

Dr. M. VIMALA SUGANTHI. M.Sc.,M.Phil.,Ph.D.- Mathematics

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OBJECTIVE

To be associated with a progressive organization which can provide me with a dynamic work sphere to extract my inherent skills as a Professional, to learn and improve as a good teacher and also attain my career targets in the progress.

ACADEMIC PROFILE

- **Area of Interest:** Graph Theory, Real Analysis.

EDUCATIONAL CHRONICLE

Ph.D(full-time)	Gandhigram rural institute (Deemed to be University), Ministry of Education, Government of India, Gandhigram.	2019- 2023
M.Phil	Fatima College , Madurai.	2016-2017
M.Sc	Lady Doak College, Madurai.	2014-2016.
B.Sc	Fatima College, Madurai.	2011-2014.
HSLC	St.Joseph's Mat Hr.Sec School,Madurai.	2010-2011.
10th	St.Joseph's Mat Hr.Sec School,Madurai.	2008-2009.

WORKING EXPERIENCE

- Fatima College (Autonomous), Madurai (18th July, 2022- 12th Dec,2022)

ACADEMIC PROJECTS

- **U.G-Level Project Title :** A study on Signed Domination of Graphs.
- **P.G-Level Project Title :** A study on Sparse Graphs.

- **M.Phil-Dissertation Title** : A study on a-Local Function And Ra Operator In Ideal Topological Space.
- **Ph.D-Thesis Title**: Innovation of a Systematic Analysis of Various Domination Parameters with Applications.

PERSONAL ACTIVITIES

- Undergone English Training skills on English roots and pronunciation.

TRAININGS AND CONFERENCE

- Participated in **Special lecture** on “*Should we discard lebesgue integral?-a review of integration*” conducted by the Department of Mathematics , The American college, Madurai-625002 on 16th December 2015.
- **Advanced training in Mathematics** : *Group Theory And Ring Theory*, held at the school of Mathematics , Madurai kamaraj University, Madurai during January 4-9, 2016.
- Attended the **National Conference** on “*Recent Trends in Graph Theory*” held at Fatima college , Madurai-625018 on January 18,2017.
- Participated on **National Conference** on “*Modern Mathematics & It’s Applications*”(NCMMA-2018) held at The American College, Madurai during January 22nd & 23rd 2018.
- Presented a paper entitled “Restrained step domination number of a Graph” in the **International Conference on Advances in Pure & Applied Mathematics 2018** at school of Mathematics, Madurai Kamaraj University, Madurai, Tamil Nadu , India During Sep 06-08,2018.
- Presented a paper entitled “Exploration of the possible Benifitions for The complementary perfect matching Models with Applications” in 2018 **International Conference on Computational Vision and Bio Inspired Computing (ICCVBIC)**, Organized by Inventive Research Organization and RVS Technical Campus, Coimabatore, India During 29-30, November 2018.
- Presented a paper entitled “Restrained Step Triple Connected Domination Number of a Graph” in the **International Conference on Discrete and Computational Mathematics (ICDCM-18)** organized by the Department of Mathematics and Ramanujan Center for higher Mathematics, Alagappa University, Karaikudi, during 20-21, December 2018.

