

ABSTRACT

Paralinguistic information refers to the implied message contained in speech, like the emotion of the speaker. Emotions that will be identified in this study are happy, sad, angry, disgusted, and neutral. Emotions are usually called archetypal emotions. Sound signals are represented by several characteristics, namely: the Linear Predictive Coding (LPC) feature, the first-order derivative of the spectral coefficient, fundamental frequency, and energy. The performance of the system will be measured based on accuracy in the accuracy of emotional detection.

In this final project, through the analysis of human voice frequency, a person's voice can be examined, including normal, risky or high levels. The classification method used is the Coarse-to-Fine Search (CFS) method. The choice of the method is intended to divide human voice data into several classes based on their patterns and classify them.

The purpose of this study was to detect the sound of human emotions seeing from the parameters sought the best accuracy and optimization on the system. The test results showed that the highest accuracy obtained was 75% using 6 LPC features, namely, mean, standard deviation, skewness, variance, kurtosis, and entropy from 36 training data and 8 test data. The best parameters obtained are 13 maximum matrix lengths in classification with 20 constraint functions and 5 number of individuals with loop $N + 1$, where N is the number of repetitions that have been set in the system to find out the convergent point.

Keywords: Linear Predictive Coding (LPC), Coarse-to-Fine Search (CFS), Emotion.