

IMPORTANCE AND SCOPE

In recent years there are major advances in the field of wireless communication, navigation and radar. This is due to ever expanding demand created by newer applications. Users include private and public enterprises and agencies as well as common consumers. Though the basic principles in microwave transmission and reception for all these areas remain same, there are innovations in newer techniques and technologies to make it more user friendly in terms of performance, size, and cost. There is also a new line of emerging applications by integrating these services like, integration of communication and navigation as Location Based Service or combination of all three services by Future Air Navigation that are being planned by several agencies.

Realizing the potential demand for human resource required in near future to support the design, develop, manufacture and maintain such systems, a common workshop module is created that includes all the above mentioned areas of wireless technology. The participants of this workshop will be first refreshed on the fundamental principles of microwave techniques behind Communication, Navigation and Radar and then they will be exposed to potential applications of integrated services.

The workshop will be conducted by senior professors and scientists from IIT, and other organizations. The workshop includes theory, tutorials and laboratory experiments as well as field visits.

KEY TOPICS TO BE ADDRESSED

- Basic principles of radar, wireless communication including satellite communications and navigations
- Antenna for communications and surveillance
- Microwave transmission and reception techniques
- Modulation, coding and synchronization
- Signal Impairment due to propagation, interference/ jamming and mitigation techniques
- Integrated applications of communication, navigation and radar

TENTATIVE SPEAKERS

- Prof. Ajay Chakrabarty, IIT Kharagpur
- Prof. B. K. Sarkar, ISRO Chair Professor, IIT Kharagpur
- Prof. K. Bandyopadhyay, IIT Kharagpur
- Prof. Amitabha Bhattacharya, IIT Kharagpur
- Scientists from other Organization

IMPORTANT DATES

Last Date for receiving application: April 15, 2010

Intimation to the applicants: April 19, 2010

Course duration: May 04 - 09, 2010

Registration Form

Workshop on Microwave Communication, Navigation and Surveillance: Fundamentals and Applications

May 04 - 09, 2010

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
Organisation: _____

*Signature with seal of the
Head of the Organisation*

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. 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. 40), auto-rickshaws (Rs.60) and taxis (Rs.90) are available from the railway station.

REGISTRATION FEES

Registration fee: Rs. 10,000/-

Course fee includes lecture notes and refreshments, and field visit during the course

COURSE COORDINATOR

**Prof. B. K. Sarkar, ISRO Chair Professor
Kalpana Chawla Space Technology Cell
Indian Institute of Technology,
Kharagpur – 721 302**

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COURSE CO-COORDINATOR

Prof. K. Bandopadhyay, E&ECE
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phone: +91-3222-281972(O), 281973(R)

ACCOMMODATION

Limited shared accommodation is available in the guest house on personal payment basis. On prior intimation we will try to arrange accommodation with the corresponding charges (in the ranges of A.C - Rs. 150/- , Non A.C - Rs. 100/-).

ELIGIBILITY FOR PARTICIPATION

Research personnels in R&D organizations /scientific officers and engineers working in cutting-edge technology from industries/faculties of educational institutes having exposure to microwave engineering are eligible to participate. Graduate level knowledge of electronics and electrical communication is essential prerequisite of this workshop.

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 April 15th, 2010. The total number of seats in this course is limited to 25. In view of the limited seats, selection will be made on first come first serve basis.

Mailing address:
Prof.B. K. Sarkar,
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Kalpana Chawla Space Technology Cell
Indian Institute of Technology,
Kharagpur-721302,
West Bengal
Fax: +91-3222-255303/282299

Workshop On Microwave Communication, Navigation and Surveillance: Fundamentals and Applications

May 04 - 09, 2010

*A Continuing Education Programme
of Indian Institute of Technology
Kharagpur*

*Prof. B. K. Sarkar
Prof. K. Bandyopadhyay*



Organized by

**Kalpana Chawla Space Technology Cell
Indian Institute of Technology
Kharagpur – 721 302, India**

