



## FACULTY DEVELOPMENT PROGRAMME (FDP) ON

# Signal Processing Techniques in Wireless Communications

(19<sup>th</sup> – 24<sup>th</sup> February, 2018)

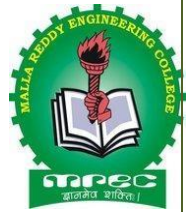
Organized by

Malla Reddy Engineering College, Hyderabad

in association with

**E & ICT Academy, National Institute of Technology, Warangal.**

(Sponsored by Ministry of Electronics and Information Technology (MeitY), GOI)



### Preamble:

"Electronics & ICT Academy" was set up at NIT Warangal with financial assistance from MeitY, Gol. The jurisdiction of this academy is Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry and Andaman & Nicobar Islands. This academy role is to offer faculty development programmes in standardized courses and emerging areas of Electronics, Information Communication Technologies, training & consultancy services for Industry, Curriculum development for Industry, CEP for working professionals, Advice and support for technical incubation and entrepreneurial activities.

As part of this initiative, a Faculty Development Programme (FDP) on Software Engineering is being conducted to the Faculty members of engineering, MCA and other allied degree colleges.

This FDP aims at providing strong theoretical background along with practical experience in the field of signal processing techniques in wireless communications.

Signal processing Techniques, algorithms and architectures have an increasingly important role to play in meeting the central challenges faced in the design of advanced wireless communication systems. In *Wireless Communications: Signal Processing Perspectives*, leaders in the field describe state-of-the-art research in applying signal processing methodologies in the context of tomorrow's most important wireless applications, ranging from next-generation cellular telephony and personal communication services, to nomadic computing and wireless multimedia.

### Major Course Contents:

- Introduction to wireless communications: Wireless Channels and Fundamental limits in wireless Transmission.
- Diversity combining Techniques, Space time coding.
- MIMO Transmission and Detection Techniques.
- Channel Estimations and Equalization Techniques
- Digital Modulation Techniques Wireless Communications.
- Multicarrier Modulation Systems
- Signal Processing techniques for 4G and 5G Communications.
- Hands-on Experiences.
- Mini Projects using MATLAB and Free open Source software.

### Faculty conducting this programme:

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

### Eligibility:

The programme is open to the teachers of Engineering Colleges, MCA Colleges and other allied disciplines in Telangana, Andhra Pradesh, Karnataka, Goa, Puducherry, Andaman and Nicobar Islands. Industry personnel working in the concerned /allied discipline can also attend.

### Registration Fee Particulars:

Faculty and Research Scholars from Telangana, Andhra Pradesh, Karnataka, Puducherry, Andaman and Nicobar Islands, Goa	Rs. 2500/-
Faculty of SC/ST Category from Telangana, Andhra Pradesh, Karnataka, Puducherry, Andaman and Nicobar Islands, Goa	Rs. 1250/- (SC/ST participants should submit the copy of their caste certificate to claim the concession along with application form)
Industry Participants	Rs. 7500/-
Participants from other states	Rs. 8500/-

SC/ST concession is only for faculty of mentioned states.  
Research Scholars are not eligible for SC/ST concession.

The entire registration fee is to be collected in the form of DDs/online transfer using the following details:

DD Details	Online Transfer Details
Demand Draft in favor of "Director, NIT Warangal" payable at any bank in Warangal	Account Name: Electronics & ICT Academy NITW Account No: 62423775910 IFSC: SBIN0020149

### Organized at:

The programme will be coordinated and conducted by Malla Reddy Engineering College, Hyderabad. The whole course is handled by academicians from premier institutions, Industry experts and Research advisors.

### Accommodation:

All the selected participants will be provided FREE boarding & lodging in the institute College Hostel. 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 demand draft) should reach the coordinator by speed-post. It is also mandatory to send scanned application form and demand draft through e-mail to [kpatteti@gmail.com](mailto:kpatteti@gmail.com) as selection will be intimated only through mail.

