

# ***DETECTION OF MASK USE WITH METHOD REALTIME CONVOLUTIONAL NEURAL NETWORK***

**M. Apriandi Kusuma**

*Informatics Study Program, Faculty of Science &  
Technology, Yogyakarta University of Technology  
Jl. Ringroad Utara Jombor Sleman Yogyakarta  
E-mail : [apriandikusuma50@gmail.com](mailto:apriandikusuma50@gmail.com)*

## ***ABSTRACT***

*COVID-19 is a virus that can attack the human respiratory tract. This condition causes a crisis that makes many victims and other problems. In tackling the spread of the corona virus, people are encouraged to wear masks to protect themselves, because using a mask is one way to reduce the risk of exposure to the corona virus. In this study, researchers saw that digital image processing has good benefits, namely to detect the use of masks during a pandemic. The system designed is able to recognize the use of masks and not wearing masks by applying the Convolutional Neural Network (CNN) method in real time. The system requires a camera as its input medium to detect masks on faces captured by the camera. Classification experiment using the CNN method with the amount of training data as much as 10,000 images used. The training results obtained from the training results have an accuracy of 99%. So it can be concluded that the mask detection system with the CNN method in real time can work well as expected.*

***Keywords:*** Covid-19, Convolutional Neural Networks, Realtime, Mask Detection.