

Name: Dr. Yogalakshmi. Y

**Designation:** Assistant Professor

**Department:** Mathematics (UG – SF) **Qualification:** M.Sc., M.Phil., Ph.D.,

**Experience:** Teaching - 4 Years

Area of Specialization(s): Graph Theory

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## AcademicQualifications

| Degree  | Branch      | Institution/UniversityName            | YearofGraduation |
|---------|-------------|---------------------------------------|------------------|
| Ph.D    | Mathematics | Nirmala College for Women, Coimbatore | 2025             |
| M.Phil. | Mathematics | PSGR Krishnammal College for Women,   | 2017             |
|         |             | Coimbatore                            |                  |
| M. Sc.  | Mathematics | PSGR Krishnammal College for Women,   | 2015             |
|         |             | Coimbatore                            |                  |
| B.Sc.   | Mathematics | PSGR Krishnammal College for Women,   | 2013             |
|         |             | Coimbatore                            |                  |

## AdditionalQualifications

| Diploma/                     |                        |   |      |
|------------------------------|------------------------|---|------|
| Vocational/<br>Certification | Area of Specialization | Institution/University/AgencyName                             | Year |
| Certification                | Coursera               | What is Data Science?, IBM Skills<br>Network                  | 2022 |
| Certification                | Coursera               | IBM Data Topology, IBM  | 2022 |
| Certification                | Coursera               | Cryptography, University of Maryland                          | 2023 |
| Certification                | Coursera               | AI for Everyone, Deeplearning.AI                              | 2023 |
| Certification                | Coursera               | Python for Data Science, AI & Development, IBM                | 2025 |
| Certification                | Coursera               | Math Prep: College & Work Ready,<br>University of North Texas | 2025 |

## **Research Publications (Indexed)**

 "A STUDY ON COVERING EXTENDED ENERGY OF A GRAPH", INDIAN JOURNAL OF NATURAL SCIENCES, Vol 14, Issue 77, April 2023. (WEB OF SCIENCE)

- "A STUDY ON MINIMUM EFFICIENT DOMINATING EXTENDED ENERGY OF SOME GRAPHS", **JOURNAL OF PROPULSION TECHNOLOGY**, Vol 45 No. 3, 2024. (SCOPUS)
- "MINIMUM COVERING EXTENDED ENERGY FOR SOME COMMON FEVER DRUGS AND ITS RESTRICTIONS", AIP CONFERENCE PROCEEDINGS, Volume 3267, Issue 1, 12 June 2023. (SCOPUS)

### **Paper Presentations in Conference**

- Presented the paper titled "On Maximum Independent D Energy of a Graph" in a Two Day International Conference on "Mathematics, Statistics & Applications", VFSTR, 10<sup>th</sup> & 11<sup>th</sup> Jun 2022.
- Presented the paper titled "Efficient Dominating Extended Energy of a Graph" in a Two Day National Conference on "Discrete Mathematics and its Applications", Velammal College of Engineering & Technology, 15<sup>th</sup> & 16<sup>th</sup> Jul 2022.
- Presented the paper titled "A Study on Covering Extended Energy of a Graph" in International Conference on "Contemporary Approaches in Science & Humanities: Future Prospects", Nirmala College for Women, 2<sup>nd</sup> & 3<sup>rd</sup> Feb 2023.
- Presented the paper titled "A Study on Covering Extended Distance Energy of a Some Graphs" in International Conference on "Recent Trends in Mathematics and Computer Science", Auxilium College of Arts and Science for Women, 19<sup>th</sup> – 21<sup>st</sup> Oct 2023.
- Presented the paper titled "Minimum covering extended energy of some common fever drugs and its restrictions" in Third International Conference on "Applied Science Mathematics and Statistics", Kongunadu College of Engineering and Technology, 17th May 2024.
- Presented the paper titled "Minimum covering extended distance energy of some common fever drugs and its restrictions" in International Conference on "Modelling Strategies in Mathematics", Nirmala College for Women, 22<sup>nd</sup> & 23<sup>rd</sup> Oct 2024.
- Presented the paper titled "Extended distance energy of some graphs and common fever drugs" in 2<sup>nd</sup> International Conference on "Evolution in Pure & Applied Mathematics", Akal University, 20<sup>th</sup> to 22<sup>nd</sup> Nov 2024.
- Presented the paper titled "A study on minimum dominating extended distance energy of some graphs" in Third National Conference on "Mathematics: Pure, Applied and Computational", Kongunadu College of Engineering and Technology, 14<sup>th</sup> May 2025.

