

STAFF PROFILE – DR. S. YUVARANI

1. Name: Dr. (Mrs.) S. YUVARANI

2. Designation: Assistant Professor,
PG and Research Department of Mathematics,
Auxilium College (Autonomous), Vellore-632 006.

3. Qualification: M.Sc., M.Phil., Ph.D., SET.

4. Mobile number: 9629324010

5. E-mail id: yuvaranis@auxiliumcollege.edu.in

6. Teaching Experience: 09 years

7. Area of specialization: Queueing Theory, Retrial queues and Operations Research

8. Positions held in Auxilium:

- ASQC Member (2022-2024)
- Co-ordinator of Spoken-Tutorial Project – IIT Bombay for Auxilium College (2021-2023)
- In charge of Mathematics Association
- Mentor for both UG (2019- 2022) and PG students (2019- till date)
- AIIC Co-ordinator (2025-till date)
- Placement Co-ordinator (2024-till date)
- Extension Activity Co-ordinator (2023-till date)

9. Research Experience: 7 years

10. No. of Papers Published: 9 research articles

10. No. of Papers Presented in the National/ International/ Seminars/ Workshops/ Conferences: 8 research articles

11. No. of Seminars/Workshops/Conferences organized: 7

13. Membership in professional bodies(Descriptive):

A Life Time Member in

- Academia for Advanced Research in Mathematics Society (AARM Membership No. : F20173) (Reg. No. SRG/Vellore/96/2019)

14. Other bodies (Descriptive):

- NSF - International Eco Club Student Chapter (IECSC)

15. No. of Online Courses completed (Minimum of 4 Weeks): 1

9 weeks online course on “Introduction to Programming with MATLAB” offered by Vanderbilt University, through Coursera on 2020

19. Any Other:

- Served as Chair Person for the Paper Presentation session in the International Conference on Mathematical Sciences and Applications in Current Scenario (ICMA-2020), 27.01.2020 – 29.01.2020
- Guided 30 PG students for their project relevant to their interested area in Mathematics.

PUBLICATIONS:

- Priyanka Victor, Yuvarani, S., Preethi Victor, and Rajadurai P., “An approach to Modified SIRI Epidemic Model using Markovian Retrial Queues” in the journal “AIP Conference Proceedings”, 2024. Volume 3180, Issue 1, pp. no.: 020015-1 to 020015- 14, ISSN no.: 1551-7616. (Scopus).
- Yuvarani, S. and Saravanarajan, M. C., ‘Steady state analysis of unreliable Preemptive Priority Retrial Queue with feedback, two phase service under Bernoulli Vacation’, Advances in algebra and analysis, 2018, 425-435, Birkhäuser, Cham (Springer).
- Yuvarani, S. and Saravanarajan, M. C., ‘An Analysis of $M^{[X]}/G/1$ Preemptive Priority Retrial Queue with delayed repairs under Modified Bernoulli Vacation’, International journal of Pure and Applied Mathematics, 2017, Vol. 117 issue 2, 73-82. (Scopus).
- Yuvarani, S. and Saravanarajan, M. C., ‘Analysis of a Preemptive Priority Retrial Queue with Negative Customers, Starting failure and at most J Vacations’, International journal of Knowledge management in Tourism and management, 2017, Vol. 1(1),.76-109.

- Yuvarani, S. and Saravanarajan, M. C. ‘Analysis of a Preemptive Priority Retrial Queue with batch arrival and orbital Search, under Bernoulli Vacation’, International journal of Pure and Applied Mathematics, 2017, Vol. 113, Issue 9, pp.139-147. (Scopus).
- Yuvarani, S. and Saravanarajan, M. C. (2017) ‘Performance Analysis of a Preemptive Priority Retrial Queue balking, Optional re-service with Single Vacation and Service interruption’, IOP conference series: Materials science and Engineering, Vol. 263, doi:10.1088/1757-899X/263/4/042158.(Scopus).
- Rajadurai, P., Yuvarani, S. and Saravanarajan, M. C., “Performance analysis of Preemptive priority retrial queue with immediate Bernoulli feedback under working vacations and vacation interruption”, Songklanakarin journal of science and Technology, September 2016, Vol. 38, Issue 5, 507-520.(Scopus)
- Yuvarani, S. and Saravanarajan, M. C. ‘Analysis of a preemptive priority Retrial Queue with two Types of Customers, Single Vacation and Service Interruption’, Global Journal of pure and Applied Mathematics, 2015, Vol. 11 Issue 6, 4949-4968. (Scopus)

FDP’s/ Seminars/ Workshops/Webinars

Offline Programmes:

- Participated in Five Day Workshop on MATLAB held at VIT University, Vellore, Tamil Nadu, June 22-26, 2015
- Have attended the five-day workshop on “MATLAB in Engineering Education” conducted by Dr. P. Venkataraman, Rochester Institute of Technology, USA, organized by School of Mechanical and Building Sciences, VIT- University, Vellore during 22-26 June 2015.
- Participated in one-day Workshop on Latex for Technical Report Writing held at VIT University, Vellore, Tamil Nadu - on March-2015
- Have attended and participated in Faculty Development Programme on “Introduction

to Rough Set Theory”, conducted by academic staff college of VIT- University, Vellore - on 18th of December 2015.

