Article for EMCSA

Possible heading **Overseas Activities and Research Directions**

In May, 2006 Malcolm Mulcare was an invited speaker at the 2nd Pan Pacific EMC Joint Meeting - PPEMC'06- organised by the IEICE Technical Committee on Electromagnetic Compatibility (EMCJ) and the IEEE EMC Society Chapter in Japan. (IEICE stands for The Institute of Electronics, Information and Communication Engineers in Japan). This conference was held at the Okayama University in Okayama, Japan. The website for the conference is www.ieice.org/cs/emcj/jpn/pan-pacific/index.htm .

He presented a paper entitled "EMC Compliance and Testing in Australia" which described the Australian regulatory requirements for EMC and EMR and then gave an overview of the EMC facilities in Australia. The paper was well received and prompted some questions particularly about the acceptance of cell phone towers in Australia.

There were some 50 attendees at the conference with senior representatives of the EMC fraternity along with current researchers. The program extended over two days and covered a range of research topics from Japanese universities. In addition each half day session commenced with an invited speaker.

The other invited speakers and their topics were:

> The Strategic Research Agenda on EMC in the next (7th) European Research Framework Program 2007-2013 (Invited) **Frank Leferink**, *University of Twente, The Netherlands*
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> Reduction of Electromagnetic Field Penetration through Narrow Slot in Conducting Loading Reactance Elements (Invited) **Ki-Chai Kim**, *Yeungnam University, Korea*
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> An Un-intrusive Electromagnetic Field Mapping Technique: The Optically Modulated Scatterer (Invited) **Wenlie Liang**[1,3], **W.T.Shay**[1,2], **R.R.Lao**[1,2], **and J.H.Tarng**[2], [1] *Center for Measurement Standards, Industrial Technology Research Institute,Taiwan* [2] *Department of Communication Engineering, National Chiao Tung University, Taiwan* [3] *Quietek Corporation, Taiwan*

Professor Liang's paper on optically modulated scatterer techniques was drawn from work he had done with the National Physics Laboratory in the UK was quite interesting as it described new techniques for near field mapping. Professor Kim's paper described his research area.

However the most interesting presentation for EMC Society members was from Professor Leferink which described the development of a strategic research agenda for submission to the European Commissioners for the European Research Program for the period 2007 to 2013. Full details of this program are to be found at http://www.emc-esd.nl/ and then open link to ETN-SEE and then open 060421 Brochure ETN-SEE to start assessing this information

The EMC Technology Roadmap Framework developed in this document describes four main themes for EMC Research Topics:
Theme 1: EMC Methodologies
Theme 2: EMC Standardization / Control
Theme 3: EM Safety / Security
Theme 4: EM Modeling & Simulation

These themes are supported by a series of high-priority activities that will directly lead to their fulfillment. These activities were judged by the European stakeholders to be achievable in the short (less than three years), medium (three to ten years) to long-term (more than ten years).

This is an exciting document which should be accessed by all those who are involved in the EMC world. It is thought that all future research programs will reference this document as an indication of European thinking and planning for the future not only for the EMC industry but for the worldwide community as a whole.

Further details can also be obtained by emailing Malcolm at malmulcare@pacific.net.au