

Dr. J. VIMALA Assistant Professor

Contact	
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	Alagappa University
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Academic Qualifications: M.Sc., B.Ed., Ph.D., P.G.D.C.A.

Teaching Experience: 18 Years

Research Experience: 15 Years

Additional Responsibilities

- 1. Deputy co-ordinator, SAP, DRS-I, Department of Mathematics 2016-21.
- 2. Deputy co-ordinator, Data Management Centre, Alagappa University 2019 -2020
- 3. Deputy co-ordinator, Coaching Scheme for Entry into Services -2018-2020
- 4. Programme Officer, NSS, Alagappa University 2016 to till date
- 5. Co-ordinator, IQAC, Dept. of Mathematics, 2015-2021
- 6. Co-ordinator, Alumni Association, Dept. of Mathematics since 2015
- 7. Co-ordinator, Department Library 2015-2017
- 8. Co-ordinator, Village Placement Programme, Dept. of Mathematics 2014,2017

- 9. Member, University Business Collaboration Centre, Alagappa University 2016-18
- 10. Member, Department Research Committee
- 11. Member, Department Purchase Committee
- 12. Member, Department Student Affairs and Counselling Cell
- 13. Member, Inspection Committee for affiliation of Alagappa University.

Areas of Research

Algebra, Lattice Theory, Fuzzy Lattice, Soft Computing, Decision making, Fuzzy Algebraic Hyper structures.

Research Supervision / Guidance

Program of Study		Completed	Ongoing
Research	Ph.D.	8	5
	M.Phil.	36	
Project	PG	127	
	UG / Others		

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books / Chapters / Monographs / Manuals
50	6	1	7	6

Cumulative Impact Factor (as per JCR)	:	36.770
h-index	:	10
i10 index	:	12
Total Citations	:	328

Funded Research Projects

Completed Projects

S.	S. No Agency	Pei	riod		Budget
No		From	То	Project Title	(Rs. In lakhs)

1	UGC	26.03.14	25.03.16	A Study on L-fuzzy Sub <i>l</i> -Group	6 lakhs
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Distinctive Achievements / Awards

- 1. University Third Rank holder in M.Sc., Mathematics, Alagappa University 2002.
- 2. Best Researcher Award in Mathematics 2015-16 by International Multidisciplinary Research Foundation (IMRF) at Goa on 03.11.2016.
- 3. Distinguished Women in Science 2017 Specialization Mathematics, by VIWA.
- 4. Best Presentation Award in International Conference on Advances in Mathematics, Statistics & Computer Science, April 26-27,2019 at IMRF Dubai Academic Chapter , Hotel Omega, Bur Dubai, Dubai, UAE.
- 5. Vallal Alagappar Research Recognition Award 2020, Alagappa University.
- 6. Promising Researcher Award 2022, Alagappa University.

Events organized in leading roles

Number of Seminars / Conferences / Workshops / Events organized: 13

- Convenor, "Two day International Conference on Recent Developments in Pure and Applied Mathematics(ICRDTPAM-2023"), by School of Mathematics, Alagappa University, 23rd and24th March, 2023.
- Co-ordinator, "State Level Quiz Contest 2022" by School of Mathematics, Alagappa University, 18th March 2022.
- Co-ordinator, "State Level Quiz Contest 2020" by School of Mathematics, Alagappa University, 3rd March 2020.
- Co-ordinator, "Advanced Training in Algebra & Analysis" by School of Mathematics, Alagappa University, 20 – 25th January 2020.
- Co-ordinator, "National Mathematics Day" by School of Mathematics, Alagappa University-17 December 2019.
- Co-ordinator, Two day Training Programme on "Business Skills Training on Challenges of Operating in Business Environment" by University Business Collaboration Centre & Dept. of Mathematics, Alagappa University - 18th & 19th December, 2017.
- Co-ordinator, "One day Hands on Practice on "LATEX" A Mathematical document tool preparation" by University Business Collaboration Centre & Dept. of Mathematics, Alagappa University, 10th February 2017.
- Organizing Secretary, International Workshop on Data Analysis Using SPSS (IWDAUS – 2016), 15th to 19th December 2016.

