ABSTRACT

In the era of globalization, the introduction of emotions into research topics that are currently used in certain fields, especially on computer-human interaction. Often we recognize one's emotions through facial expressions only. But we can recognize one's emotions through voice signals.

In this research, a human emotional detection system through voice signal using Mel-Frequency Cepstral Coefficient method is used as sound feature extraction. The authors chose this method that Mel-frequency Cepstral Coefficient approaches the human auditory system's response closer than any other system. But it has a drawback that is sensitive to noise levels because it depends on the shape of the spectral.

Support Vector Machine (SVM) is the latest method for data classification created by chervonenkis and vapnik in the 1990s. SVM is often used in speech recognition for output classification. In some previous studies the commonly used kernel of the Support Vector Machine is the RBF kernel. This is because SVM uses Radial Basis Function kernel (RBF) so it has a better accuracy. SVM is very useful in classifier data techniques. However, this method has a major disadvantage that is difficult to use on high-volume samples.

Thus, hope in this study can detect the four categories of human emotions with better performance than before using the Makassar dialect as a sample of data.

Keywords: *Mel-frequency Cepstral Coefficient, Support Vector Machine, Speech Recognition, Data Classifier*