

Abstract

Parking in a large parking lot is very difficult. That is, the driver must roam the parking area to find an empty parking space. In addition, extra energy is needed to find an empty parking space, the conventional parking system currently focuses on the driver to find his own parking space that can increase the disposal of gas emissions and time, therefore we need a system to search for empty spaces contained in the parking lot. In this study, the author uses the Convolutional Neural Networks (CNN) method, and for the dataset used in the form of images from the public PKLot dataset, in recognizing the availability of vacant parking lots, the author uses the AlexNet architecture which has fewer parameters than other architectures. The best results of this study showed an average accuracy of 99% with test data.

Keywords: *Convolutional Neural Networks (CNN)*, parking lot, PKLot.