- Presented a paper on the topic “Restrained step domination number for derived and grid graphs ” in the 3-day ***International Conference on Novel Trends in Pure And Applied Mathematics***, organized by the Department of Mathematics, University of Kerala, Kariavattom, Thrivananthapuram from January 22nd to 24th 2019.
- Presented a paper entitled “Analysis on product graphs along with the utilization of restrained step triple connected domination parameter” in the ***International Conference on Dynamical Systems, Mathematical Modelling and Computing Techniques (ICDSMMCT-2019)*** held during Feb. 14-16, 2019 Organized by the Department of Mathematics, The Gandhigram Rural Institute(Deemed to be University), Gandhigram, Dindigul, Tamil Nadu.
- Presented a paper entitled “Discovering atmost twin outer perfect domination number for general 2-array tree and some special graphs” in the ***International Conference on Dynamical Systems, Mathematical Modelling and Computing Techniques (ICDSMMCT-2019)*** held during Feb. 14-16, 2019 Organized by the Department of Mathematics, The Gandhigram Rural Institute(Deemed to be University), Gandhigram, Dindigul, Tamil Nadu.
- Participated in one day ***International conference on “Tremendous Application of Graphs in recent Technical Era- ICOTAG-19”*** organized by the Department of Mathematics on 27th July held at Annai Women’s College, Karur.
- Presented a paper entitled “Complementary Independent Twin Paired Domination Number of a graph” in the ***34th Annual Confernce of the Ramanujan Mathematical Society(RMS)*** held at Department of Mathematics, Pondicherry University during August 1-3, 2019.
- Presented a paper entitled “Investigation of Complementary Independent twin paired domination number of product and some special types of graph” in the ***International Conference on Mathematical Modeling and Computational Intelligence (ICMMCI-2019)*** Organized by Department of Mathematics and Ramanujan Center for Higher Mathematics, Alagappa University, Karaikudi during 3rd and 4th September 2019.
- Participated in the ***International Workshop on Mathematical Modelling and Scientific Computing*** held during 04th -05th September 2019 Organized by the Department of Mathematics, The Gandhigram Rural Institute(Deemed to be University), Gandhigram, Dindigul, Tamil Nadu.
- Presented a paper entitled “Investigation of Complementary independent twin paired dominating number for product and network related graphs” in the ***International Conference on Graph Theory and its Applications (ICGTA-2019)*** held during November 20-21, 2019 organized by the Department of Mathematics, SSN College of Engineering, Chennai, Tamil Nadu, India.

- Virtually Presented a paper entitled “Exploring atmost twin outer perfect domination number for General Binary Tree and Some Special Graphs” in **2nd International Conference on Mathematical Modelling and Computational Methods in Science and Engineering (ICMMCMSE-2020)** during January 22-24, 2020 organized by School of Mathematics, Alagappa University, Karaikudi, Tamil nadu, India.
- Presented a paper entitled “Discovering Complementary Independent Twin Paired Domination Number for Some Product Related Graphs” in **International Conference on Innovations in Grpahs and its Alliances in Digital Era-2020** organized by the Department of Mathematics, University of Kerala, Kariavattom, Thrivananthapuram from January 22nd to 24th 2020.
- Presented a paper entitled “Twin Paired Domination Number of a Graphs” in **the 3rd International Conference Scenario in Pure and Applied Mathematics** held at Kongunadu Arts and Science College (Autonomous), Coimbatore, Tamil nadu, India during 30-31, January 2020.
- Presented a paper entitled “CITD- number for product related graphs and some special type of graphs” in the **International Conference On Mathematical Modelling and Scientific Computing (ICMMSC-2020)** held during Feb. 19-21, 2020 Organized by the Department of Mathematics, The Gandhigram Rural Institute(Deemed to be University), Gandhigram, Dindigul, Tamil Nadu.
- Presented a paper entitled “Corona Domination Number of Graphs” in the **International Conference On Mathematical Modelling and Computational Intelligence Techniques (ICMMCIT-2021)** held during Feb. 10-12, 2021 Organized by the Department of Mathematics, The Gandhigram Rural Institute(Deemed to be University), Gandhigram, Dindigul, Tamil Nadu.
- Participated in two-day *international conference on “Exploration of Contemporary Mathematical Sciences-2022 (ICECMS-2022)”* held on 17th and 18th march 2022 at Mannar Thirumalai Naicker College, Madurai-4.
- Participated in the three-day *International Conference on Analysis and Applied Mathematics(ICCAA-2022)* held at Ayya Nadar Janaki Ammal College (Autonomous) Sivakasi during 26th -28th of April 2022.

