Dr. A. AMUTHA
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Profile

Working as **ASSISTANT PROFESSOR** in **The American College**, Thallakulam, Madurai – 625002. (From 16th June 2017 to Till date)

Worked as **ASSOCIATE PROFESSOR** in **SATHYABAMA UNIVERSITY**, Jeppier Nagar, Chennai – 119. (From 17th August 2005 to 10th June 2017)

Worked as **LECTURE** in **GURUNANAK COLLEGE**, Velachery, Chennai – 42. (From July-2004 to August-2005)

Educational Qualification

Degree	Board/Institute	Year	Division
Doctor of Philosophy Mathematics (Graph Theory)	Loyola College	2002-2007	Highly Commendable
Master of Science (Mathematics)	Presidency college	1999-2001	First Class
Bachelor of Science (Mathematics)	Queen Mary's College	1996-1999	First Class

Area of Research - Graph Theory

Journal Publications

1. Tree Spanners, Cayley Graphs and diametrically uniform Graphs, Lecture Notes in Computer Science, Springer, Vol. 2880, pp 334-345, 2003.

2. On Super Strongly Perfect Graphs, International Journal of Computer Mathematical Sciences and Applications, 0973-6786, 195-203, Vol:4,No:1-2, Pg:195-203, January-June 2010 Serial Publications.

3. Recognizing   the Structure of Super Strongly Perfect Graphs using Strongly Perfect Graphs and Perfect Graphs, Ciit International Journal of Automation and Autonomous Systems, ISSN 0974-9659, 168-171, Vol.3, No.3, April 2011.

4. Domination and Co - domination numbers of Super Strongly Perfect Graphs, International Journal of mathematical sciences and applications, Vol.2, No.1, 121-127, January 2012 Mind Reader Publications, New Delhi.

5. An introduction to the family members of the architecture Super Strongly Perfect Graph (SSP), IEEE (Electronic version), (1087 - 1091), May 2011.

6. Super Strongly Perfectness of Mesh and Torus Networks, Lecture Notes in Information Technology, Information Engineering Research Institute, Bali, Indonesia, pp-529-534, 1-2th December 2012.

7. Optimal Covering on Hypercube Networks, Lecture Notes in Information Technology, Information Engineering Research Institute, Bali, Indonesia, pp-529-534, 1-2th December 2012.

8. An Efficient Representation of Characterization of Super Strongly Perfect Graphs In Some Interconnection Networks, National Journal on Advances in Building Sciences & Mechanics, Sathyabama University, Chennai, ISSN:0975-7317, Vol. 3, No.1, pp. 56-62, April 2012.

9. Analysation of Super Strongly Perfectness in Ladder Graphs, i-manager's Journal on Mathematics, i-manager's Publications, Chennai, ISSN:0975-7317, Vol. 2, No. 2, pp. 17-21, April - June 2013.

10. Super strongly perfectness of Some Graphs, International Journal of Pure and Applied Mathematics, Academic Publications, Bulgaria, Print: ISSN 1311-8080 & Online: ISSN:1314-3395, Vol.87, No.6, pp.763-769, September 2013.

11. A Study on the Covering Number of Generalized Jahangir graphs Js,m, International Journal of Pure and Applied Mathematics (IJPAM), Volume 87, No. 6, pp. 835-844, 2013.

12. Structural Characterization of Super Strongly Perfect Graphs on Trees, Journal of Computer and Mathematical Sciences, Journal of Computer and Mathematical Sciences, ISSN 0976-5727X (print), ISSN 2319-8133 (online), Vol. 5, issue 2, pp. 163-170, April 2014.

13. A Study on Minimum Covering of Invertible Trees, Journal of Computer and Mathematical Sciences (JCMS) ISSN 0976-5727, Vol.5, No.2, pp. 141-149, 2014.

14. Minimum Tree spanner problem for circulant Graphs, An International Journal of Humanities and Social Sciences, ISSN 2394-3556, Vol.1, pp. 40-47, Dec 2014.

