

NIRMALA COLLEGE FOR WOMEN (AUTONOMOUS)

COIMBATORE

STAFF PROFILE



NAME : Dr. S. MONOLOISA
DESIGNATION : ASSISTANT PROFESSOR
DEPARTMENT : MATHEMATICS (SF)
QUALIFICATION : M.Sc., M.Phil., PGDOR., PGDCA., Ph.D
EXPERIENCE : 3 YEARS 6 MONTHS
AREAS OF SPECIALIZATION : GRAPH THEORY
E-MAIL : monolisamath19@gmail.com
ACADEMIC QUALIFICATIONS :

| DEGREE | YEAR OF COMPLETION | NAME OF THE INSTITUTION | CLASS |
|-----------------------|--------------------|---------------------------------------|------------------|
| Ph.D. (Mathematics) | 2023 | Nirmala College for Women, Coimbatore | Highly commended |
| M.Phil. (Mathematics) | 2019 | Nirmala College for Women, Coimbatore | First Class |
| M.Sc. (Mathematics) | 2017 | Nirmala College for Women, Coimbatore | First Class |
| B.Sc. (Mathematics) | 2015 | Nirmala College for Women, Coimbatore | First Class |

ADDITIONAL QUALIFICATIONS:

| DIPLOMA/ VOCATIONAL/ CERTIFICATION | AREA OF SPECIALIZATION | NAME OF THE INSTITUTION/ UNIVERSITY/ AGENCY | YEAR |
|------------------------------------|------------------------|---|------|
| PGDCA | Computer Application | Nirmala College for Women, Coimbatore | 2017 |
| PGDOR | Operation Research | Nirmala College for Women, Coimbatore | 2016 |

RESEARCH PUBLICATIONS:

INTERNATIONAL:

- [1] "J-PARAMETERS AND CEI OF SIMPLE GRAPHS", International Journal of Scientific Research and Review, Vol 2 (11), (244-249), 2018. [UGC – CARE Group - A]

- [2] **“ON JOHAN CHROMATIC CORE SUBGRAPH OF SPLITTING GRAPH OF CYCLE RELATED GRAPHS AND THEIR PRODUCT GRAPHS”**, The International Journal of Analytical and Experimental Modal Analysis, Vol XI (X), (2962 – 2965), 2019. [UGC – CARE Group - A]
- [3] **“ON JOHAN CHROMATIC CORE SUBGRAPH OF SPLITTING GRAPH OF STAR, STAR RELATED GRAPHS AND THEIR PRODUCT GRAPHS”**, Infokara Research, Vol VIII (X), (754 – 757), 2019. [UGC – CARE Group - A]
- [4] **“JOHAN COLORING ON CARTESIAN PRODUCT OF SPLITTING GRAPHS”**, Nirmala college for women, Vol 5 (5) (244 – 247) 2019.
- [5] **“ON CHROMATIC CORE SUBGRAPH OF CORONA GRAPHS AND JOIN GRAPHS WHICH ADMITS JOHAN COLORING”**, Compliance Engineering Journal, Vol XI (2) (9 – 13) 2020. [UGC – CARE Group -II].
- [6] **“ON JOHAN CHROMATIC CORE SUBGRAPH OF STAR RELATED GRAPHS AND THEIR PRODUCT OF GRAPHS”**, International web conference on smart engineering Technologies 2020, Ramco Institute of Technology, (Proceedings).
- [7] **“ON bDS – COLORING OF CORONA GRAPHS OF CERTAIN GRAPHS”**, AIP conference Proceedings, Vol 2261 (1 – 5) 2020. [SCOPUS].
- [8] **“TOPOLOGICAL DESCRIPTORS FOR PRODUCT OF COMPLETE GRAPHS”**, AIP conference Proceedings, Vol 2261 (1 – 6), 2020. [SCOPUS]
- [9] **“A CHROMATIC CORE SUBGRAPH OF PRODUCT OF GRAPH WHICH ADMITS JOHAN COLORING”**, Journal of Information and Computational Science, Vol X (X), (37 – 42), 2020 [UGC – CARE Group -II].
- [10] **“A STUDY ON ZAGREB INDICES AND CO-INDICES OF PRODUCT OF CYCLE GRAPHS”**, Journal of XI’an university of Architecture & Technology, Vol XI (X), 2020 [SCOP US INDED].
- [11] **“ON JOHAN COLORING AND JOHAN CHROMATIC CORE SUBGRAPH OF LINE GRAPH OF STAR GRAPH AND PRODUCT OF LINE GRAPH OF STAR GRAPH”**, Advances and Application in Mathematical Science, Vol 21 (3), (1395 - 1400), 2022 [WEB OF SCIENCE]
- [12] **“JOHAN ZAGREB INDICES OF SOME CHEMICAL NETWORK GRAPHS”**, South East Asian J. of Mathematics and Mathematical Sciences Vol. 19, Proceedings (2022), pp. 11-24.

