

### FACULTY DEVELOPMENT PROGRAMME (FDP)

on

## SPEECH PROCESSING

(01st June to 10th June, 2017)





National Institute of Technology, Warangal

Under the scheme of Electronics & ICT Academy

(Sponsored by Department of Electronics and Information Technology (DeitY), GOI)

#### **Preamble:**

"Electronics & ICT Academy" is being set up at NIT Warangal with financial assistance from DeitY, MCIT, Govt. of India (GoI). The jurisdiction of this academy is Telangana, Andhra Pradesh, Andaman and Nicobar Islands, Goa, Puducherry and Karnataka states/UTs. This academy role is to offer faculty development programmes in standardized courses and emerging areas of Electronics, Information Communication Technologies; Curriculum development for Industry; Training & Consultancy services for Industry; CEP for working professionals; Advice and support for technical incubation and entrepreneurial activities.

Speech Processing is a scientific discipline as well as a technology frontier with immense applications. The treatment of speech processing requires an initial grounding in digital signal processing. This not only enables to understand why things appear the way they do in various spectrographic representations, but also allows a proper coverage of basic speech processing algorithms. As a scientific discipline it has a long history and as a technology area it is intensively explored both by industry and academia. On one side of the spectrum is the speech & language sciences, such as linguistics, phonetics and psychoacoustics, and on the other side are the signal processing theory and pattern recognition and artificial intelligence. This leads to enhanced human-human & human- machine communication systems, such as speech and audio coding, automatic speech and speaker recognition, speech synthesis, speech enhancement etc. Pursuit of such wide ranging research and development demands a broad base of fundamental knowledge, as well as the mastering of clever algorithms and techniques.

#### **Major Course Contents:**

- > Nature of Speech Signal and Basics of Speech Processing
- > Speech Production and Analysis
- Speech Enhancement and Coding
- > Prosody Modeling and its Applications
- Speech and Speaker Recognition
- Speech Emotion Recognition
- Deep Learning for Speech Processing
- > Statistical Parametric Speech Synthesis
- Audio Processing

# Hands on session on the above topics will be provided. Faculty Conducting this Programme:

The programme will be conducted by the faculty members from NIT Warangal. Academicians from IITs / NITs / IIITs in concerned field are invited to deliver lectures in the programme. Speakers from industries are also expecting to deliver as part of the course.

### **Eligibility:**

The programme is open to the teachers of engineering colleges in Telangana, Andhra Pradesh, Andaman and Nicobar Islands, Goa, Puducherry and Karnataka states/UTs. Industry personnel working in the concerned/allied discipline can also attend

#### **Registration Fee Particulars:**

- Faculty / Research Scholars form mentioned states: Rs. 3,000/- Only (Rs. 750/- for SC/ST Category)
- Industry participants : Rs 09,000/- Only
- Participants from other states: Rs 12,500/- Only

The participants need to send a crossed demand draft (DD) drawn in favor of "Director, NIT Warangal" and payable at SBH, NIT Warangal branch or remit the necessary course fee to the Bank as per the details given below.

Account Name	Electronics & ICT Academy NITW
Account Number	62423775910
Name	State Bank of Hyderabad
Branch	REC Warangal (NIT Campus)
Branch Code	20149
IFSC	SBHY0020149
MICR	506004011

#### **Accommodation:**

All the selected participants will be provided FREE boarding & lodging in the institute. No TA will be paid for the participants.

#### How to Apply:

A filled in form of application in the prescribed format duly signed and sponsored by appropriate authorities (along with DD/NEFT Receipt) should reach the coordinator by speed post. It is also mandatory to send scanned application form and DD/NEFT receipt through e-mail to <a href="mailto:ssp.nitw@gmail.com">ssp.nitw@gmail.com</a> as selection will be intimated only through mail.

#### **Selection Criteria:**

Selection will be done based on *first-cum-first-serve basis* and the confirmed candidates will be notified immediately. The maximum number of participants will be **50** (**fifty**). Additionally 10 participants from industry are allowed to participate. The list of selected participants will be notified in the institute web site www.nitw.ac.in and also will be sent to their personal *e-mail* ids. In case a candidate is not selected, the demand draft will be sent back. A test will be conducted at the end of the course. Candidates will be issued certificates on successful completion of the course along with grade. Reservations are followed for selecting candidates as per **GOI** norms.

#### **Important Dates:**

Last date for submission of application: 25<sup>th</sup> May, 2017
Selection-list intimation/display before: 29<sup>th</sup> May, 2017
Duration of Program: 01<sup>st</sup> to 10<sup>th</sup> June, 2017

### **About the Institute, Department and Warangal:**

National Institute of Technology (formerly Regional Engineering College), Warangal is the first among 17 RECs setup as joint venture of the Government of India and the state government. Over the years the college has established itself as a premier Institution imparting technical education of a very high standard leading to the B.Tech degrees in various branches of engineering, M.Tech. and Ph.D programs in various specializations.

The Department of Electronics and Communication Engineering offers B.Tech. course in ECE, M.Tech. courses in Advanced Communication Systems (ACS), VLSI Design and Electronic Instrumentation. The Department has experienced faculty with good publications and well-established laboratories. The Department has liaison with reputed industries and R&D organizations.

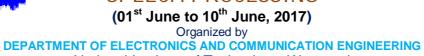
Warangal is known for its rich historical and cultural heritage. It is situated at a distance of 140Km. from Hyderabad. Warangal is well connected by rail and road. National Institute of Technology campus is 2 Km. away from Kazipet station and 12Km. away from Warangal station.



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# SPEECH PROCESSING





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# APPLICATION FORM

1.	Name of the Applicant :		
2.	Designation:	3.	Institution :
4.	E-mail ID :	5.	Mobile No. :
6.	Category	7.	Payment Mode
	$\ \square$ Faculty/Scholars from mentioned states (Rs. 3,000/-)		☐ Demand Draft No:
	☐ Industry Participants (Rs. 9,000/-)		□ NEFT/ UTR No. :
	☐ Participants from other states (Rs. 12,500/-)		Bank : Date :
	☐ SC/ST Participants (Rs. 750/-)		
8.	Address for Correspondence:	9.	Subjects taught so far:
10.	Educational Qualifications with specialization :		
11.	No. of refresher courses/workshops attended:		
12.	Experience (in years) : Teaching		Research Industry
13.	Do you belong to reservations SC/ST ( YES / NO ) : If Y	ES,	please specify (* Attach photo copy)
14.	Do you require accommodation during Training : YES /	NO	
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For more details about Electronics and ICT academy please visit: http://www.nitw.ac.in/eict/