

Three-day Workshop on Pre-Compliance and Full- Compliance EMC Testing Techniques

Dates: 24th-26th March 2025



EMC IITK



COORDINATOR

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Workshop Registration:

<https://www.iitk.ac.in/cce/events/24-25/EMC>

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WORKSHOP OBJECTIVE

One of the major challenges for RF engineers in today's world is to mitigate the electromagnetic interference (EMI) within circuits and systems due to the increasing usage of high-speed and high frequency devices. Electromagnetic compatibility (EMC) is mainly a technique to deal with such types of scenario, where the emphasis is to design circuits and systems to minimize the electromagnetic coupling and interference. The EMC technique also deals with the design of devices and systems in such a way that they are not susceptible to the electromagnetic disturbance from surroundings. The prime objective of this workshop is to create awareness and about the importance of pre-compliance and full-compliance EMC testing techniques among the industry professionals, the startups, as well as the academic community working on design and fabrication of various types of electrical, electronic and medical devices. The workshop would also provide the participants an insight into various techniques and procedures required for the design of electronic systems that comply with these EMC guidelines. The details about specific requirements for EMC testing in compliance with CISPR 11, CISPR 32, IEC 60601-1-2, IEC 61000-4-3 and other relevant technical standards would be discussed. The workshop will explain the concept of effective shielding using modern procedures involving frequency selective surfaces (FSS) structures and lightweight nanocomposites. The participants would be exposed to the state-of-the art modeling and simulation software used for EMI/EMC applications. Most importantly, a live demonstration of the NABL accredited EMI/EMC Test Facility including 3 meter Semi Anechoic Chamber for pre-compliance and full-compliance testing of devices would be provided.

INTENDED PARTICIPANTS (WHO WILL BE BENEFITED)

This program is intended for people from academia, R&D institutions, and industry working in the domains of RF, microwaves, and high-frequency digital electronics, who are dealing with the design of EMI/EMC compliant circuits and systems. The program is suitable for professionals as well as graduate students who want to have an exposure of various EMC testing procedures and techniques.

Faculty and students from the Electronics and Communication Engineering, Instrumentation, and Electrical Engineering streams are encouraged to attend the workshop to gain an insight into the challenging practical aspects of the electromagnetic compatibility techniques prevalent in the industry.

WORKSHOP CONTENT

Introduction to the electromagnetic interference (EMI) and the electromagnetic compatibility (EMC) techniques; basic aspects of the EMC design; EMC testing standards for radiated emission, conducted emission, radiated susceptibility, conducted susceptibility such as CISPR 11, CISPR 32, IEC 60601-1-2, IEC 61000-4-3, IEC 61000-4-6; basic concept of pre-compliance and full compliance testing procedures relevant for EMC applications; EMI shielding using the concept of frequency selective surface (FSS) and advanced composites; basic EMC testing requirements for electrical and electronic devices including medical devices; live demonstration of 3 meter EMC test chamber and other relevant EMC test instruments.

REGISTRATION FEE

(Exclusive of all taxes)

Personnel	*Workshop Fee (in-person)	Workshop Fee (Online)
Industry and R&D Professionals	₹ 16000 + 18% GST	₹ 10000 + 18% GST
Non-IITK Faculty	₹ 10000 + 18% GST	₹ 6000 + 18% GST
IITK Staff/Startup	₹ 5000 + 18% GST	₹ 3000 + 18% GST
Non-IITK Students	₹ 5000 + 18% GST	₹ 3000 + 18% GST
IITK Students	₹ 2000 + 18% GST	₹ 1000 + 18% GST

*The workshop fee (in-person) includes three days of lunch and tea/coffee breaks, the workshop dinner, and a registration kit.

*Participants may have the option to avail accommodation in the IITK campus subject to availability, with the cost being borne by the participants themselves.

All the participants are requested to pay the registration fees through SBI Collect. The details of online payment are given at the workshop website <https://www.iitk.ac.in/cce/events/24-25/EMC/apply.php> All the participants of the workshop would be provided an e-certificate of participation.