

ABSTRACT

COVID-19 is a respiratory disease caused by severe respiratory syndrome (SARS-CoV-2). Infectious viruses belong to the family of single positive closed RNA (Ribonucleic Acid) viruses known as coronaviridae. COVID-19 attacks the respiratory system and causes illnesses such as coughing, fever, fatigue, shortness of breath and even death. There are many measures to prevent the spread of COVID-19, one of which is wearing a mask. A system is needed to detect mask users on motorbike users because of the density and high intensity of crowding so that it can cause transmission of COVID-19 on the highway.

Research has been proposed to detect masks using a deep learning method entitled "Face Mask Detection Using OpenCV". Used 3835 images with a composition of 1916 using a mask and 1919 not using a mask. This system can be used at train stations and malls because if it is detected that you are not wearing a mask, there will be a notification to the officer. However, on the highway the intensity of gathering for motorbike users is very large, allowing the spread of COVID-19 to occur. A system will be designed to detect masks that focuses on motorcycle users. Local Binary Pattern (LBP) and K-Nearest Neighbor (KNN) methods will be used as classifiers.

From the test results obtained identification accuracy results of 89.7297%. The accuracy was obtained from 185 training images and testing 185 images using the LBP extraction method with a value of $r=1$ and $P=8$, in addition to the KNN classification with a neighbor value of 1 and the Euclidean distance parameter.

Keywords: COVID-19, *Facemask Detection*, *Local Binary Pattern (LBP)*, *K-Nearest Neighbor (KNN)*