

Agriculture 1 (Room A, Dec. 21st (Mon.) 9 : 30-10 : 30)

A1	Estimation of Normal Rice Yield Considering Heading Stage	3
	○ Y. Sofue, C. Hongo, N. Manago (Chiba Univ.), G. Sigit (Regional Office of Food Crops Service West Java Province), K. Homma (Tohoku Univ.), and B. Barus (Bogor Agricultural Univ.)	
A2	Relationship between TVDI in consideration of growth stage and rice yield by using GCOM-C/SGLI data	5
	○ N. Shoji, C. Hongo, Y. Sofue (Chiba Univ.), G. Sigit, and B. Utomo (Regional Office of Food Crops Service West Java Province)	
A3	Estimation of the Bacterial Leaf Blight disease damage rate using multi-period Sentinel-2 data in Indonesia	7
	○ Y. Shibuya, C. Hongo, Y. Sohue (Chiba Univ.), G. Sigit (West Java Province), and B. Barus (Bogor Agricultural Univ.)	
A4	Transplanting date estimation for flood damage assessment of paddy rice in Indonesia	9
	○ N. Manago, C. Hongo (Chiba Univ.), H. Wakabayashi (Nihon Univ.), B. Tjahjono (Bogor Agricultural Univ.), and S. Dewayani (Regional Office of Food Crops Service West Java Province)	

Agriculture 2 (Room A, Dec. 21st (Mon.) 10 : 45-11 : 45)

A5	Hyperspectral assessment of soil fertility – a case study in decontaminated farmlands in Fukushima –	13
	○ Y. Inoue, A. Iwasaki (Univ. Tokyo), T. Saito, T. Nemoto, and T. Ono (Fukushima ATC)	
A6	Relationships between vegetation or soil indexes and meteorological data using GCOM-C/SGLI data Toward farm monitoring in India drylands	15
	○ M. Sawa, K. Muramatsu (Nara Women's Univ.), and N. Soyama (Tenri Univ.)	
A7	Study of Estimating Rice-plant Stem Number using a Vehicle-mounted LiDAR onboard a UAV System	17
	○ M. Ichisawa (Nagaoka Univ. of Tech.), A.T.T. Phan (Vietnam National Univ.-Hochiminh City Univ. of Tech.), and K. Takahashi (Nagaoka Univ. of Tech.)	
A8	Mitigating the Effects of Sunlight Conditions for Drone-based Crop Monitoring	19
	○ A. Hama, A. Kondoh (Chiba Univ.), K. Tanaka (Japan Map Center), and T. Chen (DJI JAPAN)	

Vegetation 1 (Room A, Dec. 21st (Mon.) 13 : 15-14 : 00)

A9	On the quality of GOSAT-2 solar-induced chlorophyll fluorescence data	25
	○ H. Oshio, Y. Yoshida, and T. Matsunaga (NIES)	
A10	Analysis of characteristics of seasonal changes in chlorophyll index using Sentinel-2/MSI data	27
	○ S. Miyamoto and K. Muramatsu (Nara Women's Univ.)	
A11	The observation of diurnal changes of solar induced chlorophyll fluorescence on ground on extremely hot day	29
	○ N. Yamamoto, K. Muramatsu (Nara Women's Univ.), and K. Kuriyama (Shizuoka Univ.)	

Vegetation 2 (Room A, Dec. 21st (Mon.) 14 : 15-15 : 15)

A12	Verification of ALOS-2/PALSAR-2 logging detection for use in forest cloud system ○ M. Hayashi, T. Takeo, O. Ochiai, K. Hamamoto (JAXA), H. Saito, M. Takahashi, and G. Takao (FPRI)	33
A13	Trial of accuracies improvement for JJ-FAST deforestation detection algorithm using deep learning ○ M. Watanabe, C. Koyama, M. Shimada (Tokyo Denki Univ.), M. Hayashi, I. Nagatani, and T. Tadono (JAXA)	35
A14	Mapping of paddy stubble burning in Punjab, India with GCOM-C/SGLI ○ K. Yu, K. Muramatsu (Nara Women's Univ.), and N. Soyama (Tenri Univ.)	37
A15	Detection of traces of crop residue burning in India using Landsat8 OLI/TIRS data ○ M. Obayashi and K. Muramatsu (Nara Women's Univ.)	39

Vegetation 3 (Room A, Dec. 21st (Mon.) 15 : 45-17 : 15)

A16	High-frequency analysis of land surface temperature in 2018 East Asia heatwave using geostationary satellite Himawari-8/AHI data ○ Y. Yamamoto, K. Ichii (Chiba Univ.), and M. Kang (National Center for Agro-Meteorology)	43
A17	Positional Accuracy of Time-Series Multiple Satellite Images and Vegetation Index Change Tracking ○ T. Shimode, A. Iwasaki, and Y. Inoue (Univ. Tokyo)	45
A18	Beach Vegetation Classification Using CNN on the Nijigahama Beach in Yamaguchi Prefecture ○ S. Ito, K. Oka, T. Konishi, and Y. Oguro (Hiroshima Inst. Tech.)	47
A19	Mapping of Japanese oak wilt with pan-sharpen image and field survey data – Forcusing on the canopy size – ○ Y. Fujiwara, K. Muramatsu (Nara Women's Univ.), Y. Sakai, and K. Matsui (Nara Univ. of Edu.)	49
A20	Monitoring of Japanese Oak Wilt with Satellite Data Over Long Period of Time ○ H. Maekawa and K. Muramatsu (Nara Women's Univ.)	51
A21	Hyperspectral data classification using wavelet transform and CNN ○ T. Yamada and A. Iwasaki (Univ. Tokyo)	53