LIST OF PUBLICATIONS

1. Mahadevan .G, Iravithul Basira. A and **M. Vimala Suganthi**, Restrained step domination number of a graph, *Advances in pure & Applies Mathematics*, ISBN 978-93-86435-54-5, pp 31-40.(2018)
2. G. Mahadevan and **M. Vimala Suganthi**, Restrained step domination number for some derived and grid related graphs, *International Journal of Applied Engineering Research* ISSN 0973-4562 Volume 14, Number 8,pp 7-11, 2019.
3. G. Mahadevan, **M. Vimala Suganthi** and A. Selvam Avadayappan, Exploration of the possible benifits for the complementary perfect matching models with applications, *Springer Lecture notes, ICCVBIC-2019*, pp-1061-1071.
4. G. Mahadevan and **M.Vimala Suganthi**, Restrained Step Domination Number for Some Amusing Product Graph of Paths and Cycle, *International Journal of Recent Technology and Engineering (IJRTE)* ISSN: 2277-3878, Volume-8 Issue-4S5,pp.24-28, December 2019
5. G. Mahadevan, **M. Vimala Suganthi** & A. Iravithul Basira (2019) Restrained step triple connected domination number of a graph, *Journal of Discrete Mathematical Sciences and Cryptography*, 22:5, 731-744.
6. G. Mahadevan and **M.Vimala Suganthi**, Discovering complementary independent twin paired domination number for some product related graphs, *Advances in Mathematics: Scientific Journal* **9** (2020), no.6, 4261–4270.
7. **M.Vimala Suganthi** and G. Mahadevan, complementary independent twin paired domination number of a graph, *Advances in Mathematics: Scientific Journal* **9** (2020), no.11, 9659–9668.
8. G. Mahadevan and **M.Vimala Suganthi**, Creating a Pond Network to Reduce the Water Scarcity and other Issues Using Domination Parameter, *Environmental Pollution and Climate Change*, Discovery Publishing House Pvt. Ltd., New Delhi (India), ISBN: 978-93-88854-30-6 2020, Chapter 12, pp.222-225.
9. G. Mahadevan and **M.Vimala Suganthi**, Twin Paired Domination number of a graph, *Journal of Physics: Conference Series* **1543** (2020) 012012, IOP Publishing doi:10.1088/1742-6596/1543/1/012012.
10. **M.Vimala Suganthi** and G. Mahadevan, CITD-number for some graph operations, *Journal of Physics: Conference Series* **1724**(2021) 012019, IOP Publishing doi:10.1088/1742-6596/1724/1/012019.

11. **M.Vimala Suganthi** and G. Mahadevan , Restrained step triple connected domination polynomial, Design Engineering, issue 6, (2021), pp 4145-4151.
12. **M.Vimala Suganthi** and G. Mahadevan, Equality on restrained step domination number of a Graph, AIP Conference proceedings, 2364 issue:1, 020007, 2021.
13. G. Mahadevan, **M. Vimala Suganthi** & A. Iravithul Basira, Analysis on product graphs along with the utilization of Restrained step triple connected domination parameter, Accepted in International journal of Dynamical systems and differential equations.
14. G. Mahadevan, **M. Vimala Suganthi**, and C. Sivagnanam, Corona Domination Number of Graphs, Mathematical Modelling and Computational Intelligence Technique, Springer Proceedings in Mathematics and Statistics, Vol 376, 255-265,2021.

ADDITIONAL PROFICIENCY

- Done certification course in Programming in C and C++.

PERSONAL SKILLS

- Excellent communication skills.
- Ability to deal with people diplomatically.
- Willingness to learn, team facilitator.

Special Interest: Reading books and Drawing .

Strength: Punctuality.

Linguistic Skills: *To Read* : English and Tamil.

To Speak : English and Tamil.

To Write : English and Tamil.

Nationality: Indian.

Religion: Roman Catholic (Christian).