia Porchelvi.R., Regupathi. R., Snekaa. B.,(2018),* **A Study on Application in Ornamental fish health using Soft TOPSIS and MOORA**, *published in* **International Journal of Advanced Research Trends in Engineering and Technology,** *Vol 5, No. 7, pp.426-434.*

105. *Sophia Porchelvi.R., Snekaa. B., Slochana. M.,(2018),* **Analyzing the Food Quality Using K-Means Clustering**, *published in* **International Journal of Advanced Research Trends in Engineering & Technology,** *Vol. 5, pp 36-38.*

106. *Sophia Porchelvi.R., (2018),* **On Solving a Multi-Criteria Decision Making Problem Using Fuzzy Soft Sets In Sports**, *published in* **Asia Pacific Journal of Research,** *Vol-1, pp 62-68.*

107. *Sophia Porchelvi.R.,(2018),* **An Algorithm to Solve Multi-Objective Assignment problem using Fuzzy programming Technique**, *published in* **International Journal of Current Research of Modern Education,** *Vol. no 3, pp.363-367.*

108. *Sophia Porchelvi.R.,(2018),* **Comparative Study of Optimum Solution between Interval Transportation and Interval Transhipment Problem**, *published in* **International Journal of Advanced Science and Engineering,** *ISSN 2349 5359, Vol.4, pp.764-767.*

109. *Rajaraman. K.,Sophia Porchelvi.R., Irene Hepzibah. R.,(2018),* **One's assignment method to solve intuitionist fuzzy assignment problem**, *published in* **Journal of Applied science and Computations',** *Vol.05, number 08, pp.252-261.*

110. *Rajaraman. K., Sophia Porchelvi.R., Irene Hepzibah. R.,(2018),* **Mathematical model for consensus in group decision making under linguistic assessment using**

triangular intuitionistic fuzzy numbers, published in **International journal of advanced research in science & Engineering** *Vol. 07, no.06, pp.100-107.*

111. *Sophia Porchelvi.R.,(2018),* **Multi-Objective Linear Programming Model for small-scale fish farmers in Polyculture fish farming**, *published in* **International Journal of Pure and Applied Mathematics,** *Vol. 119, No. 7, pp.361-369.*

112. *Sophia Porchelvi.R.,(2018),* **On Solving Multi Objective Interval Transportation Problem Using Fuzzy Programming Technique**, *published in* **International Journal of Pure and Applied Mathematics,** *Vol. 118 No. 6, pp.483-491.*

113. *Sophia Porchelvi.R.,(2018),***Goal Programming Approach in Multi-objective Intuitionist Fuzzy Linear Fractional Programming Problem**, *published in* **International Journal of Pure and Applied Mathematics,** *Vol. 118 No. 6, pp.541-549.*

114. *Sophia Porchelvi.R.,(2018),* **Multi Criteria decision making in marketing mix on customer satisfaction using triangular intuitionistic fuzzy numbers**, *published in* **International Journal of Pure and Applied Mathematics,** *Vol. 118 No. 6, pp.371-379.*

115. *Sophia Porchelvi.R., Slochana. M., Snekaa. B.,(2018),* **An alternative approach of choosing active ingredients in the pesticides by using fuzzy soft sets**, *published in* **Asia Pacific Journal of Research',** *Vol.1, Issue LXXXVI,pp.303-307.*

116. *Sophia Porchelvi.R.,(2018),* **On solving multi- objective fractional linear programming problem by using Intuitionistic fuzzy numbers**, *published in* **International Journal of Pure and Applied Mathematics,** *Vol.118, No. 6, pp.493-498.*

117. *Sophia Porchelvi.R.,(2018),* **A study on Intuitionistic fuzzy multi objective LPP into LCP with Neutrosophic triangular number approach**, *published in* **Journal of Applied Science and Computations,** *Vol.5, pp.570-576.*

118. *Sophia Porchelvi.R.,(2018),* **Solving FQP problem as a triangular FLCP by proposed method**, *published in* **International Journal of Scientific Research in Mechanical & Materials Engineering,** *Vol. 2, pp. 36-41.*

119. *Sophia Porchelvi.R.,(2019),* **A study on selecting a school using fuzzy matrices and Hungarian method**, *published in* **International Journal for Research in Engineering Applied and management,** *Vol. 5 issue 2.*

120. *Sophia Porchelvi.R., (2019),* **A study on a typical Integrated and Polyculture farming using Linear Goal Programming Technique**, *published in* **International**

Journal of Analytical and Experimental model analysis, Vol. XI, issue X, pp.781-785.

