

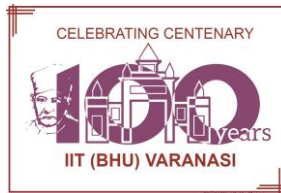


**AICTE Sponsored QIP Short Term Course**

on

**Recent Trends in Microwave/Millimeter Wave Technology and their Applications in Wireless Communication and Defense Perspective**

**October 14-19, 2019**



**Organized by**

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



**Course Coordinator**

**Dr. M. Thottappan**

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

**About the Course**

Microwaves cover an important window (~300MHz to ~300GHz) of the spectrum of electromagnetic waves. Since its advent for wireless communication and defence sectors for many decades ago, it has grown rapidly in all aspects of the associated technology spanning sources, amplifiers, couplers, antennas, detectors, etc. These advances have led to compact active and passive microwave/millimeter wave devices being deployed in a wide range of environments – from space-borne communication systems to personal mobiles! Creating new designs, simulating the performance, fabricating the devices, and testing are challenges that need to be addressed. The objective of this course is to introduce the fundamentals of electromagnetic theory and recent advances in microwave/millimeter wave technologies for wireless communication and defence sectors. Further, the modeling issues of microwave/millimeter wave devices including antennas, meta-surfaces, frequency selective surfaces, photonic bandgap structures, etc., will be addressed to the young faculty members of various technical institutions.

**Course Content**

The tentative topics to be covered in this course are:

- ✓ Electromagnetic Theory
- ✓ Microwave Active & Passive Devices
- ✓ High Power Microwaves & its Applications
- ✓ Millimeter Waves & their Applications
- ✓ Antenna Systems
- ✓ Meta-surfaces
- ✓ Modeling in Ansys HFSS
- ✓ Modeling in Microwave CST Studio

**Application Form for  
QIP Short Term Course**

on

**Recent Trends in Microwave/Millimeter Wave Technology and their Applications in Wireless Communication and Defense Perspective**

**October 14-19, 2019**

1. Name (block letters):
2. Designation & pay scale:
3. Organization:
4. Address for communication with pin code:

Mobile No.:

e-mail:

5. Highest Academic Qualification:
6. Specialization:
7. Experience (in years):  
(a) Teaching:                      (b) Industrial:
8. Amount of TA for **to-and-fro III AC railway fare (only for the AICTE approved college teachers)**:
9. Whether Accommodation (to be provided strictly on sharing basis) is required:

Please register me for the course on “Recent Trends in Microwave/Millimeter Wave Technology and their Applications in Wireless Communication and Defence Perspective” to be held at IIT (BHU) Varanasi during **October 14-19, 2019.**

Place:

Date:

**Signature of the applicant**

## Sponsorship

Prof./Dr./Mr./Ms./Mrs./\_\_\_\_\_ is an employee of our AICTE approved institute and his/her application is hereby sponsored. The applicant will be permitted to attend the short-term course on **Recent Trends in Microwave/Millimeter Wave Technology and their Applications in Wireless Communication and Defense Perspective** at IIT (BHU) Varanasi during **October 14-19, 2019** of the Short Term Course, if selected.

**Date:** \_\_\_\_\_  
**Designation:** \_\_\_\_\_

**Signature of Sponsoring Authority**  
(Official Seal)

### Refundable Security Deposit Details:

\*DD No.: \_\_\_\_\_ Date: \_\_\_\_\_  
Bank: \_\_\_\_\_  
Amount: ₹ 2000/-

**Signature of the Applicant**

## Participation Certificate

Certificate of participation will be issued to all the participants only after completion of the course.

## Important Dates

**Last date for receiving the Registration form**

**October 3, 2019 (Extended)**

**Confirmation of Participation**

**October 04, 2019**

Note: The *selected participants are required to carry with them two passport size photographs along with a proof of photo identity (Preferably Institute Identity Card).*

## Contact Details

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IIT(BHU), Varanasi-221005**

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[rtmmwawcd2019@gmail.com](mailto:rtmmwawcd2019@gmail.com)**

## Registration

**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 INR 2,000/- (\*drawn in favor of “Registrar, IIT (BHU), Varanasi -221 005”** payable at the **SBI, IT Branch (Code: 11445), BHU, Varanasi**) should be enclosed with the application form which will be refunded to the participants attending the course. Total reserved seats for QIP candidates are 30 which will be awarded on first-cum-first served basis. **No refund will be given for absentees.**

## About the Department



The Department of Electronics Engineering of IIT (BHU) came into existence as an offshoot of Electrical Engineering Department in 1971 in the erstwhile Institute of Technology, Banaras Hindu

University. The Department offers Bachelor, Master and Doctoral programs in Electronics Engineering with the major thrust areas of Microelectronics, Microwave Engineering, Digital Techniques & Instrumentations and Communication Systems. The intake every year of the Department is 113 in the B.Tech. level and 56 in the M.Tech. level. Besides teaching students of our own discipline (Electronics Engineering), the basic courses in Electronics Engineering are offered to almost all the Departments of the Institute and advanced-level courses are taught to the students of Electrical Engineering and Computer Engineering Departments. The Department has been actively engaged in research since its inception as evidenced by the research publications. The first major financial support from the Department of Electronics (DoE), Govt. of India in the tune of Rs.1.0 Crore was received by the Department in 1980 to carry out research for development of High Power Microwave Tubes. In addition to this, the Department has been actively pursuing manpower training and collaborative research programs in specialized areas to meet the national manpower requirements in R&D laboratories, academic institutions and industries. The Department has a close interaction with many reputed national R&D laboratories including DRDO, CSIR, Bharat Electronics, leading software industries, and foreign Universities.

## How to Reach

The city of Varanasi is well connected by road, rail and air with all the important places of India. Regular flights are there from Varanasi to Delhi, Mumbai, Chennai, Kolkata, Bangalore, Hyderabad, and Lucknow. IIT (BHU) campus is only 5 km from Manduadih Railway Station, 10 km from Varanasi Railway Station, 20 km from Pt. Deen Dayal Upadhyaya Railway Station (formally known as Mughalsarai) and 35 km from the Lal Bahadur Shastri International Airport, Babatpur, Varanasi. Pre-paid taxis and auto-rickshaws can be hired from the airport and rail way stations.