

**Name** : Dr. S. Gokilamani

**Designation** : Assistant Professor

**Department** : Mathematics

**Qualification** : M.Sc., M. Phil., PGDCA., SET, Ph. D.,

**Experience** : Teaching – 16 Years | Research – 10 Years | Industry -

**Specialization:** Graph Theory, Algebra

**Email (Official)** : [gokilamani@drngpasc.ac.in](mailto:gokilamani@drngpasc.ac.in)



### Academic Qualifications

Degree	Branch	Institution / University Name	Year
Ph.D.	Mathematics	Vellalar College for Women, Erode	2024
M.Phil.	Mathematics	P.S.G.R. Krishnammal College for Women	2009
M.Sc.	Mathematics	P.S.G. College of Arts and Science	2008
B.Sc.	Mathematics with Computer Applications	Dr. N.G.P. Arts and Science College	2006

### Additional Qualifications

Dip. / Cert.	Area of Specialization	Institution / Agency	Year
Certificate	Yoga and Positive Psychology for	NPTEL	2023
Certificate	The Psychology of Language	NPTEL	2022
Certificate	Python for Data Science	NPTEL	2022
Certificate	Descriptive Statistics with R Software	NPTEL	2020
Certificate	Advanced Graph Theory	NPTEL	2018
Certificate	Database Management System	NPTEL	2018
Certificate	Introduction to R Software	NPTEL	2017
Certificate	Graph Theory	NPTEL	2017
SET	Mathematical Sciences	UGC	2017
Post Graduate Diploma	Computer Applications	Bharathiar University	2008

## Research Guidance

Programme	No. of Scholars	
	Awarded	Pursuing
Ph. D.	-	-
M. Phil.	3	-

## Research Publications

P. Mythili, S. Gokilamani, **Total Coloring of shadow, friendship and Jellyfish Graphs**, Stochastic Modelling and Applications, Vol. 26, No. 3 Special Issue, January -June 2022 Part – 11, ISSN: 0972-3641, (Indexed in UGC)

P. Hemalatha, S. Gokilamani, **Balanced rank distribution labeling of crown and wheel graphs**, Global Journal of Pure and Applied Mathematics, Vol. 19, No.2, pp. 255-269, 2023, ISSN: 0973-1768, (Indexed in UGC)

P. Mythili, S. Gokilamani, **Total coloring of Comb related graphs and umbrella graph**, International Journal of Creative Research Thoughts, Vol. 10, Issue 5, May 2022, ISSN: 2320-2882, (Indexed in UGC)

P. Hemalatha, S. Gokilamani, **Balanced rank distribution labeling of ladder graphs, complete graphs and complete bipartite graphs**, TWMS J. App. And Eng. Math. Vol. 11, Special Issue, 2021, pp-178-187 (Indexed in Web of Science/ESCI/SCOPUS)

S. Manimekalai, S. Gokilamani, M. Revathy, R. Anandhi, **Using PDE Mathematical Model for Aerodynamics of Lifting Surfaces in Non-Uniform Motion**, International; Journal of Science Research and Management, Vol. 3, Issue 12, pp 3798-3805, Dec 2015, ISSN: 2321-3418, (Indexed in UGC)

S. Manimekalai, M. Revathy, S. Gokilamani, **An advanced Method for solving fuzzy transportation problem with Minimum cost using Robust Ranking Techniques**, International Journal of Science and Research, Vol. 4, Issue 4, April 2015, ISSN: 2319-7094 (Indexed in UGC)

S. Manimekalai, S. Gokilamani, R. Anandhi, **Friendship two-graphs in Route-Mapping Technology**, International Journal of Scientific Engineering and Research, Vol. 2, Issue 9, Sep 2014, ISSN: 2347-3878, (Indexed in UGC)

## **Books/ Book Chapter Publications**

**“Interdisciplinary Insights: Exploring Diverse Academic Disciplines**, S. Manimekalai & S. Gokilamani, Heduna Journal, Vol. 1, Chapter 10, Feb 2025, pp 99-110, ISBN No: 978-81-984077-9-5.

## **Presentations in Conference/ Seminar**

**Optimizing university seating arrangements using graph coloring theory**, National level seminar on “Bits & Bucks: Building Business in the I & ml Age” PSG College of Arts and Science, Coimbatore, 13-Feb-25 to 14-Feb-25.

