

## Abstract

Speech Segmentation is an effort to classify the speech signal base on particular thing. The segmentation can be done base on word, syllable, or phonem. The segmentation process can be a preprocessing of speech recognition. In this final project, the segmentation of speech is done base on phonem. First step in segmentation process is getting the signal and do the manual segmentation. Then, feature extraction proses is done to each segmen. Feature extraction process result the characteristics of segmen. This characteristics are used as input of Neural Network later and then learning process is done. The last research used 15 input parameter and Back Propagation was used as the Neural Network. While this final project used LSTM ( Long Short-Term Memory ) Neural Network with 3 input parameter, namely Zero Crossing Rate (ZCR), Signal Energy Rate (SER), and Maximum Frequency Index (MFI).

**Keywords:** segmentation of speech, zero crossing rate, signal energy rate, maximum frequency index, feature extraction.