



**PROJECT REPORT**  
**PROPER FACE MASK DETECTION**  
**USING HAAR CASCADE**

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Semarang, January 18, 2022



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## ABSTRACT

*This project was created to detect the use of masks, where the use of masks is now the obligation of all communities, especially in public places. Each of us has become aware of the correct and wise use of masks. In this project, we will detect people who don't care and are not wearing masks properly.*

*In detecting the use of masks, the Haar Cascade algorithm is used to detect facial, eye, nose, and mouth objects. There are 3 libraries to help detect masks such as `haarcascade_frontalface_default.xml` to detect face objects from the front side, `haarcascade_eye.xml` to detect eye objects, `Nariz.xml` to detect nose objects, and `haarcascade_mcs_mouth.xml` to detect mouth objects. From the image obtained, it will be converted to grayscale and then black and white to be able to detect faces, eyes, noses, and mouths.*

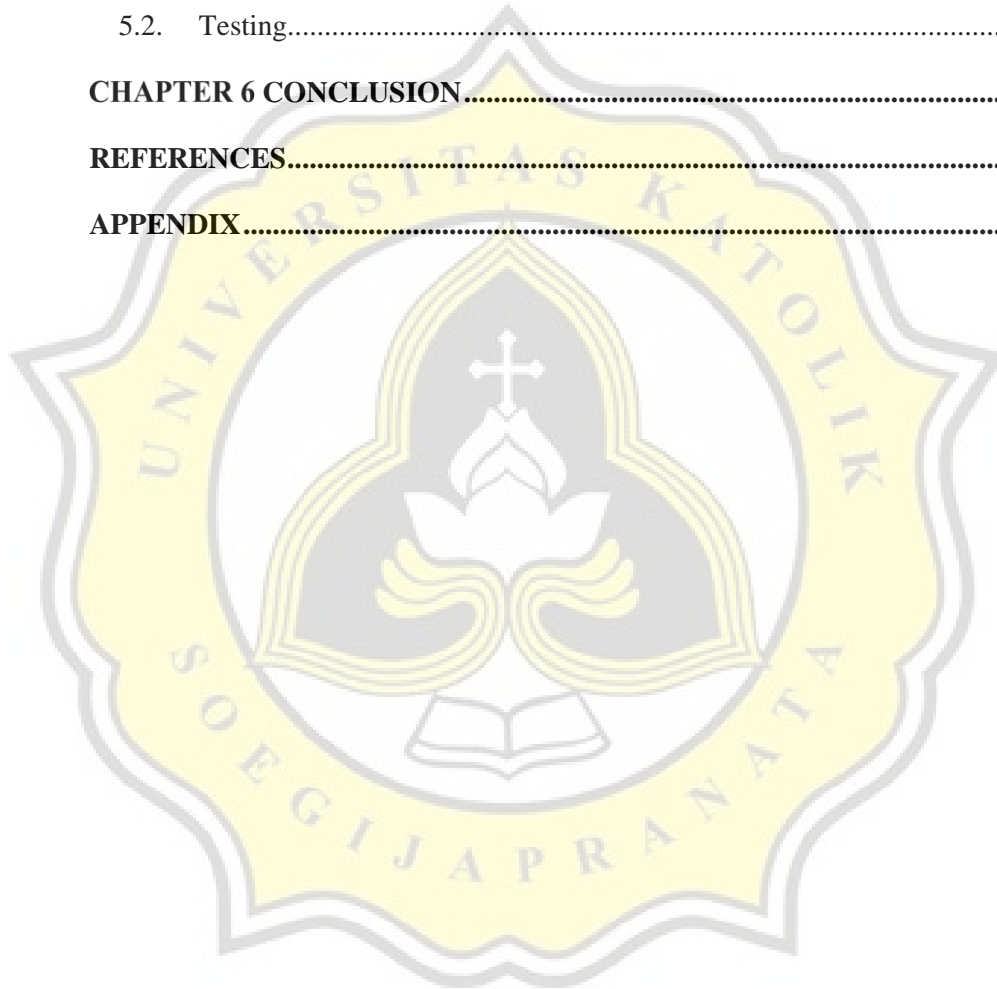
*To analyze the results of mask detection, it is done by using a video containing image data of the use of masks. There are a total of 125 data to measure the level of accuracy in the mask detection program. The results obtained with an average accuracy level is 89,5%.*

*Keyword: Mask Detection, Haar Cascade, Detect Face*

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