NATIONAL:

- [1] **“JOHAN ZAGREB INDICES OF SOME CHEMICAL NETWORK GRAPHS”**, Indian Journal of Science and Technology , 16(35), 2902 – 2906, 2023.(Web of Science).

PRESENTATIONS IN CONFERENCE:

INTERNATIONAL:

- [1] International Conference on Discrete Mathematics and its Application, Manonmaniam Sudaranar University, presented on the topic “On Chromatic Core Subgraph of Corona Graphs and Join Graphs Which Admits Johan Coloring”
- [2] International Conference on Applied and Computational Mathematics, Erode Arts and Science College, presented on the topic “Algebraic Approach on The CEI for the Networks Resembling $W_{1,n}$, $S(W_{1,n})$, $GW_{1,n}$,”
- [3] International Conference on Recent Development in Mathematical Science, Nadar Saraswathi College Arts and Science, Topological Descriptor of Wheel – Related Graph.
- [4] International Conference on Advance in Applicable Mathematics, Bharathiar University, Topological Descriptors of Product of Complete Graphs.
- [5] International Conference on Smart Engineering Technology, Ramco Institute of Technology, “On Johan Chromatic Core Sub Graph of Star and Cycle Related Graphs and their Product of Graphs”.
- [6] International Conference on Mathematics for Materials Science Signals, Images and Structured Data, Bannari Amman Institute of Technology, “A Chromatic Core Subgraph of Product of Graphs Which Admits Johan Coloring”.
- [7] International Conference on Advances in Science, Engineering and Mathematics, Annamacharya Institute of Technology and Sciences, “Some Properties of Star Related and Product of Vague Graphs”.
- [8] 4th International Conference on Current Scenario in Pure and Applied Mathematics, Kongunadu Arts and Science College, “Some Properties of the Cartesian Product of Path Vague Graphs”.
- [9] International Conference on Advancement s in Engineering and Sciences, Graphic Era Hill University, “On Some Properties of Vague Graph Topological Space”.
- [10] 2nd International Conference on Mathematical Techniques and Applications, SRM Institute of Science and Technology, “Self-Centered and Self-Corner Vertex on Cartesian Product of Star Related Vague Graphs”.
- [11] International Conference on New Frontiers in Research Challenges and Innovations, Nirmala college for Women, “An Innovative Research on Zagreb Johan Index of some Product of Graphs.”
- [12] International Conference on Recent Strategies in Mathematics and Statistics, Stella Maris College (Autonomous) &, IIT Madras, “Johan Chromatic Indices of Chemical Graphs.”
- [13] International Conference on Applied Mathematical Models, PSG College of Technology, Coimbatore, India. “QSPR Analysis of Butane Derivatives Using Johan Zagreb Indices.”

[14] IC-ANEHA, APU, KL, Malaysia, "The Computation of Topo Structural Descriptors for Thyroid and Cholesterol Inhibitors."

[15] 2nd International Conference on Multidisciplinary Perspective in Engineering, Business Management, Social Sciences and Technology towards sustainable living, presented paper entitled "QSPR Analysis of COVID -19 Drug from Medicinal Herbs Utilizing Johan Zagreb Indices."

NATIONAL:

[1] Nirmala Annual Research Congress 2019, Nirmala College for Women, "On Johan Chromatic Core Subgraph of Cartesian Product of graphs".

[2] Nirmala Annual Research Congress, Nirmala College for Women, "Johan Coloring on Cartesian Product of Splitting graphs".

[3] National Conference on Emerging Trends in Graph Theory, Christ University, "Some Properties of the Cartesian Product of Vague Graphs".

PARTICIPATION IN CONFERENCES:

[1] International Web Conference on Pure and Applied Mathematics, St. Xavier's College.

[2] International Conference on Discrete Mathematics, Manonmaniam Sundaranar University.

PARTICIPATION IN SEMINARS:

[1] Trends and Challenges in Mathematical Modelling, Nirmala College for Women.

[2] Importance of Health Education in Digital Era, Kasturi College of Education.

PARTICIPATION IN WORKSHOPS:

[1] Academic Publications and Bibliometrics, Nirmala College for Women.

