ABSTRACT

The purpose of this thesis is to design an Arabic phone recognition system by using the newly feature extraction method Best Tree Encoding (BTE4). This feature is inherited from the wavelet packets decomposition of speech signal that is highly reliable even in the presence of noise. Phone recognition in continuous speech is a tough task with a low accuracy rate. By making some modification to BTE4 feature, the speed and the quality of the recognition process can be improved.

The stages of enhancement had been done in this thesis are: Firstly use the newly wavelet based feature extraction method Best Tree Encoding (BTE4) to design our Arabic phone recognition system and try to enhance it by changing the level of decomposition to reach the second generation BTE5.