March 31, 2015

**Activity Report of URSI-F**

Reported by Y. Maekawa (Chair)

**1. Commission meetings in the period of January – March 2015**
**(For more detail, please see http://ursi-f.nict.go.jp/)**

(1) No. 591 Meeting
Date: January 22-23, 2015 Place: Ehime University, Johoku Campus (Ehime)

This meeting was held under the co-sponsorship of IEICE Technical Committee on AP, and IEEE Shikoku Section. Fourteen papers relevant to the field of URSI-F were presented in the special sessions organized for recent propagation issues:

1. Basic study on behavior patterns by MIMO sensor with time correlation
2. Localization Method of Living-Body Using MIMO Virtual Array in Indoor Environment
3. Parameters and Channel Capacity of Spatial Polarized MIMO for Low Antenna Height in Urban Area
4. FDTD Analysis of Mili-wave behavior around Electromagnetic Shield of Server-rack in Data-center
5. The Effect of Two-Dimensional Round Convexity Array Arranged on the Surface of Concrete Walls on Electromagnetic Wave Propagation
6. Impact of Building Shape in the Intersection on Ray Tracing Accuracy for Non Line-Of-Site (NLOS) Scenario in Street Cell Environment
7. Path loss prediction model for microcell environment in high - SHF and EHF band
8. A study of urban path loss estimation for slope terrain areas using geographical road information
9. Propagation Loss Characteristics for Millimeter-wave Band in NLOS Street Microcell Environment
10. Millimeter-wave Band Path Loss Characteristics Considering Shielding Loss on LoS Road in Street Microcell Environment
11. Propagation Loss Model for Sharing TVWS Bands in Indoor Environment
12. [Special Talk] Investigation of enhanced backscattering from random particles at millimeter-wave frequencies
13. Measurement Between Indoors of Different LOS Buildings in Mobile Communications
14. Frequency Characteristic and Angular Characteristic at 1.2GHz of Outdoor-to-Indoor Propagation Loss to Estimate Indoor-Indoor Propagation Loss

For more details, please see: http://www.ieice.org/cs/ap/jpn/

(2) No. 592 Meeting
Date: March 18, 2015 Place: NTT Yokosuka R & D Center (Kanagawa)

Four papers were presented:

1. Proposal of Analysis Model in Multipath and Mobile Radio Channel
2. Propagation Characteristics for MIMO Adaptive Transmission in Street Microcell Environment
3. Application of least square image reconstruction algorithm with L1 norm constrains to sparsely acquired GPR data
4. Propagation Loss Characteristics for Millimeter-wave Band in NLOS Street Microcell Environment

The commission business meeting of URSI-F was also held on that date, and seven commission members attended, satisfying a quorum of the business meeting. There was a discussion on cooperation with other commissions and related societies. The chair person and three secretaries for the 23rd term in the years from 2014 to 2017 were approved as follows:

Chair: Yasuyuki Maekawa (Osaka Electro-Communication University)
Secretaries: Makoto Satake (NICT), Hisato Iwai (Doshisha University), Naoki Kita (NTT)

**2. Others**

Nothing in particular.