

## **ABSTRACT**

*License plate is a type of motor vehicle identification. Basically, license plates are made of piece of metal or plastic plates that are installed on motor vehicles as official identification. License plates are widely used in au-tomatic detection systems for vehicle identification, such as security systems in housing. One of the artificial neu-ral network models that usually used to handle computer vision problem is convolutional neural network (CNN). CNN are trained to look for various features, such as edges, angles, color differences and combine them into more complex shapes. in this research, we built license plate detection using convolutional neural net- work(CNN). We built the convolutional neural network architecture with OpenCV, TensorFlow and KERAS. TheCNN model was trained using 304 license plates image as training set and 129 image license plates images as test set. The dataset contains various condition. The result of this research show that CNN models accurately de-tect vehicle plates. From the experiment, our license plate detection resulted in an accuracy of 96%.*

**Keywords:** *CNN, License Plate, Object Detection, TensorFlow*