ABSTRACT

Each human voice has the characteristics of themselves. Pronouncing the same word will produce a different signal pattern according to the accent or pronunciation. In this research has been made a system that can identify the place of origin based on human voice. The places of origin that has been identified are South Sulawesi, West Sumatra, West Java and Central Java.

In this research has been made a system that can identify the place of origin based on human voice using the Linear Predictive Coding (LPC) as feature extraction method and Artificial Neural Networks (ANN) Backpropagation as classification. At first the sound data is stored in a wav file, then it's analyzed with the LPC. The LPC coefficient is obtained from the LPC analysis then it becomes the ANN input vector for training the network. The results of training in the form of changes in network weights to obtain a network that has the ability to classify. Then the network is tested by simulating it using training data and evaluation data to produce a percentage of successful recognition. The test is done with several changes in parameter values in order to obtain the highest percentage of recognition.

The result of testing shows the highest accuracy values is 80.7692% using 52 training data and 52 evaluation data. The best parameters that is used are 3 hidden layers in ANN.

Key words: *Linier Predictive Coding (LPC)*, *Artificial Neural Network*, *Voice*, *Accent*