

32nd Asian Conference on Remote Sensing 2011

(ACRS 2011)

**Tapei, Taiwan
3-7 October 2011**

Volume 1 of 4

ISBN: 978-1-61839-497-2

Printed from e-media with permission by:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571



Some format issues inherent in the e-media version may also appear in this print version.

Copyright© (2011) by the Asian Association on Remote Sensing
All rights reserved.

Printed by Curran Associates, Inc. (2012)

For permission requests, please contact the Asian Association on Remote Sensing
at the address below.

Asian Association on Remote Sensing
4-6-1 Komba Meguro-ku
Tokyo 153-8505, Japan

Phone: +81-3-5452-6406

Fax: +81-3-5452-6408

Sh1939murai@nifty.com

Additional copies of this publication are available from:

Curran Associates, Inc.
57 Morehouse Lane
Red Hook, NY 12571 USA
Phone: 845-758-0400
Fax: 845-758-2634
Email: curran@proceedings.com
Web: www.proceedings.com

TABLE OF CONTENTS

Volume 1

KEYNOTE SPEECHES

TSUNAMI WARNING SYSTEM FOR THE INDIAN OCEAN	1
<i>Shailesh Nayak</i>	
NSPO'S PERSPECTIVES ON REMOTE SENSING MISSIONS	2
<i>Guey-Shin Chang</i>	
PARADIGM SHIFT IN PHOTOGRAMMETRY	3
<i>Orhan Altan</i>	
LESSONS FROM THE DISASTER OF EAST JAPAN GREAT EARTHQUAKE AND TSUNAMI 311	4
<i>Shunji Murai</i>	
NEXT GENERATION SMART CITIES: THE ROLE OF GEOMATICS	16
<i>Armin Gruen</i>	

TS1-1 GLOBAL NAVIGATION SATELLITE SYSTEMS

GNSS-BASED ATTITUDE DETERMINATION FOR REMOTE SENSING PLATFORMS	17
<i>N. Nadarajah, P. J. G. Teunissen, D. Odijk</i>	
EVALUATION ON POSITIONING ACCURACY OF MICHIBIKI SATELLITE L1-SAIF	23
<i>Tatsuya Shoda, Mitsuharu Tokunaga</i>	
THE TAIWAN IONOSPHERIC MODEL (TWIM) AND ITS APPLICATIONS ON RADIO WAVE PROPAGATION AND IONOSPHERIC GPS L1 PSEUDORANGE CORRECTION	27
<i>L. C. Tsai, G. H. Chen, M. H. Tian, Ernest P. Macalalad</i>	
REALIZATION OF ADVANCED SPATIAL INFORMATION SOCIETY BY USING RFID AND GNSS	35
<i>Sayaka Takeuchi, Masaaki Shikada</i>	
ESTABLISHMENT OF KURICHHU HYDROPOWER DAM DEFORMATION MONITORING BASIS USING GLOBAL POSITIONING SYSTEM	41
<i>Ugyen Thinley</i>	

TS1-2 EARTH OBSERVATION

DERIVATION OF A TASELED CAP TRANSFORMATION FOR KOMPSAT-2 IMAGERY	47
<i>Choen Kim, Min-Gee Hong, Young-Seoung Kim, Youn-Soo Kim, Sun-Gu Lee</i>	
STRATEGIC STUDY ON TAIWAN INTEGRATED EARTH OBSERVATION SYSTEM	48
<i>Guey-Shin Chang, Franz Cheng, Ya-Ting Hu, Bo Chen</i>	
BARENTSWATCH - A NATIONAL SURVEILLANCE SYSTEM AND INFORMATION PORTAL FOR NORWEGIAN WATERS	54
<i>Frank J. Øynes</i>	
THIN ICE THICKNESS MONITORING WITH FORMSAT-2 RSI DATA	60
<i>Kohei Cho, Yuusuke Mochiduki, Yuuta Yoshida, Masashige Nakayama, Kazuhiro Naoki, Chi-Farn Chen</i>	
AN INTEGRATED REMOTE SENSING SYSTEM FOR LARGE SCALE ECOLOGICAL RESEARCH	68
<i>Cho-Ying Huang, Wan-Yu Chung, Chao-Ming Chang</i>	

TS1-3 CLIMATE CHANGE

MODELLING THE PROJECTION OF CLIMATE CHANGE IMPACT ON SHORELINE RETREAT: REMOTE SENSING APPROACH	74
<i>Dewayany Sutrisno</i>	
CLIMATE CHANGE AND POVERTY IN LAGOON AND COASTAL AREAS OF THUA THIEN HUE PROVINCE, VIETNAM	80
<i>Le Van Thang, Nguyen Huy Anh, Nguyen Trinh Minh Anh</i>	
DROUGHT MONITORING AND ASSESSMENT USING MULTI SATELLITE DATA IN MONGOLIA	86
<i>M. Erdenetuya, D. Bulgan, B. Erdenetsetseg</i>	
STUDY ON CARBON SEQUESTRATION OF TAIPEI'S GREEN LAND USING REMOTE SENSING AND GIS	92
<i>Hsin-Hung Chen, Chi-Chuan Cheng</i>	
AN ANALYSIS OF CLIMATE CHANGE IN PENINSULAR OF MALAYSIA USING REMOTE SENSING TECHNIQUES	98
<i>Raja Elfyda Raja Hashib, Ab. Latif Ibrahim, Muhammad Zulkarnain Abdul Rahman</i>	

TS1-4 URBAN CHANGE MONITORING

URBANIZATION AND ITS INFLUENCES ON THE SUBURBAN LAND USE CHANGES IN BANGKOK METROPOLITAN REGION, THAILAND	103
<i>Ryota Nagasawa, Durina, Boonrak Patanakanog</i>	
TRACKING LAND COVER CHANGE USING HIGH RESOLUTION ORBITAL IMAGERY	109
<i>In-Hun Jeong, Jung-Rack Kim, Sang-Jin Lee</i>	
DEVELOPMENT OF GROWTH STAGE CLASSIFICATION METHOD FOR PADDY FIELDS BY USING SPARSE LINEAR DISCRIMINANT ANALYSIS	115
<i>Atsushi Uchida, Hozuma Sekine, Kotaro Fukuhara, Keigo Yoshida, Taichi Takayama</i>	
COASTAL ZONE DEFORMATION OVER EASTERN INNER GULF OF THAILAND USING MULTI-TEMPORAL INSAR METHOD	120
<i>Anuphao Aobpaet, Ithi Trisirisatayawong, Andy Hooper</i>	
MONITORING DYNAMICS AND IMPACTS OF WATER-LOGGING IN BHUTAR BEEL IN KHULNA DISTRICT OF BANGLADESH	126
<i>A. Z. Md. Zahedul Islam, S. M. Humayun Kabir, Sukumar Dutta, Md. Abu Taleb Pramanik</i>	
REMOTE SENSING INVESTIGATION ON CHARACTERISTICS OF RIVER DISCHARGES INTO JAKARTA BAY	130
<i>Nani Hendiarti, Marina C. G. Frederik, Retno A. Ambarini</i>	

TS1-5 GEOLOGY, GEOGRAPHY, AND GEOMORPHOLOGY

MULTI-ANGLE MONITORING OF DESERT DUNE TOPOGRAPHY	138
<i>Ji-Ye Yun, Jung-Rack Kim, Yun-Soo Choi</i>	
CHANGES IN LAND-USE: A PRELIMINARY STUDY OF THE SHUI-TIAN TRIBE USING FS2 IMAGES AND GIS/DEM DATA	144
<i>Chih-Li Chang, Kuo-Hsing Hsiao, Li-Yu Fu</i>	
POST-PROCESSED SPATIAL FILTERING TECHNIQUE FOR VOLCANO DEFORMATION BASED ON INSAR ESTIMATES	150
<i>Agustan, Fumiaki Kimata</i>	
INTEGRATED MULTISPECTRAL IMAGE AND LIDAR FOR LANDSLIDES VEGETATION RESTORATION MONITORING	155
<i>Mon-Shieh Yang, Ming-Chee Wu</i>	
COMPARISON BETWEEN PSI AND GPS DATA: NORTHERN AND SOUTHWESTERN TAIWAN	160
<i>Geng-Pei Lin, Chi-Yu Chiu, Wu-Lung Chang, Chung-Pai Chang</i>	

TS1-6 OCEANOGRAPHY

PHYTOPLANKTON BLOOMS IN THE SOUTH CHINA SEA AND THE WESTERN NORTH PACIFIC SUBTROPICAL GYRE AS OBSERVED BY MULTIPLE SATELLITE SENSORS – IMPACT OF EDDY, AEROSOL, TYPHOON, AND VOLCANO	161
<i>I-I Lin, Chun-Chi Lien, George T. F. Wong, Chi-Wei Huang</i>	
RETRIEVAL OF WATER OPTICAL PROPERTIES FROM EIGHT-SPECTRAL BAND WORLDVIEW-2 SATELLITE IMAGES	163
<i>Chew Wai Chang, Soo Chin Liew</i>	
MONITORING MANGROVE FOREST USING MULTI-TEMPORAL SATELLITE DATA IN THE NORTHERN COAST OF VIETNAM	169
<i>Pham Tien Dat, Kunihiko Yoshino</i>	
BUILDING INTEGRATED ASSESSMENT TOOL FOR DAMAGE CAUSED BY OIL SPILL ON VIETNAM'S COAST	175
<i>Hoa Nguyen Thi Thai, Long Bui Ta</i>	
MONITORING & SIMULATION ASSESSMENT FOR COASTAL RECLAMATION AREA USING REMOTE SENSING APPROACH	181
<i>Mohd Aizzuddin Mohd Raes, Ab. Latif Ibrahim, Muhammad Zulkarnain Abdul Rahman</i>	

TS1-7 ATMOSPHERIC REMOTE SENSING

AEROSOL RETRIEVING OVER URBAN AREA USING SPOT/HRG IMAGERY	187
<i>Kuo-Kuang Li, Gin-Rong Liu, Tang-Huang Lin</i>	
DEVELOPMENT PROGRAM NEAR-REAL TIME RAINFALL ESTIMATION USING AUTOMATIC PICTURE TRANSMISSION IMAGE FROM NOAA SATELLITES	192
<i>Chonmapat Torasa</i>	
THE IMPROVEMENT OF TRAP BY CONSIDERING TYPHOON INTENSITY VARIATION	198
<i>Yu-Chun Chen, Gin-Rong Liu, Yen-Ju Chen</i>	
APPLICATION OF SATELLITE OBSERVATIONS OF CHANGES IN AIR QUALITY DURING THE 2010 ASIAN GAMES AND PARA GAMES IN GUANGZHOU, CHINA	203
<i>Jie Guang, Yong Xue, Yingjie Li, Jianping Guo, Guixiong Liang</i>	

