DAYANANDA SAGAR ACADEMY OF TECHNOLOGY AND MANAGEMENT

(Affilated to Visvesvaraya Technological University,Belagavi & Approved by AICTE,New Delhi)
Opp. Art of Living, Udayapura, Kanakapura Road, Bangalore- 560082

DEPARTMENT OF MATHEMATICS

Faculty Name	**Dr. K. A. Vidya**	
Academic Designation	**Assistant Professor**	
Educational Qualification	**M. Sc., M. Phil., Ph. D.**	
Experience in Years	**14**	
Area of Interest	**Graph Theory**	
Date of Birth	**08-12-1978**	
Aadhar No		
PAN No		
Email ID	**drvidya@dsatm.edu.in**	

Educational Details

- Ph. D. from Bangalore University in 2012
- M. Phil.
- M. Sc.
- B. Sc

Personal Details

- Date of Birth: 08/12/1978
- Hobbies: Puzzle solving, Stitching, Painting
- Languages Known: English, Malayalam, Hindi, Kannada

Professional Experience

- Worked as Assistant Professor at Dayananda Sagar Academy of Technology and Management from July 2015 till date.
- Worked as Associate Professor at AMC Engineering college from July 2012 to July 2015.
- Worked as Assistant Professor at T. John Institute of Technology from July 2010 to July 2012.
- Worked as Lecturer at Sahakari Vidya Kendra Polytechnic from Aug 2008 to June 2010.

Invited Talks

- Invited talk on 'How to clear net Exam' at Department of Mathematics, Bangalore University(June 2013) .
- Set problems in graph theory- Algorithms and Complexity at BMS College of Engineering(January 2017)

- Algorithms and Computational Techniques at NIE, Mysore(January 2018)
- Research in Graph Theory: An Overview at Maharaja's College, Ernakulam(September 2021)

Publications

International Journals:

- B. Chaluvaraju, N. D. Soner and K. A. Vidya, **Bi-efficient domination in graphs**, *Proceedings of Jangjeon Mathematical Society*, Korea, 10(2): 131–137, 2007.
- B. Chaluvaraju, S. C. Sigarkanti and K. A. Vidya, **Maximal paired domination**, *International Journal of Mathematics and Computation*, 4(S09): 99–104, 2009.
- B. Chaluvaraju, M. Chellali and K. A. Vidya, **Perfect k-domination in graphs**, *Australasian Journal of Combinatorics*, 48:175–184, 2010.
- B. Chaluvaraju, R. Y. Denis and K. A. Vidya, **Smallest and largest binary sums of a graph**, *South East Asian Journal of Math. and Math. Sc*, 8(2):7–15, 2010.
- B. Chaluvaraju and K. A. Vidya, **Bounds on perfect k-domination in trees: An algorithmic approach**, *Opuscula Mathematica*, 32(4):707-714, 2012.
- B. Chaluvaraju and K. A. Vidya, **Generalized perfect domination in graphs**, *Journal of combinatorial optimization, (*Springer), 27:292-301, 2014.
- E. Sampath kumar, S. V. Roopa, K. A. Vidya, M. A. Sriraj, **Energy of partitioned graph using L-matrix**, *Proceedings of Jangjeon Mathematical Society*, Korea, 18(4): 473–493, 2015.
- S. V. Roopa, K. A. Vidya, M. A. Sriraj "**Partition energy of amalgamation of complete graphs and their generalized complements"** *, Indian J. Discrete Math*., Vol. 2, No. 1, pp. 18 – 36, 2017.
- E. Sampath kumar, S. V. Roopa, K. A. Vidya, M. A. Sriraj**, Partition energy of complete product of circulant graphs and some new class of graphs,** *Advanced Studies in Contemporary Mathematics, Korea*, Volume 28, No. 2, pp 2018.
- E. Sampath kumar, S. V. Roopa, K. A. Vidya, M. A. Sriraj, **Partition Laplacian energy of a graph,** *Palestine Journal of Mathematics*, Vol. 8(1),272–284(2018)
- K. Venugopal, K. A. Vidya, **Multiple intruder locating dominating sets,** *International Journal of Scientific Research in Mathematical and Statistical Sciences,* Vol.6(2), .394-398, April (2019)
- E. Sampath kumar, S. V. Roopa, K. A. Vidya, M. A. Sriraj**, Partition energy of some trees and their generalized complements,** *TWMS Journal OF Applied and Engineering Mathematics,* Volume 10(2),521-531,2020
- K. Venugopal, K. A. Vidya, **On Multiple intruder locating domination in Infinite grids,** *Advances and applications in Discrete Mathematics,* Volume 24(1), 1-12,2020.

- K. Venugopal, K. A. Vidya, **Multiple intruder locating domination in graphs: An algorithmic approach,** *Communications in Mathematics and applications,* ISSN:0975-8607, Volume 11, No:2, August 2020, Page No:259-269.

