



Dr. J. Sakila Devi

Assistant Professor

Department of Mathematics

Lady Doak College

Madurai-02

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Working experience:

S.No	Name of the Institution	Post Held	Period
1	PSN College of Engineering & Technology, Palayamkottai.	Maths Lecturer	10.10.02 to 06.06.03 (8 months)
2	CSI Darling Selvabai Thavaraj David College for Women, K.Pudur, Madurai -7.	Maths Lecturer (Both UG & PG)	07.07.03 to 06.05.04 (10 months)
3	Vickram College of Engineering, Enathi.	Maths Lecturer	07.06.04 to 30.05.06 (2 Years)
4	Fatima College , Madurai-18.	Assistant Professor PG Department(SF)	15.06.06 to 04.07.13 (7 years)
5	Lady Doak College, Madurai-02.	Assistant Professor(Aided)	08.07.2013 to till now

Educational Qualification:

➤ **SET 2012 (Mathematics)**

Year of passing : Oct 2012

➤ **Ph.D.**

Year of completion : 2017

Research Title : **A STUDY ON EDGE CHROMATIC CRITICAL GRAPHS**

Institution : Research Department of Mathematics,
Thiagarajar College, Madurai 625009

Guide : Dr.K. Kayathri, Head and Associate Professor,
PG and Research Department of Mathematics,
Thiagarajar College, Madurai 625009

- **M.Phil., Mathematics (Regular)**
 Institution : Madurai Kamaraj University
 Year of passing : 2002 (During the period 2001 – 2002)
 Marks secured : **83.2% (I Class)**

- **M.Sc., Mathematics (Regular)**
 Institution : The American College, Madurai.
 Year of passing : 2001 (During the period 1999 – 2001)
 Marks secured : **90% (I Class with Distinction)**

- **B.Sc., Mathematics (Regular)**
 Institution : Lady Doak College, Madurai.
 Year of passing : 1999 (During the period 1996 – 1999)
 Marks secured : **81% (I C lass with Distinction)**

Academic Achievement:

- ❖ First prize for proficiency in M.Sc. Mathematics during 2000 – 2001(The American College)
- ❖ Second prize for proficiency in Major during 1997 – 1998 (Lady Doak College)
- ❖ Third prize for proficiency in Major during 1996 – 1999 (Lady Doak College)
- ❖ Third prize in part I Tamil in B.Sc. in April 1999 (Lady Doak College)

Papers presented:

- ❖ Presented a paper titled “ **Enhancing teaching Effectiveness**” in the National Seminar on “ Enhancing and Sustaining Quality in Higher Education: Intervention strategies” organized by IQAC, Fatima College on 27th Feb 2009

- ❖ Presented a paper titled “ **Application of Graph Theory in Computer Network and Algorithms**” in the National Seminar on “ Contemporary Progress in Cyberspace” organized by Department of Information Technology, Fatima College on 17th Feb 2012

- ❖ Presented a paper titled “**Edge chromatic critical graphs**” in the 3rd International Conference on Discrete Mathematics, held during June 10-14, 2013, at Karnatak University, Dharwad

- ❖ Presented a paper titled “**Supergraphs of 5-Critical Graphs**” in the International Conference on Mathematical Science and its Computational Applications, held on 11th and 12th August 2014, at Dr.N.G.P. Arts and Science College,Coimbatore

- ❖ Presented a paper titled “**Edge Chromatic Δ - Critical Graphs**” in the International Conference on Mathematical Sciences, held during 21-23 August 2014, at Madurai Kamaraj University, Madurai

- ❖ Presented a paper titled “**On the size of edge chromatic 5-critical graphs**” in the International Conference on Theoretical Computer Science and Discrete Mathematics, held during 08-10 December, 2014 at SSN College of Engineering, Kalavakkam, Chennai-603 110