HOURLY PM2.5 EXTREMES VARIATION IN CONJUNCTION WITH METEOROLOGY IN URBAN HONG KONG	208
<i>Qun Dai, Ming Luo, Jingzhi Wang, Marc Aurel Schnabel</i>	

TS2-1 DATA PROCESSING-1

GENERAL APPROACH FOR THE MOUNTING PARAMETERS CALIBRATION OF PHOTOGRAMMETRIC MOBILE MAPPING SYSTEMS	214
<i>Ana Paula Kersting, Ayman Habib, Jiann-Yeou Rau</i>	
TIME FREQUENCY ANALYSIS AND HILBERT-HUANG TRANSFORM (HHT) OF SINGLE EVENT UPSET (SEU) IN FORMOSAT-2 AND FORMOSAT-3 MISSIONS	220
<i>Tsung-Ping Lee, Chen-Chou Fong, Shan-Kuo Yang, His-Mao Tseng, Cheng-Chung Huang, Way-Jin Chen, Chao-Yen Chen, I-Te Lee, Jann Yeng Liu</i>	
GEOMETRY ANALYSIS BASED GENETIC ALGORITHM FOR SATELLITE IMAGING SCHEDULING	226
<i>Yi-Yao Yeh, Sheng-Yi Li</i>	
SINGLE VIEW RECONSTRUCTION FOR SPECIFIC CURVE STRUCTURES	232
<i>Huan Chang, Fuan Tsai</i>	
CORRECTION OF CHROMATICS ABERRATION IN DIGITAL CAMERA IMAGES FOR IMAGE MEASUREMENT	241
<i>Kazuyoshi Asonuma, Ryuji Matsuoka</i>	

TS2-2 3D RECONSTRUCTION

IMAGE MATCHING FOR 3D PHOTOGRAMMETRIC RECONSTRUCTION	247
<i>Ivan Datchev, Ayman Habib, Jiann-Yeou Rau</i>	
PRELIMINARY INVESTIGATION ON INTEGRATION OF DATA ACQUIRED FROM MARTIAN SURFACE EXPLORATION	253
<i>Shih-Yuan Lin, Jung-Rack Kim, Chi-Pei Wang</i>	
CONCEPT OF SEMI-AUTOMATED FAÇADE MAPPING FOR 3D BUILDING MODELS WITH PERSONAL MOBILE COMPUTING DEVICES	259
<i>Sendo Wang</i>	
3-D CONSTRUCTION SITE MANAGEMENT USING SPATIAL IMAGES AND USN	264
<i>Sang-Ho Yeon</i>	
ACQUIRING UNDERWATER DSM USING CLOSE-RANGE PHOTOGRAMMETRY	267
<i>Pu-Hsin Hsu, Chi-Kuei Wang</i>	

TS2-3 LAND COVER AND LAND USE-1

ALGORITHM DEVELOPMENT FOR OIL PALM PLANTATION IDENTIFICATION USING THEOS DATA : A CASE STUDY OF NONGYAI, CHONBURI PROVINCE, THAILAND	273
<i>Worawit Akkanipat, Darunee Promchot</i>	
EXPERT CLASSIFICATION FOR EUCALYPTUS PLANTATION USING LANDSAT-5 DATA: A CASE STUDY OF LAM THAMENCHAI DISTRICT, NAKHON RATCHASIMA PROVINCE, THAILAND	279
<i>Alongkot Pakat</i>	
HYPERSPECTRAL IMAGE ANALYSIS USING HILBERT-HUANG TRANSFORM	285
<i>Xiu-Man Huang, Pai-Hui Hsu</i>	
GLOBAL LAND COVER CLASSIFICATION USING MODIS SURFACE REFLECTANCE PRODUCTS	291
<i>Haruhisa Shimoda, Kiyonari Fukue</i>	
EFFECT OF SPECTRAL CHANGE WIDTH IN RADIOMETRIC NORMALIZATION OF MULTITEMPORAL SATELLITE IMAGERY METHODES EFFICIENCY	296
<i>Farhad Samadzadegan, Seyed Hossein Seyed Pourazar</i>	

TS2-4 LAND COVER AND LAND USE-2

CLASSIFICATION OF LAND USE AND LAND COVER FROM DATA OF THEOS SATELLITE AND THEIR TEXTURE MEASURES	302
<i>Sasikarn Plaiklang, Suwit Ongsomwang, Yaowaree Jantakat</i>	
APPLICATIONS OF GIS AND VERY HIGH RESOLUTION RS DATA FOR URBAN LAND USE CHANGE STUDIES IN MONGOLIA	308
<i>D. Amarsaikhan, V. Battsengel, M. Saandar, M. Ganzorig, E. Egshiglen, R. Gantuya, B. Nergui</i>	
THREE-DIMENSIONAL HISTOGRAM METHOD FOR ASIAN DUST IDENTIFICATION USING MODIS IMAGES	314
<i>Izumi Nagatani, Jun-Ichi Kudoh</i>	
A MULTI-SCALE, OBJECT-BASED IMAGE ANALYSIS APPROACH IN ASSESSING BIODIVERSITY FOR NEPAL AND NEW ZEALAND SITES	320
<i>Jagannath Aryal, Julio Rojas-Mora, Didier Josselin</i>	
ACCURACY ASSESSMENT OF SPECTRAL LIBRARY IN HYPERSPECTRAL IMAGE CLASSIFICATION	326
<i>Alireza Sharifi</i>	

TS2-5 DATA PROCESSING-2

SEASONAL LAI ESTIMATION OF IRRIGATED RICE USING SOIL-LEAF-CANOPY (SLC) RADIATIVE TRANSFER MODEL	327
<i>Nguyen Thi Thu Ha, Wout Verhoef, C. A. J. M. De Bie</i>	
BUILDING EXTRACTION USING POA FROM POLARIMETRIC SAR	333
<i>Muneyoshi Kajimoto, Junichi Susaki</i>	
ACCURACY ANALYSIS OF LUNAR MINERAL ENDMEMBER EXTRACTION USING SIMULATED CHANG'E-1 IIM DATA.....	339
<i>Tong Shuai, Xia Zhang</i>	
3D BUILDING EXTRACTION FROM STEREO PAIR HIGH RESOLUTION SATELLITE IMAGERY	345
<i>Min Li, Leong Keong Kwoh, Soo Chin Liew</i>	
SHORELINE CHANGE DETECTION USING MULTITEMPORAL REMOTE SENSING IMAGES	350
<i>Ping Liang, Jihn-Fa Jan</i>	
THE DEVELOPMENT OF WEB-BASED COORDINATE TRANSFORMATION SERVICE OF THAILAND	356
<i>Sanphet Chumthipisan, Soravis Supavetch, Chaiwat Promthong</i>	

TS2-6 DATA PROCESSING-3

QUALITY ANALYSIS FOR POSITIONING USING REALISTIC IMAGE-BASED 3D MAPS.....	361
<i>Wenyang Liu, Ruiyuan Li, Jinling Wang, Xun Li</i>	
COLOR CORRECTION FOR ORTHOPHOTOS GENERATED FROM MULTI-VIEW IMAGES.....	368
<i>Wen-Chi Chang, Liang-Chien Chen, Chien-Liang Liu, Yao-Tsung Lin, Shin-Hui Li</i>	
GLOBAL IMAGE MATCHING BASED ON FEATURE POINT CONSTRAINED MARKOV RANDOM FIELD MODEL FOR PLANETARY MAPPING	373
<i>Man Peng, Yiliang Liu, Zhaoqin Liu, Kaichang Di</i>	
ESTIMATION OF FOREST CARBON STOCK USING SATELLITE IMAGERY AND NFI DATA - COMPARING KNN ALGORITHM AND REGRESSION MODEL	379
<i>Jaehoon Jung, Honggyoo Sohn, Miseon Hong</i>	
STEREO MEASUREMENT WITHOUT MARKERS FOR MOVING SOIL SURFACES.....	382
<i>Anna Nakanishi, Masafumi Nakagawa, Toshiro Okamoto</i>	

TS2-7 ALGORITHM-1

TREE DISEASE DETECTION BASED ON HYPERSPECTRAL MANIFOLD LEARNING OF PHENOLOGICAL TRANSITION ON FOREST	386
<i>Kuniaki Uto, Yukio Kosugi</i>	
DEVELOPING AND EVALUATING AN INVERSION MODEL FOR RETRIEVING COASTAL WATER QUALITY AND BENTHIC CORAL REEF PROPERTIES FROM WATER COLOR	392
<i>Hsiao-Wei Chung, Cheng-Chien Liu, Chih-Hua Chang, Long-Jeng Lee, Edward Chen, Wen-Chang Yang</i>	
A STUDY ON AUTOMATIC KERNEL BANDWIDTH SELECTOR FOR QUESTIONNAIRE-BASED STATISTICS –USING JICA PERSON TRIP DATA IN VARIOUS DEVELOPING CITIES-	398
<i>Atsuto Watanabe, Toshikazu Nakamura, Yoshihide Sekimoto, Tomotaka Usui, Ryosuke Shibasaki</i>	
DEVELOPMENT OF MODIS DAILY DYNAMIC CLOUD-FREE COMPOSITE ALGORITHM FOR DETECTING SHORT-TERM CHANGES.....	403
<i>Sun-Hwa Kim</i>	
SPATIAL DATA MINING APPROACH TO CLASSIFY QUECUS SPECIES A CASE STUDY IN HIMALAYA	408
<i>Giang Tran Thi Huong, Sameer Saran</i>	

