Objectives of the seminar
The seminar provides a basic knowledge of electromagnetic compatibility (EMC), physical causes of EMC problems and the resulting influences on µC applications.
A fundamental understanding of the most important EMC elements, types of interference, interference phenomena, as well as combinations of interference, form the requirements for the suppressing of interference, as well as the planning of and protecting EMC optimised designs. The effects of the most common EMC problems will be clearly demonstrated. Course participants will receive an introduction to the emission and interference immunity of integrated circuits, optimisation methods for PCB boards and will learn from practical examples how to evaluate correctly all aspects of EMC interferences and available countermeasures.

Who should attend?
System designers, hardware development engineers and technicians

What prerequisites are required?
Knowledge of electrical engineering and / or electronic system PCB layout or EMC system design

Seminar contents:

- Introduction
  - Definition of ‘Electromagnetic Compatibility’

- Basics of electromagnetic compatibility
  - Influence of signal spectrum on EMI behaviour
  - Overview and classification of interference sources
  - Conducted and radiated coupling

- Emission and interference immunity of integrated circuits
  - Applied EMC measurement methods for IC’s
  - Interference sources and countermeasures in IC-design

- EMC conformed PCB board design
  - PCB layout / stack layer setup
  - ground layer concept

- EMC interference analysis and countermeasures
  - Steps of problem analysis on PCB board
  - Ways to improve EMC behaviour
  - Practice demo – Spread Spectrum Modulator

- Check list for EMC conformed design

Supplemental Info

Questions? training@fme.fujitsu.com