- Organizing Secretary , National Conference on Pure and Applied Mathematics 2016 (NCPAM 2016), 30th& 31st March, 2016.
- Member of Organizing Committee, State Level Quiz Competition organized by the School of Mathematics, Alagappa University, 15th February 2016.
- Co-ordinator, National Mathematics Day, organized by the School of Mathematics, Alagappa University,22nd December 2015.
- 12. Co-ordinator, State Level Quiz Competition organized by the School of Mathematics, Alagappa University, 6th February 2015.
- Member of Organizing Committee of One Day Seminar on Pure and Applied Mathematics, 20th December 2012.

Events Participated (optional)

Conferences / Seminars / Workshops: 14

- " 3rd International Conference on Computer Vision and Robotics(CVR 2023)" held on 24th and 25th February,2023, organized by Babu Banarasi Das University, Lucknow, India.
- *"Two Days International Webinar On Fuzzy& Neutrosophic Systems"* held on 21st & 22nd August 2020, organized by Department of Mathematical Sciences, Bodoland University, BTAD, Assam, India.
- International Conference on Engineering and Natural Science (ICENS), THE IRES on 3rd June, 2016, Singapore.
- International Conference on Algebra and Applications 2014 (ICAA-2014),29th April 2014 to 1st May 2014, Andhra University, Visakhapatnam.
- International Conference on "Legacy of Srinivasa Ramanujan" 14th,15th Dec. 2012, Sastra University, Kumbakonam.
- 6. *National Seminar on "Pure and Applied Mathematics"* 27th September 2018, organized by the Department of Mathematics, Idhaya College for Women, Sarugani.
- National Conference on Recent Innovations in Science and Engineering Technology (NCRISET-2016), Pune – March 20th 2016.

- A Two Day National Seminar on Safety and Security of Women and Girls in Public Spaces : Planning and Designing Mechanism, Department of Women's Studies & National Commission for Women, New Delhi, 4th – 5th December, 2015.
- A Two Day National Seminar on Safety and Security of Women and Girls in Public Spaces : Planning and Designing Mechanism, Department of Women's Studies & National Commission for Women, New Delhi, 4th – 5th December, 2015.
- 10. National Conference on Recent Advances in Numerical Methods and its Applications (RANMA), Pondicherry University, Pondicherry Jan 27 -28 (2014)
- National Conference on Labelings and Decompositions of Graphs 29th, 30th August
 2013, Madura College, Madurai.
- 12. National Conference on Frontiers in Analysis and Differential Equations (NCFADE 2012) Dec. 19-20, Bharathidasan University, Tiruchirappalli
- National Level Technical Symposium on Innovative IT Projects (TECHGEEKS'11), 15th September 2011, St. Michael College of Engg. & Tech., Kalayarkoil.
- National Seminar on Interdependence of Mathematics and Computer Science, Fatima College, Madurai, 11th& 12th March, 2004.

Other Training Programs

- "Faculty Development Program on Meaningful Research & Intellectual Property Rights " 26th September – 02nd October 2022, Organized by the Teaching Learning Centre, Ramanujan college, University of Delhi.
- Two-week refresher course in "Mathematics", organized by Department of Mathematics, Ramanujan College and Teaching Learning Centre, Ramanujan College during March 16 – March 30, 2021.
- "Faculty Development (Enrichment) Programme on Managing Online Classes and co creating MOOCS "- 20th April to 06th May 2020 Organized by the Teaching Learning Centre,Ramanujan college, University of Delhi.
- Two Week online workshop on "Comprehensive e-learning to e-training Guide for Administrative Work "- 25th May to 058th June2020 Organized by the Teaching Learning Centre,Ramanujan college, University of Delhi.

