ONE WEEK WORKSHOP
ON
# Antenna Design and Signal Processing Techniques for 5G Networks and IoT (ADSPNIT- 2017)

**27th Feb – 4th March, 2017**

*Workshop Coordinator*

**Dr. V. S. Tripathi**

*Jointly organized by*



**IEEE Student Branch Chapters of
Microwave Theory and Techniques Society (MTT-S)
Communication Society (ComSoc)
Broadcast Technology Society (BTS)
Signal Processing Society**

**and**



**Electronics and Communication Engineering Department
Motilal Nehru National Institute of Technology
Allahabad, Allahabad - 211004, INDIA**

**Sponsored by:**



## WORKSHOP OBJECTIVE

This workshop will give participants a good exposure of 5G Networks and IoT. The participants will get insights to various enabling technologies for 5G Networks and IoT; such as microwave devices like microstrip patch antenna, reconfigurable filtering antenna and signal processing tools. During lab sessions of this workshop, the design procedure of microstrip patch antenna, filter, arrays and other microwave devices using HFSS alongwith some important signal processing tools using MATLAB will be discussed.



The workshop is intended to provide engineers, faculty members of engineering colleges, and students pursuing Ph.D. in communications and networking, with an in depth technical exposure to advanced technologies that form a solid basis for 5G networks and IoT. Further, a few interested undergraduate and postgraduate students with good academic record, who would like to further explore this recent and fascinating area, can also be accommodated.

## WORKSHOP CONTENTS

The following topics will be covered in this workshop:
- 5G Networks and IoT.
- Hands on experiments on IoT.
- Microstrip Patch Antenna (MPA) Design for 5G and IoT.
- MIMO Antenna Systems for 5G Networks and IoT.
- Microstrip Patch Filter Design Procedure.
- Microstrip Patch Filtenna Design Procedure.
- Design of Patch Array.
- Simulation using HFSS.
- Hands on QualNet.
- Hands on Vector Network Analyzer.
- Signal processing for 5G Networks and IoT.
- Lab sessions.

## ELIGIBILITY

B.Tech., M.Tech., Ph.D. Students, Faculty and budding professionals from Industry. The seats are limited and selection will be made on the basis of 'first come first serve'.

## RESOURCE PERSONS

The workshop content will be delivered by a panel of experts from MNNIT Allahabad, reputed institutions, research organizations and industry[#].

Prof. Sudarshan Tiwari, NIT Raipur
Prof. Rajeev Tripathi, MNNIT Allahabad
Prof. S. K. Koul, IIT Delhi
Prof. S. S. Pathak, IIT Kharagpur
Dr. N. P. Pathak, IIT Roorkee
Dr. Manav Bhatnagar, IIT Delhi
Dr. Karun Rawat, IIT Roorkee
Dr. Meenakshi Rawat, IIT Roorkee
Prof. Shekhar Verma, IIIT Allahabad
Prof. M. M. Gore, MNNIT Allahabad
Prof. Neeraj Tyagi, MNNIT Allahabad
Dr. Mayank Pandey, MNNIT Allahabad
Dr. Rajat Kumar Singh, IIIT Allahabad
Dr. Neetesh Purohit, IIIT Allahabad
Mr. Madhukar Tripathi, Anritsu Corporation
Mr. Ravi Shankar, Scientech Technologies
Mr. Puneet Anand, ANSYS
Mr. Pranav Tyagi, Eigen Technologies
(# Tentative list)

## ORGANIZING COMMITTEE

### CHAIRMAN
Prof. Rajeev Tripathi
Director, MNNIT Allahabad

### CO-CHAIRMAN
Prof. V. K. Srivastava
Head ECED, MNNIT Allahabad

### WORKSHOP COORDINATOR
Dr. V. S. Tripathi, ECED, MNNIT Allahabad
E-mail id: vst@mnnit.ac.in

### ORGANIZING SECRETARIES
Dr. Manish Tiwari, ECED, MNNIT Allahabad
E-mail id: mtiwari@mnnit.ac.in

Dr. Arun Prakash, ECED, MNNIT Allahabad
E-mail id: arun@mnnit.ac.in

### STUDENT COORDINATORS
Mr. Gaurav Upadhyay (+91-9458022975)
Mr. Prashant Ranjan (+91-9415898866)
Mr. Nand Kishore (+91-8853038570)
Mr. Vivek Rajpoot (+91-9412305274)
Mr. Raghavendra Pal (+91-7571881947)
Mr. Tarique Rashid (+91-9554574240)
E-mail id: adspnit2017@gmail.com

## REGISTRATION FORM

One Week Workshop on

**Antenna Design and Signal Processing Techniques for 5G Networks and IoT (ADSPNIT-2017)**

27th Feb – 4th March, 2017

*Jointly organized by*

IEEE
**Advancing Technology for Humanity**

IEEE Student Branch Chapters of
Microwave Theory and Techniques Society (MTT-S)
Communication Society (ComSoc)
Broadcast Technology Society (BTS)
Signal Processing Society