**Balanced rank distribution labeling of cartesian product of paths and cycles**, International Conference on Theoretical and Computational Graph Theory, Vellalar College for Women, Erode, 10-Jan-24 to 12-Jan- 24.

**Balanced rank distribution labeling of Cylinders, Toroids and Grid graphs**, 2<sup>nd</sup> International Conference on Emerging Trends in Science and Social Sciences, VHNSN College (Autonomous), Virudhunagar (Venue: Pattaya, Thailand), 6-Nov-23 to 8-Nov- 23.

**Balanced rank distribution labeling of Cartesian Product of certain graphs**, 18<sup>th</sup> Annual Conference of ADMA and Graph theory day, Vellalar College for Women, Erode, 9-Jun-22 to 11-Jun-22

**Balanced rank distribution labeling of Crown and Wheel Graphs**, International conference on current scenario in pure and applied mathematics, Kongunadu Arts and Science College, 29-Jan-21 to 30-Jan-21.

**Balanced rank distribution labeling of ladder graphs, complete graphs and complete bipartite graphs**, International conference on graph theory and its applications (IGCTA-2019) sponsored by SERB and SSN Trust, SSN college of Engineering, Chennai, 19-Nov-19 to 20-Nov-19.

**Balanced Rank Distribution Labeling of Graphs**, National seminar on Arising Developments in Graph theory (NSADGT-2018), PSGR Krishnammal College for Women, Coimbatore, 12-Dec-18.

**A Study on planar digraphs without large acyclic sets**, National seminar on Recent

Developments in Pure and Applied Mathematics, Department of Mathematics, Karpagam University, Coimbatore, 15-Sep-17.

**A Property of eigen vectors of non-negative symmetric matrices and its applications to graph theory**, National Level Conference on Optimization techniques and its applications sponsored by TamilNadu State council for Science and Technology, Bharathidasan College of Arts and Science, Erode, 17-Aug-17 to 18-Aug-17

**Vertex-Edge coloring techniques with applications**, National Conference on Current Scenario in the Applications of Mathematical Sciences, Vellalar College for Women, Erode, 9-Feb-17.

**Graph theory and its applications**, National Conference on Recent Advances in Mathematics and its Applications in Science and Engineering (NCRMA-2017), Dr. N. G. P. Institute of Technology, Coimbatore, 3-Feb-17

**Using PDE for aerodynamics of lifting surface in non-uniform motion**, National Conference, KG College of Arts and Science, Coimbatore, 20-Feb-16.

**Windmill and friendship two graph in route mapping technology**, International Conference on Fuzzy Queuing theory and its Applications, Bharathidasan College of Arts & Science, Erode, 3-Sep- 16

**Precoloring Extension (Prext) for interval graphs**, National Conference on Emerging Trends in Pure and applied Mathematics, Dr. N.G.P. Arts and Science College, Coimbatore, 14-Sep-15 to 15-Sep-15.

**Applications of graph theory**, International Conference, Dr. N.G.P. Arts and Science College, Coimbatore, 11-Aug-14 to 12-Aug-14

**On the chromatic number of a random five-regular graph**, National Level Conference, Kongu Arts and Science College, 25-Jan-14.

**Queuing theory and its application at railway ticket window**, National Conference, Dr. N.G.P. Arts and Science College, Coimbatore, 25-Sep-13.

**Edge chromatic number and its applications**, National Level Conference, PSGR Krishnamal College for women, 23-Aug-13 to 24-Aug-13.

**Applications of Non-Linear Programming Problems**, State level seminar, Dr. N.G.P. Arts and Science College, Coimbatore, 17-Feb-12.

**Preparing teachers to teach mathematics with technology**, State Level Conference, Dr. N.G.P. Arts and Science College, Coimbatore, 09-Dec-11.

**Colorings of Interval Graphs**, State Level Seminar, Dr. N.G.P. Arts and Science College, Coimbatore, 05-Mar-10.

**Color class domination in graphs**, International Seminar, PSGR Krishnammal College for Women, Coimbatore, 18-Dec-08 to 19-Dec-08.

#### **Participation in Conference/Seminar**

International Conference on Recent Trends in Theoretical and Computational Mathematics (Virtual Mode), P.S.G.R. Krishnammal College for Women, Coimbatore, 25-Feb-22.

