

Malaysian Sign Language Detection by Image System (MSLDI)

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ABSTRACT

Hand gestures are one of the nonverbal communication methods used in sign language. It is most used to communicate among deaf people who have hearing or speech problems, as well as with normal people. Many developers around the world have created various sign language systems, but they are neither flexible nor cost-effective for end users. As a result, this study introduced software that presents a system capable of automatically recognizing sign language to assist deaf people in communicating more effectively with each other or with normal people. The objectives of this study consist of to identify the criteria of the sign language of detection by image, to construct the sign language detection by image based on Deep Learning application and to evaluate the functionality of the proposed model. The system will benefit to deaf people and normal people because they will not need to use an interpreter to communicate with each other through online conversation. This project was developed by using research framework methodology. There are four phases involve which are Theoretical Study, Exploratory Study, Design and Development and Evaluation of MSLDI system. To measure the useful of Malaysian Sign Language Detection by Image System (MSLDI), Usability Testing and Functionality Testing were conducted to evaluate the system. Furthermore, findings shows that MSLDI still weak on recognizing the hand gesture that perform by different user. For feature work, the accuracy for the detection needs to be improvise on recognizing the hand gesture.

Keywords: Hand gesture, Malaysian sign language, Image detection