- ❖ Presented a paper titled “**Edge chromatic 5-critical graphs of order 15**” in the International Conference on Graph Algorithms, high Performance Implementations and Applications, held on 18th December 2014 at Coimbatore Institute of Technology, Coimbatore
- ❖ Presented a paper titled “**Edge chromatic 5 - critical graphs**” in the International Conference on Mathematical methods and computation, held on 22nd and 23rd January 2015, at Jamal Mohamed College, Tiruchirappalli-620020
- ❖ Presented a paper titled “**Structure of Edge Chromatic Δ -Critical Graphs**” in the National Conference on Recent Developments on Emerging Fields in Pure and Applied Mathematics, held on 12th and 13th March 2015, at Thiagarajar College, Madurai
- ❖ Presented a paper titled “**Bounds on Size of Edge Chromatic 5-Critical Graphs of order $n \geq 15$** ” in the Eleventh Annual Conference of ADMA & Graph Theory Day-XI, held during 10th – 12th June 2015, at B.S. Abdur Rahman University, Vandalur, Chennai-600 048
- ❖ Presented a paper titled “**Edge chromatic 6-critical graphs**” in the International Conference on New Frontiers in Mathematics and Computing – ICNFM’19 , held on 18th & 19th February 2019, at Lady Doak College, Madurai-02
- ❖ Presented a paper titled “**New bounds on the size and the number of major vertices of edge chromatic 6-critical graphs**” in the National Seminar on Recent Advancement in Mathematics – NSRAM 2019, held on 20.12.2019, at Sri Ramanas College of Arts and Science for Women, Aruppukottai
- ❖ presented a paper titled “**Improved bounds on the size(m) and the count of major vertices of three families of edge-chromatic critical graphs with maximum degree 7**” in the International Conference on “Recent Trends in Applications of Mathematics” organized by Holy Cross College, Tiruchirappalli on 06.02.2025.

Research Publications:

- ❖ **Supergraphs of 5 - Critical Graphs**, Proceedings of International conference on Mathematical Science and its Computational Applications, ISBN 978-1-941505- 19-9, 192-195, 2014
- ❖ **Edge Chromatic Δ - Critical Graphs**, Mathematical Sciences International Research Journal, ISSN 2278-8697, ISBN 978-93-84124-14-4, Volume 3, Issue 2, 658-662, 2014
- ❖ **Edge Chromatic 5-Critical Graphs**, International Journal of Fuzzy Mathematical Achieve, ISSN 2320-3242, Volume 7, Number 1, 81-89, Jan 2015
- ❖ **Structure of edge chromatic Δ -critical graphs** , Proceedings of National Conference on Recent Developments on Emerging Fields in Pure and Applied Mathematics, ISBN 978-93-83209-02-6, 22-26, March 2015
- ❖ **Edge Chromatic 5-Critical Graphs of Order 15**, Procedia Computer Science, Elsevier, Volume 47, 332-336, 2015

- ❖ **On the size of edge chromatic 5-critical graphs**, AKCE International Journal of Graphs and Combinatorics, Volume 14, Issue 1, 48-53, April 2017
- ❖ **New Bounds on Maximum Degree and Size of Critical Graphs**, Indian Journal of Discrete Mathematics, Volume 1, No. 1, 33-44, June 2015
- ❖ **Edge chromatic 6-critical graphs**, Malaya Journal of Matematik, Vol. S, No. 1, 70-72, Feb 2019
- ❖ **New bounds on the size and the number of major vertices of edge chromatic 6-critical graphs**, Journal of Information and Computational Science, ISSN: 1548-7741, Volume 10, Issue 6,465-472, June 2020
- ❖ **The size and the number of major vertices of edge chromatic 6-critical graphs of two different classes**, Journal of Information and Computational Science, ISSN: 1548-7741, Volume 11, Issue 12,351-355, December 2021
- ❖ **Structure of edge chromatic 5-critical graphs of order 17**, Journal of Xidian University, ISSN: 1001-2400, Volume 16, Issue 2,585-590 ,February 2022.
- ❖ **Supergraphs of edge chromatic 7-critical graphs**, Journal of Information and Computational Science(UGC-Care Group-II Certified Journal), ISSN: 1548- 7741, Volume 13, Issue 4,55-58, April 2023
- ❖ **Edge chromatic 7-critical graphs**, Journal of Information and Computational Science, ISSN:1548-7741, Volume 14, Issue 05(2024), 128-132.

