



Dr. S. AMUTHA
ASSISTANT PROFESSOR

Contact

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Academic Qualifications

Degree	Institution	Year	Branch	Class
Ph.D.	Alagappa University, Karaikudi, Tamilnadu. India.	2011	Mathematics	
M.Phil.,	Manonmaniam Sundaranar University (University Department), Tirunelveli, Tamilnadu, India.	2001	Mathematics	I Class
M.Sc.,	Manonmaniam Sundaranar University (University Department), Tirunelveli, Tamilnadu, India.	1999	Mathematics	I Class

Teaching Experience

Total Teaching Experience : 14 Years

Position	Institution	Duration
Assistant Professor (Academic Level 12)	Ramanujan Centre for Higher Mathematics, Alagappa University, Karaikudi, Tamil Nadu, India.	12 Years
Assistant Professor	Department of Mathematics, Chendhuran College of Engineering and Technology, Pudukottai.	10 $\frac{1}{2}$ Months
Part-time Lecturer	Department of Mathematics, Alagappa Chettiar College of Engineering & Technology, Karaikudi.	One year & 7 $\frac{1}{2}$ Months
Part-time Lecturer	Department of Mathematics, Government College of Engineering, Tirunelveli.	6 Months

Research Experience

Total Research Experience : 13 Years

Position	Institution / University	Duration
Junior Research Fellowship (JRF)	Department of Mathematics, Alagappa University, Karaikudi-3, Tamil Nadu, India.	Jan'2008 – Oct 2010

Areas of Research

Graph Theory, Domination in graphs

Stochastic Inventory Modelling

Discrete Mathematics

Research Supervision/Guidance

Program of Study		Completed	Ongoing
Research	Ph.D	1	2
	M.Phil	34	1
Project	PG	128	15

Publications

International		National		Others
Journals	Conferences	Journals	Conferences	Books/Chapters/Monographs/Manuals
33	02	02	-	Book Chapters – 02

Cumulative Impact Factor (as per JCR) : 44.52

h-index : 07

i10 index : 04

Total Citations : 166

Funded Research Projects

Completed Projects:

S.No	Agency	Period		Project Title	Budget (Rs. In lakhs)
		From	To		
1.	UGC	24 February 2014	To 24 February 2014	A Study on various half-domination parameters of a graph	6,00,000

Distinctive Achievements / Awards

- Received Best Women Excellence in Research\Academic Award from Bestow Edutrex International, Mumbai, India on March 08th, 2023.
- Received Dr.APJ Abdul kalam Distinguished Research Excellence Award 2022 in Mathematics from Center for Professional Advancement Continuous Education, Vijayawada, India on October 15th, 2022
- Received Eminent Mathematician Award from The International Multidisciplinary Research Foundation on the Eve of International Conference at University of Malaya, Malaysia held on 16th August 2019.
- Received Bright Educator Award from International Institute of Organized Research(I2OR), Chandigarh, India for the year 2017.

Number of Seminars /Conferences /Workshops/ Events organized:

Position	Programme	Duration	Institution
Coordinator	National Mathematics day	22 nd December, 2023	Alagappa University, Karaikudi, TamilNadu.
Organizing Secretary	International Webinar on Recent Advances in Graph Theory	May 29 - 30, 2020	Alagappa University, Karaikudi, TamilNadu.
Organizing Secretary	Workshop on MAPLE for Business Applications – Hands on Training	26th February , 2019	Alagappa University, Karaikudi, TamilNadu.
Organizing Secretary	Workshop on Mathematical software for Business Applications – Hands on Training	22nd February, 2019.	Alagappa University, Karaikudi, TamilNadu.
Coordinator	State Level Quiz Contest 2018” for PG Mathematics Students	9th, March 2018	Alagappa University, Karaikudi, TamilNadu.
Organizing Secretary	International Conference on “Discrete and Computational Mathematics	20-21, December , 2018	Alagappa University, Karaikudi, TamilNadu.
Coordinator	State Level Quiz Contest for PG Mathematics students	4th March, 2014	Alagappa University, Karaikudi, TamilNadu.
Joint Secretary	National Conference on Pure and Applied Mathematics	30-31 March, 2016	Alagappa University, Karaikudi, TamilNadu.
Coordinator	National Mathematics day	22nd December 2016	Alagappa University, Karaikudi, TamilNadu.

