

# THE LOG PERIODIC

www.scvemc.org Santa Clara Valley Chapter of IEEE Electromagnetic Compatibility Society

IEEE SCV EMC Society Meeting: Tuesday, April 10, 2012

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**Time:** Social 5:30 p.m. Presentation 6:30 p.m.

**Place:** Applied Materials Bowers Cafeteria  
3090 Bowers Ave., Santa Clara, CA 95051-0804

**Subject:** Reverberation Chamber Theory/Statistical Overview

**Speaker:** Prof. Charles F. Bunting, ECE Dept., Oklahoma State University;  
IEEE EMC Society Distinguished Lecturer

**Abstract:** To understand the application of reverberation chambers EMC engineers must delve into the scary world of statistics and applied random variables. This talk provides a discussion of the statistical electromagnetic environment in a reverberation chamber and the method by which the equipment under test can be tested to a given peak (or average) component (or total) field (or power) level with a definable uncertainty.

## Speaker Bio:



Chuck Bunting (S-1989, M-1994, SM-2011) was born in Virginia Beach, Virginia. He was employed at the Naval Aviation Depot in Norfolk, VA as an apprentice, an electronics mechanic, and an electronics measurement equipment mechanic from 1981-1989. He received his A.A.S. in Electronics Technology from Tidewater Community College in 1985, the B.S. degree in Engineering Technology with highest honors from Old Dominion University in 1989. He received the M.S. degree in Electrical Engineering from Virginia Polytechnic Institute and State University (Virginia Tech) in 1992. From 1991-1994 he held a Bradley Fellowship and a DuPont Fellowship and in 1994 he was awarded the Ph.D. in Electrical Engineering from Virginia Tech.

From 1994 to 2001 Dr. Bunting was an assistant/associate professor at Old Dominion University in the Department of Engineering Technology where he worked closely with NASA Langley Research Center on electromagnetic field penetration in aircraft structures and reverberation chamber simulation using finite element techniques.

In the Fall of 2001 he joined the faculty of Oklahoma State University as an associate professor and was promoted to full professor in August of 2011. His chief interests are engineering education, applied computational electromagnetics, statistical electromagnetics, electromagnetic characterization and application of reverberation chambers, and the analysis and development of near infrared tomography and microwave acoustic tomography for prostate cancer detection.  
(<http://cbunting.ecen.ceat.okstate.edu/>).

$$\begin{aligned}\nabla \times \vec{E} &= -\frac{\partial \vec{B}}{\partial t} \\ \nabla \times \vec{H} &= \frac{\partial \vec{D}}{\partial t} + \vec{J} \\ \nabla \cdot \vec{D} &= \rho \\ \nabla \cdot \vec{B} &= 0\end{aligned}$$

**Refreshments:** Light Dinner and beverages will be served for a fee. Coffee, tea, and snacks are served free of charge.



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Map: Applied Materials Bowers Café, 3090 Bowers Ave., Santa Clara, CA 95051



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- Applied Materials Location
- Hotel Location