Abstract

Automatic Number Plate Recognition (ANPR) is the process of identifying and recognizing the vehicle registration number of a vehicle from an image frame using Image Processing and Pattern Recognition Techniques. The objective is to design an efficient automatic vehicle identification system from the vehicle number plate. 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 can be used to compare with the records on a database so as to come up with the specific information like the vehicle's owner, place of registration, address, etc. The system is implemented and simulated in Matlab, and it performance is tested on real image. It is observed from the experiment that the developed system successfully detects and recognize the vehicle number plate on real images.One of the important step is the integration between image processing and Graphical User Interface (GUI) where the results of the project will be displayed using GUI.

Keywords:Number Plate Recognition; vehicle identification; optical character recognition; Character Recognition.