

Toward The Era of Millimeter-waves

A

Faculty Development Program

Sponsored by

E&ICT Academy, NIT Patna

June 4 – June 9, 2018

Organized by



**Department of Electronics and
Communication Engineering
National Institute of Technology
Patna
Patna – 800005**

Course Objective

The exploration of millimeter-wave (mmW) frequency band started with the experiment of Sir J. C. Bose in 1895. Since the inception, mmW systems were primarily being used for defense and space applications due to unavailability of low-cost components. Interestingly, the mmW systems offer numerous advantages such as high data rate communications over the microwave systems, imaging in poor atmospheric conditions (snow, fog) which is not possible at the optical and infrared wavelengths. The objective of the present six days long course is to provide an overview on mmW systems, challenges and design of the mmW components from the basics to the recent advancements through a series of theory classes interleaved with the hands on practice using advanced simulation tools.

Course Content

- Millimeter-wave systems, applications to challenges, transceiver architectures
- Waveguide loss mechanisms and mitigation techniques
- Effect of noise and nonlinearities
- Millimeter-wave component design, limitations to new concepts
- Radiation pattern and scattering parameter measurements

Course Coordinator

Dr. Priyanka Mondal
Dept. of Electronics & Communication Engg.
National Institute of Technology Patna
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Course Faculty

Faculty members/experts from IIT Kharagpur, IIT Delhi, NIT Patna.

Intended Participants

The course is designed for the people from the academia. People from R&D organization, industry and graduate students who want a guided tour on the topics under consideration are equally intended.

How to Reach

NIT Patna is situated on Ashok Rajpath at a distance of 6 KM from Patna Railway Station. Frequent taxis, auto-rickshaws are available all day long from the station.

Accommodation

Shared hostel/guest house accommodation would be provided on payment basis.

Registration

Registration Fee

Student: Rs. 1,500/-

Faculty: Rs. 3,000/-

Scientist/Industry: Rs. 5000/-

The above fee includes course materials, a working lunch, and tea during the course hours.

Mode of Payment

Demand draft drawn in favor of 'Director, NIT Patna' payable at Patna or online payment to the following Account Name: NIT Patna, Account No: 50380476798, IFSC: ALLA0212286.

How to Apply

Interested candidates may apply through an email to the course coordinator along with the soft copies of the filled registration form given herewith and the demand draft/online payment receipt by **28th May, 2018**. The original registration form and the demand draft should be handed over during the course registration on the very first day.

Certificate

A certificate of participation would be issued to all of the participants.

Enquiry

For any query drop an email to the course coordinator or call at +91-8340468231.

Registration Form for the Faculty Development Program "Toward the Era of Millimeter-waves", June 4 - June 9, 2018 at NIT Patna.

1. Name:.....

2. Designation:.....

3. Address (Office):.....
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4. Phone (Cell):.....

E-mail (compulsory):.....

5. Male/ Female:.....

6. Highest academic qualification:.....

7. Accommodation Required (Y/N):.....

8. Draft/Online Ref.

No.....

Date.....

Amounting Rs.....drawn

on.....Bank

9. Signature of the candidate with date:

10. Recommended and forwarded:

Date:

Signature and Seal of the
Head of the Organization