

## Meeting Report of the joint IEEE EMC and PES/IAS Chapters, Pittsburgh Section, Region 2, September 7, 2017

A technical meeting/presentation for the joint Pittsburgh EMC Society Chapter and Power & Energy/Industry Applications Chapters was conducted on Thursday September 7, 2017 at the Westinghouse Headquarters, Cranberry PA. Michael Oliver, IEEE EMCS Chapter Chair and David Vaglia, Power & Energy/Industry Applications Past Chapter Chair hosted the meeting with 19 persons in attendance. The meeting started with a social/dinner prior to a technical presentation. We had the privilege of having Steve Ferguson as our technical speaker; Steve is Executive V.P. at Washington Laboratories, Ltd (WLL) and has been working in the compliance test arena for over 35 years at test laboratories and manufacturing companies designing products, developing procedures and performing tests and advising developers on routes and techniques for attaining product compliance. He presents various courses on EMI/EMC compliance including EMC for Nuclear Power Facilities, Architectural Shielding and a hands-on course MIL-STD-461 testing at the WLL facility in Maryland and on-site for multiple government and industrial clients. His work also includes EMC and Safety evaluations for commercial, military and medical devices and training of hundreds of personnel on test and evaluation techniques. He is a member of the TR-102323 Working Group, supporting preparation of Revision 4 and is the Vice-chair for EMCS+SIPI 2017 – the EMC Society Symposium for 2017 in Washington DC.



## **IEEE EMC CHAPTER and the POWER & ENERGY/INDUSTRY APPLICATIONS CHAPTER, Pittsburgh Section September 7, 2017**

The technical presentation was discussed and an introduction of Steve Ferguson was done by Mike Oliver. Prior to the talk, Dave Vaglia discussed facility safety, fire exits, and future IEEE meetings. The technical presentation by Steve Ferguson is titled “Reverse Engineering – EMC Equipment Qualification Pitfalls”. Reverse engineering is used throughout the electronics industry as a means to maintain form, fit and function compatibility for updated equipment many applications. Understanding the EMC design presents a complex problem as part of the reverse engineering process – how did the original design attain compatibility. Design documentation may provide EMC control components but seldom defines structural details contributing to control, so the reverse engineer lacks adequate information. This presentation explores the EMC design process and the major effects of seemingly benign attributes from component selection, circuit board and wiring layout and EMC control attained by design and incidental (parasitic) elements. The presentation goal is to provide a basic introduction on Electromagnetic Compatibility design techniques that need consideration as an integral part of reverse engineering.



**Good Food**



**A Well Deserved Plaque Presented to Steve Ferguson**

**ON BEHALF OF ALL OF US IN PITTSBURGH PA,  
“THANK YOU STEVE FERGUSON FOR YOUR CONTRIBUTION TO OUR  
EMCS PITTSBURGH CHAPTER and POWER & ENERGY/INDUSTRY  
APPLICATIONS CHAPTER”**