

## ABSTRACT

Mohamad Rivaldo Dwiputra Namare, 54418209.

### IMPLEMENTATION OF YOLO ALGORITHM IN CLASSIFICATION AND CALCULATION OF HUMANS IN ONE AREA

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Keywords : *Humans Classification and Calculation, Deep Learning, YOLO Algorithm, Python.*

(xv + 60 + Attachment)

*The development of science and technology is developing very rapidly. One of them is the deep learning method. Deep learning has been developed into a variety of different models. One algorithm that is often used in real-time detection is the YOLO (You Only Look Once) method. In this writing, it discusses making applications for detection, classification, and human counters in one area. using the YOLO algorithm with the Python programming language. The stage of making this application includes analysis, design, implementation, trial and evaluation. This application presents information about the number of humans in one area and the total number of humans who have been in that area. This application runs on a PC that has quite high specifications and uses a GPU. This application was tested using 15 videos and 15 images. In the experiment of the 15 videos by 94.01% and in the detection test results on 15 images by 89.63%. With an accumulated success of 91.82%. After the application is implemented, this application is expected to help to predict and organize crowds in one area next.*

Bibliography (2017-2021)