ABSTRACT

Biometric which includes speech recognition is generally used for identification and verification. Speech recognition as known as voice recognition is a process performed by the computer to recognize words spoken by someone. Speech recognition in this research using Facial EMG which record the movement of facial muscles respondent.

LPC is a method of signal analysis that produces a number of LPC coefficients. LPC coefficients obtained from LPC analysis and then became the input vector to train the ANN network. LVQ training ANN with the ability to classify input vectors into a predetermined target class. The network is then tested by simulation to yield the percentage of successful introduction. Experiments carried out with a few changes in parameter values to obtain the highest percentage of recognition.

Based on the results of testing samples of 140 words by two respondents speech recognition using LPC feature extraction and JST obtained the highest level of recognition as 96.43% for 12 training at 300 iterations with the words percentage of a, o, maju and mundur about 100%.

Keywords: biometrics, speech recognition, EMG, LPC, JST