

ABSTRACT

The human voice has different characteristics with each other, a characteristic that distinguishes the uniqueness of control and pronunciation. The characteristics which to base the identification or recognition of each individual. The system function for the security to identify person. Introduction through human hearing is sometimes not easy to do because of various limitations. For that reason, need a system that can analyze the sound of the human to distinguish between them.

In this thesis , has been designed and realized a system that can identify people with JST - SOM method, which the system can identify, compare and match the pattern of the input sound with sound patterns that have been stored in memory automatically. Systems of human voice parameters extracted using the Mel Frequency Cepstral Coefficient (MFCC).

This system uses the human voice as an input signal. Where the input signal is processed using MATLAB R2009a software. The parameters measured were changes in the parameters of the extraction characteristics of MFCC and neural network SOM. The best results obtained with an accuracy of 96% on a test with a value of melbank filter 64 and a value of epoch 300. The data used to train as many as 300 samples and test data are used as well as 300 samples, in which test data is not included in the training data. Simulations performed have managed to identify individuals based on the pronunciation of the vowels /a/, /i/, /u/, /e/, /o/ and the /aku/ word (text dependent) .

Keywords : *sound , identification , Mel Frequency cepstral Coefficient , JST - SOM , MATLAB , text dependent*