UNREGISTERED VEHICLE RECOGNITION BASED ON NUMBER PLATE USING RASPBERRY PI

JAYAVARSHINI V [REGISTER NO:211417104093]

JOTHIKA B [REGISTER NO:211417104101]

KUSMITHAA S R [REGISTER NO:211417104127]

Guide: Mrs...M. Sangeetha

ABSTRACT

The automated object detection algorithm is really important component in the smart cities application to process the digitized images searching vehicle license plate. An USB camera is attached with raspberry pi as a processing unit to detect the number plates in traffic signals and image processing technology to search for a number plate in a given image frame. Extracted vehicle numbers are compared with existing database, if the number of vehicles is not in registered list it sends the number and image of vehicle to the control station through mail.

The automated object detection algorithm is really important component in the smart cities' application. In urban surveillance application the image sensor / camera plays an important role in digitizing the scene or environment. To process the digitized images searching for a particular object, smart vehicle license plate is a huge task as it will need a high CPU and memory power. To achieve this kind of functionality with distributing the processing is best way to solve. The Image processing technology to search for a number plate in a given image frame is an important task.

In this project we are using Raspberry pi as a processing unit to detect the number plates in traffic signals. USB camera is attached with raspberry pi, it detects number plates of every vehicle and extracts the numbers using OCR algorithm. Extracted vehicle numbers are compared with existing database, if the number of vehicles is not in registered list it sends the number and image of vehicle to the control station through mail. Using this system, we can prevent illegal activities using unregistered or fake numbered vehicles. It is a low cost and efficient surveillance system when compared to present systems are used.