

Commission K (Electromagnetics in Biology & Medicine) Activity Report**March 10th, 2009****by****Tsukasa Shigemitsu****1. Update on EMF safety issue****(1) The establishment of the Japan EMF information center**

Based on the request from Working Group Electric Power Facility EMF Policy, METI, the Japan EMF Information Center (JEIC) was formed on November, 2008, and started its activity. JEIC aims to provide “easy-to-understand scientific information on possible health effects of EMF” and to “promote EMF risk communication”. The aim is also to “minimize the gaps of risk perception on health effects form EMF between interested parties”, in collaborating with the universities, media, government and all stakeholders.

(2) Tentative meeting of the Japanese URSI-Commission K for 21st term of the Science Council of Japan

In order to setup the new member’s Japanese URSI-Commission K for 21st term of the Science Council of Japan, the tentative meeting of Japanese URSI-Commission K was held on December 15, 2009, at the Tokyo Metropolitan university’s Akihabara satellite campus, Tokyo. Prof. Taki of Vice-Chair of Commission K of the URSI Society reviewed the progress of recent activity of Japanese URSI (from January to December, 2008) and the necessity of new contribution from Japanese URSI-Commission K to Japanese URSI and URSI Society.

Following his presentation, the Japanese URSI Commission-K for 21st term was tentatively set up with 21 members. The core staff; Prof. Taki of Tokyo Metropolitan University is the Vice-Chair of Commission K of URSI Society. Dr. Shigemitsu of Japanese EMF Information Center is the chair of Japanese URSI-Commission K, Drs. Watanabe of National Institute of Information and Communications Technology and Ikehata of Railway Technology Research Institute are appointed as the chief secretary and Dr. Yoshie of Railway Technology Research Institute is the secretary. This tentative commission will become formal, automatically after the start of 21st term of the Science Council of Japan.

Through the meeting, the necessities of 1) the development and progress of the new research on the medical application of EMF and 2) the organization of the group of young researcher were discussed.

This meeting gave us also, as a research topic, the recent information about the biological effects of intermediate frequency (IF) magnetic fields. The topic presented by Dr. Nakasono of CRIEPI was the review of his research on the in vitro effects of IF magnetic fields. Focusing on the carcinogenesis and mutagenesis effects of IF (2, 20 and 60 kHz) magnetic field, his presentation showed that there was no effects of IF magnetic field.

After considerable discussion, it was decided that the next meeting will be held on May 12, 2009, in order to discuss, 1) the preparation and contribution of Japanese URSI-Commission K to AP-RASC’10, Toyama, Japan, 2) the organization of the Study Group of Young Researcher on Bio-EMF and Technology, cooperating with Japanese URSI-K Commission, and 3) the presentation of the new research topic by Prof. Jimbo of Tokyo University.

2. Meetings**(a) Past meetings****(1) 6th International Non-Ionizing Radiation Workshop, October 14-17, 2008, Rio de Janeiro, Brazil**

<http://www.icnirp.org/NIR2008.htm>)

- (2) 12th International Conference, International Radiation Protection Association, IRPA 12, October 19-24, Buenos Aires, Argentina (<http://www.irapa12.org.ar>)
 - (3) 8th International Symposium on Antennas, Propagation, and EM theory. November 2-6, 2008, Kunming, China (<http://isape2008.com>)
 - (4) UNECSCO Seminar on electromagnetic fields: mechanism of action and potential threat as a terrorism agent. 3-6, November, 2008, Yerevan, Armenia.
 - (5) URSI National Radio Science Meeting. January 5-8, 2009, University of Colorado at Boulder (<http://www.nrsmboulder.org>)
 - (6) SPIE Energy-Based Treatment of Tissue and Assessment. January 24-29, 2009, San Jose, USA (<http://spie.org/BiOS>)
 - (7) EC Workshop on EMF and Health: Science and Policy to address public concerns, Brussels, 11-12 February 2009.
 - (8) 13th International Symposium on Antenna Technology and Applied Electromagnetics (ANTEM) and the Canada Radio Science Meeting (URSI/CNC). February 15-18, Banff, Canada (<http://antem.ee.umanitoba.ca>)
- (b) Future meetings
- (1) PIERS 2009 (Progress in Electromagnetic Research Symposium). March 23-27, 2009, Beijing, China (<http://piers.mnit.edu/piers>)
 - (2) Society for thermal Medicine Annual Meeting. April 3-7, 2009, Tucson, USA (<http://www.thermalmedicine.org>)
 - (3) Third International conference of applied electromagnetism CNEA 2009: "Potentialities of Electromagnetism in Medicine, Agriculture, Industry, and Environment". May 18-21, Santiago de Cuba, Cuba (<http://cnea.uno.edu.cu/english/indexi.htm>)
 - (4) WHO IAC (International EMF Project) 2008. June 10-11. Geneva, Switzerland
 - (5) BioEM2009: Joint Meeting of The Bioelectromagnetics Society and the European BioElectromagnetics Association. June 14-19, 2009, Davos, Switzerland (<http://www.bioelectromagnetics.org>)
 - (6) 12th National Symposium on Radio Science. June 16-21, 2009 Warsaw University of Technology, Warsaw (<http://www.ursi2009.pl>)
 - (7) 2009 International Symposium on Electromagnetic Compatibility. July 2-24, 2009. International Conference Center, Kyoto, Japan (<http://www.ieice.org/emc09>)
 - (8) 5th Asia-Pacific Conference on Environmental Electromagnetic & Exhibition. September 16-19, 2009, Xi'an, China
 - (9) World Congress 2009 on Medical Physics and Biomedical Engineering. September 7-12, 2009. Munich, Germany (<http://www.wc2009.org>)
 - (10) International Conference on Electromagnetics in advanced application (ICEAA 09). September 14-18, 2009, Torino, Italy (<http://www.iceaa.polito.it>)
 - (11) Occupational exposure to electromagnetic fields: paving the way for a future EU initiative. October 6-8. Umea, Sweden (<http://www.av.se/inenglish/aboutus/eu/electromagnetic.aspx>)
 - (12) Asia-Pacific Microwave Conference. December, 7-10, 2009, Singapore (<http://www.apmc2009.org>)
 - (13) 32th BEMS Annual Meeting, June 2010, Korea.
 - (14) IEEE Antennas and Propagation Society International Symposium and USNC-URSI National Radio Science Meeting, July 8-14, 2012, Chicago, Illinois, USA (<http://www.ece.uic.edu/2012aps-ursi>)
 - (15) 33th BEMS Annual Meeting, June, 2011, Halifax, Nova Scotia