15. Exact Covering on Butterfly and Benes Networks, International Journal of Pure and Applied Mathematics (IJPAM) Vol.101, No. 6, pp. 863-872, 2015.

16. SSP Structures of some graph classes, International Journal of Pure and Applied Mathematics (IJPAM) Vol.101, No. 6, pp. 939-948, 2015.

17. Structural Analysis of Invertible Graphs, Intelligent system and control (ISO) IEEE, pp.1-4, 2015.

18. Vertex Covering and Strong Covering Of Flower Like Network Structures, Procedia Computer Science, Elsevier, Vol.87, pp.164 – 171,2016.

19. On Covering the Nodes of Circulant Networks and Its Applications, Wireless Personal Communications, An International Journal, Springer, ISSN 0929-6212 Wireless Pers Commun DOI 10.1007/s11277-016-3367-9, 2016.

20. Slope Number On Complete Graphs, Indian Journal of Science and Technology, Vol 9, No.22, ISI Web of science Journal, DOI: 10.17485/ijst/2016/v9i22/95150, June 2016.

21. A study on harmonious coloring of snake derived architecture, Journal of Engineering Science and Technology, Vol11, No.12, pp. 1736-1743, 2016.

22. Perfect Matching and Slope Number Related to Honeycomb Network, International Journal of Pure and Applied Mathematics, Volume 109 No. 8 pp. 243 – 250, 2016.

23. A Study On Domatic Number of Silicate Networks, Journal - Global Journal of Pure and Applied Mathematics, Volume -13 No. 5 pp. 272 – 280, 2017.

Proceedings

1. A Study on Center of interval graphs, Latest trends in Mathematics, Stella Mary's College, Chennai, 2002.

2. A Study of Center of Centers of Some Subclasses of Chordal Graphs, Challenges in Research and Teaching of Mathematics, Anna Adarsh College for Women, Chennai-600040, 2002

3. Tree Spanners, Cayley Graphs and Diametrically Uniform Graphs, Presentation at the 29th International Workshop on Graph Theoretic Concepts in Computer Science, 2003.

4. Minimum Tree Spanners of Generalized Theta Graphs, Third National Conference Mathematical and Computational Models (NCMCM-2005), pp. 441-447, 15-16th December 2005.

5. Minimum Tree Spanners of Butterfly and Benes Networks, Proceedings of the 4th International Multi conference on Computer Science and information Technology (CSIT-2006) University of Amman, Amman-Jordan,Vo.1, pp. 459-463, 5-7th April 2006.

6. Minimum Tree Spanners of Circulant Graphs, Proceedings of the International Conference on Computer and Communication Engineering,(ICCCEE-06), Kualalumpur, Malaysia, Vol-1, pp. 590-594, 9-11th May 2006.

7. Minimum Tree Spanner Problem for Toridal Meshes, Proceedings of the International Conference on Trendz in Information Sciences and Computing(TISC-07), Sathyabama University, Chennai,Vol-1, pp. 459-461, 12-14th December 2007

8. Super Strongly Perfect graph of Some Special Graph, International Conference on Intelligent Science and Technology, Sun College of Engineering & Technology, Nagarcoil, 61-69, 18-19th March 2010.

9. Contributions to a Characterization of the Structure of Super Strongly Perfect Graphs, National Conference on Recent Development in Mathematics and its Applications, SRM University, Chennai, 287-293. Jan 31- Feb 1, 2011.

10. An introduction to the family members of the architecture Super Strongly Perfect Graph (SSP), International Conference on Emerging Trends in Electrical and Computer Technology (ICETECT), St. Xavier's Catholic College of Engineering, Nagercoil, 1087-1091, 23-24th March 2011.

11. Domination and Co - domination numbers of Super Strongly Perfect Graphs, 1st international conference on mathematical sciences and applications, Mind Reader Publications, New Delhi, 18th December 2011.

12. On the Covering Number of Fence Graphs, Proceedings of the National Seminar on Discrete Mathematics and its Applications, Department of Mathematics, M.E.S. College, Nedumkandam, Kerala, 6-8th February 2012.