Number of Conferences/Seminars/Workshops:

Events Participated

1. Participated in an National workshop on Research and Publications 2022 on 15th October, 2022 organized by Center for professional advancement, India.
2. Participated in the Three-Day workshop on “Research Methods and LaTeX” from 24th to 26th June, 2019 at Alagappa University, Karaikudi.

3. Participated in the one day workshop on “Design and Development of MOOCs for the Faculty Members of Alagappa University and Affiliated colleges” held on 8 –th November, 2018 at Alagappa University, Karaikudi.
4. Participated in the National level workshop on “Citizenship Skills for Pre-Service and In-Service Teachers” held on 10 –th February , 2017 at Alagappa University, Karaikudi.
5. Participated in the workshop on “R with Application to Quantitative Finance” held during August 26 – 28, 2016 at Birla Institute of Technology and Science Pilani, K K Birla Goa Campus, Goa (India).
6. Participated in the pre – conference workshop on “Algebraic and Applied Combinatorics” held during June 15 – 17, 2016 at Ramanujan Mathematical Society, National College, Tiruchirapalli, Tamil Nadu.
7. Participated in the National Level workshop on “Research methods and data analysis using SPSS” held on 18th March 2016 at Thanthai Roever College, Perambalur, Tamil Nadu.
8. Participated in the Two day National seminar on “Safety and security of women and girls in public spaces: Planning and designing mechanism” held on 4th – 5th December, 2015 at Alagappa University, Karaikudi , Tamil Nadu.
9. Participated in the Two day National Conference on “ Impact of Electronic Resources on Teaching, Learning and Research: Issues and opportunities” held on 24th and 25th April, 2015 at Alagappa University, Karaikudi , Tamil Nadu.
10. Participated in an International Conference on “Mathematics and computing” held during 05-10 January 2015 at Haldia Institute of Technology, Haldia, West Bengal, India.
11. Participated in the National Conference on “Mathematical Modeling and Soft Computing” held on September 25th and 26th, 2014 at College of Engineering, Vatakara, Kerala.
12. Participated in the National Conference on “Recent Advances in Numerical Methods and its Applications” RANMA - 2014 held on January 27 - 28, 2014 at Pondicherry University, Puducherry.
13. Participated in the National Conference on “Frontiers In Analysis And Differential Equations” (NCFADE – 2012) held on December 19 - 20, 2012 at Bharathidasan University, Tiruchirappalli.
14. Participated in an International Conference on “Legacy of Srinivasa Ramanujan” held on December 14 - 15, 2012 at Srinivasa Ramanujan Centre, Sastra University.
15. Participated in the National Conference on “Recent Trends In Mathematics And Its Applications” held on December 22, 2010 at Alagappa University, Karaikudi.
16. Participated in the National Seminar on “Analysis and Number Theory” held on 21 and 22, January 2010 at Alagappa University, Karaikudi.

