APPLICATION FORM

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

Name:-------------------------------------------------------
Title/Position:----------------------------------------------
Organisation:-----------------------------------------------
Sex:  Male/Female---------------(for accommodation)
Mailing Address:
---------------------------------------------------------------
---------------------------------------------------------------
Email:---------------------------------------------------
Phone(s):------------------------------------------------
Areas of interest:
---------------------------------------------------------------
Accommodation Required:   Yes / No

Details of enclosed online payment Receipt /cheque :

No.-----------------Dated:----------------------
Amount(Rs):-------------------Bank:----------
Date:        Participant Signature

Contact Details

Course Coordinator:  
Prof. M. Jaleel Akhtar

Course Web Site:  
http://www.iitk.ac.in/web_mimt_lab/workshop1/index.html

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

Contact Address:  
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Professor, ACES 326
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Phone: +91-(512)-259 6153
Fax: +91-(512)-259 0063
Email: rfmicrowaveiitk@gmail.com, mjakhtar@iitk.ac.in
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
**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 FSS (frequency selective surfaces) 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.

**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.

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**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 is given at: http://home.iitk.ac.in/~mjakhtar/emi/emc Link

Accommodation for Non-Student delegates would be arranged in the guest house of IIT Kanpur depending upon the availability. The registration fee for Non-QIP candidate includes workshop kit, food charges and tea/coffee breaks.

**PARTICIPANTS 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 = (Rs. 23,600)</td>
</tr>
<tr>
<td>Academic Institutions (Non-QIP candidates)</td>
<td>Rs. 10,000 +18% GST = (Rs. 11,800)</td>
</tr>
<tr>
<td>Students</td>
<td>Rs. 5,000 + 18% GST = (Rs. 5,900)</td>
</tr>
</tbody>
</table>

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