Abstract

The COVID-19 pandemic is becoming the cause of the world health crisis and according to the World Health Organization (WHO) one of the effective methods to prevent Covid-19 transmission is to wear a face mask in public spaces. However, accurate and lightweight face mask detection methods are still being evaluated. This paper proposes a face mask detection model using the Haar Cascade method to detect faces that have been modified and trained to detect face mask features on human faces. The dataset to be used in the form of faces with face masks has been collected through several datasets on the Internet. To evaluate the model created, tests were carried out on several scenarios of different lighting conditions to see the effect on several metrics, namely accuracy and average delay. The test results show that the lighting conditions affect the model created and in sufficient lighting conditions, the trained model has better performance than in other conditions, in terms of accuracy and average delay, namely 96.8\% and 43 ms, respectively.

Keyword: Covid-19 Pandemic, Face Mask Detection, Haar-Like Features, Image Recognition, Lightning Condition

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