



# Research and Training Unit for Navigational Electronics Osmania University, Hyderabad - 500 007

Short-Term Course on

## AUTOMATIC SPEECH RECOGNITION

(Course Code: NERTU/SC/46)

### About NERTU

The Research and Training Unit for Navigational Electronics (NERTU) is established in 1982. It is the focal point for research and training in the area of Electronic Navigation in India. Since its inception, NERTU has successfully executed 36 sponsored and consultancy projects funded by DRDO, ISRO, DST, MIT, ECIL, HAL, BEL, AICTE and ASL. Currently, several projects in different areas related to navigation, signal processing and communications are in progress. It has also conducted 45 short term courses/workshops/ conferences on various topics of signal processing, communications and Navigation

### Course Overview

Outstanding work in Automatic speech recognition (ASR) and computing has produced the commercial speech recognition systems for voice-driven computing and word-processing systems in English and European Languages. Though some research work is happening in Indian languages too, like in Hindi, Tamil, Bengali and Telugu, ASR systems are not yet launched into the Indian market at full level. Therefore there is a need to do the research and development of ASR based applications for Indian languages. The main objective of the course is to train and motivate the participants to learn the basics of Automatic Speech Recognition and start research in ASR for Indian Languages. The following topics will be covered. Speech production, perception, Analysis, Fundamentals of ASR, Feature Extraction, Dynamic Time Warping, Hidden Markov Models, ASR for Isolated Words and Continuous Speech, Gaussian Mixture Models, Speaker Recognition, performance analysis of ASR over VOIP and wireless networks and some Demos on Real time ASR using MATLAB and applications of ASR system using Sphinx.

### Resource Persons:

1. Dr.K.Samudravijaya, TIFR, Mumbai
2. Dr.V.Ramasubramanian, Siemens CT India, Bangalore
3. Dr.V.Kamakshi Prasad, JNTU, Hyderabad
4. Dr.C.Krishna Mohan, IIT, Hyderabad
5. Dr.Suryakanth V Gangashetty, IIIT, Hyderabad
6. Mr. A.V.Ramana, DSP and Voice Systems, IKANOS Communications, Bangalore
7. Dr.P.Laxminarayana, NERTU, Osmania University, Hyderabad.

### Venue:

The course will be held at

**Research and Training Unit for Navigational Electronics, Osmania University, Hyderabad**

**Time: 0930Hrs 1730Hrs**

### Registration Fee:

**Rs. 2500/- for Full Time Students/Scholars**

**Rs. 3500/- for Teachers and Academicians**

**Rs. 5000/- for Engineers and Scientists from industries and research organizations.**

DD/Cheque should be drawn in favor of **The Director, NERTU, OU.**

**Seats are limited and filled based on First come first served. Limited accommodation is available on payment basis.**

Interested candidates can down load the registration form from [www.osmania.ac.in](http://www.osmania.ac.in) or <http://www.uceou.edu> and send the filled form along with DD/Cheque, before **25th August 2010**, to the following address.

**The Coordinator, ASR-10**

**Research and Training Unit for Navigational Electronics**

**Osmania University, Hyderabad 500 007**

**For further queries contact: Dr.P.Laxminarayana, Coordinator, ASR-10.**

Ph. 949 080 5486, Fax: 040-27091762 [laxminarayana@osmania.ac.in](mailto:laxminarayana@osmania.ac.in), [plaxminarayana@yahoo.com](mailto:plaxminarayana@yahoo.com)