



**Sunday, September 10 2006**  
**1:00 PM – 5:00PM**

## **(T05)CENTRAL OFFICE GROUNDING FROM THE EARTH UP**

### **Tutorial Description**

This Tutorial provides fundamental knowledge and application of the many components critical to Central Office Grounding:

1. Standards and requirements for the earth ground
2. New applications
3. Testing the system
4. Office principal Ground Point (OPGP)
  - a. Planning
  - b. Zoning
5. Maintenance
6. Main Ground Bar (MGB)
  - a. Configuration
  - b. Zoning
7. Floor Ground Bar (FGB),
  - a. Limitations
  - b. Location
8. Central Office Ground Bar (COGB)
  - a. Limitations
  - b. Location
9. Far end equipment bonding and grounding

The Tutorial begins with the requirements, testing, methods of installation and maintenance for the buried ground field.

There is much confusion about the buried ground, the standards, methods of testing and maintenance. Discussion will include the 3 and 4 point Wenner (Megger) test for soil resistivity and design of the basic earth electrode system.

During the tutorial the buried ground field will be discussed and the applicable standards clearly defined. For example, the standard 25 Ohm requirement in the National Electrical Code is inadequate to protect most telecommunications systems and a significantly lower resistance to earth is needed.

The physical location and zoning of the MGB, OPGP will be covered as well as the technical rationale for zoning certain ground bars.

### **Course Level**

This tutorial is designed for anyone working with Central Office grounding. Some experience in grounding is helpful but not a requirement. The course is designed to demystify bonding and grounding. The participants will have an opportunity to discuss issues critical to the proper bonding and grounding of telephone systems.

### **Course Benefits**

Attendees will take-away a firm grasp of the fundamentals of central office equipment grounding that benefit all who support the planning, maintenance and technical support of the Central Office.

### **About the Presenter**

Mr. Ernie Farren has over 40 years experience in telecommunications. He worked for New England Telephone, NYNEX, Bell Atlantic and retired from Verizon. Mr. Farren has been an Equipment Installer, Central Office Manager, and Technical Support for Bonding Grounding and Office Environment. He has been chairman and participant on many grounding committees.

He is presently working for Dan McMenamin and Associates, Inc.