

## ★衛星通信研究会 (SAT)

専門委員長 豊嶋守生 副委員長 杉山隆利・鈴木利則

幹事 三浦 周・中平勝也

日時 10月7日(水) 9:00~18:20

8日(木) 9:00~18:10

会場 大阪大学中之島センター(大阪市北区中之島4-3-53. 京阪中之島線:中之島駅より徒歩約5分. <https://www.onc.osaka-u.ac.jp/others/map/index.php>)

議題 衛星通信技術及び一般(JC-SAT 2015)

### 7日午前 Opening Session

1. Opening Remarks-1 from Japan Morio Toyoshima (NICT)

2. Opening Remarks-2 from Korea (TBD)

### Onboard Payload Technology 1

3. A system performance study on reducing power consumption of DBF/channelizer for communication satellite  
○Teruaki Oriyasa・Amane Miura (NICT)・Naoki Kobayashi (NEC Space Technologies)・Shinji Senba (AXIS)

4. Fully Reconfigurable K-band Pseudo-Elliptic Bandpass Filter with a Negative Coupling Structure  
○Seungwoo Nam・Boyoung Lee (Korea Univ.)・Changsoo Kwak・Manseok Uhm (ETRI)・Juseop Lee (Korea Univ.)

5. A study of the structure of the digital channelizer for application to the broadband satellite communications  
○Minoru Akita・Futaba Ejima・Akinori Fujimura・Yu Okaue・Terumi Sunaga・Eiichi Sakai・Ryuji Ishii (Mitsubishi Electric)

### Satellite System and Operation Technology

6. A Study of Implementation Methodologies for Development of Cubesat Ground Control System

○Hongrae Kim・Young-Bo Sagong (Soletop)

7. A High-fidelity Mathematical Model Generation of Satellites by Hybrid Model Updating Scheme for Launch and On-orbit Operation

○Jae hyuk Lim・Kyoung-Won Kim・Sun-Won Kim・Chang-Ho Kim・Hyung-Yeol Jun・Do-Soon Hwang (KARI)

8. Development of Meteorological Satellite Ground System ○Won Chan Jung・Do-Seob Ahn (ETRI)

### 7日午後 Satellite Access Technology (13:05~)

9. Application of non-orthogonal multiple access scheme for satellite/terrestrial integrated mobile communication system with dual satellites ○Eiji Okamoto (NITech/NICT)・Hiroyuki Tsuji・Amane Miura (NICT)

10. Implementation of a Baseband Platform for the GMR-1 3G Mobile Satellite Applications

○Jae-Pil Lee・Jae-Heung Yeom・Won-Ho Lee (APSI)

11. Experimental Evaluation of Frequency Offset Compensation Method for Direct Spectrum Division Transmission

○Jun-ichi Abe・Jun Mashino・Tadao Nakagawa (NTT)

### Antenna Technology 1

12. Design of X Shape Dipole Antenna with Human Head Model for the Mobile Terminal of Satellite/Terrestrial Integrated Mobile Communication System

○Yoshiyuki Fujino (NICT)・Tatsuya Sato・Makoto Yamaguchi (Toyo Univ.)・Yoshikazu Seki・Amane Miura・Teruaki Oriyasa (NICT)

13. Study on a Compact Waveguide Feed Horn for Dual-band

○Sohyeun Yun・Manseok Uhm・Inbok Yom (ETRI)

14. Effect of vehicle body on beam switched telemetry slot antenna for UAV

○Shoichi Kitazawa (ATR)・Masazumi Ueba (MuroranIT)・Tomoaki Kumagai (ATR)

### Laser Technology for Satellite Communication

15. Initial Overview of Satellite-ground Laser Communication Experiment using Small Optical Transponder (SOTA)

○Yasushi Munemasa・Hideki Takenaka・Dimitar Kolev・Naohiko Iwakiri・Maki Akioka・Yoshisada Koyama・Hiroo Kunimori・Yoshihisa Takayama・Morio Toyoshima (NICT)

16. A Proposal of Beaconless Ground to Satellite Laser Communication System by Using GPS Information

○Keiichi Yano (SIT)・Yoshihisa Takayama (Tokai Univ.)・Hiroo Kunimori (NICT)・Koichi Gyoda (SIT)

17. Evaluation of Optical Phase Stability on Optical Beam Former for Receiving Antenna under Temperature Fluctuation

○Hitomi Ono・Eisuke Haraguchi・Toshiyuki Ando・Junya Nishioka・Masateru Nagase (Mitsubishi Electric)・

### Special Session

18. [特別講演] 50 Years of Japan's Satellite Communications Research and Development—Recognition of Its Role and Expectations for the Future Development— Takashi Iida (TMU)

19. Special Talk from Korea (TBD)

### 8日午前 Unmanned Aircraft System

1. A study on handover of multiple UAVs among base stations with high-gain tracking antenna for real-time monitoring of large building ○Kazuto Yano • Shoichi Kitazawa • Tomoaki Kumagai (ATR)

2. Throughput Evaluation of Real-time Data Transmission over Multiple UAVs

○Masanori Horiuchi • Hiroki Nishiyama • Nei Kato (Tohoku Univ.) • Fumie Ono • Ryu Miura (NICT)

3. A Development of Chirp Signal Generation and Timing Control Technology for Small UAV SAR Sensor

○Kyoung Min Song • Woo-Kyoung Lee (Korea Aerospace Univ.)

