



# Electronics & ICT Academy IIT Roorkee



An Initiative of  
**Ministry of Electronics  
& Information  
Technology (MeitY)**  
Government of India

## A Joint Faculty Development Programme on

## Artificial Intelligence for Computer Vision and Medical Image Processing

In association with



**June 16 – June 23, 2025**

**Register Before: June 14, 2025**

**Mode of Delivery is Online**

### Course Outcomes

- Gain foundational knowledge in AI and computer vision.
- Apply deep learning models to medical image tasks.
- Understand and process medical imaging formats and datasets.
- Design and evaluate AI models for diagnostics.
- Address ethical and technical challenges in medical AI.
- Use open-source tools for implementing vision applications.
- Guide students in AI-driven healthcare projects and research.



### About E&ICT Academy

Electronics and ICT Academy is an initiative of Ministry of Electronics & Information Technology (MeitY), Govt. of India for conducting various Faculty/Research Scholar Development Programme. Academy has planned short-term training programs on fundamental and advanced topics in IT, Electronics & Communication, Product Design, and Manufacturing with hands-on training and project work using the latest software tools and systems. In addition, the Academy will conduct specialized/customized training programs and research promotion workshops for corporate sector & educational institutions.

### Prerequisites

Basic knowledge of semiconductor physics, electronic circuits, and familiarity with simulation or programming tools.

### Experts from Academia/Industry

### Who Should Register?

Any Interested Faculty/PhD-Scholars  
UG/PG/ & Industry Persons can register

### Registration Fee

Fees: ₹ 500/- Faculty/Research Scholar/ Students  
₹ 1000/- Industry/Others  
Note: Refund will be done in case of course cancellation only, within 20 working days

### How to make Payment

Please make the payment first using the below link  
upload the payment receipt when filling out the  
Google registration form.

<https://eict.iitr.ac.in/instruction-for-payment/>

**Conference Code: EICTIITR-JFDP-NKN-08**

### Registration Link

<https://forms.gle/mZNMXosdCvPNFgQAA>



Scan QR for  
registration

**Register before:**  
June 14, 2025

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### Objectives of the course

- To introduce AI concepts relevant to computer vision and medical image analysis
- To provide knowledge of deep learning algorithms for image processing tasks
- To explore image classification, detection, segmentation, and enhancement techniques
- To develop understanding of medical image datasets and preprocessing methods
- To demonstrate AI model deployment for clinical decision-making
- To enhance participants' research and teaching in AI-based imaging solutions
- To promote interdisciplinary collaboration between AI, healthcare, and biomedical engineering.

### Focus Areas

- Fundamentals of computer vision and image processing.
- Deep learning models: CNNs, U-Net, ResNet for imaging.
- Medical image datasets (DICOM, NIfTI) and preprocessing.
- Image segmentation, detection, and disease classification.
- AI tools and platforms: Python, OpenCV, TensorFlow, MONAI.
- Challenges: interpretability, data bias, privacy in medical AI.
- Case studies and real-world clinical applications.

### Course Features

- 40 Hours of Lectures, Hands-on, and Pedagogy/Industry sessions.
- Lectures from Expert Speakers, Hands-on from industry/Academia experts.
- Access to learning material and video lectures
- Certificate by E&ICT Academy IIT Roorkee

### Principal Coordinator

- **Prof T Kishorekumar, NIT Warangal**

### Joint Principal Coordinator

- **Prof. Sanjeev Manhas, IIT Roorkee**
- **Dr. Raksha Sharma, IIT Roorkee**
- **Dr. Deepak R. Nayak, MNIT Jaipur**
- **Dr. J P Singh & Prof. M P Singh, NIT Patna**

### Reach Us:

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