

Ajay Kumar Reddy Poreddy

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CURRENTLY Assistant Professor, Department of Computer Science and Engineering, Sri Sivasubramaniya Nadar College of Engineering, Chennai, India.

EDUCATION **Indian Institute of Information Technology, Design and Manufacturing (IIITDM), Kancheepuram**
Ph.D. in Electronics and Communication Engineering, 08/2020 – 12/2024
Jawaharlal Nehru Technological University Kakinada
M.Tech in Systems and Signal Processing, 08/2018 – 08/2020
Shanmugha Arts, Science, Technology & Research Academy (SASTRA University)
B.Tech in Electronics and Communication Engineering, 06/2014 – 05/2018

EXPERIENCE ♦ **Assistant Professor**
Sri Sivasubramaniya Nadar College of Engineering, 12/2024-Till date
Teaching Assistant
IIITDM Kancheepuram, 08/2020 – 12/2024
Jawaharlal Nehru Technological University Kakinada, 08/2018 – 02/2020

RESEARCH Multimedia Quality Assessment, Machine Learning
Research Groups: MEPCAG Lab, IIT Indore, ASIP Lab, IIITDM Kancheepuram

CITATIONS 56, h-index 5, i10-index 2, Google Scholar Profile

JOURNAL ARTICLES ♦ **Ajay Kumar Reddy Poreddy**, Peter A. Kara, Roopak R. Tamboli, Aniko Simon, and Balasubramanyam Appina. “CoDIQE3D: A completely blind, no-reference stereoscopic image quality estimator using joint color and depth statistics.” The Visual Computer, Vol. 39 (12), (2023): 6743-6753. DOI: 10.1007/s00371-022-02760-3.
♦ **Ajay Kumar Reddy Poreddy**, Raja Bharath Chandra Ganeswaram, Balasubramanyam Appina, Priyanka Kokil, and Ram Bilas Pachori. “No-reference virtual reality image quality evaluator using global and local natural scene statistics.” IEEE Transactions on Instrumentation and Measurement, Vol. 72 (1), (2023): 1-16. DOI: 10.1109/TIM.2023.3322995.
♦ **Ajay Kumar Reddy Poreddy**, Balasubramanyam Appina, and Priyanka Kokil. “FFVRIQE: A feature fused omnidirectional virtual reality image quality estimator.” IEEE Transactions on Instrumentation and Measurement, Vol. 73, (2024): 1–11. DOI: 10.1109/TIM.2024.3400304.
♦ **Ajay Kumar Reddy Poreddy**, Bhargav Varma Atmakuru, Thunakala Bala Krishna, Priyanka Kokil, and Balasubramanyam Appina. “Enhancing laparoscopic video quality assessment: A model addressing sensor and channel distortions.” IEEE Sensors Letters, Vol. 8 (3), (2024): 1-4. DOI: 10.1109/LENS.2024.3366564.
♦ **Ajay Kumar Reddy Poreddy**, Sunkanaboina Chandra Lingamaiah, Thunakala Bala Krishna, and Priyanka Kokil. “Focal liver lesion classification based on statistical variations of discrete Haar wavelet transform and singular value decomposition.” IEEE Sensors Letters, Vol. 8 (8), (2024): 1–4. DOI: 10.1109/LENS.2024.3419145.

