



COLLEGE OF ENGINEERING  
(AUTONOMOUS)

अनुसंधान नेशनल रिसर्च फाउंडेशन  
Anusandhan National Research Foundation



**Distinguished Series**  
**Fourth Five Day National Workshop on**  
**Medical Image Analysis using Artificial Intelligence (MIAAI-2025)**  
**(Funded by ANRF F.NO: SSY/2025/000617)**

**21<sup>st</sup> to 25<sup>th</sup> July 2025**

**Jointly organized by**

**CENTRE FOR MEDICAL IMAGING STUDIES(CMIS),  
DEPARTMENT OF ECE, GAYATRI VIDYA PARISHAD  
COLLEGE OF ENGINEERING (A)  
VISAKHAPATNAM, ANDHRA PRADESH**

**SIMADRI SURYA EYE HOSPITAL  
SUSHEELA PUBLIC CHARITABLE TRUST  
NABARANGAPUR, ODISHA**



**Registration link:** <https://forms.gle/DHbiQAoq4MYwKhbh8>

**LAST DATE FOR REGISTRATION : 16<sup>th</sup> JULY 2025**

**GAYATRI VIDYA PARISHAD COLLEGE OF ENGINEERING(A):-**

Gayatri Vidya Parishad (GVP) has been established in the year 1988 as an educational trust by a group of eminent educationists, academicians & industrialists to empower the young generation through high quality technical education. The Engineering education by GVP society was first originated by establishing Gayatri Vidya Parishad College of Engineering (GVPCE) in the year 1996 with the divine blessings of Sadguru Sri. K. Sivananda Murthy Garu. The institute has flourished in various facets of Academics and Research by achieving the pinnacle of success. This institute is offering 10 B.Tech., 5 M.Tech., and one MCA programme under the affiliating university JNTUK, Kakinada. The college has brought in many initiatives for the benefit of students with autonomous status granted by UGC in 2009. The status of autonomy is further extended by UGC up to 2025. The institute has been reaccredited second time by NAAC with A++ grade with CGPA of 3.52/4.0. Seven B.Tech. programs are accredited by NBA at least twice. The institute received funds to the tune of Rs.5 Crores under Technical Education Quality Improvement Program (TEQIP), S.C-1.2. The college received Rs. 12 Crores from funding organizations AICTE / DST / NBHM / ARB etc. towards 45 R&D projects. The institute encourages collaborative learning between industry and academia as a means of reinforcing its curriculum with practical and real world experiences.



## **SIMADRI SURYA EYE HOSPITAL, NABARANGAPUR, ODISHA:-**

Simadri Surya Eye Hospital (SSEH) is operated & managed by Susheela Public Charitable Trust located at Nabarangpur town and a municipality in Nabarangapur district in the Indian state of Odisha. SSEH received NABH accreditation within Six months of time. The core value of the eye hospital is to provide “service to the poor, marginalized, helpless & downtrodden people suffering with the eye-related disorder” which is the real service to God and the highest form of practical holiness”. Simadri Surya Eye Hospital is committed to providing exceptional services with innovative technology and safety measures by adhering to the stringent guidelines of the healthcare body. It is well furnished with advanced operation theatres equipped with modern equipment to provide immediate treatment to the tribal people of neighbouring Odisha and Chhattisgarh state. The hospital primarily focuses on providing its enduring effort to the 13 primitive tribal communities and individuals living in the Below Poverty Line (BPL) category people in and around the areas of Nabarangpur, Koraput, Bhawanipatna, Jagdalpur, and other adjacent 11 districts of Odisha & Chhattisgarh state. The hospital is managed by qualified ophthalmologists having diverse specializations to tackle multiple disorders associated with eye. With a strong commitment to serve, the hospital ensures 80% of its treatments are free for the poor, while others receive care at subsidized rates. This initiative not only brings specialized care closer to home but also raises awareness and accessibility, lighting the path to a brighter future for many.

