Abstract

This paper introduces a new approach to develop a real time isolated word speech recognition system for human computer interaction. The system is a speaker dependent system. The main task is to recognize list of words in which the speaker says through the microphone. The features used are the mel-frequency cepstral coefficients (MFCC) which gives the good discrimination of the speech signal. The Dynamic Programming algorithm is used in the system measures the similarity between the stored template and the test template for the speech recognition which gives the optimum distance. The recognition accuracy obtained for the system is 88.0%. We made a simple list of ten words of cities names in India in which for displaying the images of the cities when the word is spoken which can be used in tourism application. This work can be used in many areas after a little modification for the specific function for example to control the robot using simple commands and also in many applications.
Index Terms

Computer Science Algorithms

Key words

Isolated Word Recognition Feature Extraction Mel
Frequency Cepstral Coefficients

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Dynamic Programming