

About IIT Kharagpur



Kharagpur - a dusty town tucked away in the eastern corner of India, famous until 1950 as home to the longest railway platform in the world - became the nursery where the seed of the IIT system was planted in 1951. IIT Kharagpur started its journey in the old Hijli Detention Camp in Eastern India, where some of the country's great freedom fighters toiled and sacrificed their lives for India's independence. Spurred by the success of IIT Kharagpur, four younger IITs sprouted around the country in the two following decades, and from these five came thousands of IITians, the brand ambassadors of modern India. It was the success of this one institution at Kharagpur that wrote India's technological odyssey.

The Institute takes pride in its relentless effort to provide the best platform for both education as well as research in the areas of science and technology, infrastructure designs, entrepreneurship, law, management, and medical science and technology. IITKGP is not just the place to study technology, it is the place where students are taught to dream about the future of technology and beam across disciplines, making differences enough to change the world.

Program Features/ Structure

Classroom lectures – 50%
Hands on – 50%

Program Fee

(a) Nil for AICTE-QIP sponsored faculty members. However, for reserving a seat, a DD of Rs. 2,000/- (drawn in favor of "CEP-STC, IIT Kharagpur" payable at Kharagpur) along with the application form should be sent to the course coordinator. It will be returned in hand to the participants attending the course. Shortlisted applicants will be intimated by email. TA for the sponsored participants is limited to AC-3 tier train fare by shortest route. Travel by **car/flight** cannot be reimbursed.

(b) Scientists / Technologists / Engineers from industry or govt. institutions: INR 20,000 + GST 18%.
(c) Registered full time students: INR 10,000 + GST 18% (fill up the form and send by email)

Program Schedule and Venue

5 days, 1 – 5 July 2019
(9:00 AM – 6 PM)

E&ECE dept.,
IIT Kharagpur.

Accommodation

Free of cost food and shared accommodation for AICTE-QIP sponsored participants and students at the campus Guesthouses. Limited 30 seats are available which will be distributed according to date of registration. For others, the same will be provided on chargeable basis as per rule.

Last day of Registration

24 June 2019

Who will benefit (Eligibility)

Minimum B.E. / B. Tech./ M. E. / M. Tech. degree in Electronics and Communication or equivalent.

How to Apply

Use the link: <https://erp.iitkgp.ac.in/CEP/courses.htm> to apply ONLINE.



Payment if applicable is to be done **ONLINE** after getting short listed for the program.



AICTE QIP

QUALITY IMPROVEMENT PROGRAMME

Indian Institute of Technology Kharagpur
2019

Design of Microwave and Millimeter-Wave Filters

5 days, 1 – 5 July 2019

Course coordinator

Dr. Mrinal Kanti Mandal
Department of Electronics and Electrical Communication
Engineering,
I.I.T. Kharagpur, 721302.
E-mail: mkmandal@ece.iitkgp.ac.in
Ph no.: 03222 283550 (O), 9734092899 (m)

Overview/ Objectives

Filter is one of the most important components in any microwave and millimeter wave system. It is used to obtain a precise frequency response. Design of filter usually starts with network synthesis. Then, a systematic procedure is followed for the final theoretical design from a given specification. However, the knowledge of network synthesis is not the only tool required for the final device. It provides a prototype network which must be transformed into a realizable form. This transformation involves rigorous full wave electromagnetic analysis for the final physical dimensions. Thus, a filter designer also has to have a reasonable knowledge of electromagnetic characteristics of the device.

The course will cover from basic filter theories to advanced filter design. Design steps starting from a given specification of a filter to implementation of the final device in quasi-TEM line, wave guides and dielectric guides will be discussed. Both theory and laboratory classes will be conducted.

What you will learn

Program Content

Theory:

- Basic concepts and theories of filter.
- Guiding structures.
- Resonators.
- Cross-coupling, intra- and inter-modal couplings.
- Miniaturization issues.
- Power handling capability.
- Filter design using signal interference technique.
- Measurement issues.

Laboratory:

- Coupling matrix using MATLAB.
- Extraction of different quality factors.
- Design and implementation of different filters.
- Measurement.

Contact Us

(For registration and course content)

Dr. M. K. Mandal,
A-205,
Department of Electronics and Electrical
Communication Engineering,
I.I.T. Kharagpur, West Bengal, 721302.
E-mail: mkmandal@ece.iitkgp.ac.in
Ph no.:03222 283550 (O), 9734092899 (m)

(For accommodation, travel etc.)

Mr. Jagannath Mukhi
E-mail: jagannatheceit@gmail.com
Ph no.: 9614367855, 9679108089

Design of Microwave and Millimeter-Wave Filters, July 01- July 05, 2019

REGISTRATION FORM

(Faculty members from AICTE approved colleges/universities. Please complete the details below and mail it to the address overleaf along with the demand draft. Your seat is not confirmed without the DDs. The DDs will be returned when you attend the course.

Students should only send the application form countersigned by supervisor/ HoD).

1. Name:.....

2. Designation:.....

3. Address

(Office):.....

.....

4. Phone (Mob.):.....

Phone (Res.):.....

E-mail (compulsory):.....

5. Male/ Female:..... Age:.....

6. Highest academic qualification:.....

7. Accommodation Required (Y/N):.....

8. Bank Draft No..... Date.....

INR. 2000/- drawn on.....Bank.....

(DD for AICTE sponsored candidates only)

Date: Signature of the applicant

Place:

Signature of Head of the department/ institute with seal.