

PROFILE



Name : **Dr. D. ABINAYA**
Designation. : Assistant Professor
Department : Mathematics
Date of Birth : 28.02.1994
Date of Appointment : 21.06.2017 Date of
Retirement : 30.06.2054

ACADEMIC DETAILS

Total Experience: 8 years at J.A. College, Periyakulam.

Area of Specialization/ Interest: Topology

Professional Affiliation : NSS Staff Advisor (2017 – 2020)
Member of Physical Education (2021 – 2022)
NSS PROGRAMME OFFICER (2022 – 2025)

Degree	University/Institution	Year of Completion
B.Sc.	Fatima college, Madurai.	2014
M.Sc.	Loyola college, Chennai.	2016
SET	Mother Teresa women's University, Kodaikanal.	2016
Ph. D	Madurai Kamaraj University, Madurai	2024

Paper Publication:

International/ National Publication:

- **Properties of weakly binary**, Industrial Engineering Journal, ISSN: 0970-2555, Vol. 52, Issue 2, 2022, pp. 99-106.
- **Binary Generalized Closed Sets in Binary Topological Space**, Indian Journal of Natural Sciences, Vol. 14, 2023, pp. 54089-54094.
- **A new form of Inverse Binary Soft Set**, Gradiva Review-Journal, Vol. 9, Issue 3, 2022,

pp. 703-711.

- **Analyzing and prioritizing the linguistics variable of COVID-19 using Triangular Fuzzy Cognitive Maps**, Gradiva Review-Journal, Vol. 9, Issue 3, 2023, pp. 1119-1126.
- **Weakly Binary G_α – Closed Sets And Weakly Binary Ag – Closed Sets In Binary Topological Space**, International Journal of Science and Arts, Vol. 23, Issue 2, 2023, pp. 331-340.
- **Categorizing Supervised Data Using Different Metrics**, Jac Journal of Science, Humanities, and Management, ISSN: 2347-9868, Vol. 9, No. 2, June 2022, pp. 16-29.
- **Solving fuzzy assignment problems using Genetic Algorithm Magnitude Ranking Technique**, Mathematical Sciences International Research Journal, SPL Issue 4, 2018, ISSN: 2278-8697.

Seminar/conferences/Workshops participated:

- **Participated in the National Seminar on Recent Trends in Applied Mathematics, organized by the Research Centre and PG Department of Mathematics at Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, on 13th December 2017.**
- **Attended the Workshop on “Women in Science and Research” (Speaker Series Program 2018), in collaboration with the United States India Educational Foundation (USIEF), Chennai, held on 19th–20th February 2018, organized by the Internal Quality Assurance Cell (IQAC), Jayaraj Annapackiam College for Women (Autonomous), Periyakulam.**
- **Participated in the International Conference on “Emerging Trends in Mathematical Sciences and Technology” (ICETMST 2018), organized by the Research Centre & PG Department of Mathematics, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, on 20th and 21st December 2018.**
- **Attended a Two-Day Workshop on “Fuzzy Set Theory and its Applications”, organized by the Research Centre & PG Department of Mathematics, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, on 27th and 28th February 2019.**
- **Participated in the Webinar on Bridge Course in Mathematics – Module III: Matrices and Determinants, conducted on 27th June 2020 by Anand Institute of Higher Technology, Chennai.**
- **Attended the Webinar on Machine Learning: Linear Regression, held on 17th June 2020, organized by Loyola College, Vettavalam.**
- **Participated in the Webinar on Fuzzy Systems & Graph Theory, held on 17th and 18th June 2020, organized by Holy Cross College, Nagercoil.**
- **Attended the International Webinar on Recent Trends in Applied Mathematics, conducted from 24th to 26th June 2020, organized by Patrician College of Arts and Science, Chennai.**