- One day workshop on "Design and Development of MOOCs for the Faculty Members of Alagappa University and Affiliated Colleges "- 8th November, 2018, Organized by Digital Education Cell, Alagappa University.
- "Short Term Course On Professional Enrichment (STC-2017)" 7th to 13th August 2017, Organized by Alagappa University College of Education.
- "Faculty Development (Enrichment) Program Accreditation Preparedness Engagement" 6th to 12th January 2017, Organized by Internal Quality Assurance Cell, Alagappa University, Karaikudi.
- "Faculty Development Program Accreditation Preparedness Engagement" 18th -23th September 2016, Organized by Internal Quality Assurance Cell, Alagappa University, Karaikudi.
- "Faculty Development Programme on Entrepreneurship" 12.11.2015 to 26.11.2015 -Organized by the Entrepreneurship-cum-Skill Development Centre, Alagappa University, Karaikudi.
- 10. Refresher course 5.11.2014 to 25.11.2014 Organized by Academic Staff College, Bharathidasan University, Thiruchirappalli.
- Orientation programme 30th May 2013 to 26th June 2013- organized by Academic Staff College, Madurai Kamaraj University, Madurai.
- Orientation programme organized by Curriculum Development Cell, Alagappa University 24th to 31st August 2012, under UGC Initiatives of National Mission on Teachers and Training.
- Summer School in Algebra and its Applications (Sponsored by NBHM), Department of Mathematics, Alagappa University, Karaikudi – May 22nd to June 9, 2006.

Overseas Exposure / Visits

- 1. International Conference on Advances in Mathematics, Statistics & Computer Science, April 26-27,2019 at IMRF Dubai Academic Chapter , Hotel Omega, Bur Dubai, Dubai, UAE.
- 2. 38th International Conference held on 3rd June 2016, The IRES, Singapore.
- 3. 5th Asian Mathematical Conference, Kuala Lumpur, Malaysia June 22-26th, 2009.

Professional Bodies

- 1. Life Member, Indian Mathematical Society
- 2. Life Member, Kerala Mathematical Society
- 3. Life Member, International Association of Engineers (IAENG)
- 4. Member, European Society for Fuzzy Logic and Technology (EUSFLAT)

Academic Bodies (such as Board of Studies etc.,)

- 1. Member Board of Studies B.Sc. Mathematics, Bharathidasan University, Tiruchirappalli-2018-2021.
- 2. Member, Mathematics Research Cell, Sri Sarada Niketan College for Women, Amaravathipudur
- 3. Member, Board of Studies M. Sc. Mathematics (DDE programme)- Alagappa University.
- 4. Member, Board of Studies M. Sc, M.Phil Mathematics Alagappa University.
- 5. Member, Board of Studies B.Sc. Mathematics Alagappa University affiliated colleges, Karaikudi .
- 6. Member, Board of Studies M.Sc. Mathematics Alagappa University affiliated colleges, Karaikudi.
- 7. Member, Board of Studies M.Phil. Mathematics Alagappa University affiliated colleges, Karaikudi.

Resource persons in various capacities

Number of Invited / Special Lectures delivered: 19

Others

- 1. Articles published in Newspapers / Magazines : --
- 2. Products developed : --
- 3. No. of PhD Thesis evaluated : 8
- 4. No. of PhD Public Viva Voce Examination conducted : 8

5. Sequences submitted in GenBank :-

**Social Interests and Initiatives / Articles in News papers etc can also be included

Recent Publications

- J. Vimala, Ashma Banu, Muhammad Haris Saeed, Hamed Alsulami, Aftab Hussain and Muhammad Saeed, Development of Complex Linear Diophantine Fuzzy Soft set in determining a suitable Agri-drone for spraying Fertilizers and Pesticides", IEEE Access, Vol. 11, pp. 9031-9041, 2023 (SCIE) I.F :3.476.
- S. Sabeena Begam, J. Vimala*, "Compositions on lattice ordered multi-fuzzy soft matrix and its simulated application in medical diagnosis", Mathematics and Computers in Simulation, 2022, (SCI) I.F: 3.601
- J. Vimala*, S. Rajareega, D. Preethi, M. Al-Tahan, P. Maha Lakshmi, K. Jeevitha, & K. Ashma Banu, Lattice Ordered Neutrosophic Soft Set and Its Usage for a Large Scale Company in Adopting Best NGO to Deliver Funds During COVID-19, Journal of Computational and CognitiveEngineering, 2022, DOI: https://doi.org/10.47052/homeiagulCCE2202102

DOI: https://doi.org/10.47852/bonviewJCCE2202193.

 S. Rajareega, J. Vimala*, and D. Preethi, "Complex intuitionistic fuzzy soft lattice ordered group associated with *l*- ideal", Journal of Discrete Mathematical Sciences and Cryptography, pp.1-13,2022(SCOPUS)ESCI,

DOI: https://doi.org/10.1080/09720529.2021.1962024.