### Selection Criteria:

Selection will be done based on first-come-first-serve basis to a maximum number of 50 (fifty). Additionally 10 participants from industry are allowed to participate. The list of selected participants will be intimated through e-mail. In case a candidate is not selected, the DD will be sent back. Candidates will be issued certificates on successful completion of the course. Reservations are followed for selecting candidates as per GOI norms.

### Important dates:

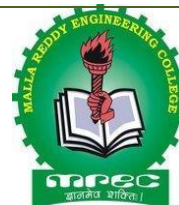
Last date (Application & DD)	10.02.2018
Selection List by E- mail	17.02.2018
Duration	19 <sup>th</sup> – 24 <sup>th</sup> February, 2018

### About NIT Warangal:

**National Institute of Technology, 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 Institute 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. All B. Tech and M. Tech programmes of NIT Warangal are NBA accredited.

### About MREC, Hyderabad:

Malla Reddy Engineering College (Autonomous) was started in the year 2002 by Chairmanship of Sri Ch Malla Reddy, M.P., who has vast experience in providing high quality technical education, on par with premier Institutions, .MREC was started with the approval of AICTE, New Delhi and affiliated to JNTUH Hyderabad. The College is situated in the serene, lush green environment on the Kompally - Bahadurpally road, opposite to Forest Academy, RR District, Telangana State. The college offers B.Tech courses in Civil, EEE, Mechanical, ECE, CSE and Mining Engg., and IT and 5 M.Tech courses and MBA. Civil, EEE, Mechanical courses are accredited 2<sup>nd</sup> time by NBA and the college is an UGC autonomous institution and affiliated to the JNTUH, accredited 2<sup>nd</sup> time by NACC with 'A' grade w.e.f 2016-17 . MREC is also accredited for PG Structural Engineering and Thermal Engineering Programme by NBA. The Institution has state -of-art infrastructure and well equipped laboratories in all departments.



## APPLICATION FORM

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## Signal Processing Techniques in Wireless Communications (19<sup>th</sup> – 24<sup>th</sup> February, 2018)

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1. Name :
2. Designation :
3. Institution :
4. Email :
5. DD No:                      Bank:                      Date:
  
- Amount:
6. Address for Correspondence:

#### SPONSORSHIP CERTIFICATE

Dr. /Mr. /Ms. .... is an employee of our Institute/Organization and is hereby sponsored to participate in the FDP on “**Signal Processing Techniques in wireless communications**”, sponsored by Electronics & ICT Academy during 19<sup>th</sup> – 24<sup>th</sup> February, 2018 at GPEC, Kurnool

Signature of Head of Institution  
(with seal)

7. Educational Qualification:
8. Subjects taught so far:

**Address for correspondence**  
*Post your application form with DD to*

**Dr.Patteti Krishna**  
Associate Professor, ECE Department  
Mallareddy Engineering College (Autonomous),  
Maisammaguda, Dhulapally(Via Kompally)  
Secunderabad-500100, Telangana State, India.

9. No. of refresher courses/workshops attended:
10. Experience (in years):  
Teaching:                      Research:                      Industry:

*E-mail the scanned copies of filled-in and duly signed application form along with DD to*  
[kpatteti@gmail.com](mailto:kpatteti@gmail.com)

11. Accommodation required:                      YES / NO
12. Do you belong to SC/ST :                      YES / NO

(If yes, please specify and attach a copy of caste certificate to claim the concession)

*For more details about Electronics & ICT Academy, NIT, Warangal, please visit:*  
<https://nitw.ac.in/eict>

#### **Declaration**

The information provided is true to the best of my knowledge. If selected, I agree to abide by the rules and regulations of the FDP and shall attend the course for the entire duration. I also undertake the responsibility to inform the Coordinator in case, I am unable to attend the course.

*For more enquiries please contact:*

Mobile: 8332969363, 9248727226  
Land line: 0870-2462444

Signature of the Applicant

### Coordinators

**Dr. J. Ravi Kumar**  
Assistant Professor  
Dept. of ECE  
NIT Warangal

**Dr. Patteti Krishna**  
Associate Professor  
Dept. of ECE  
Malla Reddy Engineering College, Hyd