

## Dr. Manoov R, PhD

Assistant Professor Senior — Researcher

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## Professional Summary

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- **Experienced Academic** with 20+ years in computer science education, curriculum development, and technology-enhanced teaching methodologies
- **Research Contributor** in computational biology, machine learning applications, and disaster response systems with patent filings
- **Technical Leader** as core member of university-wide Moodle LMS admin team managing academic infrastructure for 30,000+ users
- **Faculty Developer** organizing and contributing to workshops on educational technology, blockchain, and software quality engineering
- **Multi-Disciplinary Scholar** with participation in international conferences on human values in education and ethics certification

### Certifications & Professional Development

- **CITI Program Certification - Conflicts of Interest**
  - Massachusetts Institute of Technology Affiliates Requirements
  - Completion Date: 31-Dec-2025 — Expiration: 31-Dec-2029
  - Record ID: 74006551 — Verified: [Certificate Link](#)
- **International Conference Participation Certificates**
  - 10th International Conference on Human Values in Higher Education (ICHVHE 2025)
  - Theme: "Empowering Youth through Value Driven Education"
  - 19th to 21st December, 2025 — Online Conference
  - Web Link: <https://ichvhe.uhv.org.in/>
- **FDP on 'NEP 2020 Orientation and Sensitization Programme'**
  - FDP under Malaviya Mission Teacher Training Programme (MM-TTP) of UGC
  - Theme: "NEP 2020 Orientation and Sensitization Programme"
  - 2nd to 7th May, 2024 — IIT Madras FDP
  - Web Link: <https://tlc.iitm.ac.in/index.html>
- **FDP on "Internet of Things (IoT)"**
  - Mizoram University via AICTE ATAL Academy
  - Date: February 1-5, 2021
  - Certificate: [View Certificate](#)
- **FDP on "Blockchain"**
  - Bangalore Institute of Technology via AICTE ATAL Academy

- Date: November 23-27, 2020
- Certificate: View Certificate
- **FDP on “Blockchain”**
  - National Institute of Technology via AICTE ATAL Academy
  - Date: December 14-18, 2020
  - Certificate: View Certificate
- **Learning to Teach Online Certification**
  - UNSW Sydney (The University of New South Wales) via Coursera
  - Completion: 2020
  - Verified: <https://coursera.org/verify/2EYBJVVB5MZR>



## Patents & Intellectual Property


- **Patent Application Filed:** “Multimodal disaster response system with geospatial safe-zone routing”
  - Application Number: 202541116476
  - Filing Date: 24/11/2025 — Publication Date: 12/12/2025
  - Field: Communication
  - Applicant: Vellore Institute of Technology
  - Status: Published under Section 11A of Indian Patents Act, 1970

## Education

- **Doctor of Philosophy (PhD) in Computational Biology**
  - Thesis: “Computational Approaches for identifying Micro-RNA Biomarkers in Neoplasms and Drug Resistance”
- **Master of Technology (MTech) in Computer Science and Engineering**
  - Thesis: “Content based Image Retrieval”
- **Bachelor of Engineering (BE) in Electronics and Communication Engineering**
  - Thesis: “Image Enhancement techniques and Filter mechanisms”

## Professional Experience

-  **Senior Assistant Professor, Vellore Institute of Technology (VIT) May 2012 - Present**
  - Teaching undergraduate and graduate courses in Computer Science and Engineering
  - Research supervision for 2 PhD scholars in Bioinformatics and Nanomedicine
  - Core member of University Moodle LMS Admin team managing system infrastructure
  - Developed comprehensive “Teaching with Moodle” resources for faculty support
  - Contributor to patent application for disaster response system
-  **Assistant Professor, Velammal Engineering College June 2010 - May 2012**
  - Course delivery and curriculum development in computer science

- Entrepreneurship training through National Entrepreneurship Network
-  **Assistant Professor, SRM University** *Dec 2003 - June 2010*
  - Organized “National Workshop on Software Quality Engineering” with SPIN, Chennai with 80% industry participation
-  **Assistant Professor, Karunya University** *Jan 2003 - Nov 2003*
  - Industry Internship Coordinator for Computer Science Department
  - Developed industry-academia partnership programs