National Journals:

- B. Chaluvaraju and K. A. Vidya, **Perfect dominating set graph of a graph G**, *Advances and Applications in Discrete Mathematics*, 2:49−57, 2008.

Conference Proceedings:

- K. A. Vidya, **An Introduction to Domination in Fullerene Graphs**, *Proceedings of National conference on "Role of Mechanical Engineering and computational science for a sustainable future", ISBN:* 978-93-5254-129-4, 192-195, 2016.
- S. V. Roopa, K. A. Vidya, **Partition energy of graphs constructed using complete graph and Cycles,** *Proceedings of National conference on "Advances in Mechanical Engineering and Applied sciences",* ISBN: 978-93-84935-77-1, 2016.

Papers presented at Conferences

- **Bi-efficient domination in graphs** at Bangalore University during 19th International Conference of Jangjeon Mathematical society, Korea (Feb 2007)
- **Perfect dominating set graph** at Christ University during National Conference on Emerging trends in Fluid Mechanics and Graph Theory (Feb 2010)
- **Multiple Perfect domination in graphs** at NCRTDM at Marghosious college, Nazareth(Dec 2010)
- **Bi-efficient domination in trees using dynamic programming techniques** at Christ University during National Conference on Emerging trends in Fluid Mechanics and Graph Theory (Feb 2012)
- **Domination in Fullerene Graphs** at Christ University during National Conference on Emerging trends in Graph Theory (Feb 2013)
- **On computational complexity of multiple perfect domination in graphs** at Dharwad University during International conference on Discrete Mathematics(June 2013)
- **An Introduction to Domination in Fullerene Graphs** at Dayananda Sagar College of Engineering, Bangalore during National conference on Role of Mechanical Engineering and computational science for a sustainable future (September 2015).
- **On Computational complexity of bi-efficient domination in graphs** at AMC Engineering college, Bangalore during National conference on recent advances in Applied Sciences (April 2016)
- **Complexity of Bi-efficient domination in bipartite and chordal graphs,** International Conference on Advanced Technologies in Intelligent Control, Environment, Computing &Communication Engineering (ICATIECE), DSATM(March 2019)

Faculty Development Activity

Conferences/ Workshops/ FDP Attended

- **National Conference on Applications of Graph Theory** at R.V.C.E, Bangalore (April 2007)
- **International conference on Recent Developments in Combinatorics and Graph theory** at Kalasalingam University (June 2007)
- **Symposium on Mathematics** at Bangalore University(May 2009)
- **24th Annual Conference of Ramanujan Mathematical Society** at Indian Statistical Institute, Bangalore (April 2010)
- **School on Graph algorithms** at Karnatak University, Dharwad(March 2011)
- **Open Lecture Series on Advanced Science and Technology** at PES Institute of Technology.(November 2012)
- Faculty development Program on "**Creative Thinking on intellectual property generation**" at AMC Engineering college (March 2014).
- **International conference on Discrete Mathematics & Graph Theory Day-XII** at SIT, Tumkur(June 2016)
- **Three days workshop on NBA** at Dayananda Sagar Academy of Technology and Management(December 2017)
- **FDP programme on Recent Advances in Basic Sciences for Engineering Applications** at Dayananda Sagar Academy of Technology and Management (January 2018)
- **National Conference** at Dayananda Sagar Academy of Technology and Management(May 2018)
- **Workshop on "New Model Curriculum**" at BIT, Bengaluru(May 2018)
- **Teacher Empowerment Programme** at PES University(June 2018)
- **Workshop on OBE Practices** at Dayananda Sagar Academy of Technology and Management(June 2018)
- **AICTE Workshop on First year induction Programme** at Sri Venkateswara College of Engineering(June-2018)
- **FDP on Teaching-Learning Process** at Dayananda Sagar Academy of Technology and Management(Jul 2018)
- **FEP on Intellectual Property Rights** at Dayananda Sagar Academy of Technology and Management(Feb 2019)
- **FDP on "Recent trends in Nanoscience and Technology for Engineering Applications"** at Dayananda Sagar Academy of Technology and Management(March 2019)

- **International conference on Discrete Mathematics** at Christ University, Bangalore(Jun 2019)
- **FDP on "Recent trends in science for Versatile Engineering Applications"** at Dayananda Sagar Academy of Technology and Management(July 2019)
- **One week Online Workshop on Recent trends in domination in Graphs: Algorithms, complexity and Applications** by NIT, Warangal(Jun 2020)
- **Two weeks Refresher Course in Mathematics** by Ramanujan College, New Delhi(Mar 2021)

Administrative Activity

- NBA/ NAAC Coordinator

Professional Membership

- Member of Academy of Discrete Mathematics and Applications (**ADMA**), India.

Contact Details

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