



IEEE Central Texas EMC and MTT/AP Joint Chapter Meeting Announcement

Wireless Technology Update:

A Review of ANSI ASC C63® Wireless Standards Activity and the Test Challenges of Today's Smart Antenna Systems for 5G and IoT

Date: Tuesday, November 7, 2017

Time: 6:00 pm: Complimentary Dinner
6:50 pm: Welcome by Todd Steigerwald, EMC Chapter Chair
7:00 pm: Update on ANSI C63 Wireless Standards
(See technical program below)
7:45 pm: Test Challenges of Smart Antenna Systems
(See technical program below)
8:20 pm: OPTIONAL – Tour of AT&T Wireless Test Labs
9:00 pm: Adjourn

Speakers: **Art Wall of Radio Regulatory Consultants/Telecommunications Certification Body (TCB)** Representative on the ANSI C63 committee; Chair C63 Subcommittee 4 - Wireless and ISM Equipment Measurements
Bob DeLisi of Underwriters Laboratories (UL) Vice-Chair Subcommittee 4 - Wireless and ISM Equipment Measurements
Jari Vikstedt of ETS-Lindgren, Manager – Wireless Solutions
(See biographies below)

Location: AT&T Arboretum, 9505 Arboretum Blvd., Austin, TX 78759
On site contact: Darwin Parra, Lead Member of Technical Staff
AT&T Network Ready Lab, (512) 372 5934

Register: Seating is limited!! [Register on line now to save your space!](#)

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TECHNICAL PROGRAM

Update on ANSI C63 Wireless Standards

Art Wall and Bob DeLisi – Members, ANSI C63 Committee

Abstract: Subcommittee 4 of ANSI C63 addresses “Wireless and ISM Equipment Measurements.” Due to the increase in wireless communication and related technology advances, ANSI C63 has several working groups creating wireless standards, including ANSI C63.10 on unlicensed wireless devices; C63.26 on licensed wireless devices; C63.29 on lighting products; C63.30 on wireless power transfer; and C63.31 on ISM devices. Currently there are over 50 engineering professionals contributing to these working groups from manufacturers, academia, industry organizations and government agencies. The speakers who are Chair and Vice-chair, respectively, of Subcommittee 4 will provide an update on this new standards activity, including what’s driving the standards, the technical challenges these wireless devices and technology presents, and what progress has been made. Information will be provided on how those interested can contribute to this working group activity.

Test Challenges of Smart Antenna Systems

Jari Vikstedt, Manager – Wireless Solutions, ETS-Lindgren, Cedar Park, Texas

Abstract: The proliferation of wireless technologies into every corner of our lives, starting with traditional cellular and wireless LAN technologies and leading to the impending evolution of connected cars and the “Internet of Things,” all require the use of one common asset - bandwidth. While the traditional approach to added bandwidth is simply to use more RF spectrum, the availability of spectrum, especially at frequencies compatible with most of today’s applications, is severely limited. Technologies continue to evolve to make better utilization of the available bandwidth, including MIMO, beam forming, spectrum sharing and reuse, etc. The added complexity of these “smart” antenna systems carries over into the complexity of trying to test radios using these technologies. Smart antenna systems that adapt to their environment are not likely to perform the same way in a traditional laboratory test as they would in the real world. Thus, the laboratory test methodologies must advance to keep up with these innovations to be able to determine the expected over-the-air performance of these devices without requiring an unlimited number of test cases. This presentation will provide an overview on the evolving 5G and mmWave technologies and the resulting dramatic changes to the wireless industry that will impact the way all RF and EMC testing of devices is performed.

SPEAKER BIOGRAPHIES

Art Wall is the Chair of ANSI ASC C63® Subcommittee 4 - Wireless and ISM Equipment Measurements. Art retired from the Federal Communications Commission in 2005 as Deputy Chief of the FCC Laboratory with over thirty-five years’ experience in radio regulatory issues, Electromagnetic Compatibility (EMC), EMC standards and conformity assessment. He authored and participated in the development of numerous mandatory and voluntary standards for intentional and unintentional radiators and for controlling radio interference. Mr. Wall is a Life Fellow of the Institute of Electrical and Electronic Engineers (IEEE) and Life member of the IEEE EMC Society. He has a B.S.E.E. from the University of Maryland and a Master’s in Electro-Physics from George Washington University. He is principal consultant for Radio Regulatory Consultants, Inc.

Bob DeLisi is the Vice-Chair of ANSI ASC C63® Subcommittee 4 - Wireless and ISM Equipment Measurements. He is a Principal Engineer and Certifier in the UL Telecommunication Certification Body program in the Consumer Technology division at UL's Melville facility. He has been with UL for 28 years and has been involved in all facets of the UL EMC business from testing to lab management. He participates on ANSI Accredited Standards Committee C63® and actively participates on Subcommittee 1 (Techniques and Development), Subcommittee 6 (Accreditation/Conformity Assessment) and Subcommittee 8 (Medical Devices). He is also a member of the IECEE's Committee of Testing Laboratories Expert Task Force, CLT-EFT 10 for EMC. Bob holds a Bachelors of Electrical Engineering and is a NARTE Certified EMC Laboratory Engineer.

Jari Vikstedt is the Manager, Wireless Solutions for ETS-Lindgren in Cedar Park, Texas. He has over 20 years of experience with ETS-Lindgren in developing and testing RF test solutions for both EMC and Wireless applications. Mr. Vikstedt and the other engineers at ETS-Lindgren are active technical contributors to the leading wireless industry organizations, including the CTIA, 3GPP, IEEE and the Wi-Fi Alliance®. Recently Mr. Vikstedt has devoted his expertise to the development of CTIA and 3GPP Over-The-Air (OTA) testing solutions as well as developing innovative 5G OTA test solutions. He holds a BSEE degree in RF Engineering from the Turku University of Technology, Finland.