Short Term Course On Modern Antennas for Wireless Systems

A Continuing Education Program of Indian Institute of Technology Kharagpur

March 20 - 24, 2018



# **Course Coordinator**

**Dr. Akhilesh Mohan** 

Department of Electronics and Electrical Communication Engineering, I.I.T. Kharagpur, 721302 E-mail: am@ece.iitkgp.ernet.in

# Organized by

Department of Electronics and Electrical Communication Engineering, Indian Institute of Technology Kharagpur – 721 302

## **OBJECTIVES AND SCOPE**

The requirement for efficient and lowprofile antennas has fuelled research work in the development of antenna structure with performances considerably enhanced over the traditional antenna structures and methodologies. In this context. the development of antennas for modern wireless communication systems has taken significant overcoming fundamental strides in limitations in the design of broadband and efficient antenna structures.

Primary focus of this course is to introduce design challenges of several antennas and their possible solutions which should be further investigated for the future generation wireless communication networks. Major issues those will be addressed in the course are given below:

- Basic Antenna Theory
- Substrate Integrated Waveguide (SIW) Antennas
- Metamaterial Antenna
- Dielectric Resonator (DR) Antennas
- Leaky Wave Antennas
- On-chip Antennas
- Multiple Input Multiple Output (MIMO) Antenna
- Ultrawide Band (UWB) Antennas
- Microwave Components
- Open research issues.

#### **COURSE FACULTY**

Faculty members and experts from IIT Kharagpur.

### WHO SHOULD ATTEND

Faculty members from University and Engineering Colleges, Research Scholars, Post Graduate, Under Graduate students, Technical Assistants, practicing RF engineers, professionals and functional managers, administrators in the mobile phone, satellite communication and radar industries.

### ELIGIBILITY

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

### 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. 80), auto-rickshaws (Rs. 80) and taxis (Rs.140) are available from the railway station.

### ACCOMMODATION

Limited shared accommodation is available in the Institute guest houses VGH (*Visveswaraya Guest House*) on personal payment basis. The charges are as follows: Daily charges: Rs.400/- (Single Occupancy) for D/B AC Rooms; Rs.250/- (Double Occupancy) for D/B Non AC Rooms and Rs.300/- (Double Occupancy) for D/B Non AC Rooms; Rs.150/- Per bed for 3 & 4 bedded Non AC rooms. Working Lunch / Tea will be made available during the sessions.

#### 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** or through **electronic transfer.** Bank information for electronic transfer is provided in the attached document. **The application should be sent to the mailing address of the course coordinator latest by 5<sup>th</sup> March, 2018. The total number of seats in this course is limited to 30. In view of the limited seats, selection will be made on first come first serve basis.** 

### **COURSE FEE**

- (a) <u>Course fee for Industry :</u> Individual Course fee: ₹ 20,000/-
- (b) <u>Course fee for Teachers/Others :</u> Individual Course fee: ₹ 15,000/-Group (3 individuals or more): ₹ 14,000/- per individual
- (c) <u>Course fee for students :</u> Individual Course fee: ₹9,000/-Group (3 individuals or more): ₹8,000/- per individual

Course fee includes lecture notes (soft copy) and refreshments during the course.

### **Certificate:**

A certificate of participation would be issued to all the participants from the Office of Dean, Continuing Education, I.I.T. Kharagpur.

#### **IMPORTANT DATES**

Last date of receipt of application : March 5, 2018 Intimation of selection : March 7, 2018 Confirmation by applicant : March 7, 2018

### Enquires should be addressed to:

Dr. Akhilesh Mohan, Department of Electronics and Electrical Communication Engineering, IIT Kharagpur Kharagpur – 721 302

E-mail : <u>am@ece.iitkgp.ernet.in</u> <u>mishrasudha06@gmail.com</u>

Phone : 91-3222-283520 (O) 9434205153/8972433708 Fax : 91-3222-255303/283534

### Short term course on "Modern Antennas for Wireless Systems" March 20- 24, 2018

#### **REGISTRATION FORM**

Please complete the details below and mail it to the address overleaf along with the demand draft.

1. Name:
2. Designation:
3. Address (Office):
4. Phone (Mob.):
Phone (Res.):
E-mail (compulsory):
5. Male/ Female:
6. Highest academic qualification:
7. Accommodation Required (Y/N): sharing/single (Tick as appropriate)
8. Details of Bank Draft/Electronic transfer :
Rsdraft no./transaction no dateBank
Date : Signature of the Applicant
Place :
Recommendation and forwarding from the

Recommendation and forwarding from the Organization:

Signature with seal of the Head of the Organization

#### The details of our Bank Account to enable electronic payment

01.	Authority holding the Account		Dean, CE, IIT, Kharagpur
02.	Name of the Account as appearing in the Bank Account	-	CEP-STC
03.	Bank Account Number	:	9556 220 000 2955
04.	Name of the Bank	:	SYNDICATE BANK
05.	Branch Name	:	SRIC, IIT KHARAGPUR
06.	Address of Bank		SRIC, IIT KHARAGPUR Dist.: PASCHIM MEDINIPUR State : WEST BENGAL PIN : 7 2 1 3 0 2
07.	M I C R Code of the Bank	:	721025103
08.	I F S C Code of the Bank	:	SYNB0009556
09.	SWIFT Code of the Bank	:	SYNBINBB120
10.	Nature of Bank	:	Non-SBI Bank
11.	PAN	;	AAAJ10323G
12.	Contact person Phone Number E-mail Address		Dean, CE, IIT, Kharagpur 03222 – 282111, 03222 – 282033 deance@hijli.iitkgp.ernet.in

I hereby declare that the particulars given above are correct & complete to the best of my knowledge.

Date : 02/01/2017.

A . Gossaction Signature with Office seal Dearn Contruing Education Indian Instante of technology Kharagpur-721302

Certified that the particulars given above are correct & complete as per records held with the Bank rest  $L_{point} = L_{point} = L_{poin$