DR. VISHRUTH B G

Associate Professor |Artificial Intelligence & Machine Learning

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PROFESSIONAL SUMMARY

Academician with over 11 years of experience in teaching, research, and academic administration in Computer Science and allied streams. Currently serving as an **Associate Professor** in the Department of Machine Learning at **B.M.S. College of Engineering, Bengaluru**. Experienced in curriculum development, Outcome-Based Education (OBE), NBA and NAAC accreditation, research supervision, and mentoring. Research interests include **Computer Vision, Deep Learning, Medical Image Analysis, and Video Analytics**, with publications in SCI and Scopus-indexed journals, patents, and funded research projects. **Committed to fostering critical thinking, innovation, and lifelong learning through student-centered teaching, impactful research, and active institutional service.**

EDUCATION

Ph.D. in Computer Science 2024
Visvesvaraya Technological University (VTU), Belagavi

M.Tech in Computer Network Engineering (CNE) 2014
Visvesvaraya Technological University (VTU), Belagavi

B.E. in Information Science & Engineering (ISE) 2012
Visvesvaraya Technological University (VTU), Belagavi

Pre-University Course (PUC) 2008
National College, Basavanagudi, Bengaluru

PROFESSIONAL MEMBERSHIPS

- International Association of Engineers (IAENG) — Member, since 2021
- Computer Society of India (CSI) — Permanent Member, since 2019
- Indian Society for Technical Education (ISTE) — Permanent Member, since 2018

WORK EXPERIENCE

Total Experience: 11 Years

B.M.S. College of Engineering, Bengaluru July 2026 – Present
Associate Professor, Dept. of Machine Learning

Global Academy of Technology, Bengaluru July 2025 – June 2026
Associate Professor, Dept. of Artificial Intelligence & Data Science

SJB Institute of Technology (SJBIT), Bengaluru August 2019 – June 2025
Dept. of Information Science & Engineering

- **Associate Professor** | June 2024 – June 2025
- **Assistant Professor** | August 2019 – May 2024

Sambhram Institute of Technology (SaIT), Bengaluru February 2017 – July 2019
Assistant Professor, Dept. of Information Science & Engineering

K. S. School of Engineering & Management (KSSEM), Bengaluru July 2014 – June 2015
Assistant Professor, Dept. of Computer Science & Engineering

ROLES & RESPONSIBILITIES

• Deliver undergraduate and postgraduate courses in Artificial Intelligence, Machine Learning, Computer Science, and related disciplines.

• Design and continuously improve curriculum, laboratory experiments, assignments, and assessment methodologies in accordance with Outcome-Based Education (OBE) principles.

• Supervise undergraduate, postgraduate, and doctoral research activities.

• Mentor students for internships, higher education, competitive examinations, entrepreneurship, and innovation projects.

• Coordinate departmental accreditation activities including NBA, NAAC, NIRF, IQAC, and academic audits.

• Develop research proposals, identify funding opportunities, and execute sponsored research projects.

• Organize Faculty Development Programs (FDPs), Workshops, Conferences, Hackathons, and Technical Events.

• Foster industry collaborations through expert talks, internships, consultancy, and collaborative research initiatives.

• Contribute to institutional governance through academic committees and strategic planning activities.

