ABSTRACT

Covid-19 Pandemic has been happening since March 2020 until this day. In order to reduce the spread of Covid-19 virus that can infect people from droplet, the government issued a policy to public to use face mask whenever doing work in public spaces. In its implementation, the mask checking is usually done manually. It could increase risk of covid-19 spreads.

From that point, author creates a mask detection device that can detect if someone use mask or not and connected with prototype of automatic door that would open if the device detects someone using masker. This device is design for mask detection using Convolution Neural Network or CNN that will run in Nvidia Jetson Nano. The result of detection will be used to control servo that will open the door.

The result of the device is it can detect someone using face mask or not with 86% accuracy and 90% recall on non-mask object, this result is obtained by testing the model on 400 datasets. The detection result is then used to control servo motor used for opening the door if the device detects someone using face mask with success rate of 100%

Keyword: *COVID-19, Nvidia Jetson Nano, Convolutional Neural Network*