



DESIGNING for ELECTROMAGNETIC COMPATIBILITY

Preamble :

Electronic gadgets have proliferated in every area of our day to day lives. Incorporation of switching devices within circuits have led to faster responses and attractive performances of product. These have however resulted in such problems like **Electromagnetic Interference (EMI)**. Testing and proper design has therefore become essential to ensure **Electromagnetic Compatibility (EMC)**. EMI/EMC awareness is increasing day by day and many industries and government departments are demanding EMI compliant products. Moreover, EMI/EMC compliance is an essential requirement of various international certifications like CE Marking.

Objective :

To comply with EMC tests one requires a thorough understanding of the phenomenon, testing and design aspects. Ignoring EMC aspects at design stage would translate into heavy losses in terms of time and money because of the inherent difficulties in modifying a frozen design in the end. Ensuring EMC at design stage is therefore required to keep equipment costs low to maintain a competitive edge.

This course aims the design engineer :

- to understand EMC requirements
- to learn various EMC tests and design aspects of EMC compliance
- to incorporate EMC design aspects so that the entire process of EMC compliance becomes smoother and without glitches.

Course Methodology :

Participant's EMC design skill development is achieved through hands on practical assignments during the course. The STQC labs are facilitated with State-of-art EMI/EMC equipments and systems complying to National and International Standards. The practical assignments are carried out in these labs. The training course follows approach of continuous assessment.



Duration : 3 working Days

COURSE CONTENTS :-

- Fundamentals of EMI / EMC
- Standards for EMC
- Designing of Grounding
- Designing of Filters
- Designing for protection of equipments from Lightning surges and EFT
- Designing of Shielding for E & H fields at different Frequencies
- Designing of PCB for EMC
- EMC Analysis & Solutions
- Case Studies

Who should Attend :

Managers, Engineers involved in Design, Production & Quality Assurance of Electronics, Electrical, Electromechanical, Computers, Telecommunication, Medical Electronics, Power Electronics, Lighting Equipments & I.T. Products and of Automobile Industry etc for Electromagnetic Compatibility.

At the end of course, participants are awarded a "Certificate of Participation".