

# November 2010 Meeting Report of the W.I.E. Group and IEEE EMCS Chapter, Pittsburgh Section, Region 2

A joint technical meeting of the IEEE Pittsburgh W.I.E. Group and the EMC Chapter was conducted on November 11, 2010 at the Westinghouse Facility in Cranberry PA. Michael Oliver, IEEE EMCS Chapter Chair and Harry Godlewski Co-Chair hosted the technical meeting with approx. 40 people in attendance. Dr. Burke, Chairman of the WIE Group was unable to attend due to business travel. At the onset of the meeting Mike announced that the W.I.E. Group sponsored a total of 4 meetings in 2010 and will start the next meetings in 2011. In addition, any interested presenters for W.I.E. for 2011 are to contact Dr. Burke at rinburke@gmail.com

The meeting started with a dinner at 6:30 pm prior to a 7:00 pm technical presentation. We had the privilege of having Dr. Francesca Maradei as our technical speaker; Francesca is President of the IEEE EMC Society.

As an introduction concerning the presentation, the title is "EMC certification by simulations, a new trend in European EMC Standards", EMC simulations along with innovative aspects and harmonization of the EMC directive will be discussed. Steps taken and decisions made to check for conformity along with new EMC challenges was also presented. In addition, from the Sapienza University EMC Lab in Italy, relevant contributions on modeling and simulation was shown. These contributions included numerical modeling of ESD immunity testing for compliance certification, an ESD generator and circuit model, prediction of an ESD radiated field, and ESD effects on a coax cable and unshielded twisted pair cables. Certification by simulation for aircraft applications and numerical analysis was presented including lightning strikes, current travel, waveforms, aircraft electrical systems, and aircraft material modeling.



**About the presenter:** Dr. Francesca Maradei was awarded a Degree in Electrical Engineering in 1992 from Sapienza University of Rome, a Diplome d'Etudes Approfondies (DEA) in Electrical Engineering from the Institut National Polytechnique de Grenoble, France, in 1993, and a Ph.D. in Electrical Engineering from Sapienza University of Rome, in 1997. Dr. Maradei is currently an Associate Professor at Sapienza University.

Dr. Maradei is author of more than 100 papers in the field of numerical techniques and their application to EMC problems (shielding, transmission line analysis, electrostatic discharge (ESD), electric fast transient (EFT), printed circuit boards (PCBs), power distribution networks (PDN).

**IEEE Service and Activities:** Dr. Maradei is the President of the *IEEE Electromagnetic Compatibility (EMC) Society for 2010-11*. She has been serving in the Board of Directors of *IEEE EMC Society* since 2005. She served as Chapter Coordinator of the *IEEE EMCS Society in 2005-2009*, and as an *Associate Editor* of the *IEEE Transactions on EMC* from 1999 to 2000. For several years she has served as reviewer of technical papers for the *IEEE Transactions on Electromagnetic Compatibility*, on *Industry Applications*, on *Microwave Theory and Techniques*, and *Magnetics*.

**Awards:** She was awarded the 2003 James Melcher Price Paper Award by the *Electrostatic Committee* of the *IEEE Industry Applications Society*; the Oral Presentation Best Paper Award at the *International Symposium EMC'94 ROMA*, and the Poster Presentation Best Paper Award at the *International Symposium EMC EUROPE 2000*.



**Pittsburgh IEEE EMCS Chapter Technical Meeting on November 11, 2010**



**Good Food**



**A Well Deserved Plaque Presented to Dr. Maradei**

**ON BEHALF OF ALL OF US IN  
PITTSBURGH PA...**

**“THANK YOU FRANCESCA FOR  
YOUR CONTRIBUTION TO OUR  
EMCS PITTSBURGH CHAPTER”**