# Techniques For High Quality Arabic Speech Synthesis

**Elshafei, M; Al-Muhtaseb, H; Al-Ghamdi, M**

## Summary

The paper proposes a diphone/sub-syllable method for Arabic Text-to-Speech (ATTS) systems. The proposed approach exploits the particular syllabic structure of the Arabic words. For good quality, the boundaries of the speech segments are chosen to occur only at the sustained portion of vowels. The speech segments consists of consonants-half vowels, half vowel-consonants, half vowels, middle portion of vowels, and suffix consonants. The minimum set consists of about 310 segments for classical Arabic. (C) 2002 Elsevier Science Inc. All rights reserved.

**References:**
1. ABUALYAZEED MF, 1989, P 2 C AR COMP LING K
2. AHMED ME, 1991, ARABIAN J SCI ENG, V16
3. ALLEN J, 1987, TEXT SPEECH MITTALK
4. ANEES I, 1990, ASWAT ARABIA
5. DONOVAN R, 1996, THESIS CAMBRIDGE U E
6. DUTOIT T, 1996, INTRO TEXT SPEECH SY
7. ELIMAM YA, 1989, IEEE T ACOUSTIC SPEE, V37, P1829
8. FURUI S, 1992, ADV SPEECH SIGNAL PR
9. LEVINSON SE, 1993, IEEE COMMUN MAG  NOV, P46
10. SPROAT R, P ICSLP 92 ALB, P563
11. YAROWSKY D, 1994, P 2 ESCA IEEE WORKSH

For pre-prints please write to: abstracts@kfupm.edu.sa