

ICSANE2022 Program

Date: Dec. 15- Dec. 16, 2022

Conference Venue: Online (Zoom) +

Meeting room 4 & 5, Nagasaki Brick Hall, Nagasaki-shi, Nagasaki, Japan

Decemer 15 Thursday

TIME	ACTIVITY
9:30-10:00	Registration
10:00-10:15	Opening Ceremony (Message from SANE)
10:15-10:55	Special Lecture 1 Motoyuki Sato (Tohoku Univ.)
10:55-11:05	Break
11:05-11:45	Special Lecture 2 Nobuaki Kubo (TUMSAT)
11:45-13:00	Lunch Break
13:00-13:40	Special Lecture 3 Nobuhiko Shibasaki (Hitachi Kokusai Electric)
13:40-13:50	Break
13:50-14:50	Regular Session 1 <u>Topic: SAR System/Technology and Calibration (1),</u> <u>Chair: TBD</u>
14:50-15:00	Break
15:00-16:00	Regular Session 2 <u>Topic: SAR System/Technology and Calibration (2),</u> <u>Chair: TBD</u>
16:00-16:10	Break
16:10-17:50	Regular Session 3 <u>Topic: Wave Propagation, Navigational and communication</u> <u>systems,</u> <u>Chair: TBD</u>

Decemer 16 Friday

TIME	ACTIVITY
9:15-10:35	Regular Session 4 <u>Topic: Imaging/Measurement Technology of Electromagnetic Waves,</u> <u>Chair: TBD</u>
10:35-10:45	Break
10:45-12:05	Regular Session 5 <u>Topic: SAR/POLSAR, Remote Sensing (1),</u> <u>Chair: TBD</u>
12:05-13:15	Lunch Break
13:15-14:35	Regular Session 6 <u>Topic: SAR/POLSAR, Remote Sensing (2),</u> <u>Chair: TBD</u>
14:35-14:45	Break
14:45-16:05	Regular Session 7 <u>Topic: Radar Signal & Data Processing,</u> <u>Chair: TBD</u>
16:05-16:15	Break
16:15-	Closing (Young Sicientist Award Ceremony) (Message from SANE)

Speacil talks		
Time	Title	Auhtors
10:15-10:55	Radar Measurement of the Inner Structure of the Great Pyramid in Egypt	Motoyuki Sato (Tohoku Univ.)
11:05-11:45	Integrity Monitoring for Automotive Positioning using GNSS/IMU/Speeds Sensors	Nobuaki Kubo, Kohei Wadayama, Hiroo Komatsu (TUMSAT)
13:00-13:40	Study and demonstration of a ground-to-vehicle communication system for high-speed rail using milli-meter wave and THz	Nobuhiko Shibagaki, Yosuke Satoh, Takeru Nemoto, Kenichi Kashima (Hitachi Kokusai Electric)

Regular Session 1 Topic: SAR System/Technology and Calibration (1)		
Time	Title	Auhtors
13:50-14:10	DiskSat SAR for Mega Constellation	Hirobumi Saito (Waseda Univ), Mitsuteru Kaneoka (CSP Japan)
14:10-14:30	Primary study of radiometric accuracy analysis for SAR satellite system	Bryan Chihyuan Chu, Yuya Yokota, Cheng-Yen Chiang (Wave Fidelity Inc.), Meng-Che Wu (NARlabs)
14:30-14:50	Similarity Approach for Synthetic Aperture Radar Range Ambiguity Suppression	Ryo Natsuaki, Raiki Kudo, Akira Hirose (UTokyo)

Regular Session 2 Topic: SAR System/Technology and Calibration (2)		
Time	Title	Auhtors
15:00-15:20	A Real Time Synthetic Aperture Radar Emulator and Applications	Bryan Chih-Yuan Chu, Cheng-Yen Chiang (WaveFidelity Inc. & National Dong Hwa Univ.), Wen-Yen Chang (National Dong Hwa Univ.)
15:20-15:40	An observation of artificial buried items with the ALOS-2 L-band synthetic aperture radar - Initial results -	Akihisa Uematsu, Toshiyuki Nishibori (JAXA)
15:40-16:00	Dual band FMCW imaging radar for security inspections	Naruto Yonemoto, Akiko Kohmura, Shunichi Futatsumori, Kazuyuki Morioka, Norihiko Miyazaki, Masahiko Sato (ENRI,MPAT)