TS2-8 DEM

ACCURACY ESTIMATION AND FUSION OF DIGITAL ELEVATION MODELS.....	414
<i>Haris Papasaika, Effrosyni Kokiopoulou, Emmanuel Baltasavias, Konrad Schindler</i>	
COMPARISON AND ASSESSMENT OF SRTM AND ASTER GDEM AGAINST NATIONAL TOPOGRAPHIC MAPS AS DEM SOURCES FOR LEYTE GEOTHERMAL PRODUCTION FIELD, PHILIPPINES	420
<i>S. F. M. Meneses III</i>	
GEOMETRIC CORRECTION AND AUTOMATIC DEM EXTRACTION OF WORLDVIEW STEREO DATA	426
<i>Philip Cheng</i>	
MULTI-RESOLUTION EXTRA-TERRESTRIAL DTM CONSTRUCTION AND GEOMETRIC CONTROL	432
<i>Jung Rack Kim, Shih-Yuan Lin, Young Hwi Kim</i>	
ANALYSIS OF IRS 1A-LISS II AND SRTM – DIGITAL TERRAIN MODEL FOR MORPHOTECTONIC MAPPING OF AREA IN AROUND TUNGBHADRA RESERVOIR, KARNATAKA (INDIA)	438
<i>V. K. Srivastava, Bablu Prasad Nonia</i>	

TS2-9 LIDAR

ANALYSIS OF GROUND TARGET DATA ON AIRBORNE LIDAR	443
<i>Hongjoo Park, John Trinder, Russell Turner, Samsung Lim</i>	
A COMPARISON OF LIDAR WAEVEFORM DECOMPOSITION MODELS	449
<i>Cheng-Kai Wang, Chi-Kuei Wang, Yi-Hsing Tseng</i>	
FEATURE RECOGNITION FROM MOBILE LASER SCANNING DATA FOR ROAD SAFETY INSPECTION	455
<i>Shi Pu, Rong Tang, Nana Du, Fengxia Li</i>	
POINT CLOUD DATA ENHANCEMENT BY MATCHING MULTISPECTRAL IMAGES	461
<i>Chen-Ting Liao, Hao-Hsiung Huang</i>	
EFFECT OF SPECIES ON ACCURACY OF TIMBER STOCK ESTIMATION BY AIRBORNE LASER PROFILING	467
<i>Pham Hong Tinh, Hayato Tsuzuki, Tatsuo Sweda</i>	

TS2-10 SAR

OIL SPILL DETECTION IN ENVISAT ASAR IMAGES USING RADAR BACKSCATTER THRESHOLDING AND LOGISTIC REGRESSION ANALYSIS	473
<i>Jojene R. Santillan, Enrico C. Paringit</i>	
A NEW METHOD FOR ESTIMATION OF SOIL MOISTURE FROM PALSAR POLARIZATION DATA IN HIGH DENSITY VEGETATED AREA	481
<i>B. Hoshino, G. Kudo, Y. Amagai, M. Kaneko, T. Yabuki</i>	
SURFACE DEFORMATION MONITORING ALONG QINGHAI-TIBET RAILWAY USING SMALL BASELINE SAR INTERFEROMETRY, A CASE STUDY OF BEILUHE SECTION, QINGHAI, CHINA	487
<i>Fulong Chen, Hui Lin</i>	
MULTI-TEMPORAL SAR AND OPTICAL DATA FUSION FOR LAND COVER CLASSIFICATION BASED ON THE BAYESIAN THEORY	496
<i>Kamolratn Chureesampant, Junichi Susaki</i>	
DETECTION AND MAPPING OF SUBSURFACE UTILITY USING GROUND PENETRATING RADAR	502
<i>Jaw Siow Wei, Mazlan Hashim</i>	

TS3-1 SOCIAL IMPACT

THE ROLE OF REMOTE SENSING IN THE GEOECONOMY	508
<i>Bob Ryerson, Stan Aronoff</i>	
SATELITE OBSERVATION OF URBAN METABOLISM IN CHINA	513
<i>Christopher D. Elvidge, Paul C. Sutton, Kimberly E. Baugh, Sharolyn Anderson, Tilottama Ghosh, Daniel Ziskin</i>	
SPATIOTEMPORAL DATABASE DESIGN OF SERIAL INSURGENT EVENTS IN THE SOUTHERNMOST THAILAND	518
<i>Laddawan Manna, Sunya Sarapirome, Wannatatt Tessawat</i>	
CROWD-SOURCED ACQUISITION OF GEOGRAPHIC INFORMATION FOR INFLUENZA EPIDEMIC SURVEILLANCE	524
<i>Ta-Chien Chan, Chwan-Chuen King, Kurt T. Rudahl, Sally E. Goldin</i>	
GEO-INFORMATICS SERVICES SYSTEM FOR PROVINCIAL DEVELOPMENT PLANNING	530
<i>Sanwit Iabchoon, Kannika Komwong, Ramphing Simking</i>	

TS3-2 RISK ASSESSMENT

METHODOLOGY ON GEOLOGICAL DISASTER INVESTIGATION AND RISK ASSESSMENT FOR HIGHWAY IN MOUNTAINOUS AREAS BASED ON REMOTE SENSING	538
<i>Yuhuan Ren, Yalan Liu, Leiqiu Hu, Zhumei Liu, Chengjie Wei</i>	
DAMAGE ESTIMATE OF EARTHQUAKE, TSUNAMI AND HYDROGEN EXPLOSION FOR FUKUSHIMA NUCLEAR POWER PLANT	544
<i>Yoshiki Ogawa, Susumu Ogawa</i>	
DETECTION OF BUILDING COLLAPSE FROM THE SHADOW LENGTHS IN OPTICAL SATELLITE IMAGES	550
<i>Yoji Iwasaki, Fumio Yamazaki</i>	
COMMUNITY RESILIENCE IN DISASTER PRONE AREAS BASED ON LAND RIGHTS/OWNERSHIPS	556
<i>Chinnapan (Makpiboon) Charoenkalunyuta, Arbind Tuladhar, Jaap Zevenbergen</i>	
COMPARATIVE STUDY OF K-NN, NAÏVE BAYES AND SVM METHODS FOR BUILDING COLLAPSE DETECTION USING IMAGE FEATURES	572
<i>Mehdi Rezaeian, Armin Gruen</i>	

TS3-3 EARTHQUAKE AND TSUNAMI

TSUNAMI HAZARD SIMULATION MAPPING OF NORTHEAST JAPAN USING SRTM30 DATA	578
<i>Jose Edgardo Aban</i>	

INFORMATION-BASED PREPAREDNESS FOR EMERGENCY RESPONSE TO LARG-SCALE EARTHQUAKE IN TAIWAN	579
<i>Wei-Sen Li, Lee-Yaw Lin, Siao-Syun Ke, Ming-Wey Huang, Ming-Chun Ke, Chiou-Yun Chen</i>	
CHARACTERIZATION OF FLOODED AREAS DUE TO THE 2011 TOHOKU, JAPAN EARTHQUAKE FROM SAR INTENSITY IMAGES	585
<i>Wen Liu, Fumio Yamazaki</i>	
ANALYSYS OF BUILDING DAMAGE IN KASHIWAZAKI CITY DUE TO THE 2007 NIIGATA-KEN CHUETU-OKI EARTHQUAKE	591
<i>Takuma Nagao, Fumio Yamazaki, Munenari Inoguchi</i>	
EVALUATION OF THE RESISTANCE POWER OF THE MARITIME FOREST TO TSUNAMI IN TOHOKU REGION	597
<i>Tatsuya Ishikawa, Haruo Sawada</i>	

TS3-4 LANDSLIDE AND DEBRIS FLOW

MODELLING OF RAIN TRIGGERED LANDSLIDE USING SINMAP: A CASE STUDY IN RATHNAPURA AREA, SRI LANKA	603
<i>Kavinda Gunasekara, Lal Samarakoon, Jagath Gunatilake</i>	
USE OF MULTITEMPORAL LIDAR DEMS FOR REGIONAL LANDSLIDE VOLUME ANALYSIS	609
<i>Jin-King Liu, Wei-Chen Hsu, Bo-Jyun Chen, Tian-Yuan Shih</i>	
LANDSLIDE HAZARD ZONATION USING MULTIPLE CRITERIA ANALYSIS WITH GIS AND REMOTE SENSING TECHNIQUE	615
<i>Phattaraporn Sangraewee, Yoothapoom Potiracha, Chaowalit Silpathong</i>	
RAPID MAPPING OF SLOPE HAZARDS WITH PHOTOS ACQUIRED FROM A LOW-COST UNMANNED AERIAL VEHICLE USING THE AUTOMATIC MISSION PLANNING AND IMAGE PROCESSING SYSTEM (AMPIPS) - EXAMPLES OF NAMASHA AND LAONUNG AREAS	621
<i>Cheng-Chien Liu, Po-Li Chen, Chen-Yu Chen, Mei-Chei Chen, Hsiao-Yuan Yin</i>	
THREE DIMENSIONAL LANDSLIDE MAPPING WITH HIGH RESOLUTION SATELLITE IMAGES CARTOSATI	627
<i>S. Hosseinia, A. Azizi, A. Bahroudi, M. A. Sharifi</i>	

TS3-5 FLOOD AND VEGETATION RESTORATION

GEOSPATIAL FLOOD VULNERABILITY FOR DECISION SUPPORT SYSTEM	633
<i>Surassawadee Phoompanich, Anusorn Rungsipanich, Chaowalit Silapathong</i>	
RADAR RAINFALL MAPPING AND HYDROLOGIC MODELING FOR FLOOD INUNDATION IN LINBAIN RIVER BASIN, TAIWAN	638
<i>Tsung-Yi Pan, Jun-Jih Liou, Shao-Kun Su, Hone-Jay Chu</i>	
DETECTION OF THE FLOODED AREA BY TSUNAMI USING SATELLITE THERMAL INFRARED IMAGES	644
<i>Daiki Hanada, Fumio Yamazaki</i>	
APPLICATION OF INTEGRATED REMOTE SENSING AND GEOGRAPHICAL INFORMATION SYSTEM TECHNIQUES IN ASSESSMENT OF COASTAL EROSION VULNERABILITY	650
<i>Adarsa Jana, Amit K. Bhattacharya</i>	
SHALLOW WATER BATHYMETRY MAPPING AND BENTHIC COVER ESTIMATION USING WORLDVIEW-2 HIGH-RESOLUTION SATELLITE IMAGERY	652
<i>Enrico C. Paringit</i>	
ASSESSING GARP MODELING AND EFFECT OF PLANT SAMPLE POSITION ON PREDICTING SUITABLE HABITAT OF BRAINEA INSIGNIS	653
<i>Wen-Chiao Wang, Nan-Jang Lo, Wei-I Chang, Kai-Yi Huang</i>	

