Vehicle Number Plate Detector

Abstract

With an increase in the number of vehicles on roads, it is getting difficult to manually enforce laws and traffic rules for smooth traffic flow. All these processes have a scope of improvement. In order to automate these processes and make them more effective, an algorithm is required to easily identify a vehicle. Therefore, we use number plate detection as vehicles in each country have a unique license number. An automated system can be achieved to detect the license plate of a vehicle and extract the characters from the license plate. The number plate can be used to retrieve more data about its owner, which can be used for further processing. Multiple methods are available to detect number plate regions and post-processing methods are applied to merge all detected regions. In addition, trackers are used to limit the search region to certain areas in an image. This project suggests a different approach of detection using binarization and elimination of unnecessary regions from an image. The main purpose of this project is to recognize a license plate from an image provided by a camera. An efficient algorithm is developed to recognize a number plate in various luminance conditions. The system is achieved and simulated in Matlab and its performance is tested on real images.
References


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Index Terms

Computer Science

Image Processing

Keywords

Automated system, luminance conditions, Binarization, Number plate detection