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Automated Facemask Detection for Covid Surveillance

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Abstract: *Today, the biggest problem the world is facing is the Covid-19 pandemic. However, few ways are there to control the outbreak as instructed by the WHO (World Health Organization). The objective of the project is to detect face masks in a public gathering or an event. In order to reduce the complexity, we can use our software and monitor people efficiently. Since CCTV cameras are present in every nook and corner of our city, it is quite effective in detection of face mask. Face mask recognition is strenuously growing especially after the COVID outbreak and has widespread application in law enforcement. This paper introduces a CNN based neural network system, which can be trained to identify people's facial features while half of their faces are covered by face masks. The presented approach would be beneficial in reducing the spread of this infectious disease and will encourage people to use face masks. During the training phases, network structures and various parameters were adjusted to achieve the best results. The results obtained by the proposed system has an accuracy of around 97.1%.*

Keywords: World Health Organization (WHO), Convolution Neural Network, MobileNetV2, COVID-19

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