TS3-6 SENSOR AND PLATFORM-1

A MWR PAYLOAD DEFINITION FOR TAIWAN'S SMALL SATELLITE MISSION	659
<i>James Yu-Chen Yaung, Jih-Run Tsai, Nai-Chen Liu, Ru-Muh Yang, Bor-Han Wu, I-Young Tarn, Shyh-Jong Chung, Chi-Yang Chang, Chung-Hsing Han, Kyle Dai, Gin-Rong Liu, Tang-Huang Lin, Hsi-Chi Fang, Wann-Jin Chen, Chung-Chih Liu</i>	
DEVELOPMENT OF AN EXPERIMENTAL MICRO-SATELLITE	665
<i>Cher-Hiang Goh</i>	
ASSURED MISSION CONTINUITY	671
<i>Charlotte Gabriel-Robez</i>	
IN-ORBIT OPERATING MANAGEMENT FOR BEIJING-1 SMALL SATELLITE	675
<i>Zhiyong Wang, Shuang Wu, Chang Liu, Xinrong Sun, James Northam</i>	
A FRACTIONATED SPACECRAFT ARCHITECTURE FOR EARTH OBSERVATION MISSIONS	681
<i>Burak Yaglioglu, Shinichi Nakasuka</i>	

TS3-7 SENSOR AND PLATFORM-2

GEOMETRIC EVALUATION AND CALIBRATION OF X-SAT SATELLITE IMAGERY	687
<i>Leong Keong Kwoh, Xiaojing Huang, Wee Juan Tan</i>	
THE DEVELOPMENT OF A UAV BASED MMS PLATFORM AND ITS APPLICATIONS	692
<i>Meng-Lun Tsaia, Kai-Wei Chiang, Yun-Wen Huang, Cheng-Fang Lo, Yi-Shiang Lin</i>	
NON-LINEAR, NON-GAUSSIAN ESTIMATION FOR IMPROVING POSITION AND ORIENTATION DETERMINATION IN MOBILE MAPPING SYSTEM	698
<i>Thanh Trung Duong, Kai Wei Chiang</i>	
THE DESIGN OF ENTERPRISE SENSOR NETWORK FOR REAL-TIME, LARGE-SCALE AND MASSIVE SENSOR WITH A CASE OF USING MOBILE PHONE AS SENSOR NODE	704
<i>Apichon Witayangkurn, Ryosuke Shibasaki</i>	
INDOOR 3D MAPPING BY KINECT SENSOR	710
<i>Vaibhav Katiyar, Masahiko Nagai</i>	

TS3-8 SPATIAL ANALYSIS-1

GEO-FENCE DESIGN IN AN ONLINE VIRTUAL GEOGRAPHIC ENVIRONMENT WITH VIRTUAL SENSORS	716
<i>Weitao Che, Hui Lin</i>	
COMPARISON ON DIFFERENT CLUSTERING OF ORIGINS FOR SUGARCANE TRANSPORTATION USING NETWORK ANALYSIS AND LINEAR PROGRAMMING	722
<i>Warunee Aunphoklang, Sunya Sarapirome, Patiwat Littidej</i>	
INTERPOLATING SPATIAL DISTRIBUTION USING KRIGING COMBINED WITH ENVIRONMENTAL CONDITION	727
<i>Ming Luo, Tao Pei, Qun Dai</i>	
USING COKRIGING TECHNIQUE FOR SURFACE INTERPOLATION OF CLIMATE DATA IN THAILAND	733
<i>Yaowaree Jantaka, Suwit Ongsomwang, Suriporn Charunghanakij</i>	

Volume 2

EFFICIENCY EVALUATION OF FOUR STATISTICAL LANDSLIDE HAZARD ZONATION METHODS USING GIS	738
<i>Safieh Alimohammadi, Shaban Shataee, Abbas Pashae, Lotfollah Parsaee</i>	

TS3-9 SPATIAL DATA HANDLING

MAKING INTERNATIONAL DEVELOPMENT MORE EFFICIENT AND TRANSPARENT WITH REMOTE SENSING AND GEOSPATIAL INFORMATION	744
<i>Bob Ryerson, Paul Samson</i>	
RECOVERING SPATIAL INFORMATION FROM PURELY GRAPHICAL PRODUCTS	752
<i>Sally E. Goldin, Kurt T. Rudahl</i>	
DEVELOPMENT OF FIELD SURVEY SOFTWARE ON APPLE'S IPHONE AND IPAD FOR LAND USE AND LAND COVER APPLICATIONS	758
<i>An Ngoc Van, Kyaw Sann Oo, Wataru Takeuchi</i>	
ANALYSIS OF TEMPORAL CHANGES IN POPULATION DISTRIBUTION FOR DEVELOPING CITIES USING SOCIAL SURVEY DATA	764
<i>Natsumi Ono, Yoshihide Sekimoto, Atsuto Watanabe, Teerayut Horanont, Ryosuke Shibasaki</i>	
UPDATES OF GPS PHOTOS DATABASE AND APPLICATION DEVELOPMENT ON APPLE'S IPHONE AND IPAD	770
<i>An Ngoc Van, Kyaw Sann Oo, Wataru Takeuchi</i>	

TS3-10 SPATIAL ANALYSIS-2

IDENTIFYING SPATIAL CONTEXT AND ASSOCIATED FACTORS OF POVERTY USING SPATIAL STATISTICS AND GIS	775
<i>Lal Samarakoon, Romanee Thongdara, Rajendra P. Shrestha, S. L. R. Ranamukhaarachchi</i>	
THE MAKING OF STATISTICAL MAPS: A PERSPECTIVE FROM THE ONTOLOGY OF POLITICAL DISTRICTS	780
<i>Kai-Ling Huang, Jung-Hong Hong</i>	
STOCHASTIC SIMULATION MODELS TO INTERNALLY VALIDATE ANALYTICAL ERROR MODELS OF A POINT AND A LINE SEGMENT IN GIS	786
<i>Sungchul Hong, Joon Heo</i>	
VISUALIZATION OF BUSINESS HOURS FOR SHOPS AND OFFICES CLASSIFIED BY BUSINESS CATEGORIES IN SHOPPING AREA	791
<i>Yuki Okamoto, Yuki Akiyama, Satoshi Ueyama, Ryosuke Shibasaki</i>	

EXTRACTION FOOD DESERT AREAS WITH DETAILED HOUSEHOLD DATA ESTIMATED BY MERGING THE DIGITAL MAPS AND THE POPULATION CENSUS.....	797
<i>Hiroyuki Takada, Yuki Akiyama, Hiroaki Sengoku, Ryosuke Shibasaki</i>	
CHANGE DETECTION OF URBAN AREAS IN ARDABIL PROVINCE DURING THE LAST 5 DECADES USING AERIAL PHOTOGRAPHY AND LANDSAT IMAGES	802
<i>Ardavan Ghorbani, Azad Kakemami, Hossian Kavianpour</i>	

TS4-1 AGRICULTURE-1

NITROGEN YIELD ESTIMATION USING GRID-BASED NUTRIENT YIELD MODEL	806
<i>Tharapong Phetprayoon, Sunya Sarapirome, Charlie Navanugraha, Sodchol Wonprasaid</i>	
ASSESSMENT FOR RICE CROP ADAPTATION IN KENYA USING SATELLITE AND GIS DATA	812
<i>Genya Saito, Shigeo Ogawa, Daigo Makihara, Hidetoshi Asai, Shuichi Asanuma</i>	
ASSESSMENT OF SURPLUS AGRICULTURAL BIOMASS FOR POWER GENERATION USING GEO-INFORMATICS IN HARYANA STATE, INDIA	818
<i>Manoj Yadav, M. P. Sharma, R. Prawasi, Om Pal, Neha Gupta, R. S. Hooda</i>	
AIRBORNE LIDAR: ENHANCING DATA QUALITY FOR INFRASTRUCTURAL, ENVIRONMENTAL AND AGRICULTURAL APPLICATIONS.....	825
<i>Valerie Ussyshkin, Livia Theriault</i>	
MAPPING OF SOIL MOISTURE USING TERRASAR-X DATA ACQUIRED OVER BARE AGRICULTURAL AREAS	831
<i>Maëlle Aubert, Nicolas Baghdadi, Mehrez Zribi, Mahmoud El Hajj</i>	

TS4-2 AGRICULTURE-2

DISCRIMINATING AND MAPPING RICE ECOSYSTEMS IN CENTRAL LUZON PHILIPPINES USING ENVISAT ASAR IMAGES	837
<i>Mary Rose O. Obico, Enrico C. Paringit</i>	
A PRELIMINARY STUDY ON PADDY RICE YIELD PREDICTION BASE ON THE COMBINATION OF SIMPLE CROP MODELING AND SATELLITE REMOTE SENSING IMAGERY	843
<i>Chonthicha Chitpaiboon, Jiratiwan Kruasilp, Amornchai Prakobya, Preesan Rakwatin</i>	
PADDY FIELD MAPPING BY INTEGRATING ALOS AVNIR-2 AND PALSAR DATA	849
<i>Kei Oyoshi, Shinichi Sobue</i>	
COMPARISON OF SURFACE REFLECTANCE BETWEEN FIELD SPECTRORADIOMETER AND MULTI SATELLITE IMAGE FOR CROP MONITORING.....	855
<i>Woranut Chansury, Yoothapoom Potiracha, Anusorn Rungsipanich</i>	
USING MULTI POLARIZATION AND MULTI DATE SAR DATA TO AREA ESTIMATE OF IRRIGATION RICE	861
<i>Thitawadee Suvachananonda, Thanwarat Anan, Yoothaphum Phothiracha, Anusorn Rungsipanich, Chaowalit Silapathong</i>	

