ABSTRACT

Speech recognition is a technology to recognize human voices which can be used for varios purposes. In this final project, speech recognition is used for design system using Linear Predictive Coding Method.

Linear Predictive Coding is an analysis method which generates a signal LPC coefficients. In this final project, Linear Predictive coding is used for feature extraction, then for pattern recognition will be using Hidden Markov Model method. LPC generates the characteristics in samples of human voice and then it will be input to the Hidden Markov Model learning process. In previous research LPC method is used for speech to text system design.

Testing results of the system in this final project shows that the highest accuracy at 53,34% with 51,27 seconds of computing time. The results obtained at conditions of N=900 and M=700 for frame blocking, 7 samples data per user for training, 4 codebook size, and 7 state.

Keywords : Speech Recognition, Linear Predictive Coding, Hidden Markov Model