# **Participation in Conference**

- International Conference on "Recent Trends in Theoretical and Computational Mathematics", PSGR Krishnammal College for Women, 24<sup>th</sup> & 25<sup>th</sup> Feb 2022.
- International Conference on "Progress in Mathematics towards Industrial Applications", SRMIST, 28<sup>th</sup> & 29<sup>th</sup> Oct 2022.

• International Conference on "Mathematical Analysis in Computational Biology and Data Science", PSGR Krishnammal College for Women, 24<sup>th</sup> & 25<sup>th</sup> Jan 2023.

### **Participation in Seminars**

- Training Programme on "E Resources in J GATE", Nirmala College for Women, 26<sup>th</sup> Mar 2022.
- Online Seminar titled "Mathematical Modelling in Image Processing", Dr. M.G.R. Educational and Research Institute, 23<sup>rd</sup> Apr 2024.
- Online Seminar titled "Mathematical Modelling in Image Processing", Dr. M.G.R. Educational and Research Institute, 28<sup>th</sup> Aug 2024.
- International Guest Lecture on "What is Gaussianity in Non commutative Probability? And, Why do we care?" SRMIST, 29<sup>th</sup> Nov 2024.
- Online Seminar titled "Role of Algebra in Real Life", Dr. M.G.R. Educational and Research Institute, 29<sup>th</sup>
  Jan 2025.
- Online Seminar titled "The Role of Graph Theory in Various Fields", Dr. M.G.R. Educational and Research Institute, 18<sup>th</sup> Jun 2025.

### **Participation in Workshop**

- International Workshop on "Structural Mathematics using Graph Theory", SRMIST, 13<sup>th</sup> to 15<sup>th</sup> Dec 2021.
- International Workshop on "Introduction to Mathematical Ecology", SRMIST, 4<sup>th</sup> Feb 2022.
- Workshop on "Cross discipline Platforms: Scopus, ScienceDirect and Mendeley", MathTech Thinking Foundation, 11<sup>th</sup> Mar 2022.
- Workshop on "Graph Theory using Python", Vellore Institute of Technology, 3<sup>rd</sup> Sep 2022.
- International Workshop on "Academic Writing Ethical issues", Global Institute of Statistical Solutions, 3<sup>rd</sup> to 5<sup>th</sup> Sep 2022.
- National Workshop on "Fuzzy Theory and Combinatorics", Vellore Institute of Technology, 14<sup>th</sup> and 15<sup>th</sup>
  Dec 2022.
  - International Workshop on "Applied Mathematics", SRMIST, 6<sup>th</sup> to 8<sup>th</sup> Feb 2023.
- 3<sup>rd</sup> National Workshop on "Recent Trends in Mathematics", St.Peter's Institute of Higher Education & Research, 13<sup>th</sup> Apr 2023.
  - Workshop on "R Programming for Research", Vellore institute of Technology, 29<sup>th</sup> to 30<sup>th</sup> May 2023.
- National Workshop on "Applied Mathematics and Computing", Madhav Institute of Technology and Science, Jun 12<sup>th</sup> to 16<sup>th</sup> Jun 2023.
  - $\bullet \quad \text{International Workshop on "Role of Mathematics in Machine Learning", SRMIST, 4^{th} \text{ and } 5^{th} \text{ Sep 2023}.$
- International Virtual Workshop on "Ramification of AI In Entrepreneurship Development", B.L.D.E.A's Commerce, BHS Arts and TGP Science College, 9<sup>th</sup> May 2024.
- Workshop titled "Scientific Computing using MATHEMATICA", Geethanjali College of Engineering and Technology, 23<sup>rd</sup> to 25<sup>th</sup> May 2024.

- International Virtual workshop on "The Equation of Intelligence: Exploring the Fusion of Mathematics and AI", SRMIST, 23<sup>rd</sup> and 24<sup>th</sup> Aug 2024.
- National Workshop on "Graph Theory in memory of Prof. E. Sampathkumar", Sridharacharya Academy of Mathematical Sciences, 22<sup>nd</sup> Sep 2024.
- Workshop titled "LaTex for Academic Writing", Dr. M.G.R. Educational and Research Institute, 3<sup>rd</sup> & 4<sup>th</sup>
  Jun 2025.

