Abstract

To be able to control devices by voice has always intrigued mankind. Today after intense research, Speech Recognition System, have made a niche for themselves and can be seen in many walks of life. The accuracy of Speech Recognition Systems remains one of the most important research challenges e.g. noise, speaker variability, language variability, vocabulary size and domain. The design of speech recognition system requires careful attentions to the challenges such as various types of Speech Classes and Speech Representation, Speech Preprocessing stages, Feature Extraction techniques, Database and Performance evaluation. This paper presents the advances made as well as highlights the pressing problems for a speech recognition system. The paper also classifies the system into Front End and Back End for better understanding and representation of speech recognition system in each part.

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**Index Terms**

Computer Science  
Signal Processing

**Keywords**

VAD  
Feature Extraction  
Hidden Markov Model  
Neural Networks.