

ABSTRACT

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SIBI SIGN LANGUAGE DETECTION APPLICATION USING THE DEVELOPMENT OF THE ANDROID-BASED MOBILNET V2 SSD MODEL Thesis, Department of Informatics, Faculty of Industrial Technology, Gunadarma University, 2022.

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(XII+ 97 + Lampiran)

Sign language is a method of communication that uses body and lips without communicating. Generally, the users are deaf people. Communication with sign language users is the biggest obstacle if you want to communicate with normal people. With advances in technology, especially in the field of informatics, it is possible to develop a system for classifying and detecting sign language demonstrations into writing. Therefore, the authors created a sign language detection application using the development of the Mobilenet V2 SSD model. This research trains American Sign Language (ASL) data which is image data showing 26 letters of the alphabet, totaling 1728 pictures. This research phase begins with data collection. The next stage is developing the Mobilenet SSD architecture by training ASL data. The results of the training and get a total loss value of 0.07 and a learning rate of 0.007. The next stage is designing the Android application and implementing the development of the Mobilenet V2 SSD architecture into it. Then testing the application on Android versions 11 and 8.1. Detection results of 26 letters with 3 attempts resulted in an accuracy of 94.06%.

Bibliography(2009-2022)