



**Report on the Business Meetings of  
Commission E  
during the  
XXXth URSI General Assembly and  
Scientific Symposium  
Istanbul, Turkey, August 13-20, 2011**

Chair: Christos Christopoulos (UK)

Vice Chair: A P J van Deursen (Netherlands)

**New Vice-chair:** D. Giri (USA) was elected as Vice-Chair for the next triennium. He will also serve as the Comm. E Editor of the Radio Science Bulletin. The new vice-chairman offered to coordinate new items for the Comm. E website.

**Working groups:** Commission E activities are carried out by working groups (WG). For the period 2011-2014 Comm. E amended the existing list of WG and their chairs as follows:

E.1 Terrestrial and Planetary Electromagnetic Noise Environment; Co-Chairs A.P. Nickolaenko (Ukraine), C. Price (Israel), K. Hattori (Japan);

E.2 Intentional Electromagnetic Interference; Co-Chairs W. Radasky (USA) and M. Bäckström (Sweden);

E.3 High Power Electromagnetics; Co-Chairs R.L. Gardner (USA) and C.E. Baum (till December 2010, USA) succeeded by Frank Sabath;

E.4 Lightning Discharges and Related Phenomena; Chair dr. S. Yoshida;

E.5 Interaction with, and Protection of, Complex Electronic Systems; Co-Chairs J-P. Parmentier (France), Frank Gronwald (Germany) and H. Reader (South Africa);

E.6 Spectrum Management; Chair : T. Tjelta (Norway) and R. Struzak (Poland);

E.7 Geo-Electromagnetic Disturbances and Their Effects on Technological Systems; Chair : A. Viljanen (Finland);

E.8. Electromagnetic Compatibility and Security in Wired and Wireless Communication Systems; Co-Chairs : J. Gavan (Israel) and A. Zeddani (France).

Also, Commission E designated its representatives to WG jointly operated with other Commissions as follows:

Joint Working Groups

Inter-commission working group on Solar Power Satellites; Co-Chair for Comm. E: Zen Kawasaki (Japan) and Jacques Gavan (Israel)

EGH. Seismo Electromagnetics (Lithosphere-Atmosphere-Ionosphere Coupling); Co-Chair for Comm. E M. Hayakawa (Japan)

Other WG topics: E.6 has strong relation with Committee J and with ITU. Closer cooperation will be investigated in the coming triennium. Concerns were expressed that the people that suffer interference due to spectral scarcity are not well represented in the relevant fora. Power line communication, in particular at the high and medium-voltage level spread over a larger area by intended for their implementers. The topic of E.7 has strong relations with E.1 and with joint working group EGH. Also here, closer cooperation might be worthwhile investigating.

**Terms of Reference:** Commission E decided to maintain Chicago 2008-11 version of ToR:

Commission E - ELECTROMAGNETIC ENVIRONMENT AND INTERFERENCE.

The Commission promotes research and development in:

- (a) Terrestrial and planetary noise of natural origin, seismic associated electromagnetic fields;
- (b) Man-made electromagnetic environment;
- (c) The composite noise environments;
- (d) The effects of noise on system performance;
- (e) The effects of natural and intentional emissions on equipment performance;
- (f) The scientific basis of noise and interference control, electromagnetic compatibility;
- (g) Spectrum management.

Possible topics for **white papers** topics were discussed. For the moment several bundled papers on spectral management is the maximum attainable, in view of workload and interests of the authors. The list of Comm. E **emerging issues** has been discussed thoroughly. Still the text required only little adaptations that will be included in a word version of the LRPC documents. Spectral management becomes an increasingly important issue. Comm. E expresses its concern about wide-spread use of power line communication at frequencies below 30 MHz, in particular in indoor situations where alternatives as WiFi in allocated bands are available and commercially competing options.

A large number of activities have been organized by national committees. Support had been given to many international symposia and conferences. The triennial report 2008-2011 contains a list. A provisional list of meetings to be supported in the next three-year period is given below. The list will be continuously updated on the

Commission's web page. National Representatives are invited to inform the Chair well in advance of meetings suitable for sponsorship in order to be able to plan a budget for future years. At time of writing one had or has:

- International Conference on Electromagnetics in Advanced Applications (ICEAA11), Torino, Italy, 2011.
- EMC Europe, York, UK Sept. 2011.
- Sixth International Beijing Symposium on Electromagnetic Compatibility (EMC'2012/Guilin) to be held in Guilin, China, May 16-20, 2012.
- EMC Europe, Rome, September 2012
- SAfrican URSI Commission E meeting, September 2012. Possibly to be combined with Comm. E business meeting.
- Euroem and Amerem

All GA2011 Comm. E sessions were well attended in general, also by young scientists, and presentations were followed by lively discussions. The E-poster sessions had more no-shows than those of other commissions. Proposal came up to attract more attention, for instance by 2 minutes introductions at the end of the oral session. Space around posters was limited, the acoustic level was high. The GA2011 CD was good; it contained all abstracts, was searchable for author names, and had a direct link to the full papers. A USB version would be useful for participants with laptops that lack a CD-player. Discussion came up to include young scientists in the judge committee for the awards. Recognition that the young scientists were present could be by granting them the title of URSI radio engineer. The GA2011 program was compact; for the 2014 event in Beijing an extension could be reconsidered to more than 6 days, but not necessarily to two full weeks.