

Subject Code	Subject Name	Credits
26CS651	COMPUTER VISION LAB	2

**Objective:**

To familiarize students with advanced vision tasks like image captioning, emotion recognition, and scene text detection. To provide hands-on experience in implementing computer vision algorithms for image analysis, object detection, and motion tracking.

1. Basic Image Handling and Processing video using OpenCV.
2. Creating a 3D Model From 2D Images.
3. Basic motion detection and tracking
4. Image captioning
5. Build your own Vehicle Detection Model.
6. Contour based Segmentation
7. Region based Segmentation
8. Developing Social Distancing application
9. Implementation of Shape Detection using Hough Transform
10. Scene Text Detection
11. Road Lane Detection in Autonomous Vehicles
12. Emotion Recognition through Facial Expressions
13. Build a People Counting Solution
14. Count Vehicles in Images and Video
15. Build a QR Code Scanner

*Students are required to perform and record at least eight experiments in the laboratory manual as part of the course requirements.*

