

Automatic Number Plate Detection for Vehicle Parking Area

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Abstract: Automatic number plate recognition is a mass surveillance method that uses optical character recognition on images to read the licence plates on vehicles. There are numerous ANPR systems available today. These systems are based on different methodologies but still it is really challenging task as some of the factors like high resolution cameras, non-uniform vehicle number plate, language of vehicle number and can affect a lot in the overall recognition rate. Automatic number plate recognition (ANPR) is an image processing technology which uses number (license) plate to identify the vehicle. The objective is to design an efficient automatic authorized vehicle identification system by using the vehicle number plate. The system is implemented on the entrance for security control of a highly restricted area like military zones or area around top government offices e.g. Parliament, Supreme Court, College Parking Area, Residential Parking Area etc. The developed system first detects the vehicle and then captures the vehicle image. Vehicle number plate region is extracted using the image segmentation in an image. Optical character recognition technique is used for the character recognition. The resulting data is then used to compare with the records on a database so as to come up with the specific information like the number plate is registered or not, region etc. The system is implemented in Android. It is observed from the experiment that the developed system successfully detects and recognize the vehicle number plate on real image.

Keywords: ANPR, Segmentation, Recognition, Optical Character Recognition (OCR)

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