Dr. Agughasi Victor Ikechukwu

Senior Assistant Professor

Dr. Agughasi Victor Ikechukwu is a Senior Assistant Professor in the **Department of Computer Science and Medical Engineering (CS&ME)** at the **School of Engineering, Dayananda Sagar University, Bengaluru**. His academic and research expertise lies at the intersection of **Biomedical Signal Processing**, **Deep Learning, Medical Image Analysis, Explainable AI, Computer Vision, Multimodal AI, Agentic AI, and Clinical Decision Support Systems**.

He has contributed to AI-driven healthcare research with special focus on **machine learning and deep learning models for medical image interpretation**, including COPD detection from chest X-ray images, retinal disease analysis, breast cancer thermography, PET-CT tumour analysis, EEG-based neurological assessment, and infant biometric identity assurance. His work reflects a strong commitment to developing intelligent, explainable, and deployable AI systems for real-world healthcare and engineering applications.

Educational Qualifications

Ph.D. in Computer Science
University of Mysore, Mysuru, Karnataka, India
Research focus: Artificial Intelligence, Machine Learning, Medical Image Analysis, Computer Vision, and Healthcare Decision Support.

M.Sc. in Computer Science
Bangalore University, Bengaluru, Karnataka, India
Research/academic focus: Computer Science, Data Analytics, Software Systems, and Intelligent Computing.

Experience

Dr. Victor has academic, research, teaching, and project-development experience across higher education and applied AI research.

Senior Assistant Professor
Department of Computer Science and Medical Engineering,
School of Engineering, Dayananda Sagar University, Bengaluru
Joined: June 2026

Previous Academic and Research Roles
He previously served at **Maharaja Institute of Technology Mysore**, where he contributed as a

faculty member and researcher in the areas of Computer Science, Artificial Intelligence, Medical Imaging, Machine Learning, and student research mentoring.

His teaching experience includes courses such as:

- Machine Learning
- Advanced Machine Learning
- Computer Vision
- Digital Image Processing
- Big Data Analytics
- Database Management Systems
- Python for Data Visualization
- Research Methodology
- AI for Healthcare

Research, Patents & Publications

Dr. Victor's research work focuses on the development of AI-enabled diagnostic, assistive, and decision-support systems. His research contributions include work on **COPD detection from chest X-ray images, diabetic retinopathy analysis, breast cancer thermography, PET-CT tumour segmentation and classification, EEG-based epilepsy assessment, infant footprint–palmprint biometrics, and explainable medical AI systems**.

He has authored and co-authored several research publications in peer-reviewed journals, conferences, and book chapters indexed in major academic databases such as **Scopus, Web of Science, and Google Scholar**. His research outputs include publications in medical imaging, deep learning, explainable AI, computer vision, and healthcare informatics.

He has also contributed to **Indian patent publications** in AI-driven healthcare and medical imaging domains, reflecting his interest in translating research ideas into practical and innovative solutions.

Research Projects and Innovation Contributions

Dr. Victor has been involved in multiple research and innovation-driven projects, including:

- AI-based COPD diagnosis from chest X-ray images
- Explainable AI models for medical image classification
- PET-CT-based tumour analysis and stage-oriented reporting
- AI-assisted EEG analysis for epilepsy and related neurological conditions
- Edge-AI newborn footprint–palmprint capture and quality assessment system
- Adaptive assistive communication tools for children with cerebral palsy
- Quantum Machine Learning applications in medical image analysis
- Multimodal and Agentic AI systems for healthcare applications

He has also guided student teams, supported research proposals, coordinated project documentation, and contributed to academic innovation activities, hackathons, FDPs, workshops, and keynote/resource-person sessions.

Books, Editorial and Academic Contributions

Dr. Victor has contributed to academic writing, research mentoring, technical documentation, and teaching-learning content development in areas such as **Machine Learning, Advanced Machine Learning, Deep Learning, Medical Image Analysis, Data Engineering, MLOps, Quantum Machine Learning, and AI for Healthcare**.

He has also served as a reviewer and academic contributor for research works in medical image analysis, machine learning, computer vision, and applied artificial intelligence.

Research Interests

His major areas of research interest include:

AI for Healthcare, Medical Image Analysis, Explainable Artificial Intelligence, Deep Learning, Computer Vision, Multimodal AI, Agentic AI, Clinical Decision Support Systems, Data Science, Quantum Machine Learning, and Assistive Technologies.

Scholarly Links

ORCID Link: https://orcid.org/0000-0002-1175-3089

Scopus Link: https://www.scopus.com/authid/detail.uri?authorId=58663521900

Web of Science Link: https://www.webofscience.com/wos/author/record/ABU-3111-2022

Google Scholar Link: https://scholar.google.com/citations?user=TQjqJ1UAAAAJ&hl=en

Vidwan Link: https://vidwan.inflibnet.ac.in/profile/169687

ResearchGate Link: https://www.researchgate.net/profile/Victor-Ikechukwu-Agughasi

LinkedIn Link: https://www.linkedin.com/in/victor-ikechukwu-agughasi/

DBLP Link: https://dblp.org/search?q=Victor%20Ikechukwu%20Agughasi

GitHub Link: https://github.com/Victor-Ikechukwu