TS4-3 FOREST RESOURCES-1

APPLICATION OF 3D LASER SCANNING DATA IN STRUCTURAL FOREST MANAGEMENT DECISION	865
<i>Chun-Hung Wei, Shou-Tsung Wu, Jan-Chang Chen, Chaur-Tzuhn Chen</i>	
UTILIZATION OF ALOS SATELLITE DATA TO SUPPORT MAPPING AND MONITORING DEFORESTATION AND DEGRADATION IN INDONESIA	872
<i>Masatoshi Kamei, Yukio Haruyama</i>	
FOREST AND FOREST CHANGEMAPPING USING SAR DATA AND A ROBUST CLASSIFICATION METHODOLOGY	875
<i>Anthea L. Mitchell, Mark L. Williams, Anthony K. Milne</i>	
MODELLING FOREST FIRE BEHAVIOUR AND MAPPING CARBON EMISSION IN THE LUDIKHOLA WATERSHED, GORKHA DISTRICT, NEPAL	881
<i>Chelesile Sibanda, Yousif Ali Hussin, Michael Weir, Hammad Gilani</i>	
NON-PARAMETRIC FOREST ATTRIBUTES ESTIMATION USING LIDAR AND TM DATA	887
<i>Shaban Shataee</i>	

TS4-4 FOREST RESOURCES-2

TREE SPECIES CLASSIFICATION USING HYPERSPECTRAL IMAGE COMBINED WITH DIGITAL CANOPY HEIGHT MODEL	894
<i>Takuhiko Murakami, Toshimi Kawai, Shota Mochizuki, Yasuteru Imai, Noritoshi Kamagata, Yukio Akamatsu</i>	
CAMPARISON OF DECIDUOUS SPECIES CLASSIFICATION BETWEEN HYPERSPECTRAL AND MULTISPECTRAL IMAGE	900
<i>Hyung-Gab Cho, Jung-Il Shin, Jeong Eun, Kyu-Sung Lee</i>	
INTEGRATING ALOS PALSAR AND SPOT SATELLITE IMAGERY FOR TROPICAL FOREST BIOMASS ESTIMATION	906
<i>Jonathan Y. Goh, Jukka Miettinen, Aik Song Chia, Soo Chin Liew, Leong Keong Kwoh</i>	

USE OF FORMOSAT-2 SATELLITE IMAGERY TO CLASSIFY OIL PALM IN INDONESIA	912
<i>Laju Gandharum, Chi-Farn Chen</i>	
EVALUATIONS OF DIFFERENT INDICES FOR CANOPY/ LAND COVER ESTIMATION IN KHALKHAL COUNTY (NORTH WEST OF IRAN) USING IRS IMAGERY	918
<i>Ardavan Ghorbani, Amir Mirzaei Mossivand</i>	

TS4-5 LAND COVER AND LAND USE-3

CROWD-SOURCING APPROACH OF BUILDING GROUND TRUTH DATABASE FOR GLOBAL URBAN AREA MAPPING	923
<i>Hiroyuki Miyazaki, Koki Iwao, Ryosuke Shibasaki</i>	
THE STUDY OF LAND USE / LAND COVER CHANGES AROUND SINGRAULI COAL FIELDS, INDIA USING REMOTE SENSING	928
<i>Narender Verma</i>	
APPLICATION OF REMOTE SENSING ON LAND COVER CHANGE IN GONGGA MOUNTAIN GLACIER	934
<i>Yuei-An Liou, Ruei-Yuan Wang, Xin Li, Hsueh-Chun Shad, Long-Shin Liang, Tai-Sheng Wang</i>	
COASTAL HABITATS MAPPING USING ALOS AVNIR-2 SATELLITE DATA	937
<i>N. Y. Nadiyah, M. Ibrahim, A. Samsudin, T. Komatsu</i>	
RETRIEVAL OF POLSAR DECOMPOSITION PARAMETERS BASED INFORMATION FOR LAND USE LAND COVER CLASSIFICATION	944
<i>Nguyen Ba Duy, R. S. Chatterjee</i>	

TS4-6 HYDROLOGY

SIMULATION OF FLASH-MUDDY FLASH AND INUADATION OF WESTERN TAMDAO MOUNTAIN REGION, VINHPHUC PROVINCE, VIET NAM BY USING INTERGRATED CONCEPT OF HYDROLOGY AND GEOMORPHOLOGY	959
<i>Nguyen Ngoc Thach, Pham Xuan Canh</i>	
HYDROGRAPH SIMULATION AND FLOOD MAPPING USING REMOTE SENSING AND GIS IN CITARUM WATERSHED, INDONESIA	970
<i>A. Bormudoj, M. K. . Hazarika, Ir. Budi Kartiwa, Erni Murniati, L. Samarakoon</i>	
PERSISTENT WATER, TEMPORARY WATER, PARTIAL WATER MAPPING USING MODIS DATA 2008	977
<i>Nguyen Thanh Hoan, Ryutaro Tateishi</i>	
ANALYSIS OF WATER SURFACE CONDITIONS IN LAKE HOSENKO, JAPAN USING ALOS AVNIR-2 DATA	983
<i>Yoichi Kageyama, Kenichi Miura, Makoto Nishida, Daizo Ishiyama</i>	
FLOOD IMPACT ASSESSMENT USING GEOSPATIAL TECHNOLOGIES AND HYDRODYNAMIC MODELLING	989
<i>Tam Tze Huey, Ablatifbin Ibrahim, Muhammad Zulkarnain Abdul Rahman</i>	

TS4-7 SPATIAL SIMULATION AND MODELING

MORPHOMETRIC ANALYSIS OF PAIRI RIVER BASIN USING REMOTE SENSING AND GIS	994
<i>N. K. Baghmar, S. Mustak</i>	
THE EFFECT OF ECOLOGICAL LIMITING FACTORS WITH TREE SPECIES ON THE ACCURACY OF PREDICTIVE HABITAT MODELS	1002
<i>Chun-Hao Tu, Nan-Jang Lo, Wei-I Chang, Kai-Yi Huang</i>	
APPLICATION OF PUBLIC PARTICIPATION GEOGRAPHIC INFORMATION SYSTEM IN ECOTOURISM DEVELOPMENT FOR LOCAL COMMUNITY	1008
<i>Yung-An Shen, Jihn-Fa Jan</i>	
AGENT-BASED SIMULATION OF PEDESTRIAN EVACUATION IN VIRTUAL GEOGRAPHIC ENVIRONMENT	1014
<i>Lu Tan, Hui Lin</i>	
ESTIMATION OF COMMERCIAL AREA CHANGING WITH TENANT AGENT MODEL	1020
<i>Akihiro Aida, Yuki Akiyama, Ryosuke Shibasaki</i>	
A METHOD FOR CONSTRUCTING URBAN EXTENT MAP FROM ALOS/PALSAR SATELLITE DATA	1024
<i>Koichiro Itabashi, Hiroyuki Miyazaki, Koki Iwao, Kazuki Nakamura, Masashi Matsuoka, Ryosuke Shibasaki</i>	

TS4-8 DATA PROCESSING-4

POTENTIAL OF TEMPORAL INFORMATION OF HIGH DENSITY AIRBORNE LIDAR DATA FORINSTREAM FLOW TYPE CLASSIFICATION	1030
<i>Yu-Li Lin, Chi-Kuei Wang</i>	
GEOMETRIC SIMULATION OF SAR IMAGE WITH SRTM	1036
<i>Ming-Min Kao, Joz Wu</i>	

APPLICATIONS OF SATELLITE PASSIVE MICROWAVE DATA TO RAINFALL ESTIMATION AND FOG DETECTION	1042
<i>Nan-Ching Yeh, Jian-Liang Wang, Wann-Jin Chen, Gin-Rong Liu, James Yu-Chen Yaung</i>	
ESTIMATION OF THE RICE YIELD IN THE MEKONG DELTA USING SAR DUAL POLARISATION DATA	1047
<i>Nguyen Lam-Dao, Phung Hoang-Phi, Juliane Huth, Phung Cao-Van</i>	
USING INSAR TECHNOLOGY TO MONITOR TEMPORAL SURFACE DEFORMATION	1053
<i>Yu Tang Huang, Joz Wu</i>	

TS4-9 ALGORITHM-2

EFFECTIVE SEPERATION OF TREES AND BUILDINGS FOR AUTOMATED BUILDING DETECTION	1057
<i>Chunshun Zhang, Mohammad Awrangjeb, Clive S. Fraser</i>	
SIFT-BASED MATCHING OF MULTIPLE AT IMAGES	1063
<i>Ming-Shiuan Lee, Jaan-Rong Tsay, Po-Tsung Su</i>	
STUDY AND ANALYSIS OF DIGITAL WATERMARKING FOR PHOTOGRAMMETRIC IMAGES	1069
<i>Pai-Hui Hsu, Chih-Cheng Chen</i>	
AN OVERVIEW OF XSAT DATA DOWNLINK AND IMAGE PROCESSING SYSTEM DESIGN AND DEVELOPMENT	1079
<i>Wee Juan Tan, Leong Keong Kwoh</i>	
EVALUATING PERFORMANCE OF MAXENT AND EFFECTS OF SAMPLING STRATEGIES ON MODELING FOREST TREE SPECIES—SCHIMA SUPERBA	1084
<i>Hou-Chang Chen, Nan-Jang Lo, Wei-I Chang, Kai-Yi Huang</i>	

TS4-10 ALGORITHM-3

DEPRESSING THE EFFECTS OF SPECKLE SIGNALS IN SAR SATELLITE IMAGES USING ADDITIVE AND MULTIPLICATIVE MODELS	1090
<i>Yishuo Huang, Yu-Chen Huang, Sang-Yuh Lin</i>	
EARTH OBSERVATION DATA INTEROPERABILITY ARRANGEMENT WITH ONTOLOGY REGISTRY	1096
<i>Masahiko Nagai, Masafumi Ono, Ryosuke Shibasaki</i>	
BIOMASS ASSESSMENT OF JUNIPER FOREST BY ALOS (CASE STUDY IN THE HEZAR-MASJED FOREST)	1101
<i>H. Fadaei, T. Momeni, R. Suzuki</i>	
MAPPING OF THE 3D RIVER BOUNDARY LINE USING LIDAR DATA AND AERIAL PHOTOGRAPH	1107
<i>Yun Jae Choung, Hyen Cheol Park, Myung-Hee Jo</i>	
BLOCK ADJUSTMENT OF MULTISTRIP ALOS/PRISM IMAGES	1113
<i>Chao-Yi Yu, Tee-Ann Teo</i>	
A NEW CALIBRATION METHOD FOR STEREO CAMERA	1119
<i>M. Amanzadeh, M. Saadatserehsht, A. Sh. Amini</i>	

