

# Madhura – Gift of Voice

This project, started in 2000 is to develop a good quality, natural TTS for South Indian languages, which will enable and empower people with visual and vocal disability to learn and communicate easily and more effectively.

- ✓ *Objective 1:* To support the education of the blind people, by providing DAISY books in Indian languages and also enabling them to read any online content and any text document they have on their desktop or laptop, using our TTS together with a screen reader application.
- ✓ *Objective 2:* To facilitate the people with vocal disability, including the post-laryngectomy patients to be able to communicate freely in their mother tongue by inputting onto a mobile phone and converting it to speech.
- ✓ *Objective 3:* To facilitate the learning of, and information dissemination to, illiterates by converting information available as text in various media into speech, which they can listen and learn, including daily news. For example, the eShakti project of NABARD wants to use our TTS to communicate with its rural customers.

## The Idea

1. The kind of speech enabled services that are available for the English knowing population are NOT currently available for our other population, more comfortable with the Indian languages. Development of a good TTS in Indian languages is the first step to address this issue.
2. Most people working for language technology in the world, including Indians, are mainly focusing on English. We are committed to bridge the gap in serving our rural population, mainly used to Indian languages.
3. Tools for the disabled are, by themselves, few. Further, language technology tools for the visually or vocally disabled are further limited. Our unique focus is to develop such solutions, mainly for Indian languages.

## TTS available in different forms

1. SAPI compatible Tamil/ Kannada TTS engines for Windows desktop, which are readily usable with any screen reader such as JAWS or NVDA.
2. Web service of both Kannada and Tamil TTS is available at our lab server at - [http://mile.ee.iisc.ernet.in:8080/tts\\_demo/](http://mile.ee.iisc.ernet.in:8080/tts_demo/)
3. An Android app, which performs speech synthesis by automatically connecting to our online TTS service. This could be used by the visually disabled people to read their sms in Tamil or Kannada or by the vocally disabled to speak out what they want to communicate.

## **Our commitment**

We are committed to deliver our TTS technology free to the people with disability. We plan to start a company and sell the TTS technology or licence it to other companies to sustain the development and support of our technology on an ongoing basis.

## **Current users of our technology**

One of our Institutional users is the Braille Section Team of Anna Centenary Library, Kotturpuram, Chennai. In 2013, they had 975 blind students getting voice messages from the library, generated using our TTS. Currently, they have above 1500 members, who are visually challenged.

There are a number of individuals with visual impairment, who use our TTS on their laptop, together with a screen reader. Some of them also use our Lipi Gnani or Mozhi Vallaan OCR to digitize Kannada or Tamil printed content such as books and then use our TTS to read the same.