

Faculty	Dr. Manimegalai A Associate Professor– Computer Science & Engineering East Point College of Engineering & Technology Email: lathuramesh@gmail.com manimegalai.a@eastpoint.ac.in Google Scholarid:https://scholar.google.com/citations?user=TfrmasEAAAAJ&hl=en&authuser=1 Orchid id: 0000-0002-9534-0865 Scopus id: 60016802700 Vidwan-id: 444133
	Dr. Manimegalai A holds a Ph.D. degree from Visveswaraya Technological University, Belagavi, MTech. degree from Sathyabama University and B.E. degree in Computer Science & Engineering from Golden Valley Institute of Tech. K G F. She has worked at M V Jayaraman College of Engineering as Assistant Professor and currently rendering her service in East Point College of Engineering and Technology. A dedicated, passionate teacher having 22 years of experience in academics. Her area of specialization is Image Classification & Retrieval, Machine Learning and Deep learning and Artificial Intelligence. She has published papers in Journals and also presented papers in conferences too. She has participated in Faculty development programs, workshops and webinars in varied institutions. She has done NPTEL courses and training programs organized by E & ICT Academy, IIT Guwahati & Kanpur. She has received certificate of appreciation for achieving flawless 100% result. She has also achieved Best Teacher award twice, from department of ISE at M V Jayaraman College of Engineering. She has taken up many responsibilities like C2 NAAC coordinator, C4 NBA coordinator, Result Analysis coordinator, LIC coordinator, department level sports activities etc.
	• Published a conference paper on “WorkExperio: An AI-Enabled System for Automated Team Formation and Performance Analytics” in <i>Smart Trends in Computing & Communications (SmartCom 2026)</i>, part of the <i>Lecture Notes in Networks & Systems (LNNS)</i> book series, Springer, Vol. 2, DOI: https://doi.org/10.1007/978-3-032-26908-9_38, May 2026. • Published a paper on “Text Recognition – Performance Comparison of Tesseract and PaddleOCR in OpenCV” in the <i>International Journal of Emerging Technologies and Innovative Research</i>, Vol. 5, Issue 12, 2025. • Published a paper on “An Improved Similarity Matching Model for Content-Based Image Retrieval” in the <i>International Journal on Smart Sensing and Intelligent Systems</i>, Vol. 18, Issue 1, 2025, with an impact factor of 0.4. DOI: https://doi.org/10.2478/ijssis-2025-0031. • Presented a paper on “Text Recognition – Performance Comparison of Tesseract and PaddleOCR in OpenCV” in the international conference on harnessing AI, quantum computing, and Autonomous systems for a sustainable future July 2025. • Presented a paper on “A Context-Aware IOT Framework for Enhancing women’s personal security through smart Monitoring” in the international

conference on harnessing AI, quantum computing, and Autonomous systems for a sustainable future July 2025.

- Presented a paper on "Rapid Pass: AI Driven Traffic Control Architecture for enhancing emergency response efficiency" in the international conference on harnessing AI, quantum computing, and Autonomous systems for a sustainable future July 2025.
- **Published a paper** on "Intelligent Traffic Violation Detection and Notification System Using Deep Learning" in the *International Journal of Advanced Trends in Engineering and Management (IJATEM)*, Vol. 03, Issue 12, pp. 25–33, December 2024. DOI: <https://doi.org/10.59544/tscu2883/ijatemv03i12p3>.
- **Published a paper** on "Leveraging Deep Learning for Pothole Detection and Road Quality Assessment" in the *International Journal of Advanced Trends in Engineering and Management (IJATEM)*, Vol. 03, Issue 12, pp. 17–24, December 2024. DOI: <https://doi.org/10.59544/ebtl6594/ijatemv03i12p2>.
- **Published a paper** on "Enhancing Signature Forgery Detection System using CNN-SVM" in the *International Journal of Innovative Research in Information Security*, Vol. 10, Issue 4, 2024.
- **Published a paper** on "Detecting Diabetic Foot Ulcer with CNN and CapsNet: A Comparative Investigation of Model Performance" in the *International Journal of Innovative Research in Information Security*, Vol. 10, Issue 4, May 2024.
- **Published a paper** on "Deep Ensemble Architectures with Heterogeneous Approach for an Efficient Content-Based Image Retrieval" in the *IAES International Journal of Artificial Intelligence*, Vol. 13, No. 4, 2024, pp. 4843–4855.
- **Participated in a one-week FDP** organized by East Point College of Engineering & Technology on "Exploring Generative AI" in January 2024.
- **Published a paper** on "Analysis of Parallel Data Processing for the Sentimental Analysis Technique Using Spark and Machine Learning Algorithms" in the *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, Vol. 9, Issue 9, July–August 2023.
- **Published a paper** on "Detection and Classification of Arthritis Severity Based on Kellgren-Lawrence Grading Using CNN Models" in the *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, Vol. 9, Issue 9, July–August 2023.
- **Published a paper** on "Detection of KOA & RA Severity Using Deep Learning Technology" in *IJARESM*, Vol. 11, Issue 5, May 2023.
- **Published a paper** on "Hadoop MapReduce Framework for Performance Aware Scheduling" in the *International Journal of Scientific Research in Computer Science, Engineering and Information Technology*, Vol. 9, Issue 9, January 2023.
- **Published a paper** on "Prediction Model for Pneumonia Using Convolutional Neural Network and RPA" in *Lino Journal*, Vol. 11, Issue

