Festival and Festvox Framework Tools for Marathi Text-to-Speech Synthesis

Volume 132
- Number 4

Year of Publication: 2015

Authors:

Sangramsing Nathusing Kayte

10.5120/ijca2015907413

Abstract

We describe in detail a Grapheme-to-Phoneme (G2P) converter required for the development of a good quality Marathi Text-to-Speech (TTS) system. The Festival and Festvox framework is chosen for developing the Marathi TTS system. Since Festival does not provide complete language processing support specie to various languages, it needs to be augmented to facilitate the development of TTS systems in certain new languages. Because of this, a generic G2P converter has been developed. In the customized Marathi G2P converter, we have handled schwa deletion and compound word extraction. In the experiments carried out to test the Marathi G2P on a text segment of 2485 words, 91.47% word phonetisation accuracy is obtained. This Marathi G2P has been used for phonetising large text corpora which in turn is used in designing an inventory of phonetically rich sentences. The sentences ensured a good coverage of the phonetically valid di-phones using only 1.3% of the complete text corpora.

References


7. Sangramsing Kayte, Monica Mundada, Santosh Gaikwad, Bharti Gawali "PERFORMANCE EVALUATION OF SPEECH SYNTHESIS TECHNIQUES FOR ENGLISH LANGUAGE " International Congress on Information and Communication Technology 9-10 October, 2015


11. Monica Mundada, Bharti Gawali, Sangramsing Kayte "Recognition and classification of speech and its related fluency disorders" International Journal of Computer Science and Information Technologies (IJCSIT)


15. Monica Mundada, Sangramsing Kayte “Classification of speech and its related fluency disorders Using KNN” ISSN2231-0096 Volume-4 Number-3 Sept 2014


17. Sangramsing Kayte, Monica Mundada, Dr. Charansing Kayte "A Corpus-Based Concatenative Speech Synthesis System for Marathi" IOSR Journal of VLSI and Signal
Festival and Festvox Framework Tools for Marathi Text-to-Speech Synthesis


Index Terms

Computer Science

Pattern Recognition
Keywords

Grapheme-to-Phoneme (G2P), TTS, Festival, festvox, di-phone, ICT.