17. Participated in the “One Day Seminar on Mathematics” held on 22.12.2009 at School Of Mathematics, Alagappa University, Karaikudi.
18. Participated in the “National Seminar on Applications of Algebra and Number Theory” held during December 4 – 5, 2009 at National College, Tiruchirapalli.
19. Participated in the “Instructional Lecture series in Algebra” held on 30.09.2009 at Alagappa University, Karaikudi.
20. Presented a paper entitled on “Tamizhaka Arivial pearavai onpatham karutharangam” between September 11 – 13, 2009 at Alagappa University, Karaikudi.
21. Participated in the National Seminar on “Fuzzy Mathematics and its Applications” on 9th March 2009 at Alagappa University, Karaikudi.
22. Participated in the “National Seminar on Differential Equations” on March 6 & 7 2009 at Alagappa University, Karaikudi.
23. Participated in an “International Conference on Stochastic Modelling” (ICSM09) during February 12 – 14, 2009 at Alagappa University, Karaikudi.
24. Participated in the Srinivasa Ramanujan Memorial Symposium on April 26, 2007 at SASTRA University, Srinivasa Ramanujan Centre, Kumbakonam, India.
25. Participated the lecture series on First INDO -US Lecture Series On “Discrete Mathematical Chemistry” between January 8 to 11, 2007 at PES Institute of Technology, Bengalooru, India.
26. Participated in the National Seminar on “FUZZY Mathematics and its Applications” at Department of Mathematics, Alagappa University, Karaikudi on 3rd and 4th March, 2006.

Poster & Paper Presentations in Conferences:

1. Presented a paper entitled “Fractional Star Domination in Graphs” in an International Conference on Discrete Mathematics and Mathematical Modelling in Digital Era on 24th March 2023 at Gandhigram Rural Institute, Gandhigram, Dindigul, Tamil Nadu, India.
2. Presented a paper entitled “Independent Efficient liars domination in graphs” in an International Conference on Pure and Applied Mathematics on 15th February 2020 at Padmavani Arts and Science College for Women, Tamil Nadu, India.
3. Presented a paper entitled “Congruent Split Domination in graphs” in an International Conference on Algebra, Analysis and their Applications on 11th January 2020 at Madurai Kamaraj University, Madurai, Tamil Nadu, India.

4. Presented a paper entitled “ Bounds on Co-Independent liars domination in graphs” in an International Conference on Mathematical Engineering Applications on 16th August 2019 at University of Malaysia, Kuala Lumpur.
5. Presented a paper entitled “ Vertex odd and even mean labelling of a regular graphs” in the National Conference on Mathematical Applications in Algebraic graph theory, Optimization technique and network theory (NCMA2018) on 2nd February 2018 at Mother Teresa Women’s University, Kodaikanal, India.
6. Presented a paper entitled “ Characterization of Total very excellent trees” in an International Conference on Mathematics and computing” held during 05-10 January 2015 at Haldia Institute of Technology, Haldia, West Bengal, India.
7. Presented a paper entitled “ Reinforcement Number of a Graph with respect to Half - Domination” in National Conference on Recent Advances in Graph Theory” – NCRAGT - 2014 held during 06-07 March 2014 at Periyar University, Salem.
8. Presented a paper entitled “ Gamma-Half graphs of paths and cycles” in “National Conference on Graph Theory Generalization and Applications” – NOGTGA- 2012 held during 20-21 August 2012 at Sastra University, Tanjavur.
9. Presented a paper entitled “ Gamma exchangeable graph of a graph G” in National Conference on “Fuzzy Optimization and Graph Theory with Applications” – NCFOGTA 12 held during 23-24 February 2012 at Mepco Schlenk Engineering College, Sivakasi.
10. Presented a paper entitled “Gamma – fractional domination number of a graph G” in the National Conference on “Challenges in Mathematical Modeling” held on 22 December 2011 at Alagappa University, Ramanujan Centre for Higher Mathematics, Karaikudi.
11. Presented a paper entitled “ Lambda domination number gamma lambda of G of a graph G” in the Platinum Jubilee 75th Annual Conference of the Indian Mathematical Society (IMS) during December 27 – 30, 2009 at n-CARDMATH, Kalasalingam University, Krishnankoil.
12. Presented a paper entitled “Characterization total very excellent trees” in the National Conference on Recent Trends in Applicable Mathematics for Engineering and Technology on 2nd and 3rd April, 2009 at K.L.N. College of Engineering, Pottapalayam, Sivagangai Dist.
13. Presented a paper entitled “Gamma graphs of G” in the National Conference on “Algebra, Graph Theory and their Applications” organised by the Department of Mathematics, Manonmaniam Sundaranar University, Tirunelveli from 05.12.2007 to 07.12.2007.
14. Presented a paper entitled “ γ_t -Graph of a Graph G” in the International Conference on Discrete Mathematics held between December 15 – 18, 2006 at the Department of Mathematics, Indian Institute of Science, Bangalore.
15. Presented a paper entitled “ γ_i - Graphs” in XXX Indian Social Science Congress, held between December 27 – 31, 2006 at Alagappa University, Karaikudi.

