ABSTRACT

Biometric techniques are methods for identifying individuals based on physiological or behavioral characteristics. To be able to identify the characteristics or characteristics of an individual it is needed a process of measuring brain wave activity. Electroencephalograph (EEG) can be used as a tool to measure and capture brain wave activity by recognizing some sounds or visuals.

In this final project, a biometric identification based on EEG signals using photo stimuli is arranged. Data was collected for five participants with five times the data was measured by Muse Headband Monitor, beta wave, gamma, using the Power Spectral Density (PSD) method and K-Nearest Neighbors (KNN) classification.

The results of extraction from brain wave analysis, the results of testing of objects using photo stimuli. The results of the processing of statistical analysis show the process of formation of individual characteristics. A system that has been made to get an accuracy of up to 60% of 25 data that are detected as a whole, the value of k used is k = 3.

Key words: EEG, brain, biometrics, stimuli, PSD, KNN