121. *Sophia Porchelvi.R.,(2019),* **An Application of Fuzzy Topsis method using Trapezoidal fuzzy numbers**, *published in* **Journal of Information and Computational Science,** *Vol.9, Issue 1,pp.458-462.*

122. *Sophia Porchelvi.R.,(2019),* **Optimizing Transportation Problem with Multiple Objectives: Gift Tilapia feed formulation**, *published in* **American International Journal of Research in Science, Technology, Engg and Mathematics,** *Vol.5, Issue 12,pp. 327-335.*

123. *Snekaa. B.,Sophia Porchelvi.R.,(2019),* **Ranking order of Fuzzy Topsis for MCDM under Intituitionistic fuzzy Environment**, *published in* **American International Journal of Research in Science, Technology, Engg and Mathematics.***Vol-19, Issue-101, pp.266-270.*

124. *Sophia Porchelvi.R., Dorthy. C.,(2019),***A new method for finding the school dropouts using Fuzzy soft sets**, *published in* **Journal of information and computational sciences,** *Vol. 9, issue 12, pp.961-971*

125. *Sophia Porchelvi.R., JayaPriya V.,(2019),* **On studying certain fuzzy Neutrosophic matrices and operators**, *published in* **Journal of Physical Science,** *Vol. 24, pp.63-72.*

126. *Sophia Porchelvi.R., JayaPriya V.,(2019),* **Determinant of a fuzzy Neutrosophic matrix**, *published in* **International of Scientific and Engineering Research,** *Vol.7, Issue 5, pp.54-57*

127. *Sophia Porchelvi.R., Hameetha Begam. P., Irine. J.,(2019),* **Decision making Approach and Pythagorean Fuzzy sets and Pythagorean Fuzzy Digraphs with applications**, *published in* **American International Journal of Research in Science, Technology, Engg and Mathematics,** *Vol.20, Issue.1 pp.1-6*

128. *Senkaa. B.,Sophia Porchelvi.R.,(2020),* **Intergration of CRITIC and DEA(CCR Model) for decision making purposes in a fuzzy environment**, *published in* **The International Journal of Analytical and Experimental Model Analysis** *Vol-12, pp.235-240*

129. *Sophia Porchelvi.R., JayaPriya. V.,(2020),* **Pythagorean fuzzy softset and its applications in decision making**, *published in* **The International Journal of Analytical and Experimental Model Analysis,** *Vol-12, IssueI, pp.153-161.*

130. *Sophia Porchelvi.R.,JayaPriya V.,(2020),* **Pythagorean Fuzzy MultiSet and its Applications in Fish Feed for Indian Major Carp***, published in* **Advances in Mathematics: Scientific Journal,** *Vol-11,No.11, pp.9803–9811.*

131. *Sophia Porchelvi.R., Dorthy. C.,(2020),* **A Study On SSLC results of government higher secondary school using CETD matrix***, published in* **The International Journal of Analytical and Experimental modal analysis,** *Vol-12 IssueI, pp.126-134*

132. *Snekaa. B., Sophia Porchelvi.R., (2020),* **An integrated fuzzy extended AHP-fuzzy TOPSIS and fuzzy Hungarian approach to the problem of selecting net ballplayers***, published in* **Journal of Information and Computational Science,** *Vol.10, issue3, pp.916-929.*

133. *Snekaa. B., Sophia Porchelvi.R., (2020),* **Analysis of Nutritious foods for Players: Comparative Study using Various MCDM Methods***, published in* **Journal of Xidian University,** *Vol. 14, issue6, pp. 669-685.*

134. *Snekaa. B., Sophia Porchelvi.R.,Dorthy. C.,(2020),* **A combination of FAHP and fuzzy softset theory method for solving MCDM problem in sports application***, published in* **MalayaJournal ofMathematik.(UGCCare),** *Vol. 8, issue4, pp.1577-1579.*

135. *Snekaa. B., Sophia Porchelvi.R.,(2020),* **Application of fuzzy softset theory and Hungarian method for assigning player's position***, published in* **Malaya Journal of Mathematik (UGCCare),** *Vol. 8, issue4, pp.1661-1664*

136. *Snekaa. B., Sophia Porchelvi.R.,(2020),* **Application of PROMETHEE -GAIA methodology in the choice of alternatives for investment of Start-up Company** *, published in* **Materials Today: Proceedings.(SCOPUS),** *pp.01-04*

137. *Sophia Porchelvi.R., Dorthy. C.,(2020),* **Solving Triangular Fuzzy Matrix using Robust Ranking Methodology***, published in* **Journal of Xidian University,** *Vol.14, Issue.3, pp.779-786*

138. *Sophia Porchelvi.R., Dorthy. C.,(2020),* **Application of Eigen Fuzzy Set of Fuzzy Relation for Finding Student's Satisfaction Level in Teacher's teaching***, published in* **High Technology Letters,** *Vol. 26, Issue.6, pp.20-29.*

