

Activity Report of Commission E, July, 2009, (Electromagnetic Noise and Interference)

Term from April 2009 to July 2009

.EMI control technologies are still of prime interest of high-speed electronic device supplier. Engineers who design electronic apparatuses are always more effective, more versatile method of EMI control. Research activities are held in many farms, but results are apt to be closed to the farm. EMC researches are held in a few universities out of more than 100 Universities that have engineering department.

Automobiles as well as consumer electronics are commodities to be exported in order to support Japanese people. These days the electric vehicles are expected as a resolution for the global green-house effect, in which radio receivers must work with 30-100kW driving electric system. The EMC problems in automotives are problems of today and tomorrow in Japan. Thus EMC technologies to suppress noise are fundamental technologies that assure the existence of the country.

Academic activities:

1. Commission E had, in the period of April 2009 to July 2009, 4 technical meetings in corporation with the Technical Committee on Electromagnetic Compatibility (EMCJ) of the Institute
2. 2009 Korea-Japan AP/EMC/EMT Joint Conference (KJJC-09) was held May 14-15, 2009, RFID/USN Center at Songdo in Incheon, Korea. The swine influenza severely affected the operation of the conference: number of attendee was decreased to 2/3 as expected beforehand.
3. “2009 International Symposium on Electromagnetic Compatibility, Kyoto”. was held in 20-24, July 2009 in Kyoto international Conference Center. It is one of periodically held every five years in Japan. This had around 420 audiences and 220 presentations. Scopes are as follows,

1. Measurement Techniques	2. EMC Test Facilities
3. Standards and Regulations	4. System-Level EMC
5. Chip and Package Level EMC	6. PCB and Circuit Design for EMI Control
7. Transmission Lines and Cables	8. Signal Integrity
9. Immunity / Susceptibility	10. ESD and Transients
11. Shielding and Grounding	12. EM Absorber
13. Numerical Modeling	14. Biological Effects and Safety
15. EM Environment Measurement	16. Power system EMC
17. Automotive EMC	18. Communication System EMC
19. EM Wave Propagation and Scattering	20. Lightning and over-voltage protection

21. Electromagnetic Product Safety

22. EMC Management

4. 5th Asia-Pacific Conference on Environmental Electromagnetics(CEEM'09/Xi'An) will be held in 16-19, Sept, 2009 , Xi'An, China.