13. Characterization of Super Strongly Perfect Graphs in Butterfly and Benes Networks, Proceedings of the National Conference on Emerging Trends in Information &Communication Technologies (NCETICT-2012), Sathyabama University, Chennai, pp. 76-79, 30th March 2012.

14. Characterization of Trees Using Covers, National Conference on Mathematical and Computational Modeling (NCMCM2012),Department of Mathematics, Sathyabama University, Chennai, pp. 148-152, 27-29th June 2012.

15. Characterizing a Class of Super Strongly Perfect Graphs not containing odd cycles of length at least 5, National Conference on Mathematical and Computational Modeling (NCMCM2012), Department of Mathematics, Sathyabama University, Chennai, pp. 142-147, 27-29th June 2012.

16. Characterization of Complete Flowers Using Covers, Indo Slovenia Conference on Graph Theory and Applications (INDOSLOV 2013), Department of Future Studies, University of Kerala, pp. 27, 22-24th February 2013.

17. n-Colourable Super Strongly Perfect Graphs, Indo Slovenia Conference on Graph Theory and Applications (INDO-SLOV 2013), Department of Future Studies, University of Kerala, Kerala, 22-24th February 2013.

18. On the Covering Number of Jahangir Graphs J2,m, Proceedings of the Fifth National Conference on Mathematical Techniques and its Applications (NCMTA-2013), Department of Mathematics, SRM University, Chennai, pp. 148-151,1-2th March 2013.

19. Analysation of Super Strongly Perfect Graphs in Certain Graphs, National Conference on Mathematical Sciences and Applications (NCMSA-2013), Department of Mathematics, Karunya University, Coimbatore, pp. 314-321,14-15th March 2013.

20. A Study on the Covering of Generalized Jahangir Graphs Js,m, National Conference on Mathematical Sciences and Applications (NCMSA-2013) Department of Mathematics, Karunya University, Coimbatore, pp. 219-225, 14-15th March 2013.

21. Super Strongly Perfectness of Prism and Rook's Networks, Proceedings of the International Conference On Pattern Recognition, Informatics and Mobile engineering, Selam, 21-22, 2013.

22. Structural Analysation of SSP, CD Proceedings of the 2nd International Conference on Emerging Trends in Engineering & Technology, College of Engineering, Teerthanker Mahaveer University, 12-13th April 2013.

23. Relevance classes of Super Strongly Perfect Graphs, International Conference on Mathematical and Computer Engineering (ICMCE 2013), ISBN:978-93-82338-85-9, pp. 764-772, VIT University, Chennai, 29-30th November 2013.

24. Optimal Covering on Butterfly and Benes, Networks, International Conference on Mathematical Computer Engineering (ICMCE 2013), School of Advanced Sciences, VIT University, Chennai, India, ISBN:978-93-82338-85-7, Volume 1, pp. 363-372, 29-30th November 2013.

25. Cartesian Product of Some Super strongly perfect Graphs, International Conference on Mathematical Sciences(ICMS 2014), Sathyabama University, pp.568-572

26. On Minimum Covering of Star Interconnection Networks, International Conference on Mathematical Sciences(ICMS 2014), Sathyabama University, pp.874-877.

27. A study on harmonious colouring on snake derived networks, Global Congress on computing and media technologies-2015(GCMT-2015) Sathyabama University, pp.173 25-27 November-2015.

28. Slope Number On Complete Graphs, Global Congress on computing and media technologies-2015(GCMT-2015) Sathyabama University, pp.207, 25-27 November-2015.

29. Characterization of Harmonious Colorings, Matching and Covering Number of Central graph of Certain Symmetric Interconnection Networks, International Conference on Mathematical Computer Engineering(ICMCE-2015), VIT University, Vol.2.pp128 14-15 December-2015.

30. Perfect Matching and Slope Number Related to Honeycomb Networks, International Conference on Mathematical Computer Engineering (ICMCE-2015),VIT University, Vol.1,pp.224, 14-15 December-2015.