- 5. Harish Garg*, J. Vimala, S. Rajareega, D. Preethi, Luis Perez-Dominguez, "Complex intuitionistic fuzzy soft SWARA-COPRAS approach: An application of ERP software selection", AIMS Mathematics, Vol. 7, No. 4, pp. 5895-5909, 2022 (SCIE) I.F :1.427.
- H Al Akara, M Al-Tahan, J. Vimala, "Some results on single valued neutrosophic bi-ideals in ordered semigroups", Neutrosophic Sets and Systems, Vol. 45, No. 1, pp. 181- 196, 2021 (SCOPUS) & ESCI
- 7. J. Arockia Reeta, J. Vimala*, A. Borumand Saeid, "Correction to: Algebraic relations over l-fuzzy soft groups", Afrika Matematika, (Springer). vol. 32, No. 723, 2021 (SCOPUS)
- 8. D. Preethi, J. Vimala*, S. Rajareega, "A systematic study in the applications of fuzzy hyperlattice", AIMS Mathematics, Vol. 6, No. 2, pp. 1695-1705, 2021, (SCIE) I.F :1.427.
- 9. D. Preethi, J. Vimala*, S. Rajareega, Madeline Al- Tahan, "Fuzzy Hyperlattice Ordered δ
 Group and Its Application on ABO Blood Group System", Journal of Intelligent & Fuzzy Systems, Vol. 41, No. 5, pp. 5309-5315, 2021 (SCIE) I.F: 1.851.

- 10. D. Preethi, J. Vimala*, "Redox Reaction on Homomorphism of Fuzzy Hyperlattice Ordered Group", Journal of Intelligent & Fuzzy Systems, Vol. 41, No. 5, pp. 5691-5699, 2021 (SCIE) I.F: 1.851.
- 11. S. Rajareega and J. Vimala*, "Operations on Complex Intuitionistic Fuzzy Soft Lattice Ordered Group and CIFS-COPRAS Method for Equipment Selection Process", Journal of Intelligent & Fuzzy Systems, Vol. 41, No. 5, pp. 5709-5718, 2021, (SCIE) I.F: 1.851.
- 12. Shio Gai Quek , Ganeshsree Selvachandran , Florentin Smarandache , J. Vimala , Son Hoang Le , Quang-Thinh Bui and Vassilis C. Gerogiannis , "Entropy Measures for Plithogenic Sets and Applications in Multi-Attribute Decision Making", Mathematics 2020, 8, 965; DOI:10.3390/math8060965. (SCIE) I.F: 2.258.
- 13. Sabeena Begam S, Vimala J, Ganeshsree Selvachandran , Tran Thi Ngan*, and Rohit Sharma "Similarity Measure of Lattice Ordered Multi-Fuzzy Soft Sets Based on Set Theoretic Approach and Its Application in Decision Making ", Mathematics 2020, 8, 1255; doi:10.3390/math8081255 (SCIE) I.F: 2.258
- S. Rajareega, J. Vimala*, D. Preethi, "Complex Intuitionistic Fuzzy Soft Lattice Ordered Group and Its Weighted Distance Measures", Mathematics 2020, 8, 705. DOI: 10.3390/math8050705. (SCIE) I.F: 2.258.
- 15. D.Preethi, J.Vimala*, Bijan Davvaz, S. Rajareega , "Biological inheritance on fuzzy hyperlattice ordered group", Journal of Intelligent & Fuzzy Systems , Vol 38, no.5, pp.6457-6464, 2020. DOI: 10.3233/JIFS-179726. (SCIE) I.F: 1.851
- Vimala J*, Vijayalakshmi L, Peng Xindong, "Lattice ordered soft group and its application in urban planning", Journal of Intelligent & Fuzzy Systems, Vol. 38, no.3, pp. 2591-2959, 2020. DOI: 10.3233/JIFS-182662. (SCIE) I.F: 1.851
- D.Preethi, J.Vimala*, S.Rajareega, "Some Properties On Fuzzy Hyperlattice Ordered Group", International Journal of Advanced Science and Technology, Vol. 28, No. 9, (2019), pp. 124-132. (SCOPUS)
- 18. D. Preethi, S.Rajareega, J. Vimala*, Ganeshsree Selvachandran and Florentin Smarandache, "Single- Valued Neutrosophic Hyperrings and Single- Valued Neutrosophic Hyperideals", Neutrosophic Sets and Systems, Vol. 29, 2019 (SCOPUS) & ESCI
- 19. S.Rajareega, J. Vimala*, D. Preethi, "The Role of (α,β) Level set on Complex Intuitionistic Fuzzy Soft Lattice Ordered Groups" International Journal of Advanced Science and Technology, Vol. 28, No. 9, (2019), pp. 116-123. (SCOPUS)

