

Abstract

The main idea of this project is about an intelligent robot that takes sequential pictures of a group of vehicles parked in a garage and sends these images to the computer which recognizes the parked vehicle registration plates by processing video and images taken from a high resolution smartphone camera connected to a computer in real time.

The vehicle registration plate is detected by several properties of the image like color and shape, and after the detection, the registration number of the plate for this vehicle will be extracted.

In addition, we have used this intelligent system to roam around the garage. It passes through each parking position that has a parked vehicle and takes a picture of the vehicle registration plate. It also checks whether the vehicle is violating the conditions of the parking status (specified parking time duration) or not.

Keywords: Computer Vision, Image Processing, Optical Character Recognition (OCR), License Plate Detection, English Numbers Recognition