### **ORGANIZING COMMITTEE**

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**DR. VIRENDER SACHDEVA, SENIOR OPHTHALMOLOGIST, LVPEI**

**DR. A. NARASIMHA RAO, ASSISTANT PROFESSOR, GVPIHCMT**

## **ABOUT WORKSHOP:-**

The Distinguished Series Forth Five-Day National Workshop on Medical Image Analysis Using Artificial Intelligence is designed to equip researchers, students, and professionals with the skills and techniques necessary to harness AI for medical image processing. This workshop, conducted over five intensive days, will explore the principles of AI, machine learning, deep learning, and their specific applications in analyzing medical images such as X-rays, CT scans, MRIs, and histopathological slides. Medical images contain crucial diagnostic information that, when analyzed accurately, can significantly enhance the quality and efficiency of clinical decision-making. This five-day national workshop aims to provide a comprehensive platform for students, researchers, healthcare professionals, and AI enthusiasts to explore the applications of AI and deep learning in medical image processing. Medical image interpretation by human experts is often limited by factors such as subjectivity, image complexity, and variations in interpretation. AI, especially deep learning techniques, has emerged as a powerful solution to these limitations. AI models can analyze massive datasets, detect subtle disease characteristics that may be missed by human observation, and improve diagnostic accuracy.

The workshop aims to review AI's history in medical imaging research, its current applications, and the challenges that need to be addressed before widespread adoption in clinical practice. Special focus will be given to supervised machine learning approaches, particularly deep neural networks, which mimic the human brain's approximation mechanisms and offer advanced diagnostic capabilities. This workshop aims to establish itself as one of the premier events in the field of AI-driven medical imaging for the year 2025. By fostering collaboration between medical professionals, researchers, and AI experts, it seeks to drive innovation, research, and adoption of AI technologies in healthcare. Through this initiative, the organizers—GVPCE (A) and SSEH—aim to create a community of professionals and researchers dedicated to advancing medical image analysis and improving patient outcomes through AI.

Participants will engage in both theoretical sessions and hands-on practical exercises using Python, one of the most widely used programming languages in AI and data science. The workshop will be led by distinguished speakers, including renowned AI researchers, medical imaging experts, and professionals with extensive experience in AI applications in healthcare.

## **SESSION OBJECTIVES**

- Introduce the fundamentals of medical image analysis and its importance in modern healthcare.
- Provide a comprehensive understanding of AI, machine learning, and deep learning techniques relevant to medical imaging.
- Equip participants with practical skills in image processing using Python and popular deep learning frameworks such as TensorFlow, Keras, and PyTorch.
- Demonstrate the implementation of AI algorithms for tasks such as image classification, segmentation, object detection, and anomaly detection in medical images.
- Highlight real-world applications, challenges, and ethical considerations related to AI-based medical imaging.

## **LEARNINGS BY THE PARTICIPANTS AT THE END OF THE WORKSHOP:**

- Understand the key concepts and techniques in AI-driven medical image analysis.
- Implement basic to advanced image processing techniques using Python and AI frameworks.
- Develop deep learning models to analyze medical images for classification, segmentation, and anomaly detection.
- Recognize the ethical and regulatory challenges in AI applications for healthcare.
- Apply the acquired skills in academic research, clinical applications, or further professional development in AI and medical imaging.

## **WHO CAN ATTEND :**

- Students, Research Scholars, Teaching Faculty, Industry experts

## **PLATFORM: THE PROGRAM WILL BE CONDUCTED IN HYBRID MODE**

**OFFLINE VENUE:** Gayatri Vidya Parishad College of Engineering (A), Visakhapatnam,

**ONLINE PLATFORM:** Google meet

**The certificates** will be jointly issued by both Gayatri Vidya Parishad College of Engineering, Visakhapatnam, Andhra Pradesh and Simadri Surya Eye Hospital, Nabarangapur, Odisha. The certificates will be sent to the registered mail ids to the delegates after successful participation in the workshop.

