PROJECT REPORT

PERFORMANCE ANALYSIS OF SSD ALGORITHM FOR MASK VIOLATION DETECTION

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19.K1.0059

Faculty of Computer Science

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2. Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
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ABSTRACT

The COVID-19 pandemic is an outbreak of disease caused by the Coronavirus. This pandemic is a complex problem not only in Indonesia but also for the world. Covid-19 have a negative effect on various sectors, including the economy, education, tourism, and others. One way to overcome this problem is to prevent transmission. One of the protocols that must be followed by all people is to wear a mask when leaving the house. However, in practice, not all people comply with this protocol. Therefore, the authors and the PKM-KC team created a system that is used to detect violations of these health protocols. PKM-KC is a student creativity program that aims to create a new breakthrough, both design and tools that respond to current problems. The purpose of making this system is to reduce the increase in covid by breaking the chain of transmission. In making this tool, NVidia Jetson Nano hardware and SSD MobileNet V2 Algorithm are used. In writing this thesis, the writer analyzes the performance of the SSD MobileNet V2 Algorithm to detect mask violations. This analysis uses accuracy, precision, and recovery calculations. The results obtained from this analysis are the SSD MobileNet V2 which is very good for analyzing mask violations with accuracy is 91.3%, precision is 100%, and recall is 84.6%.

Keywords : Mask, Violation, PKM-KC, SSD MobileNet V2,Covid-19.

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