TS6-1 GIS AND ENVIRONMENT

LAND SUITABILITY ASSESSMENT FOR RUBBER PLANTATION USING TOPSIS IN BURIRUM, THAILAND	1126
<i>Sunya Sarapirome, Tawatcharapong Wongsgoon</i>	
APPLICATION OF GIS TO SIMULATION OF THE AIR TRAFFIC POLLUTION IN NAKHON RATCHASIMA, THAILAND	1132
<i>Patiwat Littidej, Sunya Sarapirome, Warunee Aunphokklang</i>	
INTEGRATED APPROACH TO MAP LANDUSE & LANDCOVER CHANGES IN AN URBAN (GREEN) CITY IN NORTHERN INDIA- A CASE STUDY OF CHANDIGARH	1138
<i>L. N. Sharma</i>	
LAND SUITABILITY MODELING FOR ARHAR PULSE THROUGH ANALYTIC HIERARCHY PROCESS USING REMOTE SENSING AND GIS: A CASE STUDY OF SEONATH BASIN	1144
<i>S. Mustak</i>	
SENSITIVITY AND VULNERABILITY ASESMENT OF SOCIO-ECOSYSTEM TO OIL SPILL AND SEA LEVEL RISING IMPACT AT HAI PHONG COASTAL ZONE, VIETNAM	1152
<i>Nguyen Ngoc Thach, Nguyen Thi Thu Hien, Pham Xuan Canh</i>	

TS6-2 ENVIRONMENT MONITORING

A DYNAMIC SIMULATION OF CROWD FLOW IN TAIPEI RAILWAY AND MRT STATION BY MULTI-AGENT SIMULATION SYSTEM	1164
<i>Kuo-Chung Wen</i>	
A GEOGRAPHIC INFORMATION SYSTEM FOR ESTIMATING THE PREVALENCE OF HELMINTHIASIS INFECTIONS IN THE NORTH-EASTERN THAILAND	1170
<i>Vladimir Buntilov, Suwannachai Wattanayingcharoenchai, Choosak Nithikathkul, Thitima Wongsaraj</i>	

A REMOTE SENSING AND GIS-BASED CAPTURE ZONE (CAPZONE) APPROACH TO ASSESSMENT OF FECAL CONTAMINATION ON GROUNDWATER: A CASE STUDY OF BUTUAN CITY, PHILIPPINES	1176
<i>Michelle V. Japitana, Enrico C. Paringit</i>	
REAL-TIME COST UPDATES BASED ON CURRENT TRAFFIC CONDITION FOR OPTIMAL ROUTING PLANNING	1183
<i>Sittichai Choosumrong, Venkatesh Raghavan</i>	
MONITORING OF PADDY FIELD PLANTING AREA WITH COMPLEX CROPPING PATTREN USING SATELLITE REMOTE SENING DATA: CASE STUDY IN CHIANG RAI PROVINCE	1189
<i>Wimon Pathtong, Suvalak Nakya</i>	

TS6-3 NATURAL RESOURCES-1

USE OF AIRBORNE LASER SCANNING DATA FOR THE ASSESSMENT OF TREE CONDITION	1196
<i>Youngkeun Song, Junichi Imanishi, Yukihiko Morimoto</i>	
ESTIMATION OF CARBON SEQUESTRATION USING SATELITE IMAGES OF IKONOS AND FORMOSAT2 IN TAIWAN	1202
<i>Ruei-Yuan Wang, Long-Shin Liang, Yi-Chung Wang, Tzu-How Chu, Yuh-Lurng Chung</i>	
CAPABILITIES OF THE DMC CONSTELLATION AND APPLICATIONS OF ITS IMAGERY FOR TROPICAL FOREST MAPPING AND MONITORING	1208
<i>Katarzyna Wisniewska</i>	
SAR IMAGERY ANALYSIS OF VEGETATION IN DESERT ENVIRONMENT	1209
<i>Andy Yaw Kwarteng</i>	
UPDATE ON THE DMC SATELLITE CONSTELLATION, INCLUDING NEW SATELLITES LAUNCHED IN 2011 AND FUTURE SATELLITES	1215
<i>Gary Holmes</i>	

TS6-4 NATURAL RESOURCES-2

MULTI-VIEW REMOTE SENSING MONITORING THE HEALTH-CONDITION AND ACID RAIN ISSUE WITH CHAMAECYPARIS FORMOSENSIS IN YI-LAN AREA OF NORTHERN TAIWAN	1216
<i>Sheng-Yang Su, Nan-Jang Lo, Wei-I Chang, Kai-Yi Huang</i>	
GLOBAL LAND COVER MAPPING BY UPSCALING FROM GPS PHOTOS DATABASE THROUGH ALOS AVNIR2	1222
<i>Kyaw Sann Oo, Van Ngoc An, Wataru Takeuchi</i>	
RESEARCH ON ESTIMATION OF EVAPOTRANSPIRATION USING ECOLOGICAL MAP, MODIS NDVI AND EVI	1227
<i>Kyung Ho Kang, Jaehoon Jung, Joon Heo</i>	
MERGING LANDSAT IMAGE INFORMATION WITH GEOREFERENCED BIOPHYSICAL AND SOCIO- ECONOMICAL DATASETS TO DESCRIBE FOREST COVER CHANGE IN A PHILIPPINE PROVINCE	1230
<i>Meriam M. Makinano-Santillan, Jojene R. Santillan, Enrico C. Paringit</i>	
APPLICATION OF WEB ATLAS FOR LAND MANAGEMENT IN HANOI, VIETNAM	1238
<i>Bui Ngoc Quy</i>	

TS6-5 WATER RESOURCES AND COASTAL ZONE

A COMPREHENSIVE MULTI-SENSOR REMOTE SENSING APPROACH IN DROUGHT MANAGEMENT	1245
<i>Abolfazl Abeshit, Lal Samarakoon, Manzul Hazarika</i>	
MAPPING COASTAL HABITATS OF SINGAPORE USING HIGH RESOLUTION SATELLITE IMAGERY	1251
<i>Ping Chen, Soo Chin Liew, Rachel Lim, Leong Keong Kwoh</i>	
USING LANDSAT IMAGES TO OBSERVE COASTLINE CHANGES IN MEKONG RIVER DELTA, VIETNAM	1255
<i>Nguyen Thi To Ngan, Cheng-Chien Liu, Ngo Thi Phuong Uyen</i>	
ASSESSMENT OF MANGROVE ECOSYSTEM SERVICES IN THE MEKONG DELTA, VIETNAM, BASED ON REMOTE SENSING AND HOUSEHOLD SURVEYING	1261
<i>Vo Quoc Tuan, Claudia Kuenzer</i>	
METHODOLOGICAL DEVELOPMENT OF MAPPING OF AGRICULTURAL LAND USE IN THE TROPICAL CLIMATE REGION USING MULTI-TEMPORAL AND MULTI-PLATFORM SATELLITE DATA -A CASE OF UPPER STREAM OF SOLO RIVER, INDONESIA-	1262
<i>Satoshi Uchida</i>	
MULTI-LEVEL SEGMENTATION OF SOIL SEALING IN URBAN AREAS	1268
<i>Urša Kanjir, Tatjana Veljanovski, Krištof Oštir</i>	

TS7-1 NEW DEVELOPMENT OF GIS

USING TEMPLATE TO IMPROVE THE EFFICIENCY OF IMAGERY METADATA ENTRY	1274
<i>Yao-Hsien Yeh, Jung-Hong Hong</i>	

ASSESSING THE FLOOD RISK AREA OF SOUTHERN THAILAND WITH AN INTEGRATED CURVE NUMBER AND FLOW ACCUMULATION APPROACH	1280
<i>Anisara Pensuk, Rajendra P. Shrestha, Varut Natee, Pitakpong Tibkaew, Romanee Thongdara, Charurin Pholhinkong</i>	
WEB-BASED VISUALIZATION OF VECTOR AND RASTER DATA FROM SPATIAL DBMS USING A GEO-BROWSER	1284
<i>Hyung Woo Kim, Yang-Won Lee</i>	
A LOCATION-AWARE SYSTEM PROTOTYPE FOR TOURING IN CAMPUS	1289
<i>Yi-Min Chiang, Jung-Hong Hong</i>	
ACCOMMODATION OF THE INDIA-EURASIA COLLISION RELATED STRESSES IN THE PROXIMAL PART OF THE GANGA FORELAND BASIN, INDIA: INSIGHTS FROM REMOTE SENSING AND DTM BASED INVESTIGATIONS	1295
<i>Pradeep K. Goswami</i>	

TS7-2 VEGETATION AND FORESTRY

VEGETATION ANOMALIES DETECTED BY TIME-SERIES MODIS OBSERVATION	1296
<i>Yang-Sheng Chiang, Kun-Shan Chen</i>	
USING RED-EDGE BAND TO CLASSIFY EUCALYPTUS PLANTING AREA IN SOME PART OF NAKHON RATCHASIMA AND BURIRAM PROVINCE	1302
<i>Chanika Sukawattanavijit, Yuttana Sangthong, Kativich Kantha</i>	
EFFECT OF AGRICULTURAL LAND USE CHANGES IN FOOD SECURITY USING MULTI-TEMPORAL SATELLITE IMAGERY, A CASE STUDY IN MALAYSIA	1310
<i>Sharifeh Hazini, Mazlan Hashim, Din Ara Wahid, Komeil Rokni</i>	
COMPARISON OF INDIVIDUAL TREE CROWN DELINEATION METHOD FOR CARBON STOCK ESTIMATION USING VERY HIGH RESOLUTION SATELLITE IMAGES	1311
<i>Rachna Shah, Yousif Ali Hussin, Martin Schlerf, Hammad Gilani</i>	
AGRICULTURE LANDSCAPE PLANNING BASED ON BIOTOP AREA FACTOR IN YUNLIN, TAIWAN	1317
<i>Su-Hsin Lee, Jing-Shoung Hou</i>	

