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Abstract

This research work purposes an automated system for recognizing license plate technique using Convolutional Neural Network. On Indian roads there are variety of number plate format and variety of fonts are used in vehicles and the most common vehicle number plate used yellow or white as background and black used as foreground color. The proposed model can be partitioned into four parts-1) Digitization of image 2) character segmentation 3) Padding and Resize 4) Character Recognition. Here, Character Segmentation is done using connected component analysis. After that convolutional neural Network is used for recognition of characters. In the proposed system, Character segmentation and resize and padding of the image is done using MATLAB and Character Recognition part is done using PYTHON. The performance of the proposed algorithm has been tested on real car images. The proposed system is mainly applicable to West Bengal cars' license plates. Experimental verification is done using a dataset of 45 images in different environmental conditions.

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Index Terms

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Keywords

Number Plate recognition, character segmentation, convolutional neural network, character

recognition.