31. Characterization of harmonious coloring, matching and covering number of central graph of Generalized Petersen graph, International conference on innovation in information, Embedded and communication Systems 2016,Karpagam University, Proceeding, vol. 5 pp.148 (2016).

32. Slope Number and perfect Matching Related to Honey Comb Network, International conference on innovation in information, Embedded and communication Systems 2016, Karpagam University, Proceeding, vol. 5 pp.148 (2016).

33. A Study on Hormonious Coloring of N copies Of Barbell Graph and Central Graph of N Copies of Barbell Graph, International Conference on Discrete Mathematics (ICDM-16), Karnataka, Proceedings pp.128, June-2016.

34. Domatic Number of butterfly networks, International Conference on Mathematical Computer Engineering (ICMCE-2016),VIT University, Proceedings pp.282, Dec-2016.

35. A Study on Harmonious Coloring Of Central Graph Of Jahangir Graph, International Conference on Mathematical Computer Engineering (ICMCE-2016),VIT University, Proceedings pp.284, Dec-2016.

36. Analysis of Minimum Vertex cover on Torus and Centrally Connected Torus Networks, International Conference on Theoretical Computer Science and Discrete Mathematics (ICTCSDM-2016) and jointly with N –Cardmath-2016, Kalasalingam University, Dec 19-212016.

37. Minimum vertex cover, invertible graphs, Cayley and Diametrically Uniform Graphs, 9th National Conference on Mathematical Tecniques and Applications (NCMTA2017), SRM University Jan 27-28, 2017.

Papers presented in International Conference / Workshop held in Abroad

1. A Study on Centers of Chordal Graphs, Proceedings of the international Arab Conference on Information Technology, Qatar (ACIT-2002), vol.2, pp. 635-642 (2002).

2. Minimum Tree Spanners of Butterfly and Benes Networks, Proceedings of the 4th international Multi conference on Computer Science and information Technology (CSIT-2006) University of Amman, Amman-Jordan,Vo.1, pp. 459-463, 5-7th April 2006.

3. Minimum Tree Spanners of Circulant Graphs, Proceedings of the International Conference on Computer and Communication Engineering,(ICCCEE-06), Kualalumpur, Malaysia, Vol-1, pp. 590-594, 9-11th May 2006.

4. Super Strongly Perfectness of Mesh and Torus Networks, Lecture Notes in Information Technology, Information Engineering Research Institute, Bali, Indonesia, pp. 529-534, 1-2th December 2012.

5. Optimal Covering on Hypercube Networks, Lecture Notes in Information Technology, Information Engineering Research Institute, Bali, Indonesia, pp. 529-534, 1-2th December 2012.

6. On Minimum Covering Of Invertible Honeycomb Meshes, 5th ICCCNT - 2014 Hefei, China, July 11 - 13, 2014.

Workshop/Seminar Attended

1. National Workshop on Mathematical Aspects of Scientific Computing, April 24-26, 2008, Sathyabama University, Chennai

2. One Day Workshop on Graph - A String that cuts across all Disciplines, July 1, 2011, Jeppiaar Engineering College, Chennai.

3. National Seminar on Applicable Mathematics, 13-15th January 2011, M.E.S college, Kerala

Awards and prizes

1. Venus International Faculty Awards - VIFA 2016, OUTSTANDING FACULTY in GRAPH THEORY based on the Expert Committee report and APEX Committee recommendations.

Project – Funding

1. Super Strongly Perfect Graphs, The Ministry of Higher and Scientific Research is a government agency of Algeria. Amount DZD-100000 in Rs-61,934.62, period: 04/2012-04/2018.

Books Published

1. Engineering Mathematics-II, for I year B.E/B.Tech., II-semester, Printed and published by Sathyabama University, Chennai. Second Edition : January-2017. ISBN NO.9788182094888.

Professional Activities

1. *M. Phil Thesis Evaluater and Examiner,* Desertation entitled "A Study of Cryptosystem and other public key cryptography" (2009), Indian Institute Of Technology(IIT), Chennai.

