ABSTRACT

Movie is a communication media in visual audio form to give such message to people in some places. A movie has many kinds of genre such as horror movies. A horror movie has it's kind of attraction to its audiences. The fear, tremble and concentration that is made by watching horror movie makes the audience more focus in it. Those things can make an impact to someone's brain. Human brain itself has many types of signals, those are alpha, beta, gamma and delta. Every human brainwaves types has its own characteristic in frequency. From those signals, we can analyze how the human brain response to a stimulus from outside so that the people itself can feel and think critically. Human brain condition when watching horror movies can be analyzed using Electroencephalograph (EEG).

In this research, beta and gamma signals in brain waves will be analyzed to understand the brain's condition. By using 4 channels EEG as a tool in signals detection and a heart beat detector that is installed in someone's finger and a camera to record the expression from his face when a stimulus of horror movie is given, to analyze how the beta and gamma signals formed in brain waves. The method that is used inthis research is Principal Component Analysys (PCA). And K-Nearest Neighbor (K-NN) for classifying.

The result of this research shows that beta signal is more liable in AF7, AF8 and TP9 channels. While gamma signal is more liable in TP10 channel. The maximum value of accuracy found in AF7 channel in the amount of 66,667% in beta signal and 55,556% in gamma signal.

Keywords: Horror, EEG, Signal, Beta, Gamma, Brain