

October 31, 2016

Activity Report of URSI-F

Reported by Y. Maekawa (Chair)

1. Commission meetings in the period of June – October 2016(For more detail, please see <http://ursi-f.nict.go.jp/>)

- (1) No. 605 Meeting
Date: June 7, 2016 Place: The University of Electro-Communications (Tokyo)

Four papers were presented:

1. The Frontier of Earthquake Prediction: Prediction of the 2016 Kumamoto earthquake?
2. Measurement of Inter-Sector Separation in Urban Area for Sectorized Relay-Assist V2V Communication
3. Improving connection quality based on reliability information using radio environment database
4. Research on Adaptive Baseband Radio

- (2) No. 606 Meeting
Date: July 20-22, 2016 Place: Otaru Port Marina (Hokkaido)

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

1. Analysis of Propagation Characteristics between Indoors of Difference LOS Buildings in Mobile Communications
2. Building Entry Loss Model in 0.8 to 37 GHz Bands
3. Measurements on Overreach Propagation from Korea in V-Low Band
4. Acquisition Method of Median Level Variation Based on Variation Mechanism in Mobile Communications with Low Base Station Antenna Height
5. A Propagation Characteristics Analysis Method Using Point Cloud Data
6. Long-term Statistics of Changes in Cross-Polarization Discrimination of Ka-band Satellite Communication Signals due to Thunderstorm
7. Long-term Statistics of Rain Attenuation and Their Recent Trend in Ku-Band Satellite Communications Links
8. Frequency Characteristics of Propagation Loss for Indoor-Indoor Environment
9. Path loss estimation in acrowded urban area using diffraction theory of knife-edge
10. 11GHz-band MIMO Channel Propagation Parameters Characteristics in an Outdoor Street Micro-Cell Environment
11. Investigation of the Mm-Wave Propagation Mechanism in an Outdoor Access Environment

- (3) No. 607 Meeting
Date: September 8, 2016 Place: Kyushu Institute of Technology, Tobata Campus (Fukuoka)

Three papers were presented:

1. Study of Frequency Characteristics of Urban Propagation Loss and Building Penetration Loss in 150MHz to 10GHz band
2. A Study of Accuracy Improvement of Distance Measurement based on Received Signal Strength by Artificial Variation of Radio Propagation Characteristics
3. A Study on the Site Diversity Effects in Ku-Band Satellite Communications Links using Rain Area Images

- (4) No. 608 Meeting
Date: October 20-21, 2016 Place: Osaka Institute of Technology, Umekita Knowledge Center (Osaka)

This meeting was held under the co-sponsorship of IEICE Technical Committee on SANE. Thirteen papers relevant to the field of URSI-F were presented in the field of remote sensing:

1. Development of Phased Array Weather Radar
2. Intelligent Electronic Nose with Metal-Oxide Gas Sensors and its Applicability to Smell Communication
3. Bias Estimation for Distributed Sensor Data Fusion -- Bias Estimation Method Based on Multi-Agent Model --
4. A general-purpose high-performance microsatellite OBC module
5. Verification of the real-time image-processing camera for debris removal
6. Lab Color Space Assignment for Decomposed Fully Polarisation SAR Image
7. Web Archive for Polarimetric Scattering Decomposition Images
8. Gradient-based inverse scattering approach by using cost functional consisting the stored energy with no information on incident field - one dimensional case –
9. Japanese radiowave techniques from the view point of Radar
10. Drone detection using Multimode sensor module NJR4233D.
11. Grating Suppression of Microwave Radar
12. Experimental Verification for Detectable Range Performance of Stepped Multiple Frequency CPC and Pulse Compression
13. Radiation Field from Arbitrary Curved Surface Array

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

2. Others

2016 URSI Asia-pacific Radio Science Conference (URSI AP-RASC 2016) was held in Grand Hilton Seoul Hotel, Seoul, Korea on August 21-15, 2016. 2016 International Symposium on Antennas and Propagation (ISAP2016) was held in Okinawa Convention Center, Okinawa, Japan on October 24-28, 2016. Ten and Twenty one papers relevant to the field of URSI-F were presented in the oral sessions of these two international conferences, respectively.