

ABSTRACT

The tone is the sound of a uniform. In writing, the tone is represented by notes or notation. Translating the tone becomes not require good hearing and good knowledge of the tone. Human hearing is able to distinguish each tone, but to represent the tones are listened to a note by right is not easy. Tones are usually generated by a musical instrument, one of which is the piano. In writing the kind of tone on the piano can be written in both notation notation notation numbers or musical notes. Usually a player piano to play the piano based on the notes on the notation musical notes, but what if someone play freely and tone of musical notes written on.

This issue will be discussed in this thesis. In the final task is to construct a system capable of recognizing a single piano tones using the ANN-SOM and write tone detection results into musical notes. The system extracts a single piano tones varying characteristics into two kinds of Fundamental-Harmonic-FFT and FFT. Two kinds of features are used as inputs in the ANN-SOM method so as to provide output in the form of notation and the system also gives output in the form of musical notes.

In the system that using JST-SOM is obtained a maximum performance 100% for aquracy of tone detection. So it can be concluded that the JST-SOM method can be used as a method for classifying a single tone piano because its performance is quite good.

Key words: Not Balok, Tones, Piano, SOM-ANN