	1, January 2021. • Presented a paper on "Prediction Model for Pneumonia Using Convolutional Neural Network and RPA" at ICMTCI-4.0 (2020). • Published a paper on "Automating Image Retrieval Using RPA by Extricating Colour Feature with String Comparison in CBIR" in <i>IJNIET Journal</i>, Vol. 14, Issue 2, July 2020, pp. 14–20. • Published a paper on "An Approach for Fast Retrieval of Images by Deploying CBIR on Cloud", Paper Code: 01-2018-329, in EECCMC-2018.
	Achievements/Awards/Recognitions • Completed NPTEL online certification course on Introduction to Internet of things for Jan-April-2026. • Completed Snowpro Associate: Platform certification on April 2026. • Completed NPTEL online certification course on Data Base Management system for Jul-Sep 2025. • Completed NPTEL online certification course on Cloud Computing for Jul-Oct 2025. • Completed NPTEL online certification course on Research Methodology for Jan-Mar 2025. • Done a certification on Automation Pro I by Workato Automation institute in the month of June 2024. • Done a certification on "Artificial Intelligence" by Infosys Spring board, in the month of March 2024. • Done a certification on "Python Programming" by Infosys Spring board, in the month of Feb 2024. • Done a certification on "Introduction to Data Science" by Infosys Spring board, in the month of August 2024. • Done a certification on "Ethical AI" by Infosys Spring board, in the month of Nov 2023. • Attended a training program on "Chatgpt & Ai Program" organized by Excelr from 8th to 26th May 2023. • Done a certification on "Introduction to Artificial Intelligence" by Infosys Spring board, in the month of Nov 2023. • Completed 5-day Training program on "Artificial intelligence-NDimensions" by Poornima College-2022. • Certified Trainer for "Artificial Intelligence with Machine Learning" in Java by Oracle Academy-2021. • Certified award of course completion in Database Foundations in Java by Oracle Academy-2021. • Completed NPTEL online certification course on "Python for Data Science" with an Elitescore-2021 • Organizing committee for the Conference IESEE-2022 conducted by Department of CSE • Organized 5 days FDP on "Android Mobile App Development" 22nd June to 27th June 2021 • Received award for achieving 100%result in Software Testing. • Received award for achieving 97% result in Big Data Analytics. • Completed NPTEL online certification course on "DataMining"-2020 • Completed Coursera on "DevelopingAIApplicationsonAzure"-2021

	Completed "Step into Robotic Process Automation" by GUVI-2020.
	Patent details
	"A System and Method for Implementing Quantum Key Distribution over Existing Telecommunication Networks for Secure Communication," Indian Patent No. 202641008914, filed Jan. 29, 2026, published Feb. 13, 2026. "A Non-Invasive, AI-Driven Multi-Sensor Framework for Real-Time Fluid Balance Monitoring and Early CKD Risk Prediction," Indian Patent Application No. 202541088690, filed Sep. 17, 2025, published Oct. 17, 2025. "AI-Based Wearable Assistive Device for Alzheimer's Patients: Integrated Memory Recognition, Fall Detection, Emotional Monitoring, and Health Reminders," Indian Patent Application No. 202541096111, filed Oct. 6, 2025, published Oct. 31, 2025. "Bio Adaptive Smart Air Poles with Self-Learning AI for Urban Air Quality Management Using IoT," Indian Patent Application No. 202541103933, filed Oct. 28, 2025, published Nov. 28, 2025. "LawGPT — An LLM for Indian Law," Indian Patent Application No. 20251133935, filed Dec. 31, 2025, published Jan. 9, 2026. "Quantum Based Cryptographic Security Analytic Device," Patent No. 474053-001, filed Sep. 18, 2025, published Dec. 11, 2025.