

Sauvola and Niblack Techniques Analysis for Segmentation of Vehicle License Plate

Abstract

License plate recognition system is functional to identify the vehicle registration number. This system is popular in image processing field. It's played important role in transportation system, especially for security system. However, variation condition of image acquisition causes the segmentation of license plate difficult to handle. This paper proposed a methodology for segmentation of license plate number by using thresholding segmentation group. In this study, image segmentation based on threshold has been chosen due to its ability in separating the foreground and the background. Hence, this technique is very useful for segmenting the characters which have tons of noise. Several threshold methods from the most commonly used techniques had been chosen to be compared and analyze the results for license plate detection and recognition. In this research, threshold techniques such as Savoula and Niblack have been select to compare. A total of 100 images captured by using a digital camera has been used the experimental analysis. After segmentation process, unwanted pixel has been removed with fixed value for each technique. Template matching has been used for classification of character recognition. The final result shows that Savoula conquers highest placed with great value in accuracy percentage of license plate recognition.