**TAMIL TEXT TO ENGLISH SPEECH CONVERSION WITH UNL FOR TRANSLATION**

**Problem Statement**

This project in the field of Natural Language Processing aims at translating an input Tamil sentence into an equivalent spoken English translation of the sentence. This brings together two major domains in NLP, i.e, machine translation and TTS (Text to Speech).

Given a Tamil sentence as input, the project will translate it into its corresponding English sentence with no loss in meaning while preserving the semantic structure of English. The translated sentence would be voiced over with a humanised robotic voice. Given a batch of sentences (document input ), each sentence would be processed and translated and synthesised into speech.

The first phase of the project i.e,conversion of Tamil input text into English is done by converting Tamil text into the Universal Networking Language representation and then converting from UNL into the equivalent English form. Since UNL is language-independent, it offers a very flexible platform for the representation of knowledge and also enables translation from any language to any other language.

The second phase of our project takes the converted English text and processes it with a Text-To-Speech Engine, to convert it into speech. This TTS system is modified at signal level with the necessary prosody, stress and intonation marked so as to add emotions to the text.  
  
**Modules Completed**

We have created an end - to - end flow of the first phase for a few test cases. With respect to the second phase, we have analysed voices of different speakers and identified features pertaining to different emotions. Also, we have incorporated MaryTTS in the flow.

This report and presentation are approved by our guide.Dr.Rajeswari Sridhar **Archana B - 2011103505**

**Siva M R - 2011103536**

**Jayavasanth R - 2011103562**