

Electronics & ICT Academy IIT Roorkee



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

A Joint Faculty Developmet Programme

on

Artificial Intelligence for Computer Vision and Medical Image Processing

In association with



July 14 – July 24, 2025 Register Before: July 11, 2025

Timings:- 10:00 AM - 12:00 PM & 02:00 -04:00



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/ Development Programme. Research Scholar 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.

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.

PM (Every day)

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.



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, with in 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



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Scan QR for registration Register before: July 11, 2025

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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
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