4. Link budget study of a radio relay system using unmanned aerial vehicles

○Tomoyuki Shiraki • Tetsushi Ikegami (Meiji Univ.)

### Onboard Payload Technology 2

5. Interference Cancellation for Common-band Satellite Transmission Considering HPA Nonlinear Memory effects

○Han Ik Jeon (Univ. of Science and Tech.) • Joon Gyu Ryu • Deock Gil oh (ETRI) • Hee Jung Yu (Yeungnam Univ.)

6. Space Qualification Test Results of 20 W class X-band GaN SSPA

○Mitsuhiro Nakadai • Masanobu Yajima (JAXA) • Masahiro Funabashi • Toshihumi Inome (NEC Space)

7. Power Amplifier with Average Power Tracking for Ka-band Satellite Downlink

○Seong-Mo Moon • Dong-Hwan Shin • Inbok Yom (ETRI)

### 8日午後 Satellite Technology and Application (13:20~)

8. 16APSK/16QAM-OFDM 3.2 Gbps RF Signal Direct-Processing Transmitter and Receiver Communication Experiments Using WINDS

○Kenji Suzuki (NICT) • Masatomo Yahata • Midori Kato • Tetsuya Watanabe • Kenichi Hoshi • Tamio Okui • Shiro Yoshikawa (NEC) • Masayoshi Yoneda (NEC Space Technologies) • Yoshiki Arakawa • Toshio Asai • Takashi Takahashi • Morio Toyoshima (NICT)

9. Analytical Evaluation of Maximum Likelihood Estimation for SNR

○Shinji Nishijima • Ikuo Oka • Shingo Ata (Osaka City Univ.)

10. Research on Advancement of the Measurement Performance for the Compact Advanced Satellite 500 (CAS 500) in Agriculture ○Bumseung Kim • Woo-Kyoung Lee (Korea Aerospace Univ.)

11. A Forest-Fire Smoke Detection Algorithm for Intelligent Satellite Video Monitoring System

○Jae-Yoo Im • Won-Ho Kim (Kongju National Univ.)

### Antenna Technology 2

12. Verification of the Distributed Array Antenna Pattern Estimation Comparing to the Experimental Results with the 60 cm Parabolic Antenna

○Daisuke Goto • Fumihito Yamashita • Kouhei Suzaki • Hideya So • Yoshinori Suzuki • Kiyoshi Kobayashi (NTT)

13. Measurement network design for application of vision metrology to large reflector of mobile communication satellite

○Maki Akioka • Amane Miura • Teruaki Orikasa • Masaki Satoh • Morio Toyoshima • Hiroyuki Tsuji • Yoshiyuki Fujino (NICT)

14. Field Experiment Plan of Footprint Measurement System for Satellite with Onboard Large Antenna

○Amane Miura • Teruaki Orikasa • Maki Akioka • Hiroyuki Tsuji • Masaki Satoh • Morio Toyoshima (NICT)

### Radiowave Propagation

15. Study on Satellite Power Requirement for Adaptive Satellite Power Control using Rain Radar Data

○Shu Hanada • Hajime Fukuchi (Tokyo Metropolitan Univ.)

16. Relationship between Rain Attenuation Characteristics of Ku-Band Satellite Communications Links and Convective Rain Cloud Distribution in Tropical Region

○Keigo Takemoto • Yoshiaki Shibagaki • Yasuyuki Maekawa (Osaka Electro-Comm. Univ.)

17. Characteristics of Rain Attenuation Time Durations of Ku-Band Satellite Communications Links in Tropical Region

○Akihiro Tama • Yoshiaki Shibagaki • Yasuyuki Maekawa (Osaka Electro-Comm. Univ.)

### Closing Session

18. Closing Remarks-1 from Japan Takatoshi Sugiyama (Kogakuin Univ.)

19. Closing Remarks-2 from Korea (with the introduction of JC-SAT 2016) (TBD)

◆Korea Society of Space Technology (KOSST) 連催

☆SAT 研究会今後の予定 [ ] 内発表申込締切日

11月4日(水)~6日(金) 沖縄県立博物館・美術館〔締切済〕テーマ：一般, 電波伝搬, 無線通信, 衛星通信, 無線電力伝送

**【問合先】**

SAT 研究会幹事

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