




# SRM Valliammai Engineering College

SRM Nagar, Kattankulathur-603203, Kancheepuram District, Tamil Nadu

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## Department of Mathematics

### Personal Details

|                             |  |           |   |
|-----------------------------|--|-----------|---|
| Name :                      | A. KARPAGAM, M.sc., M.phil, M.Ed, SET (Ph.D)   |           |  |
| Designation :               | Assistant Professor-Ordinary Grade   |           |   |
| Educational Qualification : | M.sc., M.phil, M.Ed, SET (Ph.D)  |           |   |
| Experience:                 | 8 Years 9 Months   |           |   |
| Area of Specialization :    | FUZZY LOGIC, OPERATION RESEARCH,<br>LINEAR COMPLEMENTARITY PROBLEM   |           |   |
| Date of Joining :           | 01.06.2012   |           |   |
| Email ID :                  | <a href="mailto:karpagamohan@rediffmail.com">karpagamohan@rediffmail.com</a> ,<br>karpagama.maths@valliammai.co.in |           |   |
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### Educational Details

| S.No | Degree                | Branch/Specialization | Institution / University                                       | Year     |
|------|-----------------------|-----------------------|--|----------|
| 1    | B.Sc                  | Mathematics           | DKM College for Women/Thiruvalluvar University / Vellore       | 2007     |
| 2    | M.Sc                  | Mathematics           | Auxilium College For Women /Thiruvalluvar University / Vellore | 2010     |
| 3    | M.Phil.               | Mathematics           | ANNA University  | 2012     |
| 4    | B.ED                  | Education             | Madras University  | 2008     |
| 5    | M.ED                  | Education             | Tamilnadu University   | 2011     |
| 6    | SET(Eligibility Test) | Mathematics           | Mother Theresa Women's University                              | 2016     |
| 7    | Ph.D                  | Mathematics           | Anna University  | Pursuing |

### Professional Society Memberships

1. Indian Science Congress,
2. Indian Society for Technical Education,

### PROJECTS DONE

- M.Phil – Fuzzy numbers with Linear Programming Problems.
- M.Sc. – Operation Research

### Publication Details

1. Paper published “**New Approach to Solve Fuzzy Linear Programming Problems by the Ranking Function**”, Bonfring International Journal of Data Mining, ISSN: 2277-5048, Vol. 4, No. 4, Pp- 22-25, 2014.
2. Paper published “**Innovative Method for Solving Fuzzy Linear Programming Problems with Symmetric Trapezoidal fuzzy Numbers**”, International Journal of Latest Research in Science and Technology, ISSN (Online):2278-5299, Volume 3, Issue 6: Pp No.95-98, 2014.

