# LET'S

**EXPLORE CV** 

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### **TARGET PARTICIPANTS:**

Students from any Discipline Research Scholars / Faculty

#### DATE / TIME:

1st, March 2025 - (Saturday) 9.30 am to 5.30 pm



#### Organized by:

TIFAC- CORE in AUTOMOTIVE INFOTRONICS
(Sponsored by Department of Science and Technology, Govt. of India)

#### Convenor:

Dr. Elangovan.D, Deputy Director,TIFAC

#### Co - ordinators :

Ms. H N Gayathri, Technician, TIFAC Mr.Silambarasan R, Development Engineer, TIFAC

#### TIFAC CORE - VIT Vellore

- 0416-220-2381/83
- tifaccorevit@vit.ac.in
- No:701, Technology Tower, 7th floor, VIT Vellore.

### Registration details:

- Students and Research Scholars- Rs.150/-(excluding GST)
- Faculty- Rs.500/- (excluding GST)
- Certificate will be issued.

### For registration click below:



https://events.vit.ac.in/

### **VENUE:**

Room No.: 703, Technology Tower, 7th Floor, TIFAC Lab, VIT Vellore.



## **OUTCOMES:**

By the end of the 8-hour course, you will:

- 1. Understanding the basic Computer Vision concepts.
- 2. Performing common image and video processing tasks using OpenCV.
- 3.Implementing simple object and face detection models.
- 4. Gaining hands-on coding experience in PyCharm or Jupyter Notebook.

## **NEEDS:**

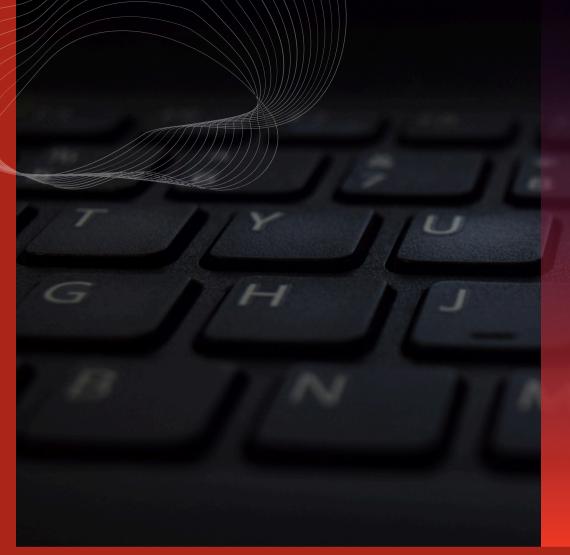
#### Tools and resources used:

- Software: PyCharm (or Jupyter Notebook).
- Dependencies: OpenCV, NumPy.
- Dataset: Sample images.
- Hardware: A computer with a webcam (optional for video modules).

#### Pre-install/download if required:

- Laptop
- Web Camera
- Pycharm installation
- Some sample videos & pictures
- YOLO (You Look Only Once) related files like YOLO weights: YOLOv3 weights, YOLO configuration: YOLOv3 config, COCO names (class labels): coco.names

Note: These requirements are optional to keeping it ready though you will be taught how to do install & setup from the basics (for beginners)



## **MODULES COVERED:**

- 1. Introduction to Computer Vision and Setup
- 2. Image Basics and Transformations
- 3. Drawing and Image Processing
- 4. Working with Videos
- 5. Face Detection with Haar Cascades
- 6. Real-Time Object Detection (BONUS)

## WHY US?

#### **TIFAC CORE Focuses On**

- Sustainable Mobility
- Renewable powered EV charging infrastructure.

The eye sees the world, but vision

teaches the machine to

understand it.

- Advanced Driver Assistance System.
- Al based Driverless Cars for Indian Roads.
- Sub-system development related to Electric Mobility.



Discussion session



**Hands-on Exposure to Projects** 



**Internship Opportunities** 



**Project Guidance**