ABSTRACT

The increasing level of congestion on the streets in Indonesia has reduced the mobility of road users, the use of traffic lights to help smooth roads at intersections is precisely because the high volume of vehicles makes congestion uneven in every lane. This is because traffic lights are not integrated with an intelligent system to prioritize which lanes are more congested to take precedence.

In this study, the authors try to create an autonomous traffic light that will prioritize traffic jams due to the accumulation of vehicles in the lane, and make traffic lights operate faster when there is congestion than when there is no traffic jam. YOLO takes a very different approach from previous algorithms by applying a single neural network to the entire image. The network divides the image into regions and then predicts the bounding boxes and probabilities, for each bounding box, the probability consideration is whether to classify as an object or not.

Keyword: *Yolo, Vehicle Counting, Traffic Light.*