



**Wednesday, September 22, 2004
1:00 PM– 5:00 PM**

(12) GR-1089 - ELECTROMAGNETIC INTERFERENCE AND ELECTROSTATIC DISCHARGE

Tutorial Description

This course provides an in-depth description of the Electromagnetic Interference (EMI) emissions and immunity criteria and Electrostatic Discharge (ESD) criteria of Telcordia's document GR-1089-CORE, Electromagnetic Compatibility and Electrical Safety - Generic Criteria for Network Telecommunications Equipment, Issue 3, October 2002.

The course will cover all EMI and ESD criteria of GR-1089 which includes:

- 1) Radiated emissions with cabinet doors open and closed,
- 2) Radiated immunity with cabinet doors open and closed,
- 3) Conducted emissions and immunity criteria for signal and power leads,
- 4) ESD tests, e.g., normal, installation and repair and
- 5) Contact and air discharge criteria.

Other subjects covered include laboratory test equipment and test procedures. Under EMI test equipment, the proper use of receiver detectors (average, peak, or quasi-peak), resolution and video bandwidths, antennae, Line Impedance Stabilization Networks (LISNs), etc. will be addressed. Test procedures address items such as proper traffic loading, laboratory facilities, and cable layouts.

Tutorial Level and Benefits

This is a basic to intermediate level course. After attending this tutorial, you will have an understanding of the EMI criteria of GR-1089. The course provides in-depth explanations of the reasoning behind the EMI criteria. You will also learn about common errors in setting up the test equipment and the equipment to be tested.

About the Presenter

Mr. John F. Lichtig has a BS in EE from Northeastern University and an MS in EE from Cornell University. He is President of Lichtig EMC Consulting, LLC, and is a member of ANSI Standards Committee C63 on EMC, and other recognized standards committees.

John provides EMC consulting services, concentrating in the telecommunications field. He worked for Telcordia Technologies' (formerly Bellcore) EMC Group for 15 years. He was responsible for EMI systems designs, particularly RFI suppression, and establishment of RFI immunity and emission standards for telecommunications facilities.