Amrita School of Computing, Chennai

Department of Computer Science and Engineering (Artificial Intelligence)

21AIE205 – Python for Machine Learning

Capstone Project Title: License Number plate detection for a moving vehicle

Abstract

In general, video surveillance systems are utilized for monitoring and security purposes. However, one difficult aspect of video surveillance is the detection of moving objects. But one difficult aspect of video monitoring is the detection of moving objects. Due to the decreasing costs of high-quality video surveillance systems nowadays, human activity detection and monitoring has become more and more impractical. As a result, automatic structures were created for a variety of detection jobs, but the work of finding vehicles that were parked illegally has been mostly left to the human operators of surveillance structures.

Security applications for homes, the military, banking, and ATM security, traffic monitoring, etc. all use video surveillance systems. Human activity identification and monitoring have grown more feasible in recent years thanks to falling prices for high-quality video surveillance systems. As a result, automated systems have been created to perform a variety of detection duties, but the work of identifying unlawfully parked vehicles has generally been delegated to surveillance system operators. It has been noted that number plates for automobiles vary in size, form, and color throughout different nations.

The method for detecting and identifying vehicle number plates that is proposed in this project will aid in the identification of legal and unauthorized vehicle number plates. After the numbers and characters on the license plate have been segmented, a template-matching approach is utilized to identify the numbers and characters. In order to partition all the numbers and letters and identify each number separately, the focus is supplied to correctly locate the number plate region.

Keywords: Video Surveillance system, Vehicle Number plate

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STUDENT DECLARATION

I hereby declare that my Project Report titled _License Number plate detection of moving a vehicle_is a bonafide record for the course **21AIE205 – Python for Machine Learning** which I have submitted to Department of Computer Science and Engineering (AIE), Amrita School of Computing, Amrita Vishwa Vidyapeetham, Chennai in partial fulfillment of the credit requirements for the B.Tech. degree, is my authentic work done under the guidance of **Ms. Deena** and **Dr. I R Oviya**. This project report has not been copied, duplicated or plagiarised from any other paper, journal, document or book and has not been submitted to any educational institute, course, department or otherwise for the award of any credit, certificate, diploma, degree or recognition. This is an authentic piece of work and in case there is any query regarding the same, I shall be held responsible for answering any queries in this regard.

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