## **REGISTRATION FEE:**

- Faculty/Industry Professionals: Rs.1500/-
- Research Scholars : Rs.800/-
- Students: Rs. 500/-

## **AGENDA**

### **DAY-1 MONDAY, 21 JULY 2025**

10.30 AM to 12.00 PM

1.00 PM to 2.30 PM

2.45 PM to 4.15 PM



**Dr. Tapan Kumar Gandhi**

Professor, IIT Delhi

Topic: Imaging Brain: Inferences  
for Health and Engineering



**Dr. Pradyut Biswal,**  
Professor, IIIT Bhubhaneswar  
Topic: Analysis of EEG signals using  
AI systems



**Dr. Subrahmanyam Gorthi**  
Associate Professor, IIT Tirupathi  
Topic: AI in Medical Imaging: Success  
Stories, Pitfalls, and Future Directions

### **DAY-2 TUESDAY, 22 JULY 2025**

10.00 AM to 11.30 AM

11.45 AM to 1.15 PM

2.00 PM to 3.30 PM



**Dr. MS Manikandan,**  
Professor, IIT Palakkad

Topic: Deep Learning Networks Based  
Cardiac Arrhythmias and Sleep Apnea  
Recognition: Methods,  
Key Challenges and Future Directions



**Dr. Prabira Kumar Sethy,**  
Assistant Professor, Sambalpur University  
Topic: Deep learning based Medical  
Image Analysis for Cancer Diagnosis



**Ms. Geetha Pavani, Ph.D. IIT Delhi(Cont.)**  
Senior Research Associate, SSEH  
Topic: Hands-on Session on  
Medical image Processing using  
Artificial intelligence in python platform

## DAY-3 WEDNESDAY, 23 JULY 2025

10.00 AM to 11.30 AM



Dr. Birendra Biswal,  
Professor, GVPCE

Topic: Analysis of spatial Information  
in improving the efficiency of AI model

11.45 AM to 1.15 PM



Dr. Anup Singh,  
Professor, IIT Delhi

Topic: Applications of Artificial Intelligence  
in Analysis of Brain MRI

2.00 PM to 3.30 PM



Mr. Sreekar Tankala  
TCS Research

Topic: Hands-on Session on  
Medical image Processing using  
Artificial intelligence in python platform

## DAY-4 THURSDAY, 24 JULY 2025

10.00 AM to 11.30 AM



Dr. Deepak Ranjan Nayak

Assistant Professor, MNIT Jaipur

Topic: Computer Aided Diagnosis in Medical Imaging: A Deep Learning Perspective

11.45 AM to 1.15 PM



Dr. Surya Prakash

Professor, IIT Indore

Topic: Multi-Attention stacked Ensemble for Lung Cancer Detection using CT Scans

2.00 PM to 3.30 PM



Dr. Amit Mahendrappa,

Associate Professor, IIT Delhi

Topic: Artificial Intelligence in Quantitative Cancer Imaging for Response Assessment

## DAY-5 FRIDAY, 25 JULY 2025

10.00 AM to 11.30 AM



Dr. Vivek Kanhagad  
Professor, IIT Indore

Topic: Biological Cell Counting Using Deep Learning

11.45 AM to 1.15 PM



Dr. Siba K. Udgata

Professor, University of Hyderabad

Topic: Harnessing AI to Combat Glaucoma Blindness

## COORDINATORS:

### 1. Dr. R. Surya Prakasa Rao

Assistant professor,  
Department of ECE, GVPCE

### 2. Ms. Geetha Pavani. P

Senior Research Associate, SSEH

### 3. Mrs. K. Gayatri

Assistant professor  
Department of ECE, GVPCE

### 4. Ms. Aswitha. R

Junior Research Fellow, GVPCE

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