

This file has been cleaned of potential threats.

If you confirm that the file is coming from a trusted source, you can send the following SHA-256 hash value to your admin for the original file.

79a8e0f762ea486a3b3d2dc81bceaa5e992f5087e07c1c764b47795f89a79359

To view the reconstructed contents, please SCROLL DOWN to next page.

IMPORTANCE AND SCOPE

Current microwave systems for transmission and radiation of electromagnetic waves have to meet the competing requirements of enhanced functionality, low loss, reduced size and weight and low cost. It is important to appreciate that many of the design goals in modern efficient and miniaturized systems are self conflicting. For example, incorporation of multiband or broadband characteristics involves increase in physical size, which may have to be carefully optimized in handheld and wireless systems where space is at a premium. Similarly, development of low-loss devices are crucial for successful operation at the Ka and Ku-bands and beyond. It might be mentioned that traditional technologies like the microstrip are prohibitively lossy at 20-30 GHz frequencies and beyond. The rectangular waveguide based designs, though satisfying the loss requirements, are comparatively bulky and difficult to effectively integrate with planar components.

Keeping the above in view, the design and analysis of efficient modern systems will be addressed with particular emphasis on low-loss guided structures and antennas. Reconfigurable antennas for mobile and wireless communication and current antenna miniaturization techniques for the realization of sub-wavelength radiating structures would be discussed.

In addition, metamaterials and their role in the design of systems with enhanced performance would be addressed. These include the design and realization of metamaterials, the design of electrically small antennas based on metamaterials and miniaturization of radiating structures based on the zeroth order resonance.

The concept of hybrid integration and its role in the design of efficient systems also needs attention for the realization of efficient systems. This is particularly important in view of the fact that the non-planar technology is inherently amenable to the design of high-Q passive devices while being not favoured for active integration, complementary to the planar technology. Realization of the radiation-less condition in modern hybrid structures and efficient feeds used for hybrid technology would also be addressed.

KEY TOPICS TO BE ADDRESSED

- Basic electromagnetic theory
- Low loss antennas and guided structures
- Green's function analysis of antennas
- Metamaterials
- Reconfigurable antennas
- Hybrid structures and integration
- Radar and communication
- EMI/EMC
- Antenna miniaturization
- Microwave components

TENTATIVE SPEAKERS

- Prof. Ajay Chakrabarty, IIT Kharagpur
- Prof. Bratin Ghosh, IIT Kharagpur
- Prof. Binay Kumar Sarkar, IIT Kharagpur
- Prof. Amitabha Bhattacharya, IIT Kharagpur
- Prof. Ramesh Garg, IIT Kharagpur
- Prof. Akhilesh Mohan, IIT Kharagpur
- Prof. Arijit De, IIT Kharagpur
- Prof. Kalyan Bandyopadhyay, IIT Kharagpur
- Prof. Mrinal Kanti Mandal, IIT Kharagpur

Short term course on “Design & Analysis of Efficient systems for Microwave Transmission & Radiation” February 23-28, 2015

Registration Form

Name: _____

Designation: _____

Sex (M/F): _____

ORGANISATION _____

Highest academic Qualification _____

Address: _____

Phone / Fax: _____

Email (Compulsory): _____

Accommodation required yes/No _____

Details of bank draft: Amount Rs _____

Draft No. _____ Dated: _____

Issuing Bank: _____

Date:

Signature

Place:

Recommendation and forwarding from the
Organization:

Signature with seal of the
Head of the Organization

General Information

Situated at a distance of 116 Km from Kolkata, Kharagpur welcomes you with its green, calm and quiet campus, away from the din and bustle of city life. In the month of December and January, Kharagpur is particularly pleasant with bright flowers all around and a mild and comfortable atmosphere. Historically, IIT Kharagpur started its journey in the "Hijli Detention camp". Presently it houses a science and technological Museum known as the Nehru Museum of Science and Technology. Also, the scenic township of Digha on the sea beach is only 120 km away from Kharagpur.

Connectivity:

Kharagpur is an important railway junction and is well connected to all parts of the country by rail service (SER). Numerous local & express trains are available from Howrah. The Institute is approximately 5 Kms from the Kharagpur railway station with the bus stand adjacent to the railway station. Rickshaws (Rs. 50), auto-rickshaws (Rs. 70) and taxis (Rs.120) are available from the railway station.

COURSE COORDINATOR

Prof. Bratin Ghosh,
Department of Electronics & Electrical
Communication Engineering,
Indian Institute of Technology,
Kharagpur – 721 302
bghosh@ece.iitkgp.ernet.in,
pandaarabinda@gmail.com
Phone : +91-3222-283534
Mobile No. +91-9831064495

Mailing address:
Prof. Bratin Ghosh,
Department of Electronics & Electrical
Communication Engineering,
Indian Institute of Technology,
Kharagpur-721302,
West Bengal
Fax: +91-3222-255303/283534

Accommodation & food:

Limited shared accommodation is available in the guest houses VGH/AHGH on personal payment basis. The charges are as follows : Daily charges : Rs. 100/- per bed (non-AC shared room in VGH); Rs. 300/- (A/C single room in AHGH and VGH). On prior intimation we will try to arrange accommodation with the above charges. Course fees also includes breakfast/lunch/dinner/snacks.

Eligibility for Participation:

Research personnels in R&D organizations/Scientific officers and engineers working in cutting-edge technology from industries/Faculties of educational institutes engaged in teaching / research in Microwave Engineering are eligible to participate. Ph.D & M.Tech students working in Microwave Engineering are also eligible to attend the course.

How to apply:

Interested persons may apply in the form given herewith alongwith the registration fee in the form of demand draft drawn in favour of 'CEP-STC, IIT Kharagpur', payable at Kharagpur. The application should be sent to the following address latest by February 5th, 2015. The total number of seats in this course is limited to 50. In view of the limited seats, selection will be made on first come first serve basis.

Course fee:

Fees paid on or before 5th February, 2015

Individual: Rs. 16,000/- (Rupees sixteen thousand only)

Group (Not less than 3 individuals): Rs. 15,000/- per individual (Rupees fifteen thousand only)

Fees paid after 5th February, 2015

Individual: Rs. 18,000/- (Rupees eighteen thousand only)

Group (Not less than 3 individuals): Rs. 17,000/- per individual (Rupees seventeen thousand only)

Course fee includes lecture notes and refreshments during the course.

Short term course On “Design & Analysis of Efficient systems for Microwave Transmission & Radiation”

February 23 -28, 2015

*A Continuing Education Programme of
Indian Institute of Technology
Kharagpur
Prof. Bratin Ghosh*



Organized by
**Department of Electronics and Electrical
Communication Engineering
Indian Institute of Technology
Kharagpur – 721 302, India**