SAR (Room A, Dec. 22nd (Tue.) 9 : 15-10 : 15)

A22	Super-resolution SAR tomography by a fast compressive sensing algorithm ○ Y. Yamaguchi and T. Tanaka (NEC Data Science Research Laboratories)	57
A23	Feasibility study of footprints identification on SAR interferogram using MRF model ○ J. Uemoto and H. Umehara (NICT)	61
A24	Image registration of SAR images for disaster detection using phase correlation ○ T. Teshima and A. Iwasaki (Univ. Tokyo)	63
A25	Accuracy Improvement of Geometrical Correction of Himawari-8/AHI Nighttime Image ○ S. Tanba (Hirosaki Univ.) and M. Takada (JA Hokkaido)	65

Landform/Geology (Room A, Dec. 22nd (Tue.) 10:30-12:00)

A26	Fault Displacement Detection Caused by Large Earthquake Using Extended Deepmatching	71
	○ Y. Kumon and A. Iwasaki (Univ. Tokyo)	
A27	Applicability of reconstructed training data sets for multiple simultaneous slope failure hazard mapping.....	73
	○ Y. Nakagawa, H. Kojima (Tokyo Univ. Science), and I. Uchida (PASCO)	
A28	Examination of Landscape change extraction by fusion optical and SARdata	75
	○ A. Harimoto and M. Nagai (Yamaguchi Univ.)	
A29	Development of a mineral identification model with SVM for hyperspectral data	79
	○ Y. Tochikura and Y. Yamaguchi (Nagoya Univ.)	
A30	Improvement of the mineral mapping method by a combination of hyper- and multi-spectral images	81
	○ K. Nakayama and H. Tonooka (Ibaraki Univ.)	

Classification (Room A, Dec. 22nd (Tue.) 13:15-14:45)

A31	Land-cover classification in multi-temporal optical satellite images using deep learning toward the Advanced Land Observing Satellite-3 (ALOS-3)	85
	○ S. Hirayama, T. Tadono, and Y. Mizukami (JAXA)	
A32	A loss function and Pre- and Post-processing for Road Extraction from Remote Sensing Images by U-net.....	87
	○ K. Kobayashi, K. Tadamura (Yamaguchi Univ.), and T. Samura (Yamaguchi Univ./JAXA)	
A33	Fine Land Cover Classification by Light Convolutional Neural Networks Training with Land Cover Dataset from Other Areas	89
	○ K. Uchida, K. Tadamura (Yamaguchi Univ.), and T. Samura (Yamaguchi Univ./JAXA)	
A34	Shape estimate for black rain in Hiroshima	91
	○ S. Ogawa (Institute of Spatial Tech.)	
A35	Damage proxy map in Beirut explosion	93
	○ T. Yamada (Nihon Unisys)	

System 1 (Room B, Dec. 21st (Mon.) 9:30-10:30)

B1	Effect of multi-polarization in GAN based SAR-optical image transformation	97
	○ H. Oishi, M. Maruya, C. Tsutsumi, and R. Nakamura (AIST)	
B2	Moving object (human) detection by millimeter-wave radar.....	101
	○ M. Miyawaki, A. Nohmi, K. Okita, and H. Nohmi (Alouette Technology)	
B3	Threshold setting for image texture feature classification using ultra-high resolution data	103
	○ R. Chiku, D. Watanabe, H. Kojima (Tokyo Univ. Science), and H. Furuki (Nippon Koei)	