	<ul style="list-style-type: none"> ◇ Ajay Kumar Reddy Poreddy, Balasubramanyam Appina, and Priyanka Kokil. “Enhancing surgical laparoscopic video quality assessment with integrated feature fusion accounting for sensor and transmission distortions,” IEEE Sensors Letters (Accepted for publication)(2025). DOI: 10.1109/LSSENS.2025.3553292. ◇ Pankaj Kumar Raghuwanshi, Ajay Kumar Reddy Poreddy, Balasubramanyam Appina, and Priyanka Kokil. “An ‘opinion unaware’ 3D image quality evaluator using correlation features of scene components,” IEEE Transactions on Instrumentation and Measurement, vol. 74, pp. 1-11, (2025). DOI: 10.1109/TIM.2025.3542137.
CONFERENCE PUBLICATIONS	<ul style="list-style-type: none"> ◇ Ajay Kumar Reddy Poreddy, and Balasubramanyam Appina. “BVRIQE: A completely blind no reference virtual reality image quality evaluator,” IEEE International Conference on Signal Processing and Communications (SPCOM), 2022, pp. 1-5. DOI: 10.1109/SPCOM55316.2022.9840855. ◇ Ajay Kumar Reddy Poreddy, Peter A. Kara, Balasubramanyam Appina, and Aniko Simon. “A no-reference 3D virtual reality image quality assessment algorithm based on saliency statistics,” Proc. SPIE 11841, Optics and Photonics for Information Processing XV, 118410R (1 August 2021). DOI: 10.1117/12.2597327. ◇ Thunakala Bala Krishna, Ajay Kumar Reddy Poreddy, Gnapika Sindhu Kolla, and Priyanka Kokil. “Automated maternal fetal ultrasound image identification using a hybrid vision transformer model,” International Conference on Pattern Recognition (ICPR), Lecture Notes in Computer Science, vol 15311 (03 December 2024). DOI: 10.1007/978-3-031-78195-7_17 ◇ Bhusham Chandrasekhar, Ajay Kumar Reddy Poreddy, Thunakala Bala Krishna, and Priyanka Kokil. “Automated Anemia classification and Hemoglobin level prediction using deep CNN and GLCM features of palpebral conjunctiva images.” In Conference on Information and Communication Technology (CICT), pp. 1-6. IEEE, 2023. DOI: 10.1109/CICT59886.2023.10455477. ◇ Siddarth. C, Ajay Kumar Reddy Poreddy, and Priyanka Kokil. “A comprehensive study on pre-trained models for skin lesion diagnosis in a federated setting.” In International Conference on Computer Vision and Image Processing (CVIP), 483–93. Springer, 2023. DOI: 10.1007/978-3-031-58535-740. ◇ Varun. C, Ajay Kumar Reddy Poreddy, Thunakala Balakrishna, and Priyanka Kokil. “A computer-aided detection system for Breast Cancer using lightweight CNN Models for smart healthcare.” In International Conference on Bio Signals, Images, and Instrumentation (ICBSII), 1–6. IEEE, 2024. DOI: 10.1109/ICBSII61384.2024.10564079. ◇ Krithika S, Ajay Kumar Reddy Poreddy, Thunakala Balakrishna, and Priyanka Kokil. “A multi-input deep neural network framework for non-invasive detection of anemia using fingernail images.” In International Conference on Bio Signals, Images, and Instrumentation (ICBSII), 1–6. IEEE, 2024. DOI: 10.1109/ICBSII61384.2024.10564094. ◇ Ajay Kumar Reddy Poreddy, Bachu Ganesh, Thunakala Bala Krishna, and Priyanka Kokil. “Enhanced eye disease diagnosis using integrated ResNet-101 and vision transformer,” In 9th International Conference on Computer Vision & Image Processing (CVIP) (Accepted for Presentation).
REVIEWER	IEEE Transactions on Image Processing, IEEE Transactions on Instrumentation and Measurements, IEEE Transactions on Multimedia, IEEE Sensors Letters, Computers and Electrical Engineering, Circuits Systems and Signal Processing, International Conference on Pattern Recognition (ICPR).
COURSES	Image Processing, Introduction to Statistical learning, Deep learning
COMPUTER SKILLS	Algorithm development environments: MATLAB, Basic Python

Operating Systems: Windows and Linux

- AWARDS AND RECOGNITION
- ◇ Fellowship award from Ministry of Human Resource Development (MHRD) India from August 2020-2024.
 - ◇ Fellowship award from Andhra Pradesh state government for pursuing M. Tech from August 2018-2020.
 - ◇ Awarded as the Academic Topper in M.Tech for the academic year 2018-2019.
 - ◇ Received Dean Merits scholarship (top 4 % category) in B.Tech for the academic year 2017-2018.
- ACTIVITIES
- ◇ Delivered a research talk titled “No-Reference Virtual Reality Image Quality Assessment using Natural Scene Statistics” at the Karyashala Workshop on “Multimedia Processing and Analysis: Theory to Practice,” held at the Indian Institute of Technology Indore.
 - ◇ Delivered a research talk titled “Deep Learning Toolbox for Medical Image Analysis in MATLAB” at the IEEE SPS Seasonal School on “Deep Learning and Its Applications to Biomedical Signal and Image Processing,” held at the IIITDM, Kancheepuram.
 - ◇ Organizing Committee Member: High-end one week workshop (Karyashala) on “Creative methods and tools for effective research dissemination” at IIITDM, Kancheepuram.
 - ◇ Organizing Committee Member: IEEE SPS Seasonal School on “Deep Learning and Its Applications to Biomedical Signal and Image Processing” at IIITDM, Kancheepuram.