

FDP on "AI-Driven Image Intelligence: Advances in Processing and Learning Technique"

Day 1: Fundamentals of Image Intelligence and AI Techniques

Date	Time	Topic	Mode	Expert
08/09/2025	10:00 – 10:30	Inaugural Session & Program Overview	Welcome	E&ICT Academy IIT Guwahati
	10:30 – 11:30	Introduction to the Course, Applications	Lecture	Prof. Gaurav Trivedi, Professor, Dept. of EEE, IIT Guwahati
	11:30 – 01:00	Fundamentals of Image Processing	Lecture	Dr. Anirban Dasgupta, Assistant Professor, Dept of EEE, IIT Guwahati
	01:00 – 02:00	Lunch Break		
	02:00 – 03:30	Hands-on: Image Processing using OpenCV	Hands-on session	Pankaj Choudhury, Senior Research Scholar, Dept of CLST, IIT Guwahati
	03:30 – 05:00			

Day 2: Deep Learning for Image Representation & Analysis

Date	Time	Topic	Mode	Expert
09/09/2025	10:00 – 11:00	Artificial Neural Networks and its Applications in Image Analysis	Lecture	Dr. Suresh Sundaram, Associate Professor, Dept of EEE, IIT Guwahati
	11:00 – 01:00			
	01:00 – 02:00	Lunch Break		
	02:00 – 03:00	PyTorch + HandsOn-MLP	Hands-on session	Pankaj Choudhury, Senior Research Scholar, Dept of CLST, IIT Guwahati
	03:00 – 04:00			
	04:00 – 05:00			

Day 3: Intelligent Image Segmentation, Detection & Understanding				
Date	Time	Topic	Mode	Expert
10/09/2025	10:00 – 11:00	Image Captioning	Lecture	Pankaj Choudhury, Senior Research Scholar, Dept of CLST, IIT Guwahati
	11:00 – 01:00			
	01:00 – 02:00	Lunch Break		
	02:00 – 4::00	Image Captioning	Practical	Pankaj Choudhury, Senior Research Scholar, Dept of CLST, IIT Guwahati
	04:00 – 05:00	Application of Image Processing and AI/ML methods for precipitation forecasting	Application Talk	Dr. Nataraj Vijapur, Associate Professor, ECE Departmet, RV Institute of Technology and Management,Bangalore

Day 4: Advanced Learning Techniques for Image Intelligence				
Date	Time	Topic	Mode	Expert
11/09/2025	10:00 – 11:00	Object Detection (VQA)	Lecture	Dr. Badri Subudhi, Associate Professor, Dept of EE, IIT Jammu
	11:00 – 12:00			
	12:00-01:00	Assessment	MCQ 15 marks	
	01:00 – 02:00	Lunch Break		
	02:00 – 3:30	Object detection Hands ON	Practical	Pankaj Choudhury, Senior Research Scholar, Dept of CLST, IIT Guwahati
	03:30 – 04:30			
	04:30 – 05:00			

Day 5: Project-Based Learning & Future Research Trends				
Date	Time	Topic	Mode	Expert
	10:00 – 11:00	Convolution Neural Network (CNN) for Image Analysis	Lecture	Prof. M K Bhuyan, Professor, Dept of EEE, IIT Guwahati
	11:00 – 01:00			
	01:00 – 02:00	Lunch Break		

12/09/2025	02:00 – 03:00	Object Detection (VQA)	Lecturer	Dr. Badri Subudhi, Associate Professor, Dept of EE, IIT Jammu
	03:00-04:00	Assessment	MCQ 15 marks	
	04:00 – 05:00	Valedictory Session, Certificate Distribution & Feedback Collection	Closing	E&ICT Academy

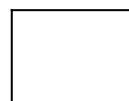
Pre-requisites	Linear Algebra, Multivariate Calculus, Statistics, Probability Theory, Optimization, Estimation Theory	Python Programming, NumPy, Matplotlib
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1. The first part of the document is a list of the names of the people who were present at the meeting.

2. The second part of the document is a list of the names of the people who were not present at the meeting.

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