3. Paper published “**A New Tactic for Finding Irrelevant Constraints in Linear Programming Problems**”, International Journal of Scientific and Engineering Research, ISSN 2229-5518 ,Volume 3, Issue 6: 2015.
4. Paper published “**Fuzzy Optimal Solution for Fully Fuzzy Linear Programming Problems using Hexagonal Fuzzy Numbers**”, International Journal of Fuzzy Mathematical Archive, ISSN: 2320 – 3242 (P), 2320 –3250 (online), Volume 10, Issue 2: 2016 (**UGC JOURNAL**).
5. Paper published “**A New pivotal Operation on Triangular Fuzzy Number for Solving Fully Fuzzy Linear Programming Problems**”, International Journal of Applied Mathematical Sciences, ISSN 0973-0176 Volume 9, Number 1 (2016), pp. 41-46(**SCOPUS**).
6. Paper published “**A New Membership Function on Hexagonal Fuzzy Numbers**”, International Journal of Science and Research, ISSN (Online): 2319-7064, Volume 5, Issue 5: 2016.
7. Paper published “**A New Ranking Technique of Hexagonal Fuzzy Numbers**”, International Journal of Science and Research, ISSN (Online): 2319-7064 , Volume 5, Issue 6: 2016.
8. Paper published “**To Obtain Initial Basic Feasible Solution Physical Distribution Problems**”, Global Journal of Pure and Applied Mathematics. ISSN 0973-1768 Volume 13, Number 9 (2017), pp. 4671-4676 (**SCOPUS**).
9. Paper published “**New Membership Function and New Ranking Function on Heptagon Fuzzy Number**”, International Journal of Mathematics And its Applications, Volume 5, Issue 4, ISSN: 2347-1557, 2017, Pp. 875-878. (**UGC Journal**)
10. Paper published “**New Ranking Function on Octagonal Fuzzy Number for solving Fuzzy Transportation Problem**”, in International Journal of Pure and Applied Mathematics (IJPAM), Volume.119, ISSN: 1311-8080 Pp:125-131, Academic Publications (**SCOPUS and UGC Journal**).
11. Paper published, “**Membership and Non membership function of Pentagonal Fuzzy numbers**” in “American International Journal of Research in Science, Technology, Engineering and Mathematics” ISSN (print) 2328-3491, ISSN (Online) 2328 3580, March 2019 (**UGC Journal**).
12. Paper published, “ **Heptagonal Fuzzy Number by singular value decomposition**”, in American International Journal of Research in Science, Technology, Engineering and Mathematics”, ISSN (print) 2328-3491, ISSN (Online) 2328 3580, April 2019, (**UGC Journal**).
13. Paper published, “**Pentagonal Fuzzy Number by Cholesky Decomposition and Singular Value Decomposition**”, in International Journal of Mathematics Research, ISSN : 0976 5840 Volume 11, Number 1 , pp 19-28 June 2019.
14. Paper published, “**Comparison Results of Trapezoidal, Simpson’s 1/3 rule, Simpson’s 3/8 rule and Weddle’s rule**”, in A Journal of Composition Theory, ISSN 0731 6755, Volume XII, Issue IX, September 2019, (**UGC Journal**).
15. Paper published, “**Fuzzy cubic spline Interpolation with Triangular Fuzzy Numbers**” in International Journal of Recent Technology and Engineering, ISSN : 22773878, Volume 8, Issue 5, January 2020 PP 4164 – 4166 , DOI:10.35940/ijrte.E6195.018520 (**Scopus Indexed Journal**)
16. Paper published “**Fully Fuzzy Linear Systems in Python Programming**” in International Journal of Engineering and Advanced Technology, ISSN 2249 8958, Volume 9, Issue 4, April 2020 PP 951-956 DOI: 10.35940/ijeat.D7580.049420 (**Scopus Indexed Journal**)
17. Paper published, “ **New Tactic of Cubic Spline Interpolation with Trapezoidal Fuzzy Numbers**” in “Gedrag Organisatie Review” ISSN : 0921-5077, Volume 33, Issue 03(July – Sep ) 2020, pp 112- 118 , DOI : 10.37896/GOR33.03/410, (Scopus Indexed and Web of Science Journal)
18. Paper published, ‘**A Tactic approach in game theory**’, in A Journal of Composition Theory, ISSN : 0731 – 6755, Volume XIII, Issue XI, pp- 287-293, November 2020., (**UGC Journal**).
19. Paper published, ‘**Real life Applications of Bayes Theorem**’, in A Journal of Composition Theory, ISSN : 0731 – 6755, Volume XIV, Issue II, pp- 165-170, February 2021. (**UGC Journal**).

## CONFERENCE PAPERS PRESENTATION

### INTERNATIONAL LEVEL

- A New Approach for Solving Fully Fuzzy Linear Programming Problems with Symmetric Trapezoidal Fuzzy Numbers, at **Satyabhama University**, 2014, proceeding published by **ELSEVIER**.

- Fuzzy optimal solution for fully fuzzy linear programming problems using Hexagonal fuzzy Numbers **University College of Engineering**, Villupuram, December 2014.
- New Membership Function and New Ranking Function on Heptagon Fuzzy Number at **Vinayaga Mission University**, May 2017.
- To Obtain Initial Basic Feasible Solution Physical Distribution Problems at **Vinayaga Mission University**, May 2017.

### **NATIONAL LEVEL PAPER PRESENTATION**

- A New method for Solving Fully Fuzzy Linear Programming Problems with Symmetric Triangular Fuzzy Numbers, at **VIT University**, Chennai, April 2014.
- A New Tactic for Finding Irrelevant Constraints in Linear Programming Problems, at **SRM University**, Chennai, January, 2014.
- NEW RANKING FUNCTION ON OCTAGONAL FUZZY NUMBER FOR SOLVING FUZZY TRANSPORTATION PROBLEM at **SRM University** , Chennai, November, 3 & 4 2017.

