APPLICATION FORM

Short Course on Electromagnetic Interference and Compatibility (EMI/EMC) Techniques
(Oct. 09-13, 2019)

Name: ________________________________
Title/Position: ________________________________
Organization: ________________________________
Sex (Male/Female): __________ (for accommodation)
Mailing Address:
________________________________________
________________________________________
Email: ________________________________
Phone(s): ________________________________
Areas of Interest:
________________________________________
Accommodation Required (Yes/No): __________

Contact Details

Course Coordinator: Prof. M. Jaleel Akhtar
Course Web Site: http://www.iitk.ac.in/web_mimt_lab/EMIworkshop/index.html

Other Resources:
Microwave Imaging and Material Testing (MIMT) Laboratory at IIT Kanpur
http://www.iitk.ac.in/mimt_lab/

Contact Address:
Dr. M. Jaleel Akhtar
Professor, ACES 326
Department of Electrical Engineering
Indian Institute of Technology Kanpur
Kanpur - 208016
Phone: +91-(512)-259 6523
Fax: +91-(512)-259 0063
Email: mjakhtar@iitk.ac.in
Website: http://home.iitk.ac.in/~mjakhtar/

A Short Term QIP Sponsored Course on Electromagnetic Interference and Compatibility (EMI/EMC) Techniques

October 09-13, 2019

Venue:
IIT Kanpur, Kanpur

Organized by:
Department of Electrical Engineering
Indian Institute of Technology Kanpur

Details of enclosed online payment receipt/cheque
No.: __________ Dated: __________
Amount (Rs.): _______ Bank: ________________

Date: Participant’s Signature
**Course Objective**

One of the major challenges for RF Engineers in today’s world is to minimize the electromagnetic interference (EMI) within circuits and systems due to increasing usage of high speed and high frequency devices. The electromagnetic compatibility (EMC) is mainly a technique to deal with such types of situations, where the main emphasis is to propose an optimum design in order to minimize the electromagnetic coupling and interference. The main objective of this one-week course is to provide the participants an insight into various techniques and procedures required for the design of electronic systems, which are in compliance with the EMC guidelines. The course would provide a brief outline of EMC guidelines prevalent in various geographical regions, and imposed by a number of agencies including the Bureau of Indian Standards (BIS). The concept of effective shielding using modern procedures involving the use of frequency selective surfaces (FSS) structures and light weight nanocomposites would be explained. The participants would be exposed to the state of the art modeling and simulation software currently being used for EMI/EMC applications. Finally, it would be tried to provide a demonstration of experimental setups used for EMI/EMC applications.

**Intended Participants**

(Who can attend)

The course is designed for people from academia, R&D institutes and industry working in the field of RF, microwaves and high frequency digital electronics which requires design of EMI/EMC compatible circuits and systems. The course is equally suited for professionals and graduate students desirous of working in the challenging EMI/EMC field.

**QIP Candidates:** The teachers of the AICTE approved Engineering Colleges are eligible under this scheme. Faculty members from the streams of Electronics & Communication Engineering, and Electrical Engineering can apply under this program. The seats are limited, which would be filled on first come first serve basis and the candidate’s field of research interest.

**Course Content**

Introduction to the electromagnetic interference (EMI) and the electromagnetic compatibility (EMC) techniques, basic aspects of the EMC design, standards for EMI/EMC in various geographical regions, brief introduction of various test parameters such as radiated and conducted emissions, susceptibility, electrostatic discharge etc., modeling of non-ideal behavior of various electronic circuits and components from EMI/EMC point of view, conducted emissions, the line impedance stabilization network (LISN), radiated emissions, antennas and testing procedures relevant for EMC applications, basic concept of effective shielding, usage of frequency selective surface (FSS) and advanced composites based shielding for modern RF applications and electronic instruments.

All the participants of the workshop would be provided a Certificate of Participation.

**Application Procedure**

QIP Candidates: Application in the attached form should be sent to the coordinator with a caution deposit of Rs. 1000/ in the form of a cheque made payable to “Coordinator, Continuing Education Programme, IIT Kanpur”. The fee will be refunded for all participants who attend the course. The QIP participants will be paid TA/DA by A/C three tier for attending the course. The DA will be paid as per rules, adjusted against boarding and lodging at IIT Kanpur.

Non-QIP participants and students can join the course by paying the registration fees through SBI Collect. The details of online payment are given at: http://www.iitk.ac.in/web_mimt_lab/EMIworkshop/PaymentProcedure.pdf

Accommodation for non-student delegates would be arranged in the guest house of IIT Kanpur depending upon the availability. The registration fee includes the boarding and food charges for non-QIP candidates under non-student category.

**Participant’s Registration**

<table>
<thead>
<tr>
<th>FROM</th>
<th>FEES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry/R&amp;D Organizations</td>
<td>Rs. 20,000 +18% GST</td>
</tr>
<tr>
<td></td>
<td>= (Rs. 23,600)</td>
</tr>
<tr>
<td>Academic Institutions</td>
<td>Rs. 10,000 +18% GST</td>
</tr>
<tr>
<td>(Non-QIP candidates)</td>
<td>= (Rs. 11,800)</td>
</tr>
<tr>
<td>Students</td>
<td>Rs. 5,000 + 18% GST</td>
</tr>
<tr>
<td></td>
<td>= (Rs. 5,900)</td>
</tr>
</tbody>
</table>

IITK faculty & students pay only Course Fees

The decision regarding the acceptance for the course will be taken by the coordinator after receiving the completed application form and the cheque.