

Dr. Manoov R, PhD
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Professional Summary

- **Teaching Excellence:** 20+ years of experience developing and delivering practical computer science curricula, enhancing student learning through hands-on application and technology integration.
- **Technical Leadership:** Core member of the university-wide Moodle LMS admin team, managing system infrastructure, authentication, and automated enrollment for the institution.
- **Faculty Development:** Frequent invited speaker and organizer of workshops and FDPs on topics ranging from Moodle and blockchain to software quality engineering.
- **Applied Research:** Committed to leveraging technical expertise for societal impact, including pro bono data science consultancy for NGOs and research in bioinformatics.

Education

- **Doctor of Philosophy (PhD):** Thesis Title: Computational Approaches for identifying Micro-RNA Biomarkers in Neoplasms and Drug Resistance.
- **Master of Technology (MTech):** Thesis Title: "Content based Image Retrieval"
- **Bachelor of Engineering (BE):** Thesis Title: "Image Enhancement techniques and Filter mechanisms"

Professional Experience

-  **Senior Assistant Professor, Vellore Institute of Technology (VIT) May 2012 - Present**
 - Teaching and research in Computer Science and Engineering.
 - Serving as a core member of the University Moodle LMS Admin team, managing user authentication systems and overseeing automated course enrollment processes.
 - Maintaining comprehensive 'Teaching with Moodle' resources to support faculty in blended learning practices.
 - Guiding 2 PhD scholars in their research on applying machine learning to challenges in Bioinformatics and Nanomedicine.
-  **Assistant Professor, Velammal Engineering College June 2010 - May 2012**
 - Delivered lectures and trained in entrepreneurship via the National Entrepreneurship Network.
-  **Assistant Professor, SRM University Dec 2003 - June 2010**
 - Organized a two-day "National Workshop on Software Quality Engineering" in association with SPIN, Chennai with 80% participants from industry.

-  **Assistant Professor, Karunya University** Jan 2003 - Nov 2003
– Served as Industry Internship Coordinator for the CSE Department.

Skills and expertise

- Bioinformatics and Computational Biology, Data Management and Machine Learning Data Mining and Knowledge Discovery.
- Programming: Proficient in R (70%).
- Statistical Analysis: Skilled in Statistics (60%).
- Learning Management Systems: Expertise in Moodle LMS (70%).

Projects

- **Electronic Data Capture and Clinical Research Data Analytics (2023-24):** Provided pro bono consultancy services.

Publications

- Pathania, Y. S., Shekhawat, K. S., Srinivasan, K., & Manoov, R. (2025, January). A Multi-Agent Framework for Zone-Based Last-Mile Delivery Optimization. In International Conference on Research into Design (pp. 153-163). Singapore: Springer Nature Singapore.
- Nair, A., Bhatnagar, S., Srinivasan, K., & Manoov, R. (2024, November). A Novel RoPE-Enhanced Informer Approach for Accurate Remaining Useful Life Prediction of Lithium-Ion Batteries. In 2024 IEEE Conference on Engineering Informatics (ICEI) (pp. 1-7). IEEE.
- Vishwakarma, S., Premjit, J. P., Balakrishnan, S., & Manoov, R. (2023, September). Qiskit Simulation of CNOT Equivalent Circuits. In 2023 International Conference on Quantum Technologies, Communications, Computing, Hardware and Embedded Systems Security (iQ-CCHES) (pp. 1-6). IEEE.
- Rajapandy, Manoov, & Anbarasu, A. (2021). An improved unsupervised learning approach for potential human microRNA–disease association inference using cluster knowledge. Network Modeling Analysis in Health Informatics and Bioinformatics, 10, 1-16.
- Jain, H., Yadav, G., & Manoov, R. (2020). Churn prediction and retention in banking, telecom and IT sectors using machine learning techniques. In Advances in Machine Learning and Computational Intelligence: Proceedings of ICMLCI 2019 (pp. 137-156). Singapore: Springer Singapore.
- Chincholkar, S., & Rajapandy, Manoov. (2020). Fog image classification and visibility detection using CNN. In Intelligent Computing, Information and Control Systems: ICICCS 2019 (pp. 249-257). Springer International Publishing.
- Goyal, R., Manoov, R., Sevugan, P., & Swarnalatha, P. (2020). Securing the data in cloud environment using parallel and multistage security mechanism. In Soft Computing for Problem Solving: SocProS 2018, Volume 2 (pp. 941-949). Springer Singapore.
- Sreekant, A., P, S., G, G., & Rajapandy, Manoov. (2019). Necessity of Machine Learning and Data Visualization Principles in Marketing Investment Management. International Journal of Innovative Technology and Exploring Engineering, 8(6S4).
- M, Thanusha., & R, Manoov. (2018). Secure and Cost Effective User Revocation Mechanism for Data Analysis in the Cloud, 9(4), 442–449.

- Khandelwal, D., & Manoov, R. (2017, November). Airbag ECU coupled vehicle accident SMS alert system. In 2017 International Conference on Inventive Computing and Informatics (ICICI) (pp. 82-87). IEEE.

Faculty Development Programs

- **Guest Lecturer**, "Introduction to Machine Learning and its Applications in Ground Water Resources," School of Civil Engineering, Vellore Institute of Technology (Sep 2025). Presented on ML applications for groundwater forecasting and management, engaging faculty and students on data-driven environmental solutions.
- **Participant**, "Advances in Biomedical, Healthcare Sensors and Nanoscale Devices," 5-Day Faculty Development Program, Teaching Learning Centre of Excellence, Vellore Institute of Technology (Jan 2025).
- **Participant**, NEP 2020 Orientation Programme, IIT Madras (May 2024).
- **Session Chair**, Second International Conference on Emerging Trends in Information Technology and Engineering, Vellore Institute of Technology (2024).
- **Invited Speaker**, "Hands-on Training in the Evaluation Process using Moodle LMS," Vellore Institute of Technology (2022).
- **Organizer & Resource Person**, Faculty Development Program on "Moodle for Python/Java Code Evaluation," Vellore Institute of Technology (2022).
- **Invited Speaker** on formative assessment design, Faculty Orientation Programme for 100+ new faculty, Vellore Institute of Technology (2022).
- **Participant**, AICTE ATAL Academy Faculty Development Program on Internet of Things, Mizoram University (Feb 2021).
- **Participant**, AICTE ATAL Academy Faculty Development Program on Blockchain, National Institute of Technology (2020).
- **Resource Person**, Faculty Development Program on "Effective Use of Moodle for Online Classes" for 559 participants, Vellore Institute of Technology (2020).
- **Certification**, "Learning to Teach Online" by UNSW Sydney (The University of New South Wales), Coursera (2020).

Volunteer and Leadership Roles

- **Moodle LMS Administrator**, University-Wide System (2017–Present). Member of the core team managing the institution's learning management system, supporting faculty and ensuring platform reliability.
- **Program Lead, Summer Internship Programme**, AIESEC's Global Talent (2023). Organized and managed an 8-week internship program for international students.
- **Invited Trainer**, Faculty Development Program for English Department (2022). Delivered a session on technology integration for English course activities using Moodle LMS.
- **Creator & Maintainer**, "Teaching with Moodle" Resource Webpage. Developed and maintain an instructional website to assist faculty in utilizing Moodle for blended learning.
- **Workshop Organizer**, "National Workshop on Software Quality Engineering," SRM University (2009). Co-organized a two-day event in association with SPIN, Chennai, with 80% industry participation.
- **Lead Facilitator**, Faculty Development Workshops. Led training sessions on Moodle usage and blockchain technologies for university faculty.