NPTEL Course completed(Faculty Development Programme) :

- ❖ **NPTEL Online Certification Course on “Introduction to Fuzzy Set Theory, Arithmetic and Logic”** funded by Ministry of HRD, Govt. of India.(12 weeks course with 3 credits) , July-October 2019
- ❖ **NPTEL Online Certification Course on “Graph Theory”** funded by the MoE, Govt. of India.(8 weeks course with 2 credits) , January-March 2022
- ❖ **NPTEL Online Certification Course on “A Basic Course in Number Theory”** funded by the MoE, Govt. of India.(12 weeks course with 3(or)4 credits) , July- October 2023
- ❖ **NPTEL Online Certification Course on “Descriptive Statistics with R Software”** funded by the MoE, Govt. of India.(8 weeks course with 2 (or) 3 credits) , August -October 2024.

Guest Lecture:

- ❖ Gave Guest Lecture on **“Applications of Graph Theory”** in the Inauguration of Mathematics Association at Fatima College, Madurai-18 on 17.08.2015

- ❖ Gave Guest Lecture on “ **Main concepts in Analysis**” at Amman College, Dindugul-624 002 on 26.09.2017
- ❖ Gave Guest Lecture on “ **Real Analysis**” to the Faculty and Post graduate students of Mathematics at Thiyagi Dharmakkan Amirtham College of Arts and Science, Kannirajapuram, Ramanathapuram-623 135 on 21.03.2022

Coordinator of the International Seminar:

- ❖ Served as a Coordinator of the One-Day International Seminar on “New Advances in Graph Theory-2025” organized by the Department of Mathematics, Lady Doak College, Madurai, on 28th February 2025.

Organizing committee member:

- ❖ Served as a member of the organizing committee for the Workshop on “Effective Mathematical Techniques for Qualifying and Excelling in Competitive Examinations” organized by the Department of Mathematics, Lady Doak College, Madurai on 17th October 2024.

Participation in Training Programmes:

- ❖ Participated in the “Training-cum-Production Workshop on e-Content Development” organized by Fatima College, Madurai in collaboration with the Department of Educational Technology, Bharathidasan University, Tiruchirappalli from 16th to 20th April 2012
- ❖ Participated in the “Faculty Training on Teaching Human Rights” organized by the Human Rights Unit of Lady Doak College on 28th January and 21st February 2014
- ❖ Training programme on “**Tuning Young faculty towards effective teaching**” organised by St. Christopher’s College of Education, Chennai funded by United Board for Christian Higher Education in Asia from 23.01.2018 to 27.01.2018
- ❖ underwent a training in Research based pedagogical Tools in the Faculty workshop on “Science Through Inquiry & Research”(STIR-19) , sponsored by the UBCHEA during 17th and 18th October 2019 conducted by Bishop Heber College, Tiruchirappalli in collaboration with United Board for Christian Higher Education in Asia.
- ❖ Attended the training on “Tamil Nadu Government Service Rules” organised by the Centre for Human Resource Development, Lady Doak College, Madurai from 5th to 7th March 2024.

Workshop attended:

- ❖ Attended the Python Workshop at Thiagarajar College of Engineering, Madurai organized by the Teaching Learning Centre(ICT) , IIT Bombay, funded by the Pandit Madan Mohan Malaviya National Mission on Teachers and Teaching(PMMMNTT) on 22nd June 2019
- ❖ Participated in the workshop on “Organisational Culture” on 15th September 2022 organised by the Centre for Human Resource Development, Lady Doak College, Madurai

- ❖ Participated in the workshop on “Grants Writing for Research” on 7th November 2022 organized by the Research and Development Cell and the Internal Quality Assurance Cell, Lady Doak College, Madurai.
- ❖ Participated in the Workshop on “Navigating Peace & Fostering Peace Education” on 16th December 2024 organised by the Lady Doak College.
- ❖ Participated in the Workshop on “Shaping a New Organisational Culture: Strategies for Effective Change” on 7th June 2024 organised by the Centre for Human Resource Development, Lady Doak College, Madurai.