- 20. S. Rajareega, D. Preethi, J. Vimala *, Ganeshsree Selvachandran, Florentin Smarandache "Some Results on Single Valued Neutrosophic Hypergroup" Neutrosophic Sets and Systems, Vol.31, 2020 (SCOPUS)&.ESCI
- 21. Vimala J*, Anusuya Ilamathi VS, Rajareega S, "Implicative and Positive Implicative Filters of Residuated Lattices in Multiset Context", bVol. 22 (2019), No. 5, pp. 869-882 Taylor & Francis (Scopus)
- 22. S. Sabeena Begam, J. Vimala*, D. Preethi, "A Novel Study on the Algebraic Applications of Special Class of Lattice Ordered Multi-Fuzzy Soft Sets", Journal of Discrete Mathematical Sciences and Cryptography, Vol. 22 (2019), No. 5, pp. 883-899 Taylor & Francis (Scopus)
- 23. V.S. Anusuya Ilamathi, J. Vimala * and Bijan Davvaz, Multiset Filters of Residuated Lattices And Its Application In Medical Diagnosis, Journal of Intelligent & Fuzzy System-IOS Press, DOI 10.3233/JIFS-169940, (2019) (SCIE), IF: 1.637
- 24. J. Arockia reeta and J. Vimala* , "Implementation of anti-lattice ordered fuzzy soft groups and its matrix operations in deciding process" Journal of Intelligent and Fuzzy Systems- IOS Press DOI 10.3233/JIFS-18914 (SCIE), IF: 1.637
- 25. J. Vimala *and AR. Pandipriya, Morphisms on Lattice Ordered Interval-Valued Hesitant Fuzzy Soft Sets, Journal of Intelligent and Fuzzy Systems- IOS Press DOI 10. 3233/JIFS-169941, (2019) (SCIE), IF: 1.637
- 26. S. Sabeena Begam and J. Vimala*, Application of lattice ordered multi-fuzzy soft set in forecasting process, Journal of Intelligent and Fuzzy Systems- IOS Press DOI 10.3233/JIFS-169943, (2019) (SCIE), IF: 1.637.
- 27. J.Vimala*, J.Arockia Reeta, A Note On Lattice Ordered Fuzzy Soft Groups, International Journal of Pure and Applied Mathematics, 119 (12) (2018) 1-10.
- 28. J.Vimala*, J.Arockia Reeta, Ideal Approach on Lattice Ordered Fuzzy Soft Group and Its Application in Selecting Best Mobile Network Coverage Among Travelling Paths, ARPN Journal of Science & Technology, 13 (7) (2018) 2414-2421. (Scopus)
- 29. J.Vimala* and L.Vijayalakshmi, Designing modular and Distributive Lattices Using l-Soft Group, International Journal of Engineering & Technology, 7 (1.3) (2018) 56-60 (Scopus).
- 30. Anusuya Ilamathi, V.S and Vimala. J*, Implementation of Boolean Algebraic Structure and its Decision, International Journal of Engineering & Technology, 7 (1.3) (2018) 85-89 (Scopus).

- 31. AR.Pandipriya, Vimala. J*, and S.Sabeena Begam, Lattice Ordered Interval Valued Hesitant Fuzzy Soft Sets in Decision Making Problem, International Journal of Engineering & Technology, 7 (1.3) (2018) 52-55 (Scopus).
- 32. J.Vimala*, J.Arockia Reeta and V.S. Anusuya Ilamathi, A Study on Fuzzy Cardinality in Lattice Ordered Fuzzy Soft Group And Its Application In Decision Making Problems, Journal of Intelligent & Fuzzy Systems- IOS Press – Vol. 34(3), pp 1535-1542, DOI 10.3233/JIFS-169448. (SCIE), IF: 1.426