

Commission E (Electromagnetic Noise and Interference) Activity Report

November 2012 - February 2013

Domestic academic activities:

1. Commission E had two regular technical meetings in December 2012 and January 2013 in corporation with the Technical Committee on Electromagnetic Compatibility (EMCJ) of the Institute of Electronics, Information and Communication Engineers (IEICE), and IEEE EMC Society Japan and Sendai Chapters. Selected special topics for the monthly meetings were simulation technology, power electronics, biological effects, EMC in medical applications, etc. and 37 technical reports were presented in total. One of the meetings, in Dec. 2012, was co-sponsored by the Technical Committee on Electronic Simulation Technology (EST) of IEICE and Technical Committee on EMC of the Institute of Electrical Engineers of Japan (IEEJ TC-EMC).

(<http://www.ieice.org/ken/program/index.php?instsoc=IEICE-B&tgid=IEICE-EMCJ>)

At the regular monthly meetings, the following 2 “Special Talks” were presented;

- (1) Prof. Takashi Nakamura, “Are Wire Harnesses Transmission Lines or Antennas?”
- (2) Prof. Tamotsu Ninomiya, " Switched-Mode Power Converter and Its Noise Generation "

International Conferences and Meetings:

1. “5-th Pan-Pacific EMC Joint Meeting (PPEMC'12)”: Nov 29-30, 2012, NICT, Tokyo.

<http://www.ieice.org/cs/emcj/jpn/international/pan-pacific/>

This series of international meeting was started in 2005 and its purpose is to share research information related to EMC technologies in pan-pacific area and also to encourage young researchers in Japan to present their works in English. This fifth meeting was held at National Institute of Information and Communications Technology (NICT), Tokyo, Japan, organized by IEICE Technical Committee on Electromagnetic Compatibility (EMCJ), and supported by NICT. In total 33 papers were presented, including four invited papers from Korea, USA, Japan, Singapore, and 19 young scientist papers. Two excellent papers were honored as 'IEICE Technical Committee on Electromagnetic Compatibility Young Scientist Excellent Paper Award '.

http://www.ieice.org/cs/emcj/jpn/international/pan-pacific/2012/award_e.html

2. The following conferences and meeting related to EMC was held;
 - 6th Asia-Pacific Conference on Environmental Electromagnetics (CEEM'2012)”: Nov 6-9, 2012, Shanghai, China.

Future International Conferences and Meetings:

1. “2013 IEEE Electrical Design of Advanced Packaging & Systems Symposium (EDAPS 2103), Dec. 12-14 & 15, 2013, Nara, Japan. (<http://www.edaps2013.org/>)
2. “The 9th International Workshop on Electromagnetic Compatibility of Integrated Circuits (EMC Compo 13)”, Dec. 15-18, 2013, Nara, Japan. (<http://www.edaps2013.org/>)

3. “2014 International Symposium on Electromagnetic Compatibility, Tokyo (EMC’14/Tokyo)”.

It is a symposium of periodically held every five years in Japan. This will be held in May 13-16, 2014 in Tokyo. More than 450 audiences and 200 presentations are expected. Scopes are;

1) EMC Measurements, 2) High Power & High Voltage EMC: Lightning & Overvoltage Protection, Intentional EMI & EMP, Grounding Phenomena in Power Systems, 3) EMC Management & Standards, 4) Chip, Package, PCB & Cables, Semiconductor EMC, 5) Immunity / Susceptibility, ESD and Transients, 6) Shielding, Grounding & Materials, EM Absorber, Meta-materials, 7) Numerical Modeling: Computational Electromagnetics, 8) Biological Effects, EMF Safety & EMC in Medical Applications & Safety: 9) Power System EMC: Smart Grids, Power Quality Issues, EMC in Power Plants & Substations, Solar Power Systems, Wireless Power Transmission, 10) Power Electronics & Vehicles: Automotive EMC, Railway and Naval EMC, EMC in Space, 11) Communication System EMC: Wired & Wireless Communications, Antennas, Propagation and Scattering.

Paper submission on the web will be started on May 1, and its dead line is August 31. At present “Organized Session Proposal” is open for acceptance.

(<http://www.ieice.org/~emc14/>)