

ABSTRACT

Humans are able to distinguish the identity of someone they know, just from his voice. This process is known as speaker recognition. Speaker recognition or speaker recognition consists of two types, namely speaker verification and speaker identification. Voice verification to determine whether the voice is heard is the voice of someone who he claims.

While the identification process tries to determine the specific identity of the speaker. Voice signals are complex signals. At the sound signal parameters there are many, ranging from subjective parameters such as accent, dialect until the parameters that can be measured acoustically as formant, pitch and spectral energy. The problem that arises is how to extract the features of complex sound signals so generated new data that is simpler but still retains the distinctive character of the voice signal.

At the End Task was designed and realized a system that can identify the human voice, to be known from a man or a woman and then determined his age. Voice identification system consists of feature extraction and classification of sound. Research conducted using acoustic parameters that are more objective, using the method of feature extraction Mel-Frequency Cepstral Coefficient (MFCC) with 128 sample/frame . Classification method used is *Back Propagation* Artificial Neural Systems. With parameters hidden neuron 35, tansig activation function ,learning rate 0,5 , epoch 1000, and momentum 0.01 has an average accuracy of 89,62% with an average processing time of 1.07 seconds.

Keywords: Mel-Frequency Cepstral Coefficient (MFCC), Backpropagation *Artificial Neural Systems*