Electronics and Communication Engg Deptt
Motilal Nehru National Institute of Technology Allahabad
Allahabad-211004, Uttar Pradesh, India

Name: _____

IEEE Membership No. (if available): _____

Designation: _____

Department: _____

Institute: _____

Highest Degree with Specialization/ Branch: _____

Address for Correspondence: _____
_____

Phone: _____Mobile: _____

Email: _____

Accommodation Required: Yes/No

**Registration Fee Details:**

Amount: _____Date: _____

Bank Details: _____

DD No. : _____

**or**

NEFT/RTGS/IMPS transaction Number: _____

Signature of Applicant with Date: _____

Note:
- If payment is made by DD, please submit original DD at the time of physical registration.
- Registration fee is non-refundable.
- No TA/DA will be provided for attending the workshop.
- Organizers have all rights to cancel or postpone the workshop under unavoidable circumstances, which will be communicated to all applicants through email.

## REGISTRATION PROCEDURE

Registration form along with other details is available on the Institute website http://www.mnnit.ac.in. Scanned copy of filled and signed registration form should be sent by email to **adspnit2017@gmail.com** on or before **20 February 2017** along with the scanned copy of receipt of registration fee payment.

## REGISTRATION FEE

| | |
|---|---|
| Student (IEEE Member) | : **Rs.3000** |
| Student (Non IEEE Member) | : **Rs.3500** |
| Project Staff /Faculty Members | : **Rs.5000** |

(Registration fee includes registration kit, tea and working lunch. No T.A. /D.A. will be paid to the participants)

## MODE OF PAYMENTS*

**For Internet Banking User:**
Bank Name/ Branch: Vijaya Bank / MNNIT Allahabad
IFSC Code: VIJB0007184
Account Name: ADSPNIT- 2017
Account Number: 718400301000229

**For Non-internet Banking User:**
Demand Draft in favour of **'ADSPNIT- 2017'** payable at **Allahabad**.

*After completion of successful payment, kindly mail the receipt of e-payment or scanned copy of DD along with the registration form on email id: **adspnit2017@gmail.com**.

## FOODING AND LODGING

The institute offers paid accommodation in Executive Development Centre (if available), and dining facilities on payment basis at the EDC/hostel. However, if requested, free guest room/hostel accommodation can also be arranged (for outstation students only).

## ABOUT ALLAHABAD CITY

The city of Allahabad (also known as Kumbh Nagri Prayag) is among the largest cities of Uttar Pradesh and situated at the confluence of three sacred rivers-Ganga, Yamuna and the invisible Saraswati. This city enjoys a glory of its own in the religious, cultural, education and political history. Its splendor has attracted throughout the ages, not only the common people but also great monarchs, religious leaders, philosophers and scholars. Allahabad has number of tourist places of cultural and historical importance like Sangam, Bhardwaj Asharam, Fort, Alfred Park, Anand Bhawan, Museum etc. It is well connected with the major cities of India via Road, Rail and Air.

## MNNIT ALLAHABAD

Motilal Nehru National Institute of Technology (MNNIT) Allahabad is an Institute with total commitment to quality and excellence in academic pursuits. It is among one of the leading Institutes in India. It was established in the year 1961 as a joint enterprise of Govt. of India and Govt. of Uttar Pradesh in accordance with the scheme of establishment of Regional Engineering College. On June 26, 2002 Motilal Nehru Regional Engineering College was transformed into National Institute of Technology and Deemed University fully funded by Govt. of India. With the enact-ment of National Institutes of Technology Act-2007 (29 of 2007), the Institute has granted the status of instiution of national importance w.e.f. August 15, 2007. It offers B.Tech., M.Tech., Ph.D., MCA, M.Sc., and MBA degrees in various disciplines of Engineering, Technology, Science, Humanity and Management. MNNIT campus is situated on Allahabad-Lucknow highway. It is about 8 km from Allahabad railway junction, 7 km from city bus terminal and 12 km from airport.

## ELECTRONICS AND COMMUNICATION ENGINEERING DEPARTMENT

The Electronics and Communication Engineering Department offers one B. Tech. programme in Electronics and Communication Engineering and three M. Tech. programmes with specialization in Communication Systems, Digital System, Microelectronics and VLSI Design. The Department is actively involved in research in different core areas leading to Ph. D. degree. Besides this, the department is also recognized as a QIP center for M. Tech. and Ph. D. programmes by Govt. of India. The Department has highly qualified and competent faculty members in the areas of Data Communication and Networking, Wireless and Mobile Communication, Antenna Design and MIMO Systems, High Speed Networks, Optical communication Networks, Signal Processing, Analog and Digital Circuit Design, Microelectronic Devices, VLSI Design, Microcontroller and Embedded Systems.

## IMPORTANT DATES

Last date of receipt of registration form: **20 Feb 2017**
Intimation of confirmation by email       : **21 Feb 2017**