ABSTRACT

DESIGN OF SIGN LANGUAGE TRANSLATOR SYSTEM

Not a few people who are unable to hear and speak or are usually called deaf people. Their communication with others only uses sign language. Some people are able to get information from their movements but not everyone can understand the way they deliver messages so that communication cannot work properly.

This Sign Language Translator is in the form of a glove so that when doing hand gestures will produce unique values that will be translated using Artificial Neural Network techniques. The translation result from this sign language into a text and the sound that will be on the application on the handphone.

The results of this Final Project are tools that can read Sign Language movements well. The method used is artificial neural network with backpropagation method with 1 input layer, 2 hidden layers and 1 output layer. Iteration or epoch used is 2500, batch size is 2200 and learning rate is 0.00001. Based on the results of testing data, each word of five testers with three trials has a success rate of 72.33%. It can concluded that the device is good enough in translating sign language.

Keywords: deaf, sign language, Artificial Neural Network, handphone.