### **CONFERENCE ATTENDED**

- Participated in the International Web Conference on ‘Smart Engineering Technologies 2020’ held at Ramco Institute of Technology, Rajapalayam, organized by the Dept. of Mathematics, 26-27 June 2020.
- Participated in the International Conference on ‘Recent Trends and Technology of Mathematics and Science (QIVCRTTMS 2020)’ held at Queens College of Arts and Science for Women, organized by the Dept. of Mathematics and Science, 7<sup>th</sup> & 8<sup>th</sup> October 2020 in virtual mode.
- Participated in the International Conference on ‘Emerging Trends in Mathematics and Statistics ICETMS- 2020 online)’ held at ST. GEORGE’S COLLEGE ARUVITHURA, Kottayam in association with Kerala Mathematical Association (KMA), 21-23 October 2020.
- I participated in the International Virtual Conference on ‘Progress in Mathematics towards Industrial Applications (PMTIA- 2020)’ held at SRM Institute of Science and Technology, Chennai, organized by the Dept. of Mathematics, 6<sup>th</sup> & 7<sup>th</sup> November 2020.

### **PARTICIPATED (Seminar / Workshop/Webinar)**

- An Awareness Seminar on Learning Disabilities (DYSLEXIA) Among School Children” held at D.G. Vaishnav College on 26<sup>th</sup> February 2008, Chennai-600106.
- National Workshop “Student’s Participation in Quality Enhancement and Sustenance” Auxilium college, 11<sup>th</sup> December 2008, Vellore-6.
- Inter Collegiate Seminar on “Cell Phone Usage” Auxilium College, 14<sup>th</sup> October 2009, Vellore-632 006.
- State Level Seminar on “Teacher Development” held at Sri Balaji College of Education on 05.02.2011.
- A Bridge course in Mathematics, “Centre for Faculty Development”, Anna University. June 23-24, 2014.
- Two-day Mathematics Workshop “Aspects of Mathematics” held at the Institute of Mathematical Sciences, Chennai, June 30-July 01, 2014.
- State level one day Faculty Development program on ‘Queueing Theory’ KCG College of Technology, 15<sup>th</sup> October 2014.
- One-day Mathematics Workshop “Recent trends in Mathematics with Computer Applications”, Valliammai Engineering College, 20<sup>th</sup> December 2014.
- Teachers Enrichment Workshop “Algebra and Analysis” held at **IMSC**, Chennai during 23-28 May 2016.
- One day Workshop on Fuzzy Set Theory and its Applications(WFTA-2017) conducted at SRM University, 9<sup>th</sup> March 2017.
- Online Lecture Series on “ Mathematics of Industry 4.0” conducted at SRM Institute of Science and Technology, Ramapuram Chennai -89, from 27.04.2020 to 29.04.2020

- Special webinar on “ Good teacher to a Great teacher” Speech given by Dr. Shylendra Babu IPS, Season 4 of sky campus, ICT Academy on 15.05.2020
- Online webinar on “ Awareness about of Patent Filing” hosted by Patrician College of Arts and Science, Chennai on 15.05.2020
- Online workshop on “Mathematical Sciences for UGC CSIR NET Aspirants organized by Department of Mathematics, St.Mary’s college Thoothukudi on 19.05.2020 to 23.05.2020
- Online webinar on “ Current Research in Fuzzy Mathematics” organized by the Department of Mathematics, Sri Pushpam College Thanjavur held on 24.05.2020.
- Online two days webinar on “LATEX – learning by doing, organized by PG and Research Department of Mathematics, Idhaya College for women, kumbakonam held on 15.05.2020 and 16.05.2020.
- Two days online seminar on “Recent Research Topics in Mathematics” organized by Department of Mathematics, Auxillium College,(Autonomous), Vellore on 28<sup>th</sup> and 29<sup>th</sup> May 2020.
- Webinar on “ Innovation Process and Challeges of Fuzzy Modeling organized by PG and Research Department of Mathematis ,Kunthavai Nacchiyar Arts College for Women on 4<sup>th</sup> june 2020.
- Two days Webinar on Linear Algebra organized by PG and Research Department of Mathematis, National College, Trichy, 09.06.2020 to 10.06.2020.
- Webinar on “ Applications of Mathematics”,Shri ShivayogiMurughendra Swaii Arts and Science and Commerce on 17 th june 2020, Athai.
- Online webinar on “Aptitude for CSIR NET” organized by Department of Mathematics, Sathyabama University, Chennai held on 11<sup>th</sup> June 2020 to 13<sup>th</sup> June 2020.
- Webinar on “ Real Analysis and its Application conducted by Department of Mathemaics, Arts , Commerce and Science College, Maregaon, Amravation 28.06.2020,
- Six days National Webinar Series on Applcation of Mathematics conducted by Department of Mathemaics, KPR Institute of Eginerig and Technology Coimbatore o 06.07.2020 to 11.07.2020
- National webinar on “ An overview of Cryptography” organized by theDepartment of Mathematics, D. G. Vaishnav College, Arumbakkam, Chennai 106 on 20.9.2020

