FORGE
Alumnus Services Pvt. Ltd.
Unlock Urself...

Level 11, Prestige Trade Towers, 46
Palace Road,
Bangalore-560001

Workshop Document: Image Processing with Computer Vision using Python – Day 2

Event Context – Image Processing with Computer Vision using Python

- **Date:** 28th March 2026
- **Venue:** IIT Hyderabad

Event Detail:

Time Slot	Session Title	Topics to Cover
02:00 AM – 02:20 AM	**Introduction to Image Processing & Computer Vision**	• Welcome and session overview* Basics of Image Processing • Introduction to Computer Vision • Real-world applications (face recognition) • Difference between Image Processing and Computer Vision • Overview of Python libraries used for CV
02:20 AM – 02:35 AM	**Tools Setup and Installation**	• Required tools and software: Python, Anaconda or Python environment • Installation of libraries (OpenCV, NumPy, Matplotlib) • Installing required packages using pip • Introduction to Jupyter Notebook/VS Code • Verifying installation with a simple OpenCV program
02:35 AM – 03:35 PM	**Face Recognition & Image Processing using Python**	• Basics of Image representation (pixels, RGB, grayscale) • Reading and displaying images using OpenCV • Image preprocessing (resize, grayscale conversion, blurring)* Face detection using Haar Cascade Classifier • Capturing images from webcam • Implementing basic face recognition workflow • Displaying results with bounding boxes

Level 11, Prestige Trade Towers, 46
Palace Road,
Bangalore-560001

03:35 PM – 04:35 PM	**Object Detection using Python**	• * Introduction to Object detection* Difference between Image classification and Object detection* Overview of models (YOLO / SSD concept)* Installing required libraries* Detecting objects in images using pre-trained models* Real-time object detection using webcam* Drawing bounding boxes and labels on detected objects
04:35 PM – 5:00 PM	**Practical Demo, Q&A and Wrap-up**	• * Live demonstration combining face recognition and object detection* Debugging common errors* Student hands-on activity* Discussion of real-world project ideas* Summary of key concepts* Q&A session