

## ★宇宙・航行エレクトロニクス研究会 (SANE)

専門委員長 森山敏文 副委員長 田中 真・網嶋 武

幹事 ニッ森俊一・北村堯之 幹事補佐 尚 方

日時 12月15日(木) 10:00~17:50

16日(金) 9:15~16:30

会場 長崎ブリックホール (〒852-8104 長崎市茂里町 2-38 <http://www.brickhall.jp/index.shtml> 長崎大 森山敏文)

議題 ICSANE

15日午前 SANE Invited session1 (10:15~10:55)

1. [招待講演] Radar Measurement of the Inner Structure of the Great Pyramid in Egypt  
Motoyuki Sato (Tohoku Univ.)

SANE Invited session2 (11:05~11:45)

2. [特別講演] GNSS/IMU/Speed センサを利用した自動車位置のインテグリティモニタリングについて  
○久保信明・和田山晃平・小松大生 (東京海洋大)

15日午後 SANE Invited session3 (13:00~13:40)

3. [特別講演] Study and demonstration of a ground-to-vehicle communication system for high-speed rail using millimeter wave and THz—New infrastructure applications beyond the millimeter wave—  
○Nobuhiko Shibagaki・Yosuke Satoh・Takeru Nemoto・Kenichi Kashima (Hitachi Kokusai Electric)

SAR System/Technology and Calibration-1-(13:50~14:50)

4. DiskSat SAR for Mega Constellation—2D Satellite of Synthetic Aperture Radar with Deployable Slot Array Antenna—  
○Hirobumi Saito (Waseda Univ.)・Mitsuteru Kaneoka (CSP Japan)
5. Primary study of radiometric accuracy analysis for SAR satellite system  
Bryan Chihyuan Chu・○Yuya Yokota・Cheng-Yen Chiang (Wave Fidelity)・Meng-Che Wu (NARlabs)
6. 類似性を利用した合成開口レーダのレンジアンビギュイティ抑圧  
○夏秋 嶺・工藤雷己・廣瀬 明 (東大)

SAR System/Technology and Calibration-2-(15:00~16:00)

7. A Real Time Synthetic Aperture Radar Emulator and Applications  
○Bryan Chih-Yuan Chu・Cheng-Yen Chiang (WaveFidelity/National Dong Hwa Univ.)・Wen-Yen Chang (National Dong Hwa Univ.)
8. An observation of artificial buried items with the ALOS-2 L-band synthetic aperture radar—Initial results—  
○Akihisa Uematsu・Toshiyuki Nishibori (JAXA)
9. Dual band FMCW imaging radar for security inspections  
○Naruto Yonemoto・Akiko Kohmura・Shunichi Futatsumori・Kazuyuki Morioka・Norihiko Miyazaki・Masahiko Sato (National Inst. of Maritime, Port, and Aviation Tech.)

Wave Propagation, Navigational and communication systems (16:10~17:50)

10. Active phased array antenna optimization and calibration for satellite applications  
Bryan Chihyuan Chu・○Jake W. Liu・Zhao He Lin (Ohmplus Tech.)
11. Radio Interference by Space Debris Clouds  
Makoto Tanaka (Tokai Univ.)
12. 民生用 GNSS デバイスと LTE-M 網を用いたリアルタイム ZTD 観測  
○松村大輝・中川 豊・東野武史・岡田 実 (奈良先端大)
13. 火山活動及び地震と衛星軌道の関連性について  
○飯岡慶衣子・田中 真 (東海大)
14. Design of Modified EBG Structure for WLAN Notch Band Applications  
○Saidu Adamu Abubakar (J.S.I.I.T.)・Surajo Alhaji Musa (FedPoly)・Ibrahim Abba (KanoPoly)

16日午前 Imaging/Measurement Technology of Electromagnetic Waves (9:15~10:35)

