Abstract

Mel-Frequency Cepstral Coefficients are spectral feature which are widely used for speaker recognition and text dependent speaker recognition systems are the most accurate in voice based authentication systems. In this paper, a text dependent speaker recognition method is developed. MFCCs are computed for a selected sentence. The first 13 MFCCs are considered for each frames of duration 26ms and each coefficient is clustered to a 5 element cluster centre and finally to a form a 65 element speech code vector for the entire speech. The speech code is trained using a multi-layer perceptron backpropagation gradient descent network and the network is tested for various test patterns. The performance is measured using FAR, FRR and EER parameters. The recognition rate achieved is 96.18% for a cluster size of 5 in each coefficient.

References

1997.

Index Terms

Computer Science  Artificial Intelligence

Keywords

Mel-Frequency Cepstral Coefficients  False Acceptance Rate  False Rejection Rate
Equal Error Rate