PS-1

WHEN THE TERM GIS STAND FOR GEOGRAPHIC INFORMATION SERVICE: A CASE STUDY OF WEB-BASED SPATIAL DATA ANALYSIS FEASIBILITY	1324
<i>Chang Cheak Lim, Kuo-Cheng Chang</i>	
HYPERSPECTRAL RADIOMETRY TO ESTIMATE THE GRADES OF IRON ORES OF NOAMUNDI, INDIA – A PRELIMINARY STUDY	1330
<i>T. Magendran, S. Sanjeevi</i>	
BUILDING BOUNDARY DETECTION USING TOPOLOGICAL GRADIENT ANALYSIS	1335
<i>Chao-Yuan Lo, Liang-Chien Chen</i>	
REMOTE SENSING APPROACH TO DETECTION OF INITIAL STAGES OF URBAN INTRUSION INTO NATURAL LAND COVER	1341
<i>Amit Singh, Saumitra Mukherjee</i>	
HYDROLOGICAL PROCESSES GOVERNING GROUNDWATER QUALITY IN THE SABARMATI RIVER BASIN, GUJARAT	1346
<i>Kumari Rina, Chander Kumar Singh, Saumitra Mukherjee</i>	
GEO-INFORMATICS FOR ESTIMATION YIELD LOSS OF RICE PRODUCTION AREAS CAUSING BY FLOODING IN LOWER YOM BASIN, THAILAND	1356
<i>Vicharn Amarakul, Sirirat Sanyong</i>	
GEO-INFORMATICS AND SPACE TECHNOLOGY FOR MONITORING BLAST DISEASE OF OFF-SEASON RICE IN LOWER YOM BASIN, THAILAND	1361
<i>Sirirat Sanyong, Vicharn Amarakul</i>	
GPS AND GIS FOR MAPPING AGRICULTURAL ROADS FOR OIL PALM PLANTATION MANAGEMENT	1367
<i>Mohamad Khairil Mohamad Razi, Mohd Hasmadi Ismail</i>	
REMOTE SENSING MONITORING AND ANALYSIS OF EXPANSION CHARACTERISTICS OF CHONGMING ISLAND IN SHANGHAI, CHINA	1371
<i>Guangrong Shen, Apostolos Sarris, Xiumei Huang, Xianhua Li</i>	
ANALYSIS OF WATER INHERENT OPTICAL PROPERTIES WITH PETROLEUM POLLUTION	1377
<i>Miao-Fen Huang, Qing-Jun Song, Xu-Feng Xing</i>	
RADIOMETRIC CALIBRATION COEFFICIENTS OF WATER-BODY FOR “HJ-1” SATELLITE MULTI-SPECTRAL CCD SENSORS BY CROSS-CALIBRATION BASED METHOD	1383
<i>Xu-Feng Xing, Miao-Fen Huang, Sheng-Li Niu</i>	
A MODEL OF RETRIEVAL CDOM BASED ON THE HJ-1 SATELLITE	1389
<i>Miao-Fen Huang, Qing-Jun Song, Xu-Feng Xing, Zu-Long Zhao</i>	
TEMPORAL PATTERN DETECTION OF SNOW COVER, WATER STORAGE AND VEGETATION IN NAM CO LAKE BASIN, CENTRAL TIBETAN PLATEAU	1393
<i>Yanhong Wu, Li Ni, Bing Zhang</i>	
VEGETATION INDEX MEASUREMENT WITH TWO-WAVELENGTH LIDAR SYSTEM	1398
<i>Shuo Shi, Bo Zhu, Wei Gong, Liangpei Zhang, Xiaoyuan Peng</i>	

UTILIZING SPECTRAL REFLECTANCE AND VEGETATION INDICES OF BOUGAINVILLEA SPECTABILIS FOR MONITORING PARTICULATE AIR POLLUTION IN METRO MANILA	1403
<i>Alex S. Openda, Enrico C. Paringit</i>	
THE DESIGN, DATA PROCESSING AND PRECISION ANALYSIS OF THE FIRST GPS CONTROL NETWORK OF ZHENGZHOU UNIVERSITY	1410
<i>Xuehong Bai, Qizhong Lin, Hongyan Zheng, Yu Chen</i>	
DEVELOPMENT OF AN INDOOR MOBILE NAVIGATOR SYSTEM BASED ON ITEMS WITH POSITION	1416
<i>Jun Kumagai, Gou Matsubara, Tomoyuki Hino, Ryosuke Shibasaki</i>	
THE PERFORMANCE ANALYSIS OF ORTHORECTIFIED IMAGE GENERATION USING RIGOROUS SENSOR MODEL	1420
<i>Hyunsuk Kim, Moon-Gyu Kim, Sunghee Kwak</i>	
THE PRECISION ASSESSMENT OF DIFFERENT SPACE OPTICAL REMOTE SENSING IMAGE RELATIVE RADIOMETRIC CORRECTION METHODS	1424
<i>Ming Yan, Fei Wu, Zhiyong Wang, Bingyang Yu, Jianjun He</i>	
RADIOISOTOPE POLLUTION FROM FUKUDHIMA NUCLEAR POWER PLANT	1430
<i>Susumu Ogawa, Yoshiki Ogawa</i>	
DEVELOPMENT AND OPTICAL ALIGNMENT OF EXPERIMENTAL MODEL FOR FORMOSAT-5 REMOTE SENSING INSTRUMENT	1436
<i>Po-Hsuan Huang, Shenq-Tsong Chang, Yu-Cheng Cheng, Yu-Chuan Lin, Wei-Cheng Lin, Kuan-Huan Wu, Chia-Yen Chan, Ming-Ying Hsu, Po-Han Huang, Ho-Lin Tsay, Ting-Ming Huang</i>	
ABSOLUTE SITE VELOCITY ESTIMATION USING THE GPS PRECISE POINT POSITIONING TECHNIQUE	1443
<i>Jih-Jia Chen, Ming Yang</i>	
RESEARCH ON GEO-REFERENCING METHODOLOGY OF POINT CLOUD DATA	1449
<i>Hyungsig Cho, Honggyoo Sohn, Soohee Han, Il Suk Park</i>	
3D DIGITAL RECONSTRUCTION OF COMPLEX OBJECTS THROUGH INTEGRATION OF RANGE DATA AND DIGITAL IMAGES	1451
<i>Ruifang Zhai, Chengda Lin</i>	
IONOSPHERIC DELAY CORRECTION USING THE TAIWAN IONOSPHERIC MODEL (TWIM) FOR SINGLE-FREQUENCY GPS RECEIVER	1457
<i>Ernest P. Macalalad, Lung-Chih Tsai, Joz Wu</i>	
HYPOTHESIS TESTING FOR AUTOMATIC COLLAPSE DETECTION OF BUILDINGS USING DSMS	1462
<i>Mehdi Rezaeian, Armin Gruen</i>	
SPATIAL MODELING OF TROPICAL DEFORESTATION USING PALSAR DATA	1468
<i>Rajesh Bahadur Thapa, Masanobu Shimada, Takeshi Motohka, Manabu Watanabe, Tomohiro Shiraishi</i>	
CASPIAN SEA WATER MASS VARIATIONS AND WATER CIRCULATION CYCLE FROM SATELLITE DATA	1472
<i>He Huang, Hong-Sic Yun, Dong-Ha Lee</i>	
POST PROCESSING OF AEROSOL DATASET RETRIEVED FROM SATELLITE DATA USING ROBUST ESTIMATION	1477
<i>Chi Li, Yong Xue, Yingjie Li, Jie Guang</i>	

Volume 3

PRIOR INFORMATION SUPPORTED POST-PROCESSING IN AEROSOL OPTICAL DEPTH RETRIEVAL	1482
<i>Xiaoqi Xu, Yong Xue, Linlu Me, Jie Guang, Yingjie Li, Ying Wang, Hui Xu, Chaolin Wu, Tingting Hou, Xingwei He, Jing Dong, Ziqiang Chen</i>	
DEVELOPMENT OF AN EDUCATIONAL SAR PROCESSOR WITH SCANSAR IMAGE FORMATION	1487
<i>Yosuke Ito, Yuuhei Teramoto, Kenji Abe</i>	
SEASONAL MIGRATION OF TIBETAN ANTELOPE (PANTHOLOPS HODGSONII) AND ITS RELATION WITH SPATIAL PATTERNS OF RELATIVE PRIMARY PRODUCTIVITY (NDVI)	1493
<i>Sumiya Ganzorig, Buho Hoshino, Karina Manaeva, Hiromasa Igota</i>	
A GRAPH BASED APPROACH TO SEGMENTATION OF REMOTELY SENSED IMAGES	1497
<i>Krishna Mohan Buddhiraju, Pramod Balakrishnan, Imdad Ali Rizvi</i>	
THE IMPACT OF ICE-JAM FLOOD OF LENA RIVER	1503
<i>Toru Sakai, Francois Costard, Alexander Fedorov</i>	
AN ASSESSMENT ON THE PERFORMANCE OF SUPPORT VECTOR MACHINE OVER TRADITIONAL PARAMETRIC AND NON-PARAMETRIC TECHNIQUES FOR SATELLITE IMAGE CLASSIFICATION	1504
<i>Helmi Zulhaidi M. Shafri, Nisfariza Mohd Noor Maris, Basharudin Abdul Hadi</i>	
THE LIMITS OF PARALLELISM IN GEOINFORMATICS DATA PROCESSING: WHAT YOU CAN AND CANNOT GET FROM GPU PROCESSORS	1510
<i>Kurt T. Rudahl, Sally E. Goldin</i>	
AN ITERATIVE APPROACH FOR ESTIMATION OF THE DOPPLER CENTROID FREQUENCY FOR SAR DATA PROCESSING	1516
<i>Tomonori Kunito, Yosuke Ito</i>	
THE FILTER COEFFICIENTS OF THE NEIGHBORHOOD PIXELS FOR ESTIMATION OF THE MIXED PIXELS WITH MULTI-TEMPORAL SATELLITE DATA	1522
<i>Seiji Ito, Yoshinari Oguro</i>	

