

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.) <u>Chair: Makoto Tanaka (Tokai Univ)</u>
10:55-11:05	Break
11:05-11:45	Special Lecture 2 Nobuaki Kubo (TUMSAT) <u>Chair: Takeshi Amishima(Meiji Univ.)</u>
11:45-13:00	Lunch Break
13:00-13:40	Special Lecture 3 Nobuhiko Shibagaki (Hitachi Kokusai Electric) <u>Chair: Shunichi Futatsumori(ENRI)</u>
13:40-13:50	Break
13:50-14:50	Regular Session 1 <u>Topic: SAR System/Technology and Calibration (1)</u> <u>Chair: Akihisa Uematsu (JAXA)</u>
14:50-15:00	Break
15:00-16:00	Regular Session 2 <u>Topic: SAR System/Technology and Calibration (2)</u> <u>Chair: Ryo Natsuaki(Univ. of Tokyo)</u>
16:00-16:10	Break
16:10-17:30	Regular Session 3 <u>Topic: Wave Propagation, Navigational and communication systems</u> <u>Chair: Naruto Yonemoto(ENRI)</u>

Decemer 16 Friday

TIME	ACTIVITY
9:15-10:35	Regular Session 4 <u>Topic: Imaging/Measurement Technology of Electromagnetic Waves</u> <u>Chair: Toshifumi Moriyama (Nagasaki Univ.)</u>
10:35-10:45	Break
10:45-12:05	Regular Session 5 <u>Topic: SAR/POLSAR, Remote Sensing (1)</u> <u>Chair: Bryan Chih-Yuan Chu (WaveFidelity Inc. & National Dong Hwa Univ.)</u>
12:05-13:15	Lunch Break
13:15-14:35	Regular Session 6 <u>Topic: SAR/POLSAR, Remote Sensing (2)</u> <u>Chair: Motoyuki Sato (Tohoku Univ.)</u>
14:35-14:45	Break
14:45-16:05	Regular Session 7 <u>Topic: Radar Signal & Data Processing</u> <u>Chair: Suyung Wang (NICT)</u>
16:05-16:15	Break
16:15-	Closing (Young Scientist Award Ceremony) (Message from SANE)

Speacil lectures		
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	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.)
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	DiskSat SAR for Mega Constellation	Hirobumi Saito (Waseda Univ), Mitsuteru Kaneoka (CSP Japan)
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.)

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 Directional 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)

Regular 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)

Regular 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.)

Regular 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	Akitsugu Nadai (NICT)