Orientation\Refresher courses\Faculty Development Programmes:

1. Participated in the Two-week online Capacity Building Programme through online mode Organized by Alagappa University under UGC STRIDE Component -1 Scheme from 12th June 2020 to 23rd June 2020.
2. Participated in One Week Faculty Development Programme on "Open Source Tools for Research" through online mode organized by Teaching Learning Centre, Ramanujan College, University of Delhi from June 08 - June 14, 2020 under HRDC.
3. Participated in One Week Faculty Development Programme on "Managing Online Classes and Co-Creating Moocs:2.0" through online mode organized by Teaching Learning Centre, Ramanujan College, University of Delhi from May 18 - June 03, 2020 under HRDC.
4. Participated in the Refresher Course in Mathematics obtained grade 'A' from July 13th to August 2nd , 2018 at UGC – HRDC, Barathidasan University, Trichirapalli.
5. Participated in the Faculty Development(Enrichment) Program ~ Accreditation Quality Enhancement ~ organized by Internal Quality Assurance Cell(IQAC) from January 6, 2017 to January 12, 2017 at Alagappa University, Karaikudi.
6. Participated in the Refresher Course in Mathematics obtained grade 'A' from September 7th to September 27th , 2016 at UGC – HRDC, Pondicherry University, Pondicherry.
7. Attended the “Faculty Development Programme on Entrepreneurship” organized by the Entrepreneurship-cum Skill Development Centre from November 12, 2015 to November 26, 2015 at Alagappa University, Karaikudi.
8. Participated in the Orientation Programme obtained grade 'A' from May 30, 2013 to June 26, 2013 at Academic Staff College, Madurai Kamaraj University, Maduarai.
9. Participated in the Orientation Programme organized by the Curriculum Development Cell, Alagappa University, Karaikudi from 24 – 31st August, 2012 under the UGC initiative of National Mission on Teachers and Training.
10. Participated in the Summer school in Algebra and its Applications at Department of Mathematics, Alagappa University, Karaikudi from 22nd May to 9th June 2006.

Overseas Exposure/Visits

1. Malaysia
2. Thailand
3. Vietnam

Membership

Professional Bodies

1. Life member in Indian Mathematical Society(IMS).
2. Life member in Kerala Mathematical Society.
3. Life member in FATER Academy of India (Forum for Advanced Training Education and Research Academy of India).
4. Life member in IAENG (International Association of Engineers).

Advisory Board

Year/Period	Name of the BoS/Administrative Committee / Academic Committee	Role
2022-2025	Department of Mathematics, Alagappa University, Karaikudi	member
2016	Tamil University, Tanjavur	member

Academic Bodies in Other Institutes/Universities

Year/Period	Name of the BoS/Administrative Committee / Academic Committee	Role
20-21 February 2020	National Conference on Challenges in Mathematical Modelling, Alagappa University	Organizing Committee Member
22-24 January 2020	Mathematical Modeling and Computational Methods in Science and Engineering Alagappa University	Organizing Committee Member
9 th January 2020	Dynamical System with MATLAB and its Computations	Organizing Committee Member
24 th November 2017	M.Phil Doctoral Committee, VIT University, Vellore	External Examiner
23 rd May, 2016	Women Empowerment Cell , Alagappa Univerasity, Karaikudi.	member