Orientation Programme attended:

- ❖ Participated in the UGC-Sponsored - Orientation Programme conducted by UGC-Human Resource Development Centre, Madurai Kamaraj University held from 16.11.2018 to 13.12.2018

Refresher course attended:

- ❖ Participated in the UGC-Sponsored Online Refresher Course in Mathematics on “Recent trends on Analysis and its Applications” conducted by the UGC- Human Resource Development Centre, Madurai Kamaraj University held from 09.12.2020 to 22.12.2020 and obtained ‘A’ grade.
- ❖ Participated in the UGC-Sponsored Online Interdisciplinary Refresher Course on “Basic Mathematical and Statistical Tools for Research” organized by the UGC-Human Resource Development Centre, Manipur University held from 12.02.2022 to 25.02.2022 and obtained ‘A+’ grade.
- ❖ Participated in the UGC-Sponsored Refresher Course in Mathematical Science conducted by the UGC-Human Resource Development Centre, University of Calicut held from 07.03.2023 to 20.03.2023 and obtained ‘A+’ grade.
- ❖ Participated in the UGC-Sponsored Refresher Course in Mathematics and Statistics conducted by the UGC – Malaviya Mission Teacher Training Centre, Patna University, Patna held from 14.10.2024 to 26.10.2024 and obtained ‘A’ grade.

In-Service Teacher Training Programme:

- ❖ Participated in two days “In-Service Teacher Training” programme in “Mathematical Science” organized by Tamil Nadu State Council for Higher Education, Chennai held at Sri Meenakshi Government Arts College for Women, Madurai on 05.05.2022 and 06.05.2022.

Leadership Development Programme:

- ❖ Participated in the Leadership Development Programme jointly organized by the International Network for Christian Higher Education and Lady Doak College from 17th to 19th May 2023 at Lady Doak College, Madurai.

Participation in Seminar/Conferences:

- ❖ Participated in the one-day “International Seminar on Applied Mathematics” held on 27th February 2023, organised by the Department of Mathematics, Lady Doak College, Madurai.

- ❖ Participated in the “International Conference on New Avenues in Applied Sciences” organized by Internal Quality Assurance Cell and Departments of Mathematics, Physics, Botany, Computer Science and Biotechnology, Lady Doak College, Madurai, on 2nd and 3rd February 2023.
- ❖ Participated in the National Conference on “Integrating Academia and Industry Perspective in Curriculum Framework” organised by the Deans of Academic Affairs, Internal Quality Assurance Cell and Centre for Human Resource Management, Lady Doak College, Madurai on 11th March 2024.
- ❖ Attended a National Level Industry-Academia Online Seminar on “Data Science for smart buildings and energy sustainability” jointly organized by VISKAMNIX TECHNOLOGY AND TRAINING SERVICE PRIVATE LIMITED & A.C.T. ACADEMY, KERALA UNIT on 02nd May 2024.

FDP attended:

- ❖ Participated in the two-day Faculty Development Programme on ‘Innovative Assessment Methods for Learning Enhancement’ on 12th and 13th July 2022 at Lady Doak College, Madurai.
- ❖ Participated in the National Level Faculty Development Programme on “Innovative Pedagogies for Online Course Design” organized by the Centre for Communication and Multimedia, Lady Doak College, Madurai on 14th and 15th March 2024.
- ❖ Participated in One-Week Faculty Development Programme on “Cybersecurity Trends and Challenges in Higher Education Institutions(HEIs)” and awarded the grade “A” , organized by E&ICT Academy IIT Guwahati held from 24th to 28th March, 2025 in association with Lady Doak College, Madurai.

Other participations:

- ❖ Participated as representative of NSS Programme Officers in the One Day International Youth Day Celebration organized by the Red Ribbon Club on 12th August 2015
- ❖ Acted as Judge in the SCOPE – Special Project Presentation at District Level conducted at Pandian Nedunchezian Corp. HSS, Madurai on 25.02.2019
- ❖ attended the Board of Studies meeting of the Department of Mathematics, The American College on 01.08. 2024 as an Alumnae representative
- ❖ served as the Judge for the Mathematics Model Competition for school and college students on 10.01.2025, organized by the department of Mathematics, The American college, as a part of the National Mathematics Day celebrations. This event was conducted in collaboration with the National Council for Science and Technology Communication and the Tamil Nadu State Council for Science and Technology.
- ❖ attended the Board of Studies meeting of the Department of Mathematics, The American College on 21.01.2025 as an Alumnae representative
- ❖ attended the Board of Studies meeting of the Department of Mathematics, The American College on 14.05.2025 as an Alumnae representative

- ❖ participated in the Capacity Building Programme on “Recent Trends in Content Creation” organized by the Centre for Communication and Multimedia, Lady Doak College, Madurai on 16th August 2024.

