

ABSTRACT

Language is the most natural interaction human use. Humans easily use language as a tool to communicate with each other. Speech recognition is a method developed for human to communicate with machine using sound.

In this final project, the application is a sistem based on speech recognition. To acquire data, the sound will be recorded in waveform audio file (wav) format with microphone in a quite room conditions. Feature extraction method for this final project is Discrete Cosine Transform. For the classification process, backpropagation neural network will be implemented in the sistem.

This system identified 30 classes with a total 270 training data and with a total of 180 for testing data. Based on the results, with the number of hidden neuron 200, the number of feature value 500 and learning rate 0.02, for data tested in non realtime this research resulted in 51% accuracy.

Keyw word: speech recognition, Discrete Cosine Transform, Backpropagation Neural Network