

**Emission Measurements (ANSI C63.4),  
Antenna Calibration (ANSI C63.5) and  
Time Domain (TD) Applications**  
(Visit [www.c63.org](http://www.c63.org) for more information)

This workshop is presented in three parts over a two day period: (1) Review of the 2009 edition of ANSI C63.4, (2) Review of the 2006 edition of C63.5 and the changes proposed for the 2009 edition and (3) Application of TD for test site validation and antenna calibration. These workshops are designed to increase your understanding of these standards and the TD approach. For the C63.4 workshop, there will be an

analysis of the test site validation including using the CISPR SVSWR method or arranging absorber material on the ground plane. The C63.5 portion of the second workshop will lead the user through the new (or draft) document, highlighting which technique should be used based on the type of antenna being calibrated. This is essential to ensure that the right antenna factor is obtained, especially when validating semi-anechoic chambers. Application of the same TD method to validating test sites will also be presented. Attendees will get a chance to apply what they learned via problem solving and/or performing an antenna calibration in the lab and nearby OATS.

**In the C63.4 workshop, you will learn:**

- RF emission measurement procedures
- National and international regulatory implications
  - Test facility and instrumentation requirements
  - Equipment test arrangements and configurations

**In the C63.5 workshop, you will learn:**

- General test conditions
- Appropriate measurement geometry
- Application of standard site method
- Rationale for geometry specific correction factors for biconicals
- Measurement uncertainty guidelines
- How to take actual measurements
- Changes proposed for 2009 edition

**In the Time Domain workshop, you will learn:**

- Application for site validation
- Application for antenna calibration

**Support Material**

- A complete lecture notebook
- FCC handouts and references

**Who Should Attend**

Those responsible for determining compliance with FCC Rules and Regulations (and CISPR 22), including:

- Product managers and developers
- EMC engineers and test technicians
- Regulatory compliance managers
- Test instrumentation developers
- Those using and calibrating antennas in making radiated emission compliance measurements
- Calibration technicians
- Calibration and measurement accreditation bodies
- Lab quality assessors
- Test instrumentation and chamber manufacturers

**Hotel**

The Hilton Hotel downtown Austin is the Symposium Host Hotel. For hotel info: [www.emc2009.org](http://www.emc2009.org)

**Expert Instructors**

Workshops feature leading industry experts and ANSI C63® members, including Don Heirman, Workshop

Director, (Don HEIRMAN Consultants), Mike Windler (UL), Dennis Camell (NIST), Bob Hofmann (Hofmann EMC), Bill Hurst (FCC), Greg Kiemel (Northwest EMC), Michael Foegelle and Zhong Chen (ETS-Lindgren).

**Date and Location**

August 14-15, 2009  
ETS-Lindgren, Cedar Park, TX  
(Transportation will be provided to/from ETS-Lindgren and the Hilton Hotel.)

**Fee Includes:**

Complete lecture notebook, continental breakfast, lunch, breaks, and completion certificate. Fee does NOT include copies of the draft or published standards.

**Agenda**

**ANSI C63.4:**

Aug. 14 8:30 am Registration  
Class: 9:00 am to 6:00 pm

**ANSI C63.5/Time Domain:**

Aug. 15 8:30 am Registration  
Class: 9:00 am to 5:00 pm

**Registration Form**

Contact: Janet O'Neil

Telephone: 425-868-2558

[j.n.oneil@ieee.org](mailto:j.n.oneil@ieee.org)

Ms./Mr. \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Daytime Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

Credit Card (check one): MC \_\_\_\_\_ Visa \_\_\_\_\_ Amex \_\_\_\_\_

Credit Card No: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

Signature: \_\_\_\_\_

**Check or Credit Card Number must accompany registration.**

Make check payable to **U.S. EMC Standards Corporation** in U.S. dollars drawn on a U.S. bank. Mail to:

Janet O'Neil  
ETS-Lindgren  
22117 Northeast 10<sup>th</sup> Place  
Sammamish, WA 98074

**C63.4 workshop only – August 14**

By June 15\*: \$500 USD \_\_\_\_\_  
C63® & S/C Members (by June 15) \$425 USD \_\_\_\_\_

**C63.5/TD workshops only – August 15**

By June 15\*: \$500 USD \_\_\_\_\_  
C63® & S/C Members (by June 15) \$425 USD \_\_\_\_\_

**Both workshops**

By June 15\*: \$900 USD \_\_\_\_\_  
C63® & S/C Members (by June 15) \$825 USD \_\_\_\_\_

Add \$200 if after June 15 or at the door for either workshop or both workshops\*\* \$200 USD \_\_\_\_\_

Add 1 copy of both workshop notebooks\*\*\* \$100 USD each \_\_\_\_\_  
Total USD \$ \_\_\_\_\_

NOTE: You are not registered until you receive confirmation.

\*Please do not mail after July 10.

\*\*With prior telephone or fax registration only.

\*\*\*Order by June 15 for pickup at the workshop.

The organizing committee reserves the right to substitute speakers, modify the program (or lecture notes), restrict attendance or to cancel the workshop(s). In the event the workshop(s) is/are canceled, registration fees will be refunded. No refunds will be made to individuals who cancel after July 10. Substitutions are allowed. [Workshops without a minimum of 15 attendees signed up by 1 July 2009 will be cancelled and registration fees returned. It is suggested that you book refundable travel arrangements as appropriate if workshop\(s\) is/\(are\) cancelled.](#)