SIMATS ENGINEERING

Saveetha Institute of Medical and Technical Sciences
Chennai- 602105

Student Name: CH. Likhitha **Regno: 192424239**
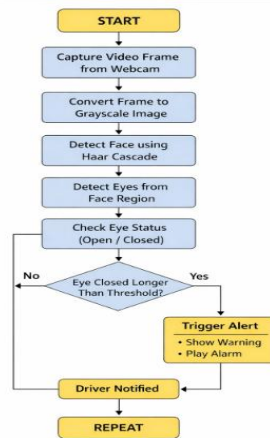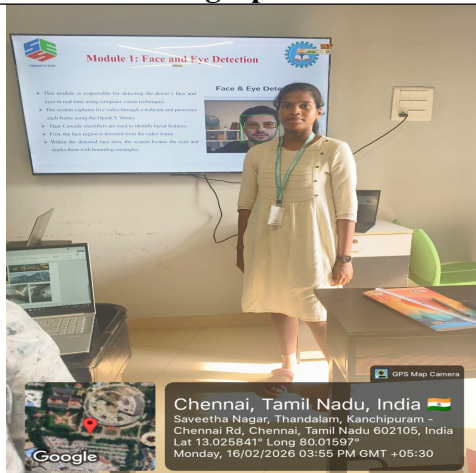
Course Code: DSA0216 **Slot:** SLOT B

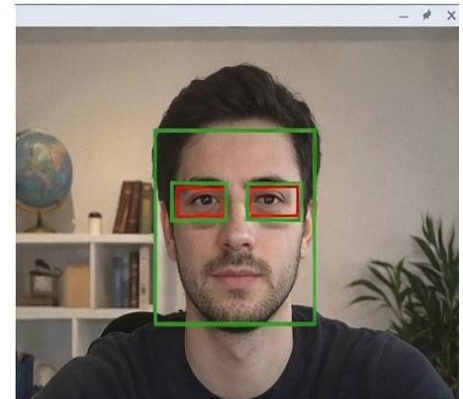**Course Name**: **Computer Vision with Open CV for Modern AI**

Course Faculty: Dr. SENTHILVADIVU.S and Dr. KUMARAGURUBARAN.T

Project Title: Vision-Based Driver Drowsiness Monitoring System using OpenCV	
Module Photographs:	

Project Description:

Module 1 - Face and Eye Detection is responsible for capturing the driver's facial features from a live webcam feed and identifying the eye regions in real time. The video frames are first converted into grayscale to improve processing speed and detection accuracy. Using OpenCV Haar Cascade classifiers, the system detects the face region and then locates the eyes within the detected face area. Once identified, bounding boxes are drawn around the face and eyes to track their position continuously. This module provides the essential visual input required for analyzing eye closure patterns in the next stage. The detected face and eyes are continuously tracked and highlighted with bounding boxes on the screen, allowing stable monitoring even with small head movements.

Student Signature **Guide Signature**