KRISTU JAYANTI
(DEEMED TO BE UNIVERSITY)
Under Section 3 of UGC Act 1956
A CMI INSTITUTION | BENGALURU | INDIA

Centre for Research & Development

Research Supervisor (Guide) Profiles

Discipline of Supervision: Computer Science/Computer Applications/Data Science

Dr. Mary Jacob
Associate Professor
Department of Computer Science
School of Computational & Physical Sciences

Areas of Specialisation:
Cloud Computing,Internet of Things, Smart City Technologies, Machine Learning,Artificial Intelligence

Dr. Mary Jacob Associate Professor, Department of Computer Science and Associate Director, Office of Human Resources at Kristu Jayanti(Deemed to be University), Bengaluru earned her Ph.D. in Computer Science from Mother Teresa Women's University and holds an MCA from Bangalore University with distinction. With more than two decades of academic and leadership experience she has significantly contributed to teaching, research and institutional development. Her research focuses on Artificial Intelligence, Internet of Things, Cloud Computing, Data Mining and Smart City applications with a particular emphasis on intelligent transportation systems, security, and privacy-preserving technologies. With more than 30 research papers in reputed international journals such as Springer, Elsevier, IEEE, and Scopus-indexed publications, has authored books on Data Mining, Computer Networks and Data structures and holds five patents in innovative areas including AI-enabled IoT systems, blockchain-based smart infrastructure and intelligent waste management. She has also organized and coordinated national-level Faculty Development Programs, international conferences, and the Annual National Educators Summit, while serving as a member of the Internal Quality Assurance Cell (IQAC). Passionate about mentoring young researchers, she actively guides projects in Artificial Intelligence, Machine Learning, IoT, Cloud Computing and Smart City Technologies.

Selected Publications:

1. **Jacob, M**., Gopika, S., Ravindran, D., and Veerachamy, V. (2025). Implementation of Reinforcement Learning-Optimized Communication Protocols for VANETs: Challenges and Solutions. Springer Nature Singapore. https://doi.org/10.1007/978-981-96-4679-1_19

2. **Jacob, M.**, S, G., and Cheripurathu, K. G. (2025). Multi-Constraint Multicast Routing for VANET using Hybridized Ant Colony with Artificial Bee Colony Optimization Algorithm. IEEE. https://doi.org/10.1109/icssas66150.2025.11081285

3. Muruganantham, S., Kumar C, S., **Jacob, M**. ..., K. Sathishkumar. (2025). Design and Implementation of Artificial Intelligence Models Using Deep Neural Networks on Reconfigurable VLSI Systems for Autonomous Driving. (2025). Journal of VLSI Circuits and Systems, 7(1). https://doi.org/10.31838/jvcs/07.01.16