

## ABSTRACT

*Currently, the vehicle number plate detection system in Indonesia still uses a human-assisted detection system. This causes the accuracy to be low because it requires a lot of time and human effort. This study develops a vehicle number plate detection system automatically based on YOLOv3. For data retrieval used, the author will use Google Colab which can avoid personal GPU damage caused by heat and the length of data processing.*

*The method used is the YOLOv4 algorithm with the YOLOv4 method. Which is where the YOLOv4 algorithm can process faster than other object identification algorithms. The highest accuracy obtained can also reach 100% on automatic object detection, while the lowest accuracy is achieved with an accuracy of 56% with an average of 98% in 7 trials*

*The purpose of this final project is to make it easier for humans to detect vehicle number plates that are often used in parking lots or electronic ticketing systems that have recently been implemented in several cities in Indonesia*

**Keywords :** *Number plate detection, YOLOv3, YOLO, Google Colab*