

## **ABSTRACT**

Human emotions in general can easily be known by looking at facial expressions that can vary based on one's feelings. Many studies have done emotional detection based on facial expression. In addition to face detection, human emotions can also be detected by the sound produced by the speech signal.

In this final project will be done emotion detection in humans through voice signal using feature extraction with Mel-Frequency Cepstral Coefficients (MFCC). Then use ANN-SOM (Artificial Neural Network-Self Organizing Map) to get the modeling. The detected emotional state will be the state that the K-Nearest Neighbor (KNN) method can use as a state determinant classifier. The output of emotional detection is a condition where the test of speech signal is classified into 4 classes of parameters ie neutral, sad, happy and angry.

Keywords: Human Emotions, Mel Frequency Cepstral Coefficients, ANN-SOM