- **Participated in the Webinar on Bridge Course in Mathematics – Module II: Relations and Functions, held on 23rd June 2020, organized by Anand Institute of Higher Technology, Chennai.**
 - **Attended the International Web Conference on Advances in Mathematics, held from 17th to 19th June 2020, organized by St. Mary’s College, Thoothukudi.**
 - **Participated in the Webinar on Mathematical Theory of Decision Tree, held on 18th June 2020, conducted by Loyola College, Vettavalam.**
 - **Attended the Online International Conference on Data Science, held from 15th to 18th June 2020, organized by Loyola College, Vettavalam.**
 - **Participated in the Webinar on Cloud Computing and Azure, held on 16th June 2020, organized by Loyola College, Vettavalam.**
 - **Attended the National Level Webinar on “This Too Shall Pass”, held on 13th June 2020, organized by G.T.N. Arts College, Dindigul.**
 - **Participated in the Webinar on NP-Completeness, held on 17th June 2020, organized by the Division of Mathematics, School of Advanced Sciences, Vellore Institute of Technology, Chennai.**
 - **Attended the National Webinar on Women in Entrepreneurship, conducted on 15th June 2020, organized by Jayaraj Annapackiam College for Women, Periyakulam.**
 - **Participated in the Webinar on “The Mathematics – The Language of Engineering”, held on 4th June 2020, organized by University College of Engineering, BIT Campus, Anna University, Tiruchirappalli.**
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- **Participated in the Webinar on Bridge Course in Mathematics – Module I: Fundamentals of Set Theory, held on 6th June 2020, organized by Anand Institute of Higher Technology, Chennai.**
 - **Attended the National Webinar on “Fractals via Fixed Point Theory”, conducted on 3rd June 2020, organized by Jayaraj Annapackiam College for Women, Periyakulam.**
 - **Participated in the Webinar on “Triage Crisis & Universal Remedy – COVID-19, A Perspective”, held on 1st June 2020, organized by Don Bosco College, Dharmapuri.**
 - **Took the Pledge for Women Rights, on 8th April 2020, organized by the National Commission for Women, India.**
 - **Attended the Webinar on Emerging Trends in Algebra, organized by Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, on 17th March 2021.**
 - **Participated in the International Webinar on “New Advances in Mathematical and Computational Sciences”, organized by the PG and Research Department of Mathematics,**

Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, on 22nd October 2021.

- **Attended the International Webinar on “Recent Advances in Pure and Applied Mathematics”, organized by the PG and Research Department of Mathematics, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, on 27th January 2022.**

- **Participated in the International Webinar on “Ilakkiyangalil Manitha Maanbugal”, organized by the PG Department of Tamil, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, held on 29th–30th March 2022.**

- **Attended the National Level Webinar on “Emerging Trends in Application of Mathematics”, organized by the PG and Research Department of Mathematics, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, on 27th October 2022.**

- **Participated in the International Webinar on “Emerging Trends in Mathematics”, organized by the PG and Research Department of Mathematics, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, on 13th September 2023.**

- **Participated in the International Webinar on “MATHEMATICS IN SMART AGRICULTURE AND FOOD SECURITY”, organized by the PG and Research Department of Mathematics, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, on 11th December 2024.**

Faculty Development Programme/ Orientation/Short Term Course:

- **Completed the International Level 4-Week Induction/Orientation Programme for Faculty in Universities, Colleges, and Institutions of Higher Education, organized by the Teaching Learning Centre, Ramanujan College, University of Delhi, from 4th June to 1st July 2020.**
- **Faculty Development Program on Emerging Challenges of Mathematical Applications in Engineering - 22 – 26.06.2020 / PSG Polytechnic College**
- **National Level FDP on Techniques and Application in Teaching Engineering Mathematics - 10 & 11.06.2020 / K. Ramakrishnan College of Engineering**
- **International Faculty Development Programme on Avant-garde Trends in Mathematics - 17 – 23.06.2020 / Bannari Amman Institute of Technology**
- **Faculty Development Programme on Quality Enhancement Initiative Through Innovative Practices organized by IQAC, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam on 3rd May, 2021**
- **Participated in the National Level Short-Term Course on “Vedic Mathematics: Techniques and Application”, organized by Jayaraj Annapackiam College for Women in collaboration with A.C.T Academy, held from 4th to 14th August 2025.**

