

ABSTRACT:

Problem statement: Arabic speech recognition system is un-developed until today. By using people of non-Arab nationality, the set of frontal fricative of Arabic consonants are study as the earlier step to develop the recognition system for Malaysian. As most of the developed Arabic speech recognition system for Malaysian are rarely found. Approach: The characteristic of each of the phonemes were study based on its spectral density function. The considerations were the peak and bandwidth of each consonant speech samples which appear in the spectrum. The total of each character was averaged to get the reliable reference value which will be the baseline for the selected database later. Results: The results showed that the bandwidth consideration of the first peak gave the increment value as the consonants distributed from outer part (labiodentals-3.6 kHz) to inner part of the mouth (alveolar-3.8 kHz). While the peak appearance is lowered as the group of the consonants moved further towards into the mouth. Conclusion/Recommendations: The values obtained were used as the reference of the database for our recognition system. Only suitable consonants samples were chosen to be stored as database to improve the system accuracy.