Abstract

Connected digit segmentation is an important part in voice segmentation because it used in many aplication such as voice-dialing telephone, automated banking system, catalog-dialing, etc. Group Delay Function provide an alternative representation of signal information with high resolution properties and minimum phase system has causal and stabil characteristic. Group Delay Function which is defined as the negative derivative of phase, can be processed to derive significant information such as peaks and valleys in a spectral. This paper presents a Minimum Phase Group Delay based approach to solve segmentation problem, especially in connected digit problem. In the proposed method, signal is generated by symmetrising the short term energy function, then Minimum Phase Group Delay function is computed, the peaks of which correspond to segment boundaries.

Keywords: *segmentation, connected digit, minimum phase, group delay function, short term energy*