

Commission K (Electromagnetics in Biology & Medicine) Activity Report
July 2018 – April 2019

April 15, 2019

Jianqing Wang

1 Activities

1st Meeting of the Japanese URSI-Commission K for the 24th term of the Science Council of Japan

Date: July 17, 2018

Place: Akihabara Satellite Campus, Tokyo Metropolitan University, Tokyo

- Topics: 1) Election of Professor Jianqing Wang as the new chair of Commission K Japanese Committee.
- 2) Plan of committee activities.
- 3) Schedule and session organization of AP-RASC 2018.
- 4) Minute of 24th term of Japanese URSI Committee Meeting.

Core member (present- and past- chairperson, secretaries, and several members) meeting of the Japanese Commission K

Date: November 6, 2018

Place: National Institute of Information and Communications Technology, Otemachi, Tokyo

- Topics: 1) Scientific symposium (Co-operated by Japanese Society for Electromagnetics in Biology and Medicine)
- 2) Hosting the 2022 Annual Meeting of BioEM in Japan.

2nd Meeting of the Japanese URSI-Commission K for the 24th term of the Science Council of Japan

Date: February 20, 2019

Place: Akihabara Satellite Campus, Tokyo Metropolitan University, Tokyo

- Topics: 1) Minute of 1st Meeting of the Japanese URSI-Commission K
- 2) Announcement of AP-RASC2019 and URSI-GASS
- 3) Announcement of JRSM2019
- 4) Hosting the 2022 Annual Meeting of BioEM in Japan
- 5) URSI Centenary Book
- 6) Associated conferences

Scientific symposium (Co-operated by Japanese Society for Electromagnetics in Biology and Medicine)

Date: February 20, 2019

Place: Akihabara Satellite Campus, Tokyo Metropolitan University, Tokyo

Seven oral presentations and one special lecture were given to the participants. A young research excellent presentation award was given to Dr. Atsushi Saito.

- 1) “SAR measurement techniques for human whole body in close proximity to MHz band wireless power transfer system” by T. Sakai et al. (Tokyo University of Agriculture and Technology)
- 2) “Measurement of increase in SAR of a translucent phantom caused by metallic implants” by E. Matsuda et al. (Hokkaido University)
- 3) “Increase in temperature within the ocular bulb caused by 6-30 GHz dipole antennas” by S. Nishikawa et al. (Aoyama Gakuin University)
- 4) “Real-time detection of nerve excitation by intermediate frequency magnetic fields” by A. Saito et al. (Central Research Institute of Electric Power Industry)
- 5) “Temperature imaging of tissues containing water and lipids for MR-guided high intensity focused ultrasound therapy” by K. Kurihara (Tokai University)
- 6) “Measurement of blood pressure based on body-area-network electrocardiography and photoplethysmography” by Y. Sawatari (Nagoya Institute of Technology)
- 7) “Development of microwave catheter for denervation and novel evaluation techniques for heating characteristics” by S. Matsuhara (Chiba University)

Special Lecture:

“30 years of URSI Commission K” by M. Taki (Tokyo Metropolitan University)

2 Associated meetings

2.1 Past meetings

1. AP-RASC, New Delhi, India, 9 – 15 March 2019, < <http://aprasc2019.com/> >

2.2 Future meetings

1. BioEM 2019, Montpellier, France, 23 - 28 June 2019, < <https://www.bioem2019.org/> >
2. 47th Annual Meeting of the Japanese Society for Magnetic Resonance in Medicine, Kumamoto, Japan, 20 – 22 September 2019, < <http://www.congre.co.jp/jsmrm47/> >
3. URSI GASS, Rome, Italy, 29 August - 5 September 2020, < <http://www.ursi2020.org/> >
4. 36th Annual Meeting of the Japanese Society for Thermal Medicine, Kawagoe, Japan, 6 – 7 September 2019, < <http://web.apollon.nta.co.jp/jstm36/> >