2. *M. Phil Thesis Evaluater and Examiner,* Desertation entitled "Lattices and other properties" (2009), Indian Institute Of Technology(IIT), Chennai.

3. *M. Phil Thesis Examiner*, (*2010&2011)* Madras University, Chennai.

4. *Doctoral Committee Expert* in Madras University, Chennai.

5. *Doctoral Committee Expert* in Sathyabama University, Chennai.

6. *Editorial Board Member* Proceedings of the National Conference on Mathematics and Computer Science, 2011, Sathyabama University, Chennai.

7. *Thesis Evaluator in* Mahathma Gandhi University, Thesis entitled "Product in Edge Graphs", 2014.

8. *Reviewer in* International conference in Mathematical Sciences-2008, Loyola College, Chennai.

9. *Reviewer in* International Conference in Mathematical Sciences-2014, Sathyabama University, Chennai.

10. *Editorial Board Member* in International Association of Engineers IAENG

11. *Editorial Board Member* in International Journal of Professional Studies, IRA, Up, India.

12. *Editorial Board Member* in International Journal of Advances in Engineering Research IRA, Up, India.

13. *Editorial Board Member* in International Journal of Inventions in Electronics and Electrical Engineers, IRA, Up, India.

14. *Editorial Board Member* in International Journal Innovations and Applied sciences and Engineering, IRA, Up, India.

15. *Editorial Board Member* in International Journal of Universal Science and Engineering, IRA, Up, India.

16. *Editorial Board Member* in International Journal of Inventions in Engineering & Science Technology, IRA, Up, India

17. *Editorial Board Member* in International Journal of Research in Science Technology, IRA, Up, India.

18. *Advisory committee member* in National conference on Mathematical and Computational Modeling(NCMCM-2012), Sathyabama University, June 27- 29 2012.

19. *Scientific Committee Member* in International Conference on Mathematical Computer Engineering (ICMCE-2015), VIT University, 14-15 December-2015.

20. *Reviewer in* Special issue of International Journal of Pure and Applied Mathematics, Academic Publications, Bulgaria,2016.

21. *Reviewer in* Frontier in Intelligent Computing theory and Applications(FICTA-16), Springer, AISC.

22. *Number of students obtained* **Ph.D** **: 01**

23. *Number of students working for* **Ph.D : 03**

Chairing Technical Session in National / International Conferences

1. National Conference on Mathematics and Computer Science, 2011, Loyola College, Chennai.

2. International Conference on Mathematics and Computer Engineering, 2013, VIT University, Chennai.

Resource Person

1. Served as a resource person in the UGC sponsored National Seminar on Applicable Mathematics, MES College Nedumkandam, 13-15th January 2011.

2. Served as a resource person in the National workshop on Structural Analysis of Diametrically Uniform Graph and Tree Spanner Problems, Justice Basheer Ahmed Sayeed College, 13 January 2012.

3. Served as a resource person in the UGG sponsored National Seminar on Discrete Mathematics and its Applications, MES College Nedumkandam, 6-8th February 2012.

4. Served as a resource person and chief guest to the valedictory function in the Mathematics Association of the department of Mathematics, Gurunanak College, Chennai, on the topic of "Resolvability in Graphs"29th March 2014.

5. Served as a resource person in view of the International Conference On Mathematical Sciences (ICMS 2014), Pre Conference Workshop on How to Write the Research paper in LaTex", and How to Frame the Thesis in LaTex (Scientific Word)on 16th July-2014.

6. Served as a resource person in the Research Intractive Talk (2015-2016) on Motivational Talk on the topic of Graph Theory, Sathyabama University, Chennai on 18th march 2015.

Personal Information

Father's Name	:	Alaguvel Mark C.
Date of Birth	:	24.02.1977
Nationality	:	Indian
Religion	:	CSI - Christian

Computer Knowledge

Software Known	:	MS-Office, LaTex Type Setting
Drawing Tools	:	Flash and Concept Draw