

QIP Short Term Course

on

Design of Microwave Antennas and Passive Components

19-24 December, 2016



Coordinator

Dr. Manoj Kumar Meshram

Department of Electronics Engineering
IIT (BHU), Varanasi-221005

Email: mkmeshram.ece@iitbhu.ac.in

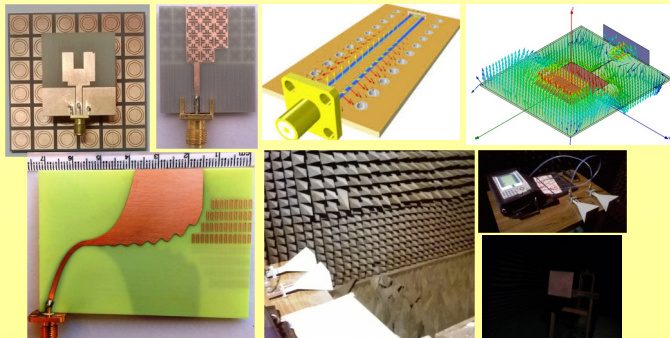
Organised by

Department of Electronics Engineering
Indian Institute of Technology (BHU)
Varanasi-221005

OBJECTIVE AND SCOPE

Microwave antennas and passive components are the backbone of wireless communications system. Basic knowledge of microwave components is essential to develop reliable wireless communication system. This course attempts to refresh the fundamentals as well as recent developments in the field of microwave antennas and passive components. Detail design steps of the microwave antennas and passive components, starting from text book knowledge to implementation using commercial full wave simulators in different planar printed circuit board guiding structures will be discussed. Special emphasis will be given on the design of planar microwave antennas. In addition, different measurement techniques of antennas and passive components will be covered. There will be special lectures on recent advances in this field which include substrate integrated waveguide technology, evolutionary techniques such as GA and PSO, and use of metamaterials in the design of antennas and components. The course will include lectures and practical sessions. Broad topics are given below.

- Design of microwave antennas including MIMO antennas, reconfigurable antennas, wearable antennas, filtering antenna, rectenna using conventional and evolutionary techniques
- EBG/ metamaterial inspired antennas
- Electromagnetic artificial material such as AMC, absorber, ZIM, etc.
- Substrate integrated waveguide
- Design of passive components such as coupler, power divider, circulator, phase shifters etc. with special emphasis on microwave filter
- Advantages and disadvantages of different wave-guiding structures
- Utilization of full wave simulators in component design
- Recent advances in the field



COURSE FACULTY

Faculty members/experts from premier institutions like IITs, NITs and others.

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 would like to go through guided tour of fundamentals, design and measurement of microwave antennas and passive components.

ELIGIBILITY

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

LOCATION

Varanasi Railway Station is well connected to almost all parts of the India. Also it is well connected via Air to Delhi, Mumbai, Kolkata, Hyderabad, and Bengaluru. There are frequent flight services from New Delhi. The Institute is located in the extreme south of the Varanasi city and about 7 km away from Varanasi Railway Station and 30 km from the Babatpur (Varanasi) airport. Taxis, Auto-rickshaws, are available as transport.

ACCOMMODATION

Limited shared accommodations in the guest house are available. However, efforts will be made to book accommodation in the guest houses on receipt of request from the participants by 25 November, 2016.

I. Registration for QIP Sponsored

Teachers from AICTE approved Institutions: Participants should bring a letter of nomination from their head of institution stating that they are being deputed for the course.

There is no registration/ accommodation fee. However, a Demand Draft of Rs. 2,000/- (drawn in Favor of “**Registrar, IIT(BHU), Varanasi**”) should be enclosed with the application form which will be refunded to the participants attending the course. Total reserved seat for QIP candidates is 30 which will be awarded according to the date of applications received.

II. Registration for others

1. Scientists / Technologists / Engineers from industry or government institutions: **should apply by 5 December, 2016, course fee: 17,000/-**. (Course fee is Rs. 20,000 per person after 5 December, 2016).
2. Faculties from University and Engineering Colleges: **should apply by 5 December, 2016, course fee: 15,000/-**. Course fee is Rs. 17,000 per person after 5 December, 2016).
3. Registered M.Tech./ Ph.D. students **should apply by 5 December, 2016 course fee: 10,000/-**. Course fee is Rs. 12,000 per person after 5th December, 2016.

Candidates will be provided course materials, working lunch, tea and snacks during the course hours. Registration fees, boarding and lodging expenses will be waived for QIP sponsored candidates. To-and-fro travel cost (up to A/C 3-tier rail fare only) by the shortest route between the place of work and the venue of the course will also be reimbursed for Category –I. It should be borne by the other participants.

The registration fees in Bank Draft should be in favor of **'Registrar, IIT (BHU), Varanasi'** payable at Varanasi along with completed registration form to be sent to Dr. Manoj Kumar Meshram, Associate Professor, Department of Electronics Engineering, IIT (BHU), Varanasi-221005 (U.P.), INDIA. Also, send the scanned copy of the registration form and draft through email of the Coordinator (mkmeshram.ece@iitbhu.ac.in) and cc to Coordinator QIP (coordinator.qip@itbhu.ac.in).

Certificate:

A certificate of participation would be issued to all the participants.

IMPORTANT DATES

Last date for receiving application: December 5, 2016

Intimation to the applicants: December 7, 2016.

Enquires should be addressed to:

Dr. Manoj Kumar Meshram
Associate Professor
Department of Electronics Engineering,
IIT (BHU), Varanasi
Varanasi – 221 005
E-mail : mkmeshram.ece@iitbhu.ac.in
Mobile: 91-9450533003
Fax : 91-542-2368428

QIP Short term course on “Design of Microwave Antennas and Passive Components”, December 19 - 24, 2016

REGISTRATION FORM

1. Name (block letter):
2. Designation & pay scale:
3. Organization:
4. Address for communication:
.....
.....
Pin code:
- Ph. No.: Fax No.:
- E-mail:
5. Highest Academic Qualification:
6. Specialization:
7. Experience (in years):
(a) Teaching:
- (b) Industrial:
8. Amount of TA required as per entitlement mentioned in the brochure (only for AICTE approved college teachers):
Please register me for the course on [Design of Microwave Antennas and Passive Components](#) to be held at IIT (BHU) Varanasi.
Place:
Date:

Signature of the applicant

SPONSORSHIP

Prof./Dr./Mr./Ms./Mrs./_____ is an employee of our institute and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term course “[Design of Microwave Antennas and Passive Components](#)” at IIT (BHU) Varanasi during date of STC, if selected.

Date: Signature of Sponsoring Authority
Designation:
Official Seal:

For applicants from Industries and Government Departments:

DD No. : Date:
Bank:
Amount:

Signature of the Applicant