

ABSTRACT

Biometric techniques are methods for recognizing a person based on physiological characteristics or behavioral characteristics. The advantages of biometric techniques are more assured of authenticity and difficult to modifications. The biometric technique that will be examined in this final task by utilizing brain signals namely EEG. Electroencephalograph (EEG) is a tool that examines the pictures from the recording of the electrical activity in the human brain that utilizes the signals as a biometric identification.

In this final project proposes a framework of EEG signal based on biometric identification with photo stimuli. Data capture is carried out to five participants, five times using Muse Headband Monitors attached to the participant's head. In this final project, feature extraction that used using the Hjorth Descriptor method and classification of Backpropagation Artificial Neural Network.

Based on the signal processing that has been done will produce a simulation that can identify EEG signals based on the characteristics of each participant with 25 data and 4 classes of data. The system that has been made produces an accuracy rate of 88%.

Keywords: EEG, brain, biometrics, stimuli, hjorth.