ABSTRACT

Traditional musical instrument is one of Indonesian commodities which become important asset and has become one of Indonesia's attraction for foreigners. Almost every region in Indonesia has their own traditional musical instruments. Unique tones characterize a variety of traditional Indonesian musical instruments, such as kecapi instruments originating from South Sulawesi. The lute has been used in Sulawesi music festivals in various regions, but often occurs during the tuning of the lute music instrument because it takes a long time and uses the tone of understanding in a tone that matches a certain pitch.

In this Final Project designed a system that can be used to detect sound. In this system, you can use the extraction functions and the classifier of the kecapi music tone. Through the extraction of the features of the audio sounds can explore the type of tone and its characteristics. The method of feature extraction used is Mel Frequency Coefficient Cepstral. MFCC is an extraction method used to filter information from normal domains. While the classification method that is K-Nearest Neighbor. KNN is a method to classify objects based on learning data closest to the object.

This final project is expected to build a system that can be used on the lute music instrument. Detected tone consists of 7 tones, ie do, back, mi, fa, sol, la, si. The available accuracy level is 70%, where the input tone comes from the microphone.

Keyword: Kecapi, *Mel Frequency Coefficient Cepstral, K-Nearest Neighbor*