

Abstract

License plate is part of vehicle's identity. In modern country, license plate recognition has been developed to collect traffic activity information. Performance of license plate recognition system will drop when the input picture contains a noise like illumination, mud, and scratch which cover a character in license plate. This case is more complicated when the input is Indonesia's license plate. Some of Indonesia's license plate have many noise like mica plastic cover and scratch stroke. In this study, Indonesia's license plate recognition is formed using a convolutional neural network (CNN). CNN is known to have good performance in recognizing objects. Sliding window is used in this study for replace character segmentation. Every area of window will predicted by CNN. Highest performance resulted from CNN in classifying the character is 95,47%. While the highest performance for the whole system to the normal test data is 87,36% and noise test data is 44,93%.

Keywords: Indonesia's license plate, CNN, noise, sliding window