

Total Experience 7.5 years

Qualifications: Pursuing Ph.D., M.Tech(EXTC), BE(EXTC)

Area of Interest: Biomedical Signal Processing, Neuroscience, Artificial Intelligence.

Subjects Taught: Data structures and algorithms, Artificial neural network and fuzzy logic, Discrete Time Signal Processing, Image Processing and Machine Vision. Computer Networks, Multimedia and Virtual reality, Python, Principles of digital techniques, Basic Electronics, Electronic instruments and measurements, Analog communication, Digital Communication, Mobile communication, Computer fundamentals, Maintenance of Electrical Equipment, Professional practice, Project guide for final year projects.

Papers Published:

- Rambhia J, Sutar R. Verification of Source Activations in a 3D Brain Model Using ‘CLEVER’ Algorithm for Mental Arithmetic Conditions. *Annals of Neurosciences*. 2024;0(0). doi:10.1177/09727531241234727 (**Scopus**).
- J. Rambhia and R. Sutar, "Classification of Mental Arithmetic States Using Single Electrode," *2023 International Conference on Next Generation Electronics (NEleX)*, Vellore, India, 2023, pp. 1-4, doi: 10.1109/NEleX59773.2023.10421525.
- J. Rambhia and A. Naik, "Analysis of Different Heart Rate Monitoring and Pre-Processing Techniques for ECG," *2019 International Conference on Nascent Technologies in Engineering (ICNTE)*, Navi Mumbai, India, 2019, pp. 1-5, doi: 10.1109/ICNTE44896.2019.8946042.
- Rambhia, Jeenal, Ameya Naik, and Nitin Nagori. "Arrhythmia Detection and Classification by Neural Network Using ECG Features." In the *2nd International Conference on Advances in Science & Technology (ICAST)*. 2019.
- Presented Poster at **Research Colloquium** “Decoding Hand Gestures” organized by Sardar Patel Institute of Technology.

Certifications:

- Digital Image Processing (NPTEL) – **Silver ELITE - 76%**.
- Deep Learning (NPTEL)– **ELITE - 70%**.
- Fuzzy logic and Neural network (NPTEL)-**Silver ELITE-80%**.
- Introductory neuroscience and neuro instrumentation (NPTEL) - **Silver ELITE - 76%**.
- Good Clinical Practices international certificate by National Institute on Drug Abuse (USA) valid till September 2026.

Seminars and Training:

- Attended FDP on Generative AI and Auto encoders organised by Thadomal Shahani Engineering College.
- Attended FDP on First hand experience on SPSS-Introductory Module by Research Foundation of India. & RFI CARE. Attended a one week FDP on “Applications of AI & ML in signal processing and Communications” by NIT Warangal.
- Attended a one week FDP on “Recent Advancement in Biomedical Signal & Image Processing” at VJTI.
- Attended a one week training program on “Practical approaches in wireless communications” at K.J Somaiya College of Engg.
- Attended a one week training program on “Outcome-based Education-innovative teaching, learning process, assessment and evaluation” at VESP polytechnic.
- Attended one week training program on “Mobile Computing” at Thakur polytechnic.
- Attended a one week training program at Father Agnel polytechnic for “Renewable energy sources”.
- Attended a one week training program at Crompton greaves organized by MSBTE.