

# Penerapan Pengolahan Citra Sebagai Pemberi Akses Gerbang dengan Metode Optical Character Recognition

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## ABSTRACT

*The gate security system is an important thing to be noticed. The gates guarded and operated manually by humans; its effectiveness and efficiency can be increased. One of the gate's technologies in image processing from the detected number plate image for later verification to provide access to the gate. A camera records the number plates of vehicles passing through the gate. The image obtained is then processed and read using optical character recognition to obtain alphanumeric characters. Program detection refers to the training result using the YOLO method with 142 datasets. The number plate detection program is tested on vehicle number plates of cars and motorbikes, and it conducted trial detection with three distance variations, namely 100, 150 and 200 cm. The detection results show good accuracy against the original number plate. The number plate reading results are sent to the user's telegram. The order to open the gate then is given to the telegram bot if the license plate obtained gets permission to pass through the gate. The gate is closed again after the vehicle has passed through the gate.*

**Keywords:** optical character recognition, deep learning, YOLO, training, licence plate recognition