Seminar on Applications of Differential equations, Coimbatore Institute of Technology, Coimbatore, 12-Mar-21.

International Conference on Recent Trends in Mathematics and Its Applications to Graphs, Networks and Petri Nets, Jawaharlal Nehru University, New Delhi, 20-Jul-20 to 24-Jul-20.

Some Recent Research Directions in Graph Theory, Ayya Nadar Janaki Ammal College, Sivakasi. 9-Mar-17 to 10-Mar-18.

Conference on Emerging trends in topology and applications of Analysis, Kongu Arts and Science College, Erode, 10-Feb-17.

International Symposium on Neoteric Notion in Algebra, Nandha Arts and Science College, Erode, 21-Sep-16.

Conference on Principals Associations, Dr. N.G.P. Arts and Science College, Coimbatore, 01-Aug-15.

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

**Structural Design and Analysis using STAAD Pro Connect**, ICT Academy, 18-Nov-24 to 22-Nov-24.

**E-Content development**, Sri G.V.G. Visalakshi College for Women, Udumalpet, 12-Feb-24 to 16-Feb-24.

**Recent trends in Mathematics and Technology**, School of science, OP Jindal University, Raigarh, Chhattisgarh, 9-Oct-23 to 13-Oct-23.

**NAAC Accreditation Framework**, GuruShree Shantivijai Jain College for Women, Chennai, 9-Sep-23 to 16-Sep-23

**Empowering Education for Innovation – A NEP Perspective**, Center for Professional Development, Dr. N.G.P. Arts and Science College, 30-Jun-23 to 04-July-23.

**Outcome Based Education**, Dr. N.G.P. Arts and Science College, 17-Jun-23 to 21-June-23.

**Current Trends in Applications of Mathematics**, Vel Tech Rangarajan Dr. Sagunthala R&D Institute of Science and Technology, Chennai, 21-Sep-22 to 04-Oct-22.

**Teaching and Learning Process in Higher Education Institutions**, IOT Academy, 6-Sep-22 to 14-sep-22.

**Plagiarism in Academic Research & Author Identifiers**, Indian Institute of Management and Commerce, 11-Apr-22 to 12-Apr-22.

**Biostatistics and R Programming**, Rathinavel Subramaniam College of Arts and Science, Coimbatore, 09-Aug-21 to 19-Aug-21.

**Research Methodology and Pedagogy for Tertiary Education**, Dr. N. G.P. Arts and Science College, 15-Jun-21 to 21-Jun-21.

**Hands – on Training in Latex**, Kongu Engineering College, Erode, 28-Sep-20 to 2-Oct-20.

**How to Crack CSIR- NET & SET in Mathematics**, Dr. N.G.P. Institute of Technology, CBE, 24-Jun-20 to 26-Jun-20.

**Algebra and Analysis**, Vellalar College for Women, Erode, 16-Jul-2020 to 17-Jul-2020.

**Documentation of Graph using Latex**, C Abdul Hakeem College of Engineering and Technology, 13-May-20

**Quality Initiatives in Higher Education**, Consortium of Colleges, 13-April-2020 to 20-April 20.

Digital Teaching Techniques, ICT ACADEMY, 10-Aug-20 to 15-Aug-20.

**Recent Advances in Mathematics**, Department of Mathematics, Dr. N.G.P. Arts and Science College, Coimbatore, 2-Jun-19 & 3-Jun-19.

**NAAC Revised Accreditation Framework and OBE Assessment Methodology**, Dr. N.G.P. Arts and Science College, Coimbatore, 27-May-19 to 2-Jun-19.

**Algebra and Number Theory**, Department of Science and Humanities, Dr. N.G.P. Institute of Technology, Coimbatore, 18-May-19.

**Introduction to Python Programming**, ICT Academy, Sri Ramakrishna College of Arts and Science for Women, 17-Dec-18 to 18-Dec-18.

**Linear Algebra and its Applications**, Dr. N.G.P. Institute of Technology, Coimbatore, 28-July-18.

### Participation in Workshop

**TEW - Group Theory, Linear Algebra and Enumerative Combinatorics (2024)**, National Centre for Mathematics (NCM – A joint centre of IIT Bombay and TIFR Mumbai), Mangalore University, Mangalore, 05-Aug-24 to 10-Aug-24.

