

ABSTRACT OF THE DISCLOSURE

METHOD AND APPARATUS FOR MANDARIN CHINESE SPEECH
RECOGNITION BY USING INITIAL/FINAL PHONEME SIMILARITY
VECTOR

Apparatus for Mandarin Chinese speech recognition by using initial/final phoneme similarity vector, for improving the Chinese speech recognition accuracy and downsizing the needed memory is provided. A Mandarin Chinese speech recognition apparatus comprises a speech signal filter for receiving a speech signal and creating a filtered analogue signal, an analogue-to-digital (A/D) converter connected to the speech signal to a digital speech signal, a computer connected to the A/D converter for receiving and processing the digital signal, a pitch frequency detector connected to the computer for detecting characteristics of the pitch frequency of the speech signal thereby recognizing tone in the speech signal, a speech signal pre-processor connected to the computer for detecting the endpoints of syllables of speech signals thereby defining a beginning and ending of a syllable, and a training portion connected to the computer for training an initial part PSV model and a final part PSV model and for training a syllable model based on trained parameters of the initial part PSV model and the final part PSV model.

Fig. 1