B4	Selection of effective principal components of hyper spectral data for classification in concrete surface crack areas	105
	○ S. Munakata, D. Watanabe, K. Sato, S. Yoshida, and H. Kojima (Tokyo Univ. Science)	
System 2 (Room B, Dec. 21st (Mon.) 10 : 45-11 : 45)		
B5	Effectiveness of skew correction in system corrected images of Landsat ETM+	109
	○ S. Sawada and H. Saito (Hirosaki Univ.)	
B6	Improvement and evaluation of the building height estimation method based on shadow analysis of a high-resolution satellite image	113
	○ A. Tokida and H. Tonooka (Ibaraki Univ.)	
B7	Detection of poles from a high-resolution satellite image based on shadow analysis	115
	○ M. Tsuda and H. Tonooka (Ibaraki Univ.)	
B8	Super-resolution reconstruction of satellite images by a channel attention residual network	117
	○ W. Xin and H. Tonooka (Ibaraki Univ.)	
Atmosphere (Room B, Dec. 21st (Mon.) 13 : 15-14 : 00)		
B9	Global Distributions of Carbon Dioxide, Methane, and Carbon Monoxide in 2019-2020 as Revealed by GOSAT-2 FTS-2 SWIR Level 2 Standard Products	121
	○ T. Matsunaga, I. Morino, Y. Yoshida, M. Saito, H. Noda, H. Ohyama, and Y. Niwa (National Institute for Environmental Studies)	
B10	Intercomparison of TROPOMI and OMI tropospheric NO ₂ over South Asia	123
	○ K. Nitta (Nara Women's Univ.) and S. Hayashida (Nara Women's Univ./RIHN)	
Water (Room B, Dec. 21st (Mon.) 15 : 45-17 : 15)		
B12	Early mega-tsumani warning system based on airborne radar altimeters	127
	○ A. Nadai (NICT), T. Hirobe (JWA), and Y. Niwa (Univ. Tokyo)	
B13	Study on aerosol reflectance correction scheme considering the effect of absorbing aerosol	129
	○ Y. Takita, M. Toratani, A. Tanaka (Tokai Univ.), and H. Higa (Yokohama National Univ.)	
B14	Comparative evaluation of optical satellite atmosphere correction products and dark pixel offset images based on water depth data in shallow-water	131
	○ Y. Mizukami and T. Tadono (JAXA)	
B15	A study on the estimation of the chlorophyll-a concentration in the Uwa Sea by Landsat-8/OLI data (Part 3)	133
	○ Y. Oguro, T. Konishi, S. Ito, and C. Miura (Hiroshima Inst. of Tech.)	
B16	Drone-based monitoring of the current situation of oyster aquaculture area in Nagatsura-ura Lagoon, Miyagi Prefecture for grasping environmental carrying capacity	135
	○ H. Murata, M. Hara, Y. Yamazaki, M. Saito, and C. Yonezawa (Tohoku Univ.)	

Observation instrument (Room B, Dec. 22nd (Tue.) 9 : 15-10 : 15)

B17	Post-arrival Calibration of ONC onboard Hayabusa2 at Ryugu	139
	○ T. Kouyama (AIST), Y. Yokota (JAXA), K. Yumoto (Univ. Tokyo), E. Tatsumi (IAC), M. Yamada (Chiba Inst. of Tech.), R. Honda (Kochi Univ.), and C. Honda (Aizu Univ.)	
B18	Development of a Cooled Infrared Camera for Measuring Volcanic Surface Phenomena	143
	○ T. Jitsufuchi (NIED)	
B19	Wide-range observation method of solar-induced fluorescence image over vegetation canopies	145
	○ K. Kuriyama (Shizuoka Univ.), N. Manago, H. Kuze (Chiba Univ.), and K. Muramatsu (Nara Women's Univ.)	
B20	Evaluation of signal processing method for signals collected by 1.3-GHz wind profiler radar	149
	○ M.K. Yamamoto (NICT)	

Application (Room B, Dec. 21st (Mon.) 14 : 15-15 : 15)

U1	Evaluation of cross-calibration between satellite and drone data for integrated data use	153
	○ T. Eguchi, D. Ichikawa, Y. Nagai, M. Nagai (YUCARS), and S. Okamoto (Yamaguchi Univ.)	
U2	Multi-year rice growth monitoring using UAV-based hyperspectral remote sensing	157
	○ J. Kurihara (Hokkaido Univ.) and T. Nagata (HRO)	
U3	Landslide detection by deep-learning using high resolution satellite images	159
	○ S. Kakuta, J. Kapilaratne, and S. Kaneta (Asia Air Survey)	
U4	Land cover classification for the river basin condition understanding using SAR data	161
	○ M. Moriyama (Nagasaki Univ.), C. Takatori (Kyushu Univ.), T. Tashiro, and S. Iizuka (Nagoya Univ.)	
U5	Assessment of bridge damages due to the July 2020 Japan flood using ALOS-2 images	163
	○ W. Liu (Chiba Univ.) and F. Yamazaki (NIED)	

Special Session 1 (Room B, Dec. 22nd (Tue.) 10 : 15-11 : 45)

S1	Status of GCOM-C/SGLI version 2 ocean products	169
	○ K. Ogata, H. Murakami (JAXA), M. Toratani, and H. Fukushima (Tokai Univ.)	
S2	Expanding utilization of Shikisai (GCOM-C) ocean data	171
	M. Takahashi, ○ N. Fujishima, and K. Tanaka (JAXA)	
S3	SGLI data application for coastal fisheries by GIS	173
	○ K. Saitoh (JAFC) and N. Uzaki (Aichi Fisheries Research Institute)	
S4	Detection of harmful algal bloom in Ariake Bay by SGLI data	175
	○ J. Ishizaka (Nagoya Univ.)	
S5	Continuous optical measurement on atmosphere and in-water for GCOM-C/SGLI validation in Tokyo Bay	177
	○ H. Higa, T. Nakayama (Yokohama National Univ.), K. Takahashi, and H. Muraoka (Holonix International)	

S6 Estimation for Turbidity distribution in Tokyo Bay immediately after heavy rain by SGLI data 179
 ○ Y. Sakuno (Hiroshima Univ.), M. Toratani (Tokai Univ.), and
 H. Higa (Yokohama National Univ.)