Regular Session 3 Topic: Wave Propagation, Navigational and communication systems		
Time	Title	Auhtors
16:10-16:30	Active phased array antenna optimization and calibration for satellite applications	Bryan Chihyuan Chu, Jake W. Liu, Zhao He Lin (Ohmplus Tech. Inc.)
16:30-16:50	Radio Interference by Space Debris Clouds	Makoto Tanaka (Tokai Univ.)
16:50-17:10	Realtime Water Vapor observation using consumer GNSS device and mobile LTE-M network	Taiki Matsumura, Yutaka Nakagawa, Takeshi Higashino, Minoru Okada (NAIST)
17:10-17:30	On the relationship between satellite orbits and volcanic activity and earthquakes	Keiko Iioka, Makoto Tanaka (Tokai Univ.)
17:30-17:50	Design of Modified EBG Structure for WLAN Notch Band Applications	Saidu Adamu Abubakar (J. S. I. i. T. Kazaure, Nigeria.), Surajo Alhaji Musa (FedPoly Daura, Nigeria), Ibrahim Abba (Kano Poly, Kano, Nigeria)

Regular Session 4 Topic: Imaging/Measurement Technology of Electromagnetic Waves		
Time	Title	Auhtors
9:15-9:35	Phase Method of Microwave Tomography Based on Micro-Rotation	Cheng-Chung Lin, Wei-Chen Chiu, Ai-Jung Lee (NCSIST),
9:35-9:55	Radar Target Modeling by Employing Directive Point Source	Hirokazu Kobayashi (Electromagnetic Wave System Lab.), Hirohisa Oda (SOGO)
9:55-10:15	Bistatic Radar Scattering from Non-Gaussian Height Distributed Rough Surfaces	Ying Yang (NJUST), Kun-Shan Chen (GLUT)
9:15-10:35	Terahertz brewster effect	Suyung Wang (NICT, Japan)

Technical Session 5 Topic: SAR/POLSAR, Remote Sensing (1)

Time	Title	Auhtors
10:45-11:05	Machine learning for global detection of photovoltaic panel installation using Landsat-8 Imagery	Ryo Ito, Ryu Sugimoto•Chiaki Tsutsumi, Ryosuke Nakamura (AIST)
11:05-11:25	Detecting Azimuth Moving Ships using Extended Image Features in Spotlight SAR Data by Deep Learning	Takero Yoshida (TUMSAT), Kazuo Ouchi (former IIS UTokyo)
11:25-11:45	Polarimetric SAR Ship Detection Based on Sparse Reconstruction Error Saliency	Jiahao Luo, Junjun Yin (USTB), Jian Yang (THU)
11:45-12:05	General 5-component Scattering Power Decomposition with Unitary Transformation	Yoshio Yamaguchi (Niigata Univ.), Gulab Singh (IITB, India), Ryu Sugimoto (AIST)

Technical Session 6 Topic: SAR/POLSAR, Remote Sensing (2)

Time	Title	Auhtors
13:15-13:35	Scattering power decomposition of dual-polarization SAR data: application to deforestation detection in tropical rainforests	Ryu Sugimoto, Ryosuke Nakamura, Chiaki Tsutsumi (AIST), Yoshio Yamaguchi (NU)
13:35-13:55	Polarimetric SAR Imaging of Complex-Structured Targets over a Rough Surface	ChengYen Chiang, KunShan Chen (GLUT), Suyun Wang (National Int. Information and Communications Tech.)
13:55-14:15	Study on Volume Scattering Model in Scattering Power Decomposition for PolSAR Data	Masato Kawada, Yamada Hiroyoshi, Ryoichi Sato (Niigata Univ.)
14:15-14:35	Land Cover Classification for Polarimetric SAR Images Based on Vision Transformer	Hongmiao Wang, Danwei Lu (Tsinghua Univ.) Junjun Yin (USTB), Jian Yang (Tsinghua Univ.)

Technical Session 7 Topic: Radar Signal & Data Processing

Time	Title	Auhtors
14:45-15:05	Prediction of Reentry Trajectories of Space Debris Using Long Short-Term Memory	Akihiro Manaka, Makoto Tanaka (Tokai Univ)
15:05-15:25	Application Study of Si-PM Detector to Doppler LIDAR	Yusuke Aonuma (Tokai Univ.), Takahide Mizuno (JAXA), Makoto Tanaka (Tokai Univ.)
15:25-15:45	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.)
15:45-16:05	Application of passive radar for ocean current measurement	Akitsuho Nadai (NICT)