RESEARCH AND TRAINING UNIT FOR NAVIGATIONAL ELECTRONICS

An Evening School on

AUTOMATIC SPEECH RECOGNITION AND SYNTHESIS (ASR-15)

(Course Code: NERTU/SC/60)

5TH AUGUST – 20TH NOVEMBER 2015 (WEDNESDAY AND SATURDAY)

SPEAKERS

1.Dr.P.Laxminarayana, NERTU, OU
2.Dr.A.V.Ramana, Ikanos
3.Mr.Mythilisharan,Research Scholar,OU

and experts from research labs working in the area of Speech Signal Processing

Duration: 5th Aug. – 20th Nov. 2015

Two days in aweek (Wed, Sat)

Time: 03.00PM – 8.30PM

Location: NERTU, OU

Coordinator:

Prof.P.Laxminarayana,
Principal Scientist, NERTU, OU.
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REGISTRATION FEE

Rs. 4,000/- for Full Time Students
Rs. 8,000/- for Teachers
Rs. 12,000/- for Scientists/Engineers from Research Organizations and Industries

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

Seats are limited and filled based on First come first served.

LAST DATE FOR REGISTRATION

31st July 2015

Please visit for More Details & Registration:
www.osmania.ac.in or www.uceou.edu
or Contact Co-cordinators

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Course Overview and Topics to be Covered

This evening school is intent to prepare the researchers, scientists, faculty members, PhD students, PG and UG students, those who wish to learn, improve and consolidate their skills in the area of speech signal processing. In many situations, though the research guides/supervisors are ready to help the students, due to lack of required skills in mathematical, theoretical and programming, the students are failing to implement the suggestions given by them. Few advanced level courses taught by the senior faculty members/scientists doing research in this area and implementation of few published papers in standard journals, will help the students to acquire these skills to do their research work. This course is designed to train the students to learn the basics of speech signal Processing and implement few published papers in the area of Speech Signal Processing particularly related to Speech/Speaker Recognition and Text to Speech Synthesis, in the standard journals and reproduce the same or similar results.

Following topics will be covered in the lectures.

Speech Production, Speech Perception, Digital Models for Speech Production, Speech Compression, Audio Compression, Fundamentals of ASR, Feature Extraction for ASR, DTW, IWR HMMs, ASR for connected words, Phoneme based Continuous Speech Recognition, Language Modelling, Gaussian Mixture Models, Tools for ASR Sphinx, HTK etc

Fundamentals of TTS, Phonetic Analysis, Waveform Synthesis, Labeling/Segmentation, Text Normalization, tools for TTS.

Speaker Recognition, Speaker Diarization, Speech Enhancement

Targeted Participants

Academicians, Scientists, M.E./M.Tech./M.Sc. students and Research scholars, interested to pursue research/ Ph.D . in Speech Signal Processing are the expected participants Those who have finished B.Tech. and joining M.Tech. course in the area of signal processing or communication engineering can also join this course. It is also very much useful for the junior faculty members interested to guide the students in the area of speech signal processing for B.Tech/M.Tech projects.

This is an intensive school. The Participants are expected to solve the given assignments at home. There will be also tutorials to give the feedback to the students on the solutions to the Assignments. Grading will be given in the certificate based on the performance. Participants have to bring their own laptops for lab sessions.

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 areas of Electronic Navigation in India. Since its inception, NERTU has successfully executed **48** 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 **58** short term courses/workshops/conferences on various topics of signal processing, communications and Navigation.

Interested candidates can down load the registration form from **www.osmania.ac.in or http://www.uceou.edu** and send the filled form along with DD/Cheque, before **31st July 2015**, to:

The Coordinator, ASR-15,
Research and Training Unit for Navigational Electronics (NERTU), Osmania University, Hyderabad 500007