## Skills and Expertise

- **Research Domains:**
  - Bioinformatics & Computational Biology
  - Machine Learning & Data Science Applications
  - Disaster Response Systems & Geospatial Routing
  - Data Mining & Knowledge Discovery
- **Technical Expertise:**
  - R Programming (Statistical Analysis, Bioinformatics)
  - Python (Machine Learning, Data Science)
  - Statistical Analysis & Research Methodology
  - Moodle LMS Administration & Educational Technology
- **Professional Competencies:**
  - Research Ethics & Conflict of Interest Management (CITI Certified)
  - Patent Application Process & Intellectual Property
  - Faculty Development & Training
  - Curriculum Design & Assessment

## Projects

- **Multimodal Disaster Response System (2025)**
  - Developed geospatial safe-zone routing algorithms for emergency response
  - Resulted in patent application (202541116476) filed with Indian Patent Office
  - Field: Communication systems for disaster management
- **Electronic Data Capture and Clinical Research Data Analytics (2023-24)**
  - Pro bono consultancy for clinical research data management
  - Implemented data analytics protocols for research integrity

## Publications (Selected)

- **Pathania, Y. S., Shekhawat, K. S., Srinivasan, K., & Manoov, R. (2025).** *A Multi-Agent Framework for Zone-Based Last-Mile Delivery Optimization.* International Conference on Research into Design, Springer Nature Singapore.

- **Nair, A., Bhatnagar, S., Srinivasan, K., & Manoov, R.** (2024). *A Novel RoPE-Enhanced Informer Approach for Accurate Remaining Useful Life Prediction of Lithium-Ion Batteries*. IEEE Conference on Engineering Informatics.
- **Vishwakarma, S., Premjit, J. P., Balakrishnan, S., & Manoov, R.** (2023). *Qiskit Simulation of CNOT Equivalent Circuits*. International Conference on Quantum Technologies.
- **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.
- **Jain, H., Yadav, G., & Manoov, R.** (2020). *Churn prediction and retention in banking, telecom and IT sectors using machine learning techniques*. Advances in Machine Learning and Computational Intelligence, Springer Singapore.

### Faculty Development Programs

- **Guest Lecturer**, "Introduction to Machine Learning and its Applications in Ground Water Resources," School of Civil Engineering, VIT (Sep 2025)
- **Participant**, "Advances in Biomedical, Healthcare Sensors and Nanoscale Devices," 5-Day Faculty Development Program, VIT (Jan 2025)
- **Participant**, NEP 2020 Orientation Programme, IIT Madras (May 2024)
- **Session Chair**, Second International Conference on Emerging Trends in Information Technology and Engineering, VIT (2024)
- **Invited Speaker**, "Hands-on Training in the Evaluation Process using Moodle LMS," VIT (2022)
- **Organizer & Resource Person**, Faculty Development Program on "Moodle for Python/Java Code Evaluation," VIT (2022)
- **Invited Speaker**, Faculty Orientation Programme for 100+ new faculty, VIT (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, VIT (2020)

### Volunteer and Leadership Roles

- **Moodle LMS Administrator**, University-Wide System (2017–Present)
  - Core team member managing learning management system for institutional use
- **Program Lead, Summer Internship Programme**, AIESEC's Global Talent (2023)
  - Organized and managed 8-week internship program for international students
- **Invited Trainer**, Faculty Development Program for English Department (2022)
  - Delivered session on technology integration for English course activities
- **Creator & Maintainer**, "Teaching with Moodle" Resource Webpage
  - Developed instructional website to assist faculty in blended learning practices

- **Workshop Organizer**, "National Workshop on Software Quality Engineering," SRM University (2009)
  - Co-organized two-day event with SPIN, Chennai with 80% industry participation

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*Certificates and patent details verifiable through provided links and identifiers*