December 12, 2014

Activity Report of URSI-F

Reported by Y. Maekawa (Chair)

1. Commission meetings in the period of August – December 2014
(For more detail, please see http://ursi-f.nict.go.jp/)

(1) No. 588 Meeting
Date: October 16, 2014 Place: Kwansei Gakuin University, Umeda Campus (Osaka)

Four papers were presented:

1. Development of Polarimetric 2-D Phased Array Radar for Precipitation Measurement
2. Relationship between Rain Attenuation Characteristics of Ku-Band Satellite Communications Links and Upper Atmospheric Wind Speed and Rain Cloud Distribution in Equatorial Region
3. Emission Pattern of Indoor Base Station to Estimate the Indoor-Indoor Propagation Loss
4. A Study on Performance Evaluation of 2x2 MIMO Channel for Inter-Terminal Radio Communications on LOS Plane Earth Propagation Environments

(2) No. 589 Meeting
Date: November 12-14, 2014 Place: Yamagata University, Yonezawa Campus (Yamagata)

This meeting was held under the co-sponsorship of IEICE Technical Committees on AP and RCS, and IEEE AP-S Tokyo Chapter. 13 papers relevant to the field of URSI-F were presented:

1. Transmission efficiency in Massive MIMO considering calibration errors
2. 11GHz Directional Wideband Channel Measurements in Residential Microcellular Environments
3. Short-range propagation characteristics between the wearable device wearer
4. A Study of Path Loss Correction Formula for a Cellular Base Station Looking down at Sloping Ground Area
5. Propagation Test on Millimeter Wave Communication for Railway Trains
6. A calculation model of shadowing loss caused by a moving human body and its validation by experiments
7. A study on interference suppression techniques for downlink nonlinear MU-MIMO
8. Research and Development of Multi-band Multi-mode Wireless Systems for Higher Frequency Bands Utilization
9. On physical limit of Wireless Data transmission from radiowave propagation viewpoint
10. Propagation Characteristics Analysis of Orthogonal Linearly Polarized MIMO in Street Cell Model
11. Propagation Analysis of Orthogonal Circularly Polarized MIMO in Street Cell Model
12. Study on Linear Cell Constitution for High-Speed Mobile Communication
13. Study on Propagation Characteristics for Design of Fifth-Generation Mobile Communication Systems -- Frequency Dependency of Path Loss in 800 MHz to 37 GHz Band in Small-Cell Environment --

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

(3) No. 590 Meeting
Date: December 12, 2013 Place: National Institute of Information and Communications Technology (Tokyo)

Three papers were presented:

1. Comparable Analysis of Spherical and Plane Wave Channel Modelling
2. On the Performance of Cooperative Diversity against Localized Rainfalls in Millimeter-Wave Wireless Mesh Network
3. An Automatic Extraction of Vertical Structures on SAR Interferogram

2. Others

XXXI General Assembly and Scientific Symposium of the International Union of Radio Science (URSI-GASS 2014) was held in Beijing Conference Center, China. Date: August 16-23, 2014.

2014 URSI-Japan Radio Science Meeting (URSI-JRSM 2014) was held in Chuo University, Korakuen Campus, Tokyo. Date: September 8, 2014.

2104 Asia-Pacific Microwave Conference (APMC 2014) was held in Sendai International Center, Sendai. Date: November 4-7, 2014.