- Participated in one-day workshop on Solving Challenging experiments in Statistics for engineers using R-Software held at VIT University, Vellore, Tamil Nadu, - on December-2015
- Have attended a Two-day workshop on “SPSS & SMOS for Researchers”, conducted by Dr. Ramanan, professor and Head of department, presidency College, Chennai, organized by academic staff college of VIT- University, Vellore – during 23-24 of December of 2015.
- Have attended a One-day workshop on “MATLAB”, conducted by academic staff college of VIT- University, Vellore - on 25th of August 2016.
- Participated in one-day workshop on Writing a Good Paper for an International Journal held at VIT University, Vellore, Tamil Nadu, -on October-2016
- FDP “Enriching and Enhancing the Effective of Teaching using 21st Century Skill Sets”- conducted by The Haskalah Academy- during June 5th – 7th, 2019.
- A National Conference on Teaching, Learning and Evaluation: Changes and Challenges- conducted by IQAC of Auxilium College (Autonomous), Vellore – during January 30th – 31st, 2020.
- A National Seminar on “Emerging Trends in applied Mathematics ETAM - 2023”- conducted by Department of Mathematics, Auxilium College (Autonomous), Vellore – on September 1st, 2023
- Participated in an international Conference on “Youth for Earth: Restore and Protect our Environment, Organized by Enviro Club of Auxilium College (A) in collaboration with Tamil Nadu Pollution Control Board, Vellore- on 10th October, 2024.
- Participated in a National Conference on “Mathematical Analysis & Applications” (NCMAA-2025)- Organized by the PG and Research Department of Mathematics of Voorhees College, Vellore in collaboration with Sacred Heart College, Tirupattur on 21st March 2025.

Online Programmes:

No. of online Programmes attended before 2022-2023: 18

- National webinar on the topic “Green Campus Initiatives towards Sustainable Development”- conducted by The Internal Quality Assurance Cell (IQAC), Auxilium College (Autonomous)- on July 29th, 2023.
- National webinar on the topic “Publish and Progress” – conducted by The Internal Quality Assurance Cell (IQAC), Committee for Research Ethics, Publication and IPR & Library, Auxilium College (Autonomous) - August 26th, 2023.
- Five-Day Online Faculty Development Programme on Research in Mathematics: Present Trends and Future Prospects - Organized by PG and Research Department of Mathematics, Sacred Heart College (Autonomous), Tirupattur - during November 18th -22nd, 2024.
- Five Day National Level Online FDP on Beyond Boundaries: Driving Innovation in Research - Organized by Committee for Research Ethics, Publication and IPR, Auxilium College (A), Vellore in collaboration with north East Institute of Social Sciences and Research, Nagaland - during December 26th – 30th, 2024.
- Three-day virtual workshop on Advanced Research Tool on the topic “hands-on Workshop on Latex”- Organized by the Internal Quality Assurance Cell & the Department of Mathematics of Shri Shankarlal Sundarbai Shasun Jain College for Women, Chennai - on March 1st, 3rd and 4th, 2025.
- One Day National webinar on “Intellectual Property Rights”- Organized by the Department of Mathematics, V.K.V Government Degree College, Kothapeta, Andhra Pradesh in collaboration with Jawahar Knowledge Centre on April 21st, 2025.
- FDP on Transforming Higher Education: Faculty Development Programme on Institutional Autonomy and NEP 2020 Implementation - Organized by IQAC, Mazharul Uloom College (Autonomous), Vellore - during May 10th – 15th 2025.
- A Five – day International Online Faculty Development program on Innovative applications of Mathematics in real world Challenges - Organized by the Department of Mathematics, New Prince Shri Bhavani College of engineering & Technology from

15.09.2025 – 19.09.2025.

- Seven days international FDP (Online) on Indian Knowledge System and Resourcefulness of Tamil - Organized by the Department of Tamil, Auxilium College (Autonomous), Vellore-6 on 22.09.2025 – 28.09.2025.

Organizing Committee Member:

- VIT Mathematical Meet, VIT - University, Vellore
- National Science Day, VIT, Vellore
- 61th Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM-2016): An International Conference, VIT-University, Vellore
- International Seminar on **Applied Mathematics** held at Auxilium College on 19. 07. 2019.
- One week **National Level Online Faculty Development Programme on R Language**, 13th to 20th May 2020, PG and Research Dept. of Mathematics, Auxilium College (Autonomous), Vellore
- Online Course on **CSIR-UGC NET/SET Mathematical Sciences and Basics of MATLAB**, 3rd July to 10th July 2020, PG and Research Dept. of Mathematics, Auxilium College (Autonomous), Vellore
- National Webinar on **Applications of Mathematics**, on 22nd December 2020.
- A National Level Online Workshop on "**LaTex**", on 6th February 2021.
- An International Professional Development Programme on "**Major Role of Mathematics in the Development of Science and Technology**" on 22nd February 2021.
- A Five-Day **National Level Online PDP** on "**Writing Research Articles in Mathematics & Statistics**", jointly organized by the Department of Mathematics, Little Flower Degree College, Uppal, Hyderabad, Telangana & PG and Research Department of Mathematics, Auxilium College (Autonomous), Gandhi Nagar, Vellore, Tamil Nadu during 26th – 30th September 2022.
- **State-Level Workshop – Hands-on training on MATLAB (DST FIST funded)**

organized by the PG and Research Department of Mathematics in association with the Committee for Research Ethics, Publications & IPR, on 12th February 2024.

- **National Level Workshop (Hands-on Training) on R Programming** was organized by the PG and Research Department of Mathematics on 30th August 2024.
- **State Level Workshop (Hands-on Training) – GeoGebra** (A Tool for Mathematical Visualization and Problem Solving) was organized by the PG and Research Department of Mathematics in association with Auxilium Innovation and Incubation Center (AIIC), on 28th January 2025.
- **Student Centric Programme: Workshop On LaTeX & Overleaf** (A dynamic Duo for Document Creation) was organized by the PG and Research Department of Mathematics & Physics on 29th August 2025.