OBJECTIVES AND INTRODUCTION

Antenna and microwave passive components and antennas are the backbone of any wireless communications system, being extensively used in back hauls links of Internet Service Providers, cellular mobile systems, satellite TV broadcasting system and different types of Radar systems. Basic knowledge of microwave components, antenna and their measurement techniques are essential to microwave engineers. This course attempts to provide refreshing of the fundamentals of microwave passive components and antennas, the utilization of commercial fullwave simulators in microwave design and various measurement techniques. Recent advances in this field such as substrate integrated waveguide technology, use of metamaterials in component design etc will be covered.

SCOPES

The aim of this course is to focus on the design and measurements of microwave passive components and antennas. This will include lectures and practical sessions. Broad topics will be:
- Microwave passive components.
- Printed antennas.
- Recent advances in this field.
- Applications of fullwave simulator for design of filter, coupler and printed antenna.
- Design of filter and coupler.
- Design of ultra-wideband printed antenna.
- Introduction to Vector Network Analyzer.
- Microwave Measurements of filter, coupler and antenna.

COURSE FACULTY

The entire course will be covered by the faculty members of IIT Kharagpur and a few experts from industry.

WHO SHOULD ATTEND

Faculty members of University and engineering colleges, research scholars, M. Tech final year students, practicing RF and microwave engineers, professionals and functional managers, administrators in the mobile phone, satellite communication and radar industry who want a thorough guided tour on Fundamentals, Design & Measurements of microwave passive components and printed antennas.

ELIGIBILITY

B.E. / B.Tech/ M.E. / M.Tech or equivalent degree in Electronics/ Telecommunication / Electrical Engineering.
**REGISTRATION**

**Category:**

(a) Scientists / Technologists / Engineers: from industry or government institutions:and Faculties from University & Engineering Colleges **should apply by 15th June, 2015. Course fee: 15,000/-**. (Course fee is Rs.14,000 per person for 3 or more participants from the same organization) Course fee is Rs.16,000 per person after June15, 2015.

(b) Registered students **should apply by 15th June, 2015 course fee: 10,000/-**. (Course fee is Rs.9000/- per person for 3 or more participants from the same institution ).Course fee is Rs. 11,000 per person after June15, 2015.

Candidates will be provided course materials, working lunch, tea & snacks during the course hours. Traveling, boarding & lodging expenses should be borne by the participants.

The registration fees in Bank Draft should be in favour of ‘CEP - STC, IIT, Kharagpur’ payable at Kharagpur along with completed registration form to be sent to Prof. B.K. Sarkar/ Prof.M.K.Mandal, Kalpana Chawla Space Technology Cell, IIT Kharagpur Kharagpur – 721 302

**Enquires should be addressed to:**
Prof. B.K. Sarkar / Prof. M.K.Mandal, Kalpana Chawla Space Technology Cell, IIT Kharagpur Kharagpur – 721 302

**E-mail : office@adm.iitkgp.ernet.in**

**Phone : 91-3222-282298**
**Telefax : 91-3222-282299**
**Fax : 91-3222-2553**

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**LOCATION**

Kharagpur is an important Railway junction station about 116 Km west of Kolkata. There are frequent train services from Howrah Rly. Stn. and it is well connected to almost all parts of the country. The Institute is about 5 Kms. away from Kharagpur Railway Station. Taxis, Auto-rickshaws, cycle rickshaws are available as transport.

**ACCOMMODATION**

Limited shared accommodation is available in 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/- AC single room in AMGH and Rs.200/- per head in double seated AC room in VGH). However, efforts will be made to book accommodation in the guest houses on receipt of request from the participants by 15th June, 2015.

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**REGISTRATION FORM**

Short term Course on Antenna and Microwave Passive Components - design and measurements, June 22-28, 2015.

Please complete the details below and mail it to the address overleaf along with the registration fee.

1. Name : ..................................................................
2. Designation:..............................................................
3. Address (Office): ......................................................
   ..................................................................................
4. Phone (Mob.) : ......................................................
   Phone (Res.) : ...........................................................
5. Male/Female: ............................................................
6. Highest academic qualification:..............................
7. Accommodation Required (Y/N):...........................
8. Bank Draft No…………….. Date…………..
   Amounting Rs…………….drawn on……………Bank
9. In case of M.Tech students, recommendation letter from the head of the department.

Date : .................................... Signature of the Applicant

Place :