139. *Sophia Porchelvi.R., Dorthy. C.,(2020),* **An Applicationof fuzzy AHP method in selecting a school teacher using trapezoidal fuzzy numbers***, published in* **Aegaeum journal** *Vol.8, Issue.4, pp.1705-1713*

140. *Sophia Porchelvi.R., Dorthy. C.,(2021),* **An Integrated Fuzzy AHP Model and Robust Ranking technique for selecting the school people leader**, *published in Journal of Inter disciplinary Cycle Research Vol.XII, Issue.IV, pp.1101-1109*

141. *Sophia Porchelvi.R, Dorthy. C.,Snekaa. B.,(2020),* **Finding Reason For school dropouts using repeated average method on fuzzy soft sets.**, *published in* **Malaya Journal of Mathematics** *Vol.8, issue.4, pp.1547-1550*

142. *Sophia Porchelvi.R.,Dorthy. C.,(2020),* **Selecting a School on the Basis of Parent's Expectation Using Intuitionist Fuzzy SoftSet**, *published in* **Malaya Journal of Mathematics (UGCCare),***Vol.8, issue.4, pp.1690-1613*

143. *Akila Devi. S.,Sophia Porchelvi.R.,(2021),* **Pronic Graceful Labeling on Special Cases of Generalized Peterson Graphs**, *published in* **Wesleyan Journal of Research (UGCCare)** *Vol. 13, No.58, pp.86-89*

144. *Akila Devi. S.,Sophia Porchelvi.R.,(2021),* **Pronic Heron Mean labeling on special case of generalized Petersongraph $P(n,k)$ and disconnected graphs**, *published in* **MalayaJournal of Mathematics (UGCCare)** *Vol.9, No.1, pp.262-266*

145. *Jayapriya. V., Sophia Porchelvi.R., (2021),* **Combination of Probability Estimation and Pythagorean Fuzzy Evidence Theory**, *published in* **Wesleyan Journal of research (UGCCare)** *Vol.13, No.58, pp.79-85*

146. *Jayapriya. V., Sophia Porchelvi.R.,(2021),* **Pythagorean fuzzification and Defuzzification functions**, *published in* **Malaya Journal of Mathematics,** *Vol.9, No.1,pp. 286-290*

International Conference Proceedings

1. *Sophia Porchelvi, R., Irene Hepzibah, R., and Nagoorgani, A. (2011)* '**Multi objective 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, ISBN 978-81-8424-743-5.*

2. *Sophia Porchelvi, R., Irene Hepzibah, R., and Vasanthi. L (2011)* '*Multi Objective 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, ISBN 978-81-8424-743-5.*

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) Multi objective 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 Path in a 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, ISBN 978-81-8424-466-3.*

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, ISBN 81-88338-08.*

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, ISBN 978-93-82338-70-3.*

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: 1978-93-82338-69-7.*

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.*

Chapters in Books

> A Chapter entitled 'Chance constrained fuzzy goal programming with penalty functions for academic resource planning in University Management using genetic algorithm' authored by Prof. Bijay Baral Pal, Dr. R. Sophia Porchelvi, and Prof. Papun Biswas, was published in the edited volume entitled 'Nature Inspired Computing and Optimization: Theory and Applications', Springer Publishing, Germany.

> A Chapter entitled "Analysis of Ground Water Quality by Fuzzy Comprehensive Evaluation in Cauvery Delta Region, Tamil Nadu, India" authored by R. Sophia Porchelvi and P.Selvavathi, was published in the edited volume entitled 'Current Topics on Mathematics and Computer Science'.

Books Authored

I have authored a **book** for **Prentice Hall of India** entitled '**Integral Transforms and Partial Differential Equations with Matlab Codings**'

Software Expertise (computer skills)

- ➢ **Languages known** :   BASIC, FORTRAN, PASCAL, COBOL, C &C++, Java
- ➢ **Packages known** **:** FoxPro, WordStar, MS-Office, Mat Lab, SPSS
- ➢ **Operating system** **:**   DOS, Windows.

Personal Details

Father's Name	:	(Late).Prof .S.Rajkumar
Father's Occupation	:	Professor and H.O.D of Mathematics (Rtd.)
		T.B.M.L College, Porayar.
Date of Birth	:	07.07.1966
Caste and Community	:	Christian Nadar (B.C)
Address	:	No.1, Raja Vetha Illam,
		Main Road, Kathanchavadi,
		Porayar – 609 307.
		Nagappattinam District.
		Mobile No. 9486860573.
		Email. sophiaporchelvi@gmail.com

I hereby solemnly declare that the information furnished above is true to the best of my knowledge and belief.

Place   : Nagapattinam
Date   : 08.12.2021

(Dr.R.Sophia Porchelvi)