**Recent Advances in Differential Equations and Applications (IWRADDA)**, VIT-AP University, Andhra Pradesh, 27-Oct-23 to 31-Oct-23.

**Outcome Based Education (OBE)**, Dr. N.G.P. Arts and Science College, Coimbatore in association with IPSR solutions Limited, 04-Mar-23.

**Role of Mathematics in Society**, Coimbatore Institute of Technology, CBE, 15-Mar-21.

Introduction to MATLAB, Gobi Arts and Science College, Erode, 26-Jun-20.

**Revised Assessment & Accreditation Framework of NAAC**, Sri Ramakrishna Mission Vidyalaya College of Arts and Science, 27-Oct-18.

**Graph Coloring & Algebraic Graph Theory**, Pondicherry University, Puducherry, 06-Mar-18 to 10-Mar-18.

**Two Day Workshop on Discrete Mathematics and its Applications**, Vellalar College for Women, Erode, 21-Feb-18 to 22-Feb-18.

**Scilab**- An Open Source Tool Equivalent to Matlab, Dr. N. G. P. Arts and Science College, Coimbatore, 23-Sep-17.

**Data Analytics using R-Software**, Bannari Amman Institute of Technology, Sathyamangalam, 14-Jul-17 to 15-Jul-17.

### Conference / Seminar / Workshop Organized

Organizing Secretary, National Conference on Recent Advancements in Pure and Applied Mathematics, Department of Mathematics, Dr. N.G.P. Arts and Science College, Coimbatore, 20-Mar-24.

Convener, Inter Collegiate Competition XTASY'23, Dr. N.G.P. Arts and Science College, 09-Mar-23

Organizing Member, Science Academics Refresher course in Differential Equation and its Applications, Dr. N.G.P. Arts and Science College, 11-Aug-21 to 26-Aug-21.

Organizing Member, National Conference on Recent Trends in Basic and Applied Sciences, Dr. N.G.P.Arts and Science College, Coimbatore, 2-Mar-20 to 3-Mar-20.

Organizing Member, Emerging Trends in Mathematics with Computer Applications, Dr. N.G.P. Arts and Science College, Coimbatore, 12-Sep-19 to 13-Sep-19.

Convener, Inter Collegiate Competition MATHFEST 2019, Dr. N.G.P. Arts and Science College, Coimbatore, 21-Aug-19.

Convener, Workshop on R-Walk Through for Data Analytics, Dr. N.G.P. Arts and Science College, Coimbatore, 8-Sep-18.

Convener, Inter Collegiate Competition MATHFEST 2018, Dr. N.G.P. Arts and Science College, Coimbatore, 14-Sep-18.

#### **Invited Speaker / Session Chair/ Reviewer**

Resource Person, State level Workshop on “Basic Techniques in Combinatorial Theory”, Kaamadhenu Arts and Science college, Sathyamangalam, 07-Jan-25.

Session Co-chair, 2<sup>nd</sup> International Conference on Emerging Trends in Science and Social Science, VHNS College, Virudhunagar & Institute for Integrated Regenerative Medicine, Malaysia, 06-Nov-23 to 08-Nov-23.

#### **Membership in Professional Bodies**

<b>Name of the Professional Body</b>	<b>Nature of membership</b>	<b>Duration</b>
The Association of Mathematics Teachers of India (AMTI)	Life Membership	Life-time

#### **Awards / Honors**

<b>Awards / Honors</b>	<b>Agency / Institute</b>	<b>Year</b>
Best Paper Award	ICTCGT 2024, Vellalar College for Women, Erode	2024
NPTEL Topper - The Psychology of Language	Indian Institute of Technology, Guwahati	2022
Best Teacher (Mathematics)	Dr. N.G.P. Arts and Science College, Coimbatore	2022
Best Mentor	Dr. N.G.P. Arts and Science College, Coimbatore	2022
Best Mentor	Dr. N.G.P. Arts and Science College, Coimbatore	2020
NPTEL Topper - Advanced	Indian Institute of Technology, Madras	2018



Graph Theory		
University III Rank (B.Sc. Mathematics CA)	Bharathiar University	2006

### Recognitions - National / International

<b>Nature of Recognition</b>	<b>Organization / Institution</b>	<b>Year</b>
NCAT Institute Coordinator	International Forum for Excellence in Higher Education	2017 to 2025