

## ABSTRACT

License Plate Detection Method is used to detect the number plate of the moving vehicle using the OpenCV (Computer Vision). License plate detection is a challenging task in many real-world applications such as intelligent transportation systems, parking management, and law enforcement. LPD system capture the image of number plate and process it with the help of OpenCV which is a popular computer vision library that provides various image processing and computer vision functions. The most significant phase is OCR where letterings on the image of number plate is converted into text which can decoded later. License plate detection consists of several stages, including image pre-processing, license plate localization, and character recognition. On roads, our model is used to identify the cars that are breaking the traffic rules. In security, it is used to capture the license plates of the vehicles getting into and out of certain premises. In this project we utilizes the module concept of the problem solving and python programming with the OpenCV module. OpenCV is a wide range of image and video processing functions. The process typically involves several steps, including image preprocessing, license plate region detection, character extraction, and character recognition. OpenCV provides tools for each of these steps, allowing developers to build accurate and reliable license plate detection systems. The accuracy of the license plate detection system depends on the performance of each of these steps, and OpenCV provides many tools and functions to perform each step effectively.