

ISOLATED WORD SPEECH RECOGNITION SYSTEM USING HTK

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ABSTRACT

This paper proposes a system of Isolated Word Speech Recognition for Tamil language using Hidden Markov Model (HMM) approach. The most powerful Mel Frequency Cepstral Coefficients (MFCC) feature extraction technique is used to train the acoustic features of the speech database. The triphone based acoustic model is chosen to recognize the given Tamil digits. This system is a small vocabulary system where it is trained to identify the Tamil digits from one to ten. The result analysis of HTK (HMM Tool Kit) shows 90% of recognition accuracy at the word level.

KEYWORDS: Hidden Markov Models, Isolated Word Speech Recognition, MFCC, Tamil language