Online Training completed:

- ❖ Training on “**Cpp**” offered by the Spoken Tutorial Project, IIT Bombay, funded by National Mission on Education through ICT, MHRD, Govt. of India, Feb 2018
- ❖ Training on “**C**” offered by the Spoken Tutorial Project, IIT Bombay, funded by National Mission on Education through ICT, MHRD, Govt. of India, Feb 2018
- ❖ Training on “**Geogebra**” offered by the Spoken Tutorial Project, IIT Bombay, funded by National Mission on Education through ICT, MHRD, Govt. of India, Feb 2019
- ❖ Training on “**LaTeX**” offered by the Spoken Tutorial Project, IIT Bombay, funded by National Mission on Education through ICT, MHRD, Govt. of India, Feb 2020
- ❖ One Day Online “MS EXCEL ANAYSIS” Training Programme conducted by Edu – Skill Harvest Institute on 08.05.2020

Online FDP participated:

- ❖ 5 Days Faculty Development Programme on PYTHON 3.4.3 organized by Department of Computer Applications, Sri GVG Visalakshi College for Women, Udumalpet in association with Spoken Tutorial Project, IIT Bombay from 01st May 2020 to 05th May 2020
- ❖ Three days Faculty Development Programme on “Microsoft Azure for Beginners” organized by the Department of Computer Applications, Kalasalingam Academy of Research and Education, Krishnankoil from 12th May to 14th May 2020
- ❖ Online International Faculty Development Programme on “Recent Trends in Mathematics” organized by PG and Research Department of Mathematics, V.O. Chidambaram College, Thoothukudi from 21.06.2021 to 25.06.2021
- ❖ Six Day Faculty Development Programme on “Mathematics and Statistics in Emerging Field” organized by Department of Mathematics, KPR Institute of Engineering and Technology, Coimbatore from 05.07.2021 to 10.07.2021
- ❖ Faculty Development Programme on “Maha Mantras for Versatile Faculty” organized by the Department of Mathematics, Sree Narayana Guru College, K.G. Chavadi, Coimbatore on 13th September 2021
- ❖ One week National Level (ONLINE) Faculty Development Programme on “Applications of Mathematics in Multi-disciplinary Domains” jointly conducted by A.C.T. Academy, Kerala Unit and Department of Mathematics(SF), The American College, Madurai, Tamil Nadu from 01.02.2024 to 08.02.2024

Online Workshop participated:

- ❖ The Online Workshop on “**Data Visualization using R**” organized by the Department of Computer Science, Lady Doak College, Madurai on 15th and 16th May 2020
- ❖ The Online Workshop on “**Enhancing Online Teaching and Learning Process through Technology**” organized by the Internal Quality Assurance Cell (IQAC) and the Department of Computer Science, Lady Doak College, Madurai from 26.05.2020 to 28.05.2020.
- ❖ Three Day National Level Online Workshop on “Vedic Mathematics & Advanced Applications” conducted by DIGISKILLS CENTER, A.C.T.Academy, Kerala on 23rd, 24th & 27th February 2024.
- ❖ Five Days National Level Intensive Workshop cum Hands-on Training(online) on “LaTeX for Writing Research Papers & Scientific Documents” conducted by A.C.T. Academy, Kerala from 24.06.2024 to 28.06.2024.
- ❖ One Day National Level Workshop on “Funded Research Projects and Proposals Writing” conducted by A.C.T. Academy, Kerala on 07.09.2024.
- ❖ One Day National Level e – workshop on “Qualitative and Quantitative Research in Social Sciences” conducted by A.C.T. Academy, Kerala on 26.12.2024.
- ❖ One Day National Level Research e – Workshop on “Effective Writing Techniques for Book Chapters and Book Publication” conducted by A.C.T. Academy, Kerala on 06.04.2025.

Online Symposium attended:

- ❖ National Symposium on “the Challenges and Applications in Mathematics” organized by Department of Mathematics, SVKM's Mithibai College of Arts, Chauhan Institute of Science and Amrutben Jivanlal College of Commerce and Economics on 24.07.2021

Participation in Online Course:

- ❖ Three Days National Level Online Course on “Operations Research” from 18th May 2020 to 20th May 2020 organized by the Department of Mathematics(SF), Virudhunagar Hindu Nadars’ Senthikumara Nadar College, Virudhunagar