PUBLICATIONS

1. **Classification of Remote Sensing Image Using Multi-Scale Attention Convolutional Neural Network and Particle Swarm Optimized Fuzzy Mapping.** Proceedings of the 4th International Conference on 6G Communications, Networking and Signal Processing (SGCNSP 2025), Sri Krishna Institute of Technology, Bengaluru, 27–28 June 2025 (indexed in Springer).
2. **VSA-GCNN: Attention Guided Graph Neural Networks for Brain Tumor Segmentation and Classification.** Big Data and Cognitive Computing, Vol. 9, 2025, Article 29. DOI: 10.3390/bdcc9020029
3. **Hybrid Approach Using Machine Learning for Leaf Disease Detection and Glucoma Detection.** In Patnaik, L.M., Raju, G.T., Prasad, N.H. (eds.), Advances in Data Science and Artificial Intelligence (ERCICA 2024), Lecture Notes in Electrical Engineering, Vol. 1399, Springer, Singapore. DOI: 10.1007/978-981-96-4430-8_26
4. **Hybrid Approach Using Deep Neural Networks for Leaf Disease Detection and Disease Management.** Journal of Emerging Technologies and Innovative Research (JETIR), Vol. 11, Issue 5, May 2024 (Impact Factor 7.95, Google Scholar; UGC-Approved Journal No. 63975).
5. **Foreground Segmentation Network Using Transposed Convolutional Neural Networks and Up-Sampling for Multiscale Feature Encoding.** Neural Networks, Vol. 170, 2024, pp. 167–175. ISSN: 0893-6080. DOI: 10.1016/j.neunet.2023.11.015
6. **Background Initialization in Video Data Using Singular Value Decomposition and Robust Principal Component Analysis.** International Journal of Computers and Applications, Taylor & Francis (Q3, Impact Factor 1.8), 45(9), 600–609, 2023. DOI: 10.1080/1206212X.2023.2258329
7. **Dynamic Background Modelling and Foreground Detection Using Orthogonal Projection onto the Subspace of Moving Objects.** Proceedings of the 15th International Conference on Contemporary Computing (IC3-2023), ACM, New York, pp. 171–176, 2023. DOI: 10.1145/3607947.3607977
8. **Background-Foreground Segmentation Using Multi-Scale Attention Net (MA-Net): A Deep Learning Approach.** Revue d'Intelligence Artificielle, IIETA (Q3, Impact Factor 1.4), Vol. 37, No. 3, pp. 557–565, 2023. DOI: 10.18280/ria.370304
9. **Non-Invasive Blood Glucose Monitoring System.** Published in IJCRT (Impact Factor 7.97, Google Scholar), Vol. 10, Issue 7, July 2022 (UGC-Approved Journal No. 49023).
10. **Incremental Techniques Based on Machine Learning for Crop Yield Prediction.** International Journal of Innovative Research in Computer and Communication Engineering, e-ISSN: 2320-9801, Vol. 9, Issue 7, July 2021. DOI: 10.15680/IJIRCCE.2021.0907082

11. **MODFAT: Moving Object Detection by Removing Shadow Based on Fuzzy Technique with an Adaptive Thresholding Method.** Revue d'Intelligence Artificielle, Vol. 35, No. 2, April 2021, pp. 177–183. iieta.org/journals/ria
12. **A Review on an Efficient Disease Prediction System to Predict Heart Disease with Better Accuracy Utilizing Different Data Mining Classification Techniques and Domain.** International Conference on Latest Advancement and Future Trends in Engineering, Science and Management, Sambhram Institute of Technology, Bengaluru, 2019.
13. **Measurement of the Information Through Noise Removal for Iris Recognition.** 2nd International Conference on Current Trends in Engineering and Management, Vidhya Vardhaka Institute of Technology, Mysore, 2014.

RESEARCH FUNDING & PATENTS

Patents

- "Automatic Fruit Sorting Using Image Processing" — Patent Publication, Application No. 202021038153.
- "Identification of Defect in Computer Chip Manufacturing Using Image Processing" — International Patent, Application No. 202021106765.
- "Method and System for Training and Deploying Machine Learning Models" — Patent Publication, Application No. 202441044114 A.
- "Anomaly Detection Device" — UK Design Patent.

Funded Projects (Received)

- Karnataka State Council for Science and Technology (KSCST) — "Non-Invasive Blood Glucose Monitoring System" (Project Proposal Ref. No. 45S_BE_2943).
- Central Manufacturing Technology Institute (CMTI) — "Implementation of LiDAR-Based SLAM for Autonomous Mobile Robots."
- Internal Seed Funding, Global Academy of Technology (₹1 Lakh) — "Vehicular Passport: AI-Enabled Digital Health Record for Intelligent Vehicle Monitoring and Management."