### **Participation in Faculty Development Programme**

- International FDP "Frontiers of Mathematics", SRMIST, 19<sup>th</sup> May to 2<sup>nd</sup> Jun 2022.
- International FDP "Current Trends in Applications of Mathematics", Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, 21<sup>st</sup> Sep to 4<sup>th</sup> Oct 2022.
- National FDP on "Research Methodology: Analysis, Tools & Techniques", Theivanai Ammal College for Women, 28<sup>th</sup> Dec 2022 to 3<sup>rd</sup> Jan 2023.
- FDP on "Open Source Software Tools for Research", Vellore Institute Technology, 13<sup>th</sup> to 17<sup>th</sup> Mar 2023.
- FDP on "Essential of Data Science", Vellore Institute of Technology, 15<sup>th</sup> to 19<sup>th</sup> May 2023.
- Faculty Enhancement Programme, PSGR Krishnammal College for Women, 5<sup>th</sup> to 10<sup>th</sup> Jun 2023.
- International FDP on "Recent Trends in Graph Theory and Mathematical Modelling & its Applications, Mohamed Sathak A. J. College of Engineering, 12<sup>th</sup> to 16<sup>th</sup> Jun 2023.
- "A Five Day Online FDP on Discrete Mathematics", Vellore Institute of Technology, 13<sup>th</sup> to 17<sup>th</sup> Jun 2023.
- International FDP "Fronteirs of Mathematics", SRMIST, 5<sup>th</sup> Jul to 19<sup>th</sup> Jul 2023.
- "A Five Day Online FDP on Advances in Graph Theory", Vellore Institute of Technology, 11<sup>th</sup> to 15<sup>th</sup> Sep 2023.
- FDP on "Empowering Academicians: AI Powered Research for Excellence", PSGR Krishnammal College for Women, 3<sup>rd</sup> Oct 2023.
- FDP on "Stress Management", PSGR Krishnammal College for Women, 4<sup>th</sup> Oct 2023.
- FDP entitled "Recent Trends in Mathematics and Technology", OP Jindal University, 9<sup>th</sup> to 13<sup>th</sup> Oct 2023.
- FDP on "3<sup>rd</sup> Mathematical Sciences for CSIR UGC NET Aspirants, Vellore Institute of Technology, 17<sup>th</sup> to 21<sup>st</sup> Oct 2023.
- FDP on "Recent Advances in Mathematical Analysis & its Applications", St. Joseph's College of Engineering, 22<sup>nd</sup> to 23<sup>rd</sup> Nov 2023.
- International Virtual PDP on "Developing your Professional Edge: Strategies for Career Growth and Financial Success", PPG College of Arts and Science, 8<sup>th</sup> to 12<sup>th</sup> Jan 2024.
- National Online FDP on "Research Methodology: Ethics & Publications", Theivanai Ammal College for Women, 22<sup>nd</sup> to 26<sup>th</sup> Jan 2024.
- International FDP on "Exploration of Mathematics in Emerging Fields", PPG College of Arts and Science,
  21<sup>st</sup> go 25<sup>th</sup> Feb 2024.

- International Virtual FDP on "Mathematics and its Application", PSGR Krishnammal College for Women, 11<sup>th</sup> to 15<sup>th</sup> Mar 2024.
- FDP on "Concept of Pure and Applied Mathematics", Parul University, 11<sup>th</sup> to 15<sup>th</sup> Mar 2024.
- FDP on "Exploring Real world Applications in Mathematics", Vels Institute of Science, Technology and Advanced Studies, 22<sup>nd</sup> to 26<sup>th</sup> Apr 2024.
- FDP on "Mathematical Foundation of Machine Learning", Techno International New Town, 3<sup>rd</sup> to 7<sup>th</sup> Jun 2024.
- FDP on "Mathematical and Computational Aspects of Industry 4.0", Haldia Institute of Technology, 3<sup>rd</sup> to 7<sup>th</sup> Jun 2024.
- FDP on "Methods for Improving Higher Education Teaching Quality Using Outcome Based Education, Pedagogical Approaches and NEP 2020", 22<sup>nd</sup> to 26<sup>th</sup> Jul 2024.
- FDP on "Foundational Sciences: The Cornerstones of Engineering", Sphoorthy Engineering College, 8<sup>th</sup> to 10<sup>th</sup> Aug 2024.
- FDP on "Exploring New Horizons in Mathematical Research", V.O.Chidambaram College, 19<sup>th</sup> to 24<sup>th</sup> Aug 2024.
- National level FDP on "Writing Research Articles using LaTex Overleaf", Sri Chandrasekharendra Saraswathi Viswa Mahavidyalaya, 9<sup>th</sup> to 13<sup>th</sup> Sep 2024.
- International FDP on "Innovative Applications of Mathematics", Bapatla Engineering College, 18<sup>th</sup> to 23<sup>rd</sup> Nov 2024.
- FDP on "Programme on Latex", Meerut Institute of Engineering and Technology, 9<sup>th</sup>, 23<sup>rd</sup>, 30<sup>th</sup> Nov & 7<sup>th</sup>, 14<sup>th</sup> Dec 2024.
- National FDP on "Recent Development in Pure & Applied Mathematics", IIST, 23<sup>rd</sup> to 28<sup>th</sup> Dec 2024.
- International FDP on "Futuristic Pathways in Technology and Computational Methodologies", Mary Matha College of Arts and Science, 6<sup>th</sup> & 11<sup>th</sup> Jan 2025.
- FDP on "Future Trends in Machine Learning and Data Science Driven IOT Applications", Haldia Institute of Technology, 10<sup>th</sup> to 13<sup>th</sup> Mar & 17<sup>th</sup> Mar 2025.
- FDP on "Emerging Trends in Graph Theory", SCMS School of Engineering and Technology, 21<sup>st</sup> to 25<sup>th</sup>
  Apr 2025.
- FDP on "AI in Healthcare Management", PET Engineering College, 16<sup>th</sup> to 22<sup>th</sup> Jul 2025.