Ph.D. Thesis Guided

1. No. of PhD Thesis evaluated : 01
2. No. of PhD Public VivaVoce Examination conducted : 01

S.No	Name of the Scholar	Title of the Thesis	Year of Completion
1.	K. Suriya Prabha	Bounds On Various Domination Parameters of a Graph	10.12.2021

List of Research Articles / Recent Publications

Total Number of Publications: **International – 31;** **National - 02**

S. No	Authors/Titleofthepaper/Journal	Impact Factor
1	P. Shanthi, S. Amutha, N. Anbazhagan, G. Uma, Gyanendra Prasad Joshi and Woong Cho, Characterization of Fractional Mixed Domination Number of Paths and Cycles, Journal of Mathematics, vol. 2024, Article ID 6619654, 11 pages, January 2024, DOI: https://doi.org/10.1155/2024/6619654 . (ISSN 2314-4629(P), 2314-4785 (Online), SCIE and Scopus indexed.	1.4
2	S. Selvakumar, K. Jeganathan, Aster Seifu Senae, N. Anbazhagan, S. Amutha, Gyanendra Prasad Joshi and Woong Cho, Performance of Dual Service Station in Stochastic Inventory System with Optional Feedback Service, Ain Shams Engineering Journal, 15(3), 102583, 32 pages, March 2024, DOI: https://doi.org/10.1016/j.asej.2023.102583 . (ISSN 2090-4479, SCIE and Scopus indexed.)	6.0
3	P. Shanthi, S. Amutha, N. Anbazhagan, S. Bragatheeswara Prabu, Effects on fractional domination in graphs, Journal of Intelligent & Fuzzy Systems, pp. 1-10, February 2023, doi: 10.3233/JIFS-222999, (ISSN:1875-8967(E), ISSN: 1064-1246(P), SCIE, Scopus and Web of Science indexed)	1.737
4	S. Amutha, K. Suriya Prabha, N. Anbazhagan, S. Sankara Gomathi and Ismail Naci Cangul, On α -Split Domination in Graphs, Proc. Natl. Acad. Sci., India, Sect. A Phys. Sci., 92(4):593597, (October-December 2022), https://doi.org/10.1007/s40010-022-00778-9 . (ISSN: 0369-8203, SCIE and Scopus)	1.291

