

Terahertz Technology and Its Applications

August 01 – August 05, 2016

Overview

Terahertz technology is sandwiched between traditional microwave and optical technology. In the last more than four decades, it was primarily being used for space science applications in radio astronomy and planetary sciences. But in recent years, terahertz waves are increasingly being used in commercial applications such as high speed communications, security imaging, autonomous landing and refueling of airplanes, medicines and many more. Despite of the fascinating scientific and commercial potential, the terahertz frequency band remains one of the least utilized electromagnetic bands because of the unavailability of commercial source, sensor components, and sub-systems. The challenges in designing a sub-system at this frequency as well as recent progresses will be discussed in a series of lectures interleaved with the simulations using advanced simulation tools. Interactive sessions to motivate researchers to conduct research in this technologically challenging area are in focus.

Module	Potential Applications of Terahertz technology, Challenges in Sub-System Development, Simulations and Interpretation of Results
Who can attend	<ul style="list-style-type: none">▪ Engineers and researchers from research institutes, industries.▪ Student or faculty from academic and technical institutions.
Fees	<p>The participation fees for taking the course is as follows:</p> <p style="text-align: center;">Student: INR 1000 Faculty/Researcher: INR 5000 Private Industry: INR 10000</p> <p>The above fee includes a working lunch, all instructional materials, computer use for tutorials, internet facility. The participants will be provided with accommodation on payment basis. Part time Ph. D students will not be considered under student category.</p>

The Faculty



Dr. Goutam Chattopadhyay is a Senior Research Scientist at the NASA's Jet Propulsion Laboratory, California Institute of Technology, and a Visiting Associate at the Division of Physics, Mathematics, and Astronomy at the California Institute of Technology, Pasadena, USA. He received the Ph.D. degree in electrical engineering from the California Institute of Technology (Caltech), Pasadena, in 2000. His research interests include microwave, millimeter-, and submillimeter- wave heterodyne and direct detector receivers, frequency sources and mixers in the terahertz region, antennas, SIS mixer technology, direct detector bolometer instruments; InP HEMT amplifiers, mixers, and multipliers; high frequency radars, and applications of nanotechnology at terahertz frequencies.

Venue

Department of Electronics and Communication Engineering,
National Institute of Technology
Patna, Ashok Rajpath, Patna
800005, Bihar.

Registration Process

1. Fee payment by
Internet Banking:
A/C No. 50306846783
Allahabad Bank, NIT Patna
IFSC: ALLA0212286

OR

- Draft:
In favour of GIAN NIT Patna
payable at Patna
2. Send the registration form by email/post to the course coordinator along with the payment details/draft by 27th of July.

Course Coordinator

Dr. Priyanka Mondal
Dept. of ECE
NIT Patna
Email: pmondal@nitp.ac.in
Phone: 9718966324

Registration Form

1. Name:.....

2. Designation:.....

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

Signature of the candidate with date:

.....

Recommended and forwarded

Date:

Signature and Seal of the Head of the Organization.