#### **Participation in Webinar**

- Talk on "Ramsey Theory: An Introduction Through Number Theoretic Problems", IIT Bombay, 13<sup>th</sup> Nov 2021.
- Talk on "Number theory & its Applications", SRMIST, 22<sup>nd</sup> & 23<sup>rd</sup> Dec 2021.
- Talk on "Application of Probability & Statistics in Defence", SRMIST, 29th Jun 2022.
- Talk on "Ways to Handle Life's Stressors", SRMIST, 13<sup>th</sup> Aug 2022.
- Webinar on "Innovative Methods for Solving Real life Problems through Graphs", SIMATS School of Engineering, 7<sup>th</sup> Dec 2022.

- Talk on "Rights of a Girl Child in India: Government Schemes", SRMIST, 24th Jan 2023.
- An International Webinar on "The Application of Graph Theory", Sri H. D. Devagowda Government First Grade College, 27<sup>th</sup> Jan 2023.
- Lecture series on "Nonlinear Dynamics and Applications", Indian Institute Technology, 13<sup>th</sup> to 16<sup>th</sup> Feb 2023.
- Series of talks "Reaching beyond limits: Voice of the other", SRMIST, 1st to 8th Mar 2023.
- International Webinar on "Plagiarism Importance, Consequence and How to avoid", Theivanai Ammal College for Women, 8<sup>th</sup> Mar 2023.
- National level Webinar on "World of PI", S. S. C. College of Arts & Commerce, 14<sup>th</sup> Mar 2023.
- International Webinar on "Introduction to Normal Linear Spaces", SRMIST, 3<sup>rd</sup> Apr 2023.
- Webinar on "Applications of Combinatorial Objects to Graph Labeling Problems", Government Arts and Science College, 12<sup>th</sup> Apr 2023.
- Webinar on "Variations of Domination in Graph Theory", Mohamed Sathak A. J. College of Engineering, 16<sup>th</sup> May 2023.
- Expert Talk on "Maxims of Teaching", SRMIST, 4<sup>th</sup> Sep 2023.
- Webinar on "Applications of Complex Analysis", Dr. M.G.R. Educational and Research Institute, 26<sup>th</sup> Sep 2023.
- Expert talk on "Mental Health, A Universal Human Right", SRMIST, 10<sup>th</sup> Oct 2023.
- Webinar on "OER and AI Tools: Enhanced Learning and Research", Nirmala College for Women, 30<sup>th</sup> Nov 2023.
- Series of lectures," Infinite Insights: Unveiling Mathematical Marvels", SRMIST, 18<sup>th</sup> to 21<sup>st</sup> Dec 2023.
- Online Technical Talk on "Convergence and Divergence of Series", Dr. M.G.R. Educational and Research Institute, 8<sup>th</sup> Feb 2024.
  - Webinar on "I STEM Empowering Academia/ Linking Researchers & Resources", PSGR Krishnammal College for Women, 13<sup>th</sup> Feb 2024.
- Online Guest lecture on "QSPR Analysis of Medicinal drugs by involving Topological Indices", Dr. M.G.R. Educational and Research Institute, 5<sup>th</sup> Mar 2024.
  - Series of Talks "Reaching beyond limits: Voices of The Other", SRMIST, 2<sup>nd</sup> to 7<sup>th</sup> Mar 2024.
  - "Three Day Free Online Excel Webinar", Institute to Improvement, 8<sup>th</sup> to 10<sup>th</sup> Mar 2024.
  - National Webinar "Recent Progress in Mathematical Sciences", Government Engineering College, 14<sup>th</sup> Mar 2024.
- Webinar on "Problem Solving in Linear Algebra", Dr. M.G.R. Educational and Research Institute, 3<sup>rd</sup> May 2024.
  - Talk on "Reaching the Success and Coping with the Failure", SRMIST, 16<sup>th</sup> Aug 2024.
  - Series of Lectures "Infinite Insights: Unveiling Mathematical Marvels", SRMIST, 18th to 21st Dec 2024.