Abstract

A Text To Speech (TTS) synthesis is a computer based system that should be able to read any text aloud. Thus TTS technology is essential to those people who are visually impaired. It also plays a very important role in the field of Telecommunication, Industrial and educational applications. Thus TTS has been developed for foreign languages and is well established. As Indian language characters are complex in nature, it is not a straight forward approach to build the TTS system for Indian languages as compared to English. India is a country of multi languages among them Hindi is one of the 23 official language. Hence this paper discusses development of Hindi TTS system. Syllable units in Hindi language are better choice than any other units because each character in Hindi language is close to syllable which is in the form of
CVC (C: consonant, V: vowel). Existing Hindi TTS can be done using phone and diphone. The disadvantage in the existing system is that it requires larger concatenation points and has low quality speech output. It is observed that the quality of the synthesized sentences can be improved by using polysyllable units. In the proposed system, the developed database consists of more than 25,000 bisyllable and 1,200 syllables considering 3 positions of syllable in a word i.e. start, middle and end. The obtained results were compared with monosyllable based TTS, it indicated that the naturalness and intelligible of speech output is high compared to monosyllable based TTS system.

References

- Laba Kr Thakuria, Prof. P. H Talukdard,"Text to speech synthesis of GALO and ADI languages using polysyllabic units", ISSN 2347-7393, 2014.
Index Terms

Computer Science

Signal Processing

Keywords
Hindi Tts  Polysyllable Unit  Concatenative Speech Synthesis  Mos (mean Opinion Score)