SUBJECTS HANDLED

- Software Engineering
- Programming in C & Data Structures
- System Modelling & Simulation
- Discrete Mathematical Structures
- Graph Theory
- Management and Entrepreneurship
- Object-Oriented Programming Concepts & Java
- Cryptography and Network Security
- Fundamentals of Artificial Intelligence
- Big Data Analytics
- File Structures
- Natural Language Processing
- Full Stack Development
- Artificial Intelligence
- Deep Learning
- DevOps
- Machine Learning
- Artificial Intelligence & Machine Learning
- Cloud Computing

PROFESSIONAL DEVELOPMENT

Workshops & Faculty Development Programs (FDPs) Attended

- Big Data Analytics — FDP, SJB Institute of Technology, 30 July–1 August 2025
- Machine Learning and Artificial Intelligence — FDP, ExceLR Ltd., August 2024
- Inculcating Universal Human Values in Technical Education — FDP, AICTE, August 2024
- Recent Trends in Software Industry — Workshop, LTI Mindtree, April 2023
- No-SQL Database — FDP, SJBIT, March 2022
- National Intellectual Property Awareness — Training Programme, SJBIT, January 2022
- Industry 4.0 — FDP, SJBIT, August 2021
- Drone Technology — FDP, IFORTIS Corporate, July 2020
- Emerging Trends (Five-Day International Workshop) — Dept. of CSE, BIT Institute of Technology, Hindupur, July 2020

- Counselling Techniques — Workshop, SaIT, March 2019
- Outcome Based Education — Workshop, SaIT, July 2018
- Faculty Pedagogy Development — FDP, SaIT, January 2018
- Android Application Development — Workshop (conducted by Google), Global Institute of Technology, May 2017
- Knowledge Mining Using Machine Learning and Its Applications — Workshop, MSRIT, January 2014
- Android Programming — Workshop, RVCE, January 2014
- Machine Learning for Computer Vision — Workshop, November 2013
- Micro Nano Technology in Small Satellites — Workshop, EWIT, August 2013

MOOC / Online Courses Completed

- Data Science for Engineers — NPTEL, July–September 2025

COMMITTEE & COORDINATION ROLES

- Test Coordinator
- Workshop Coordinator
- Project Coordinator
- Anti-Ragging Coordinator
- NAAC Criteria Coordinator
- NBA Criteria Coordinator
- GRE/TOEFL Coordinator
- Alumni Coordinator
- Disciplinary Committee Member
- Outreach Committee Member
- NIRF Coordinator
- ARIIA Coordinator
- IQAC Member

RECOGNITION & AWARDS

- Member, Academic Council, Sahyadri College of Engineering and Management.
- Appointed Local Inspection Committee (LIC) Member, VTU, for academic year 2025–26.
- Appointed Board of Examiners (BOE) Member, Visvesvaraya Technological University (VTU), for academic year 2025–26.
- Board of Examiners (BOE) Committee Member, Dept. of ISE, Dr. AIT, Bengaluru, for academic year 2024–25.
- Guiding Ph.D. research scholars under VTU, and serving as a member of the Research Advisory Committee for scholars pursuing research under VTU.
- Judge for Technical Competitions.
- Reviewer for IEEE International Conferences.
- Reviewer for Scopus-indexed Journals.

RESEARCH PROFILES

- **Google Scholar:** scholar.google.co.in/citations?user=JsmxBx8AAAAJ
- **IRINS:** sjbit.irins.org/profile/204194
- **ORCID:** orcid.org/0000-0002-9090-4008
- **Scopus ID:** 57224108135

PERSONAL DETAILS

- **Date of Birth:** November 17, 1990
- **Marital Status:** Married
- **Languages Known:** English, Kannada, Hindi