1. Phase Method of Microwave Tomography Based on Micro-Rotation  
○Cheng-Chung Lin・Wei-Chen Chiu・Ai-Jung Lee (NCSIST)
2. Radar Target Modeling by Employing Directive Point Source  
○Hirokazu Kobayashi (Electromagnetic Wave System Lab.)・Hirohisa Oda (Sogo Electronics)
3. Bistatic Radar Scattering from Non-Gaussian Height Distributed Rough Surfaces  
○Ying Yang (Nanjing Univ. of Sci. and Tech.)・Kun-Shan Chen (Guilin Univ. of Tech.)
4. Terahertz Brewster Effect from Rough Surfaces—Numerical and Experimental study—  
○Suyun Wang (NICT)・Hiramatsu Kazuma (Tokyo Gakugei Univ.)・Kun-Shan Chen (Minerva Hdsar)・Yasuko Kasai (NICT)

SAR/POLSAR, Remote Sensing-1-(10:45~12:05)

5. Machine learning for global detection of photovoltaic panel installation using Landsat-8 Imagery  
○Ryo Ito • Ryu Sugimoto • Chiaki Tsutsumi • Ryosuke Nakamura (AIST)
  6. Detecting Azimuth Moving Ships using Extended Image Features in Spotlight SAR Data by Deep Learning  
○Takero Yoshida (Tokyo Univ. of Marine Sci. and Tech.) • Kazuo Ouchi (former Univ. of Tokyo)
  7. Polarimetric SAR Ship Detection Based on Sparse Reconstruction Error Saliency  
○Jiahao Luo • Junjun Yin (Univ. of Sci. and Tech. Beijing) • Jian Yang (Tsinghua Univ.)
  8. General 5-component Scattering Power Decomposition with Unitary Transformation  
○Yoshio Yamaguchi (Niigata Univ.) • Gulab Singh (Indian Inst. of Tech. Bombay) • Ryu Sugimoto (AIST)
- 16日午後 SAR/POLSAR, Remote Sensing-2- (13:15~14:35)
9. Scattering power decomposition of dual-polarization SAR data: application to deforestation detection in tropical rainforests  
○Ryu Sugimoto • Ryosuke Nakamura • Chiaki Tsutsumi (AIST) • Yoshio Yamaguchi (Niigata Univ.)
  10. Polarimetric SAR Imaging of Complex-Structured Targets over a Rough Surface—A Simulation Study—  
ChengYen Chiang • ○KunShan Chen (Guilin Univ. of Tech.) • Suyun Wang (NICT)
  11. Study on Volume Scattering Model in Scattering Power Decomposition for PolSAR Data  
○Masato Kawada • Yamada Hiroyoshi • Ryoichi Sato (Niigata Univ.)
  12. Land Cover Classification for Polarimetric SAR Images Based on Vision Transformer  
Hongmiao Wang • ○Danwei Lu (Tsinghua Univ.) • Junjun Yin (Univ. of Sci. and Tech. Beijing) • Jian Yang (Tsinghua Univ.)

#### Radar Signal & Data Processing (14:45~16:05)

13. Long Short-Term Memory を用いたスペースデブリの落下予測 ○間仲哲大 • 田中 真 (東海大)
14. ドップラ LIDAR への Si-PM 検出器の適用研究  
○青沼祐介 (東海大) • 水野貴秀 (JAXA) • 田中 真 (東海大)
15. Study on Heartbeat and Respiration Rates Estimation with Two Wave Models by using mmWave MIMO FM-CW Radar ○Toshifumi Moriyama • Mie Mie Ko (Nagasaki Univ.)
16. Application of passive radar for ocean current measurement—Radar placement— Akitsugu Nadai (NICT)

#### ◆IEEE AES Society Japan Chapter 共催

☆SANE 研究会今後の予定 [ ] 内発表申込締切日

2023年1月20日(金) 電子航法研〔未定〕テーマ：航法・航空管制及び一般

2023年3月2日(木), 3日(金) 宮古島市中央公民館〔未定〕テーマ：衛星応用技術及び一般

#### 【問合先】

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◎新型コロナウイルスの感染拡大防止のためオンライン開催に変更となる可能性があります。最新情報は当研究会ホームページも併せて御覧下さい。

<https://www.ieice.org/cs/sane/jpn/>