

**Supervisor details:** Dr. P. Vijayalakshmi,  
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**Field of study:** Disordered speech signal processing, Automatic speech recognition, Text-to-speech synthesis, Machine translation, Speech enhancement, Silent speech (EEG) signal processing, Music signal processing, speech enabled assistive technology

### **Summary:**

Dr. P. Vijayalakshmi is the Head of the Department of ECE, SSNCE and is currently heading the Speech and Language Technologies (SLT) Lab. The SLT laboratory is funded by organizations such as the Ministry of Electronics and Information Technology (MeitY), Department of Science and Technology - Technology Interventions for Disabled and Elderly (DST-TIDE), Tamil Virtual Academy (TVA), All India Council for Technical Education (AICTE), HCL and SSN Trust.

**Invitation for prospective students:** The lab currently has openings for research scholars who are highly motivated M.E students. JRF opportunities are also available for eligible candidates. Eligible candidates can register for Ph.D under Anna University. Potential topics to explore: **Whispered speech, Silent speech (EEG), Forensic speech, Dysarthric Speech, Automatic speech recognition, etc.** For more details, visit – [speech.ssn.edu.in](http://speech.ssn.edu.in)

### **Ongoing projects:**

1. BHASHINI - Funded by MeitY, is a mission to develop a golden standard system for automatic transcription, translation in multiple Indian languages and at SSN, we build assistive speech technologies for the challenged as a part of this project.
2. Development of a Machine Translation system funded by HCL Technologies.
3. Real time speech recognition for different dialects in Tamil funded by TVA.

### **Previous projects:**

1. Development of Text-to speech system for Indian languages – high quality TTS and small foot print TTS integrated with disability aids, funded by DIT-MCIT
2. Speech-Enabled Interactive Enquiry System in Tamil, funded by TVA
3. HMM-Based Text-to-Speech Synthesis system for Malaysian Tamil, funded by Murasu Systems Sdn Bhd
4. Speech-Input Speech-Output Communication Aid (SISOCA), funded by DST
5. Speech Assistive Aids for Visually-Challenged people, funded by TVA.

**Infrastructure:** The lab is well equipped for research, with facilities including - a collection of high-end condenser microphones, multi-channel USB audio interfaces and monitors, Nasometer, throat microphone, Emotiv mobile brainwear and Workstations with NVIDIA graphic processors.

**Members:** The lab houses a total of 13 PhD scholars (9 graduated, 4 currently pursuing). Bustling with passionate researchers, the lab hosts a large number of masters and undergraduate students working on various research problems. Members affiliated with the lab have published their work in top journals such as IEEE/ACM Transactions; IET Signal Processing; Computer, Speech, and Language; and have presented their work in highly ranked conference venues such as INTERSPEECH.