

FACULTY PROFILE – Ms. Immaculate S.

1. Name : Ms. Immaculate S.
2. Designation : Assistant Professor
3. Qualification : M. Sc., Ph.D.
4. Mobile number : 9150323095
5. E-mail id : immaculates@auxiliumcollege.edu.in
6. Area of specialization : Queueing theory, Operations Research,
Differential Equations, Probability and Statistics.
7. Positions Held in Auxilium :
 - Coordinator of Value Added Course (Mathematics with PYTHON, Odd Semester 2026-2027)
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8. Research Experience and Guidance :
 - Assistant Professor Junior (3 years) 2021 - 2024
9. No. of Papers Published : 6
10. No. of Papers Presented in the National/ International/ Seminars/ Workshops/ Conferences : 2
11. No. of Seminars/Workshops/FDP/Conferences organized : 1
12. Honors & awards received (Descriptive) : 3
 - Raman Research Award in Vellore Institute of Technology, Vellore (2023 & 2024)

PUBLICATIONS

Publications in Journals

- **Immaculate, S.**, and Rajendran, P (2023). The Application of Queueing Theory for Maximizing System Size using Encouraged Arrival. *Reliability: Theory & Applications*. <https://doi.org/10.24412/1932-2321-2023-273-233-243> (Scopus).
- **Samuel, I.**, and Paramasivam, R. (2024). The Control Policy M/M/c/N Interrelated Queue with Manageable Incoming Rates, Reverse Balking and Impatient Customers. *Contemporary Mathematics*. <https://doi.org/10.37256/cm.5420245480> (Scopus, IF=0.6)
- **Immaculate, S.**, and Rajendran, P. (2024). Analysis of the Economic Cost of Coxian-2 Service with Encouraged Arrival and Balking. *International Journal of Analysis and Applications*. (Scopus, IF=0.7).
- Ismailkhan, E., Nagarajan, G., Sundar Raj, M., and **Immaculate, S.** (2025). Analysis of a Single-Server Queue with Encouraged Arrivals, Impatient Customers and Dynamic Service Switching. *Reliability: Theory & Applications*. (Scopus).
- **Immaculate, S.**, and Rajendran, P. (2024) A Two-Phase Heterogeneous Service Facility Queue with Encouraged Queue Length Distribution, Failure, And Vacation. *African Journal of Biological Sciences*. (Scopus).
- **Samuel, I.**, Paramasivam, R., Khan, I.E., Jeyachandhiran, R. (2024). Optimizing Performance Measures in a Finite Markovian Heterogeneous Queueing Model with Encouraged Arrival. In: Saha, A., Banerjee, S. (eds) Proceedings of the 2nd International Conference on Nonlinear Dynamics and Applications (ICNDA 2024), Volume 3. ICNDA 2024. Springer Proceedings in Physics, vol 314. Springer, Cham. https://doi.org/10.1007/978-3-031-69146-1_53 (Scopus, Book Series)

FDPs/ Seminars/ Workshops/Webinars

- FDP – International Faculty Development Programme (Online) on "Next-Generation Mathematical Sciences through Artificial Intelligence," conducted from 29th June to 4th July 2026 by the Department of Mathematics, New Prince Shri Bhavani College of Engineering & Technology.