- Participated in the **State Level Short-Term Course on “MATLAB and MATHEMATICA for Scientific Research”**, organized by the **Department of Mathematics, Arul Anandar College (Autonomous), Karumathur, Madurai**, from **4th June to 1st July 2020**.
- Attended the **National Level One-Week Online Faculty Development Programme on “E-Contents and ICT Tools for Innovative and Effective Teaching”**, organized by **KS Jain Institute of Engineering and Technology, Modinagar, Ghaziabad**, from **15th to 21st July 2020**.
- Participated in the **National Level Short-Term Course on “MATLAB and MATHEMATICA for Scientific Research”**, organized by the **Department of Mathematics, Arul Anandar College (Autonomous), Karumathur, Madurai District**, from **27th to 29th July 2020**.
- Attended the **Regional Level Online Faculty Development Programme on “Fuzzy Sets and Systems”**, organized by **Patrician College of Arts and Science**, on **16th May 2020**.

Paper Presentation :

- Presenting a paper entitled Prediction of Test data using dominani Eigen Vector and Evaluating the accuracy of classification using confusion matrix in the 2nd International conference Recent Trends in Mathematical, physical and computational sciences-2023 held at Sagar (M.P) on March 17-19, 2023.
- Presented a paper entitled Student Proficiency Classification Using PI-Distance in Rough Neutrosophic Set Framework organized by IQAC Jayaraj Annapackiam College for Women Autonomous , Periyakulam
- Presented a paper entitled Selection of Proficiency of the Students Using New Version of Neutrosopic Sets at the International Conference on Mathematical Sciences and Computing Innovations & Applications held during June 26th – 28th 2025 at North Eastern Regional Institute of Science and Technology, Arunachal Pradesh, India.

AWARDS :

- Received the “Kalvi Sevagar Award-2022” from Kurungi Kapilar Tamil Sangam on 15th August, 2022.
- Received a Best Co-ordinator Award” from Sathguru Sangeetha Natya Vidyalaya through World Records Union (America).
- Received Best Oral Presentation award for presenting a paper entitled Prediction of Test data using dominani Eigen Vector and Evaluating the accuracy of classification using confusion matrix in the 2nd International conference Recent Trends in Mathematical, physical and computational sciences-2023 held at Sagar (M.P) on March 17-19, 2023.
- Received BEST NODAL OFFICER AWARD from Election Commissioner of India.

Books Published

- **OFFICE AUTOMATION AND ICT TOOLS** Published by Vasantha pathipagam, June 2025. ISBN: 978-93-6415-374-4
- **OFFICE FUNDAMENDALS** Published by Vasantha pathipagam, April 2025, ISBN: 978-93-6415-613-4
- **NATIONAL SERVICE SCHEME** Published by Vasantha pathipagam, April 2022, ISBN: 978-93-6415-613-4
- **Published a Book Chapter FRONTIERS IN SCIENCE AND TECHNOLOGY – INNOVATIONS APPLICATION AND EMERGING TRENDS**, Published by SK Research Group of companies SKRGC publication, IBSN 978-93-6492-475-7

Details of Seminars/ Workshops/ Training Programmes/ Lectures/ Talk organized

- **Organized the National Mathematics Day celebration titled GENIUS EXPLORE MATHEMATICS (GEM-2024)** as the convener, through the PG and Research Department of Mathematics, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, with a fund of ₹70,000 received from the National Council for Science, Technology and Communication and the Tamil Nadu State Council for Science and Technology.
- **Organized the International Webinar on “Recent Advances in Pure and Applied Mathematics”, organized by the PG and Research Department of Mathematics, Jayaraj Annapackiam College for Women (Autonomous), Periyakulam, on 27th January 2022.**

Title of the Programme	Institution/Venue	Year
International Webinar on “Mathematics in Smart Agriculture and Food Security	J.A. College, Periyakulam	11 th December, 2024
JACMAT FEST	J.A. College, Periyakulam	27 th September, 2024
Workshop on “Unlocking Success - NET/SET Exam Mastery”	J.A. College, Periyakulam	29 th September, 2023

CONTACT DETAILS

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Kovilangulam,
Usilampatti, Madurai

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