

ABSTRACT

WHO made the assessment that COVID-19 could be characterized as a pandemic, then urged the whole world to take aggressive actions. One of the actions proposed by WHO as a form of prevention and spread of COVID-19 is enforcing social distancing habits. Social distancing is an activity to keep a safe distance between ourselves and others that do not belong on our household for at least 6 feet (approximately 2 arms length).

Social distancing could be monitored by utilizing object detection technology using YOLOv4 (You Only Look Once) algorithm. The algorithm will be run on Google Colaboratory which provide access to computing resources including GPU (Graphical Processing Unit) with no charge. According to previous statement, social distancing monitoring system based on video at hospital will be implemented in this research. The data acquisition is obtained origininally in this research through online recording on dashboard provided by the hospital.

The research was done by calibrating on coordinate point A(175, 5), B(1190, 5), C(175, 740), and D(1190, 740). Based on the research results, the highest average accuracy is 87,04% at Lobby and the lowest average accuracy is 46,52% at Polyclinic Waiting Room.

Keywords: *social distancing, COVID-19, object detection.*