

## ABSTRACT

*Generally, the execution for music player is using the button function that available with mouse or keyboard. This final task has been made a music player application system that using a microphone and voice recognition as a tool for music player execution and based on audio processing method. That system made for recognition based on voice frequency, volume, and duration. In this simple concept, the system works properly from the music player as we known. But, the system will be able to run play, stop, next, pause, and previous command. The voice that has been recognized will automatically run the command that matched with the recognized voice.*

*In this final task has been made a human voice recognition application using the Artificial Neural Network Back Propagation (ANN-BP). The algorithm that used for the feature extraction system is Mel Frequency Cepstrum Coefficient (MFCC) in the other hand, for the feature classification of the using pattern is Artificial Neural Network Back Propagation (JST-BP).*

*The music player application system was made by using the Matlab R2009a software program. The using songs format is \*.wav. The best parameter of MFCC is using 64 sample/frame. The best parameters of ANN-BP are using 2 hidden layer with 20 neuron each, tansig activation function, 0.2 learning rate, traingdm learning rate, 300 epoch, and 0.1 validation with 83.33% accuracy.*

**Keyword :** *voice, music player, \*.wav., Artificial Neural Network, MFCC, FFT*