



Publications by faculty

- Pratikhya Raut., Panda, D.K. & Rashed, A.N.Z. Analysis of Dual Material Gate InSb/Si Heterojunction Silicon on Insulator Tunnel Field Effect Transistor (DMG-HJ-SOI-TFET) Biosensor for CREB-2 Protein Detection. *Sens Imaging* 26, 25 (2025). <https://doi.org/10.1007/s11220-025-00558-w>
- G. L. Madhumati, Chaitanya Jannu, Manaswini Burra, Sunny Dayal Vanambathina, Veeraswamy Parisae, Chinta Venkata Murali Krishna, "Single Channel Speech Enhancement using a Complex Dual-Path Multi Axial Transformer with Frequency Prompt", *Circuits, Systems, and Signal Processing* (2025), <https://doi.org/10.1007/s00034-025-03010-2>

Publications with students

- Pratikhya Raut, P. Yamini, K. J. Chowdary and K. N. S. Kumar, "Performance Analysis of FFT (Fast Fourier Transform) with Respect to Different Multipliers," 2024 4th International Conference on Artificial Intelligence and Signal Processing (AISP), VIJAYAWADA, India, 2024, pp. 1-5, doi: 10.1109/AISP61711.2024.10870817.
- Pratikhya Raut, K. Anitha, S. Sowmya and K. Vinnu, "Speech Mastery Detection Using Advanced Natural Language Processing (NLP) and Automatic Speech Recognition (ASR) Techniques," 2024 4th International Conference on Artificial Intelligence and Signal Processing (AISP), VIJAYAWADA, India, 2024, pp. 1-5, doi: 10.1109/AISP61711.2024.10870738.

Patents filed/awarded

- Venkata Sainath Gupta T., Ishan S., Suryanarayana G., Shri Ramtej K., Expiry Indication Symbol for Medicine Blister Packaging. Indian Design Patent - Application number: 438765-001, Filed on 28/11/2024; FER: 18/02/2025.

Projects

- Project titled "Development of Compressive Sensing Techniques for SAR Image Reconstruction" was sanctioned by ISRO, DoS, India, for a tenure of 2 Years.
PI: Dr Venkata Sainath Gupta T, Asst. Professor, ECE
Co-PIs: Dr Suryanarayana G, Assoc. Professor, ECE
Dr Shri Ramtej K., Asst. Professor, ECE
Dr Vasavi M, Professor, CSE (AI&DS)
Budget: 18.17 Lakhs

Students Achievement

J. Priya Vyshnavi, 3rd year from the ECE department, secured 4th place in the Business Idea Contest organized by Bharatiya Yuva Shakti Trust (BYST) and won a cash prize of ₹10,000 for her innovative project on recycling used coconut shells into smart flowerpots. These eco-friendly flowerpots are equipped with sensors to monitor plant health and provide real-time care notifications through a mobile app, promoting sustainable and technology-driven gardening solutions.



NSS Activities

On behalf of ECE-NSS Unit, an awareness program on "Safe Usage of Social Media" was organised at MPUP School Pedapulipaka on 19th Feb 2025. The team engaged with the students, educated Online safety and etiquette, Cyberbullying prevention, Digital citizenship, Responsible social media usage.



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