Activity Report of Commission E, October, 2010

(Electromagnetic Noise and Interference)

Term from August 2010 to October 2010

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.

The problem of noise emission from the power-line communication (PLC) system is still kept conducted.

Academic activities:

1. Commission E had, in the period of September 2010 to October 2010, 2 technical meetings in corporation with the Technical Committee on Electromagnetic Compatibility (EMCJ) of the Institute of Electronics, Information and Communication Engineers, comprising 32 presentations in total. This activity was ceased in August because of summer.

2. A session on EMC was held in the Society Meeting of IEICE in the term of September 14-17 at Osaka Prefectural University. It comprised 51 presentations for four days.

3. A Technical Committee on EMC inside The Institute of Electrical Engineers of Japan had four meetings in a year and operating four ad hoc studying groups, viz. EMC, EM wave and Information security, Noise-immunity of electrical and electronic devices, and EMC of ESD.

4. Japan Institute of Electronics Packaging includes three groups on EMC, viz., EMC modeling, Ultra-high speed electronics packaging, and low noise packaging.

Commission E