

MODULAR RECURRENT ELMAN NEURAL NETWORK (MRENN) FOR SPEECH

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Abstract

Speech recognition is the field of computer science has become an active research area of computer science. Speech recognition deals with designing the computer systems responsible for recognizing the spoken words. In this paper, an approach based on Modular Recurrent Elman Neural Network is described. Using pre-emphasis, end-point detection, windowing, LPC analysis, Cepstral coefficients and vector quantization, the feature extraction of speech is performed. After this Modular Recurrent Elman Neural Network performs training and classification of extracted features of speech. This neural network approach is much better than the traditional HMM based speech recognition approach.

Key Words : Recurrent Neural Network, Hidden Markov Model (HMM), Linear Predictive Coding (LPC), Vector Quantization, Multi Layer Perceptron (MLP).