[2] LATEX, Gandhi Institute of Technology and Management.

[3] Graphs from Algebraic Structures, Manonmaniam Sundaranar University.

[4] International workshop on Numerical and Analytical Techniques in Engineering

[5] Problems (IWNATEP-2022), SRM Institute of Science and Technology.

[6] National Level Workshop on Recent Trends in Applications of Graph Theory, Rathnavel Subramaniam College of arts & Science.

[7] National Level Workshop on Fuzzy Theory and Combinatorics, Vellore Institute of Technology.

[8] Mathematical Computing using MATLAB, Dr.Mahalingam College of Engineering and Technology.

[9] An Insight into Mathematical Modelling in Information and Communication Engineering -Version2, Sri Sivasubramaniya Nadar College of Engineering.

[10] Sympy: A Python Library for Symbolic Mathematics, Mathtech Thinking Foundation, India.

PARTICIPATION IN ORIENTATION PROGRAMME/ INDUCTION PROGRAMME/ SHORT TERM COURSES:

[1] Environment Management system Green Campus Audit, Energy Audit and Hygiene Audit to Educational Institutions and Industrial Sectors. (Third Series), Nature Science Foundation, Coimbatore – 641046, Tamil Nadu, India, 09.05.2022 – 13.05.2022.

[2] NEP 2020 Orientation & Sensitization Programme under Malaviya Mission Teacher Training Programme, Malaviya Mission Teacher Training Centre, National Institute of Technology Warangal.

PARTICIPATION IN FACULTY DEVELOPMENT PROGRAMMES:

[1] Effective utilization of essential software's for research - MATLAB, mathematics & LATEX, Erode Arts and Science College.

[2] Advanced Excel with Data Visualization, E&ICT Academy

[3] Effective Online Teaching and Learning using ICT tools, Dr. SNS Rajalakshmi College of Arts and Science.

[4] Python, E&ICT Academy.

[5] Am I Ready to Do Research in Mathematics, Ayya Nadar Janaki Ammal College

[6] Computational Mathematical and Recent Advances in Management Principles, Swami Keashvanand Institute of Technology, Jaipur

[7] Graph Theory, Vellalar College for Women

[8] Computing with MATLAB and LATEX Software: Indispensable Tools for Researchers, Baba Farid College & Mizan-Tepi University & MathTech Thinking Foundation

[9] 5 Days Faculty Development Program for Skill Development on Role of Mathematics in Machine Learning, SRM Institute of Science and Technology

[10] 5 Days Faculty Development Program for “Exploring the Intersection of Teaching and Cognition ”

[11] KPR institute of Engineering and Technology

[12] Regression Analysis in Research, Vellore Institute of Technology

- [13] Data Science using Python, Faculty Development Training Centre, Government of Tamilnadu.
- [14] Recent Advancement in mathematics and statistics, Coimbatore Institute of Technology
- [15] International Faculty Development Program on Exploration of Mathematics in Emerging Fields, PPG College of Arts and Science.
- [16] Research Methodology, AI Tools in Research and Intellectual Property Rights, Sri Venkateswara College of Computer Applications and Management.
- [17] Essential Mathematics for Machine Learning, Deep Learning and Cyber Scurity, SRM Institute of Science and Technology.
- [18] FDP on Elevating Education through Faculty Development, Sri G. V. V Visalakshi College for Women supported under DBT Star Status Scheme.
- [19] FDP on Blockchain and Digital Transformation, Digital South and hosted by Nirmala College for Women.
- [20] FDP on Digital dimension of Mathematics Tech- Savvy Tools for Global Educators, Nirmala College for Women.

INVITED SPEAKER/ SESSION CHAIR- CONFERENCE/ SEMINAR/ WORKSHOP:

- [1] Introduction to LaTeX, Nirmala College for Women, 06.04.2022.
- [2] One Day Workshop on LaTeX, Nirmala College for Women, 01.03.2023.
- [3] One Day Workshop on LaTeX, Nirmala College for Women, 03.08.2023.
- [4] Thmadurai Tamilocai, Nirmala College for Women, 21.08.2023.

BOOK PUBLICATIONS:

- [1] Applied And Discrete Mathematics, Scientific International Publication House, 978 -93-5757-222-4 , 2023.
- [2] Matrices and Calculus, Balaji Publications, 978-81-9640-486-4, 2023.
- [3] Preceddings of IC-ANEHA @ APU, KL, Malaysia, 978-93-6155-898-6.
- [4] Language For Object-Oriented Programming with C++, ISBN: 978 -93-3445-972-2