5	P.Titus, J.Ajitha Fancy, Gyanendra Prasad Joshi and S.Amutha, The connected monophonic eccentric domination number of a graph, Journal of Intelligent & Fuzzy Systems, 43(5), pp.6451–6460, 2022, https://doi.org/10.3233/JIFS-220463 . (ISSN:1875-8967(E), ISSN: 1064-1246(P), SCIE, Scopus and Web of Science indexed)	1.737
6	V. Vinitha, N. Anbazhagan, S. Amutha, K. Jeganathan, Bhanu Shrestha, Hyoung-Kyu Song, Gyanendra Prasad Joshi and Hyeonjoon Moon, Analysis of a Stochastic Inventory Model on Random Environment with Two Classes of Suppliers and Impulse Customers, Mathematics, 10(13):2235, 22 pages, June 2022, https://doi.org/10.3390/math10132235 . (ISSN: 2227-7390, SCIE, Scopus and Web of Science indexed.)	2.258
7	N. Anbazhagan, Srijana Acharya, V. Vinitha, S. Amutha, K. Jeganathan, Changho Seo, and Hyun-II Kim, The MAP/PH/N/1, Queueing-Inventory System With Demands From a Random Environment, IEEE Access, 10, pp:47371-47383, May 2022, https://doi.org/10.1109/ACCESS.2022.3170065 . (ISSN: 2169-3536, SCIE, Scopus and Web of Science indexed.)	3.367
8	N. Anbazhagan, Gyanendra Prasad Joshi, R. Suganya, S. Amutha, V. Vinitha, Bhanu Shrestha, Queueing-inventory System of Two-commodity with Optional Demands of Customers and MAP Arrivals, Mathematics, 10(11):1801, 12 pages, May 2022, https://doi.org/10.3390/math10111801 . (ISSN: 2227-7390, SCIE, Scopus and Web of Science indexed)	2.258
9	V. Vinitha, N. Anbazhagan, S. Amutha, K. Jeganathan, Gyanendra Prasad Joshi, Woong Cho and Suseok Seo, Steady State Analysis of Impulse customers and Cancellation policy in Queueing-Inventory System, Processes, 9(12):2146, 16 pages, November 2021, https://doi.org/10.3390/pr9122146 .(ISSN: 2227-9717, SCIE, Scopus and Web of Science indexed.)	2.847
10	R. Suganya, Lewis Nkenyereye, N. Anbazhagan, S. Amutha, M. Kameswari, Srijana Acharya and Gyanendra Prasad Joshi, Perishable Inventory System with N-Policy, MAP Arrivals and Impatient Customers, Mathematics, 9(13), 1514, 14 pages, June 2021, https://doi.org/10.3390/math9131514 (Corresponding Author, ISSN: 2227-7390, SCIE, Scopus and Web of Science indexed.)	2.258
11	K. Jeganathan, S. Selvakumar, N. Anbazhagan, S. Amutha, Porpattama Hammachukiattikul, Stochastic modeling on M/M/1/N inventory system with queue-dependent service rate and retrial facility. AIMS Mathematics, 6(7), 7386 - 7420, April 2021. doi: 10.3934/math.2021433 (SCIE, Scopus and Web of Science indexed.)	1.427
12	K. Suriya Prabha, S. Amutha, N. Anbazhagan, and Ismail Naci Cangul, Bounds on Coindependent Liars Domination in Graphs, Journal of Mathematics, Volume 2021, Article ID 5544559, 6 pages, 2021. (ISSN: 2314-4629 (Print), ISSN: 2314-4785 (Online), https://doi.org/10.1155/2021/5544559 , SCIE and Scopus indexed.)	0.971
13	G. Muhiuddin, N. Sridharan D. Al-Kadi, S.Amutha and M. E. Elnair, “Reinforcement Number of a Graph with respect to Half-Domination”, Journal of Mathematics -Topological Indices, and Applications of Graph Theory, April 2021, Vol.2021, Article ID 6689816, 7 pages, doi:	1,555

	https://doi.org/10.1155/2021/6689816 . (ISSN: 2473-6988, SCIE, Scopus and Web of Science indexed),	
14	S. Amutha, K. Suriya Prabha, N. Anbazhagan, and P. Shanthi, Split Domination Number of Divisible Dominating Graphs. Journal of Discrete Mathematical Sciences & Cryptography, 24(4), 997- 1006, 2021.(ISSN: 0972-0529 (Print), ISSN: 2169-0065 (Online), DOI : 10.1080/09720529.2020.1744813, Scopus and WOS indexed)	
15	K. Suriya Prabha, S. Amutha, N. Anbazhagan and S. Sankara Gomathi, Neighborhood outer split domination in graphs. Journal of Discrete Mathematical Sciences & Cryptography, 22(5), 787-799, Dec. 2019. (P-ISSN: 0972-0529, E-ISSN: 2169-0065, DOI: 10.1080/09720529.2019.1681695, Web of Science and Scopus indexed)	
16	N.Sridharan, S.Amutha and A.Ramesh Babu, Bounds for Lamda Domination Number Gamma Lamda of a Graph G, Journal of Computational Mathematica, ISSN:2456-8686, vol.1(2), December 2017, pp.79-90, doi: https://doi.org/10.26524/cm18	

Resource persons in various capacities

National Conferences	:	03
International Conferences	:	05
Invited Lectures	:	04

Name : Dr. S. Amutha

Designation: Assistant Professor