### **FACULTY DEVELOPMENT PROGRAMME (FDP) ATTENDED**

- Five days online Faculty Development Programme on “ Latex and Scilab” conducted at D.K.M. College for women, Autonomous in associated with spoken Tutorial IIT Bombay from 30.04.2020 to 04.05.2020
- Online FDP “ Documentation of Graph using Latex ogaized by the Department of Science and Humanities, C, Abdul Hakeem College of Engineering and Technology13 th May 2020.
- Two days online Faculty Development Programme on “ Inategrating Swayam MOOC’s and Educational Apps in Teaching” organized by the IQAC and swayam, S.D.N.B Vaishnava college for women, chrompet Chennai 44 on 28.05.2020 and 29.05.2020.
- Online FDP on Fuzzy Sets and Systems organized by Department of Mathematics, Patrician College of Arts and Science, 16 th May 2020.
- Two daysOnline FDP o MA8351 Algebra and Number Theory conducted by Department of Mathemaics, Ramco Institute of Technoly Rajapalayam on 26 th and 27<sup>th</sup> may 2020.
- Ten days online Value added Courses on “Professional Grooming”organized by the Department of English Valliammai Engineering College, on 6<sup>th</sup> July to 14<sup>th</sup> July.
- Five days Online Faculty Development Programme on Applcation of Mathematics in Engineering conducted by Department of Mathemaics, KPR Institute of Eginerig and Technology Coimbatore o 27.07.2020 to 31.07.2020

### **MEMBERSHIP**

- Life time member in ISTE
- Reviewer of International journal of Annuals of Fuzzy Mathematics
- Indian Science Congress,
- Indian Society for Technical Education,

### **REVIEWER**

- Acted as a Reviewer for the Journal “International journal of Annuals of Fuzzy Mathematics” dated 25-05-2018.

### **GUEST LECTURE -RESOURCE PERSON**

- Acted as a Resource person for AICTE Sponsored Short Term Training Programme on Modern Optimization Tools in Engineering Field III .in the topic ‘Optimization Methods in Linear Programming Problem’, in SRM Valliammai Engineering College, on 02.11.2020, Chennai.

### **COURSES**

- Completed NPTEL online course Introduction to Probability and Statistics in the year 2017.
- Completed NPTEL online course Introduction to Psychology in the year 2018.
- Completed NPTEL online course Introduction to Cognitive Psychology in the year 2019
- Completed NPTEL online course Emotional Intelligence in the year 2020.

### **SEMINAR/CONFERENCE/WORKSHOP/ FDP ORGANIZED**

- Organized “ One Day work shop on Recent Trends In Mathematics With Computer Applications (RTMCA 2K14) 20<sup>th</sup> December 2014
- Organized “National Seminar on Advances in Mathematical Sciences and Applications in Engineering and Technology” on December 2017.
- Organized “National seminar on Recent trends in Mathematical Sciences and Applications” on December 2018.
- Organized “ National Seminar on Mathematical Techniques and their Applications” on December 2019

**DATE:**

**PLACE: Chennai**

**(A.KARPAGAM)**