Name of the Technology: Malayalam Text to Speech (TTS) System (SUBHASHINI™)

Nature of Technology: Human Machine Interface System

Level: Product

Technical Description:
The Malayalam Text to Speech system SUBHASHINI™ is a Windows based software, which converts Malayalam Text files into fairly intelligible speech output. The software is integrated with a text editor having ISCII, ISFOC and UNICODE support. The editor supports INSCRIPT keyboard layout.

The TTS is based on Speech synthesis by diaphonic concatenation and consists of the following three modules together with the user interface module:

- Diaphone Database
- Text Processing module
- Speech Synthesiser

Block Diagram of the system is given in figure 2

![Figure 2.2 Block diagram for Text processing module](image)

The concatenation of diaphones corresponding to the text is done in the Synthesis module and we get speech output. We are using the MBROLA speech engine for speech synthesis.

Developed on VB platform, Subhashini runs on Windows operating system.

Portability/Expandability/Scalability: The system can be expanded to handle intonation/prosody. Integration with website to readout web content is also possible.

Readiness of Transfer of Technology (ToT): Ready for ToT.

Availability of documentation: Available.

Testing of the Product/Technology: Third party testing to be done.

Potential beneficiaries: Speech and sight disabled, Telecommunication, Railways etc.

User-agency tie-up: Nil

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