A STUDY ON THE SEASONAL CHANGE OF DIFFERENCE OF BRIGHTNESS TEMPERATURES OBTAINED FROM LANDSAT-7/ETM+ AND TERRA/MODIS	1527
<i>Yoshinari Oguro, Seiji Ito</i>	
ESSENTIAL REQUIREMENTS FOR DEVELOPING CORE GEOSPATIAL WEB SERVICES FOR NSDI.....	1533
<i>Jung-Hong Hong, Yi-Ling Huang, Min-Lang Huang</i>	
THE APPLICATION OF GPR IN DETECTING THE FAST FEED SUPPORTING TOWER FOUNDATION	1539
<i>Wensheng Bai</i>	
DETECTION OF CATASTROPHIC TSUNAMI IN JAPAN BY USING OPTICAL AND SAR DATA	1547
<i>Yuzo Suga, Tomohisa Konishi</i>	
RICE CROP MONITORING USING X, C AND L BAND SAR DATA	1553
<i>Yuzo Suga, Tomohisa Konishi</i>	
VERIFICATION OF DSM PRODUCT BY USING TERRASAR-X AND EROS-B STEREO PAIR IMAGES	1559
<i>Yuzo Suga, Tomohisa Konishi</i>	
CLIMATE CHANGE AND LAND USE DYNAMICS; PERSPECTIVE ON SOIL EROSION AND SEDIMENTATION PROBLEM IN PHEWA LAKE WATERSHED AREA OF NEPAL.....	1565
<i>Krishna Prasad Bhanadri</i>	
A POINT-BASED RENDERING APPLICATION WITH A HIGH-SPEED SPATIAL INTERPOLATION	1571
<i>Masafumi Nakagawa, Satoshi Kuramochi, Anna Nakanishi, Yuta Sugaya</i>	
EXTRACTING ELEMENTS FROM FIELD-BIRD SOUNDS USING SONOGRAM BASED ON WAVELET TRANSFORM	1575
<i>Fang Ren, Aiwu Zhang, Shumin Wang, Yihao Duan</i>	
MONITORING GRAZING BEHAVIOR OF CATTLE WITH AN ACCELEROMETRY-BASED ACTIVITY MONITOR AND GPS.....	1580
<i>Rena Yoshitoshi, Nariyasu Watanabe, Kensuke Kawamura, Seiichi Sakanoue, Hyo-Jin Lee, Yuzo Kurokawa</i>	
A HAND-HELD CROP MEASURING DEVICE FOR ASSESSING SPATIAL VARIABILITY OF HERBAGE BIOMASS AND LAI IN AN ITALIAN RYEGRASS FIELD.....	1586
<i>Jihyun Lim, Kensuke Kawamura, Hyo-Jin Lee, Tomoki Tachikawa, Rena Yoshitoshi, Yuji Sakuno, Yuzo Kurokawa, Nariyasu Watanabe</i>	
CALCULATION OF COMPLETE BOUGUER ANOMALIES USING VARIOUS MARINE GRAVITY MODELS IN AREA OF EAST SEA	1592
<i>Taejun Jung, Hongsik Yun, Dongha Lee, Minwoo Park</i>	
USING AERIAL PHOTOGRAPHS AND GIS FOR CONSERVATION PLANNING IN THE YANGMINGSHAN NATIONAL PARK, TAIWAN	1597
<i>Li-Ta Hsu, Li Lin</i>	
ESTIMATION OF LEGUME CONTENT IN GRASS-LEGUME MIXTURES FROM FIELD HYPERSPECTRAL MEASUREMENT	1603
<i>Kensuke Kawamura, Nariyasu Watanabe, Seiichi Sakanoue, Hyo-Jin Lee, Jihyun Lim, Rena Yoshitoshi</i>	
HAZE REMOVAL FOR HIGH RESOLUTION SATELLITE IMAGES.....	1609
<i>Li-Yu Chang, Chi-Farn Chen</i>	
MULTI-BAND IMAGE CLASSIFICATION USING MEMBERSHIP FUNCTIONS	1615
<i>Yaxin Peng, Chaomin Shen, Aimin Zhou, Guixu Zhang</i>	
THE METHOD STUDY OF ANTARCTIC ICE SHEET SNOWMELT DETECTION FROM MICROWAVE RADIOMETER MEASUREMENTS.....	1621
<i>Xinwu Li, Huadong Guo, Xiao Cheng, Lei Liang</i>	
ALTERATION MINERAL MAPPING FROM HYPERSPECTRAL DATA USING PIXEL BY PIXEL SPECTRAL IDENTIFICATION METHOD - IRIKI KAOLINITE MINE, KAGOSHIMA, JAPAN -.....	1627
<i>Taro Yajima, Hirohisa Kamijo, Atsushi Momose, Shuichi Miyatake</i>	
THE MODELING AND FORECASTING OF URBAN SPRAWL USING MULTI-TEMPORAL SATELLITES IMAGERY AND GIS (A CASE STUDY TABRIZ 1972-2010).....	1633
<i>Mohsen Ahadnejad Reveshty, Ali Reza Rabet</i>	
CHALLENGES ON THE RSI PAYLOAD DEVELOPMENT & VERIFICATION.....	1640
<i>Shui-Lin Weng, Yu-Yung Lian</i>	
DETECTION OF FLOODED PADDY FIELDS USING NEW WIDE OBSERVATION MODE OF RADARSAT-2	1645
<i>Naoki Ishitsuka</i>	
AUTOMATIC SELECTION OF PASSPOINTS IN DIGITAL CLOSE RANGE PHOTOGRAMMETRY IN DENSE URBAN AREAS.....	1648
<i>Yuki Ohta, Junichi Susaki</i>	
SPECTRAL UNMIXING ANALYSIS OF URBAN LAND COVER FRACTIONS FROM LANDSAT DATA.....	1654
<i>N. T. Son, C. F. Chen, C. R. Chen, L. Y. Chang</i>	
RESEARCH ON THE SIMULTANEOUS SATELLITE-AIRBORNE-GROUND OBSERVATION EXPERIMENT PLATFORM FOR GLOBAL CHANG	1659
<i>Jiantao Bi, Huadong Guo, Xingxing Wang</i>	
FAST PROCESSING OF VEXCEL ULTRACAM DIGITAL AERIAL PHOTOS	1660
<i>Philip Cheng, David Pieknry</i>	
COMPARISON THE ACCURACIES OF DIFFERENT SPECTRAL INDICES FOR ESTIMATION OF VEGETATION COVER FRACTION IN SPARSE VEGETATED AREAS.....	1661
<i>Alireza Sharifi</i>	
SUSCEPTIBILITY ASSESSMENT OF SHALLOW LANDSLIDES IN DIFFERENT LAND USE USING SINMAP IN BRANTAS WATERSHED AREA, INDONESIA	1662
<i>Rizatus Shofiyati, Wahyu Supriatna, Wahyunto</i>	

USING VIDEO IMAGES TO OBTAIN CAMERA ORIENTATION AND TRANSLATION PARAMETERS	1663
<i>Chia-Han Lee, Huan Chang, Fuan Tsai, Hui-Ting Huang</i>	
TEXTURE AND SPECTRAL FEATURE-BASED PLANT TYPE CLASSIFICATION FROM AERIAL IMAGES OF ASAHI RIVER BASIN IN OKAYAMA-CITY	1664
<i>Atsushi Iyono, Tatsuki Saito, Kazuhiro Yamaguchi, Miho Takei</i>	
MAPPING SOIL MINERALS IN THE ARID REGION USING LANDSAT ETM+	1665
<i>Elwan Abeer, Kunihiko Yoshino</i>	
DETERMINATION OF SOIL LINE USING REMOTELY SENSED DATA	1666
<i>Gandoljin Nergui, R. Tsolmon, M. Saandari</i>	
USING WEB 3D GIS IN PREWARNING SYSTEM OF LANDSLIDE MONITORING	1672
<i>I-Hui Chen</i>	
FOREST FIRE HAZARD ZONE MAPPING USING STRUCTURAL FIRE INDEX: A CASE STUDY	1678
<i>Hamed Adab, Kasturi Devi Kanniah, Karim Solaimani</i>	
THE COMPARISSON STUDY OF PADDY RICE THEMATIC MAPS BASED ON PARAMETER CLASSIFIER (MLC) AND REGIONAL OBJECT OF KNOWLEDGE CLASSIFIER (RG+ROSE)	1684
<i>Tsu Chiang Lei, Shiuan Wan, Cheng-Yi Huang, Jhe-Yuan Li</i>	
THE STUDY OF KPSO FOR GENERATING LANDSLIDE THEMATIC MAP	1692
<i>Shiuan Wan, Tsu Chiang Lei, Zhuo Yi Lin</i>	
USING REMOTE SENSING AND GIS FOR OBSERVATION LAND USE LAND COVER CHANGES AND QUANTIFYING ARABLE LAND LOSS IN PENANG ISLAND – A CASE STUDY OF BALIK PULAU	1697
<i>Khalid Sabbar Mohammad, Narimah Samat, Hassan Naziri Khalid</i>	
ESTIMATING BIOMASS IN MANAGED URBAN GREENERY AREAS USING CANOPY COVER PERCENTAGES DERIVED FROM NDVI	1716
<i>Jonathan Y. Goh, Jukka Miettinen, Soo Chin Liew, Leong Keong Kwoh</i>	
THE APPLICATION OF TIME SERIOUS CHANGE DETECTION BY FULL PIXEL IMAGE MATCHING	1722
<i>Chih-Heng Liu, Wen-Chin Chen, Yi-Hsin Yeh</i>	
APPLYING GROUND LIDAR AND AERIAL PHOTOGRAMMETRY COMBINATION TECHNOLOGY IN ASSISTING LARGE SCALE URBAN PLANNING MAP CHARTING	1728
<i>Kuang-Huei Huang, Jian-Bang He, Chih-Heng Liu, Wen-Chin Chen, Ming-Yi Hsh, Chi-Yuan Lin</i>	
EVALUATION OF ECONOMIC LOSSES DUE TO NATURAL HAZARD IN BAC CAN PROVINCE, VIETNAM	1735
<i>Dinh Thi Bao Hoa, Nguyen Ngoc Thach</i>	
CRUSTAL DEFORMATION OF THE MUD STONE AREA IN SW TAIWAN USING THE GEODETIC DATA FROM 2002 TO 2010	1741
<i>Shu-Chin Hsu, Kuo-En Ching</i>	
APPLICATION OF REMOTE SENSING AND GIS ON THE DISPERSAL OF LEUCAENA LEUCOCEPHALA IN HENGCHUN PENINSULA	1747
<i>Wen-Yen Tung, Chi-Chuan Cheng</i>	
AN ENHANCED CONTEXTUAL ALGORITHM FOR FIRE DETECTION USING MODIS DATA	1753
<i>F. Parto, M. R. Saradjian</i>	
CHARACTERISTICS OF SPATIAL DISTRIBUTION OF ABOVEGROUND BIOMASS AND VEGETATION INDEX IN BAYAN SOUM, MONGOLIA	1757
<i>Khishigsuren Nyamsambu, Kunihiko Yoshino</i>	
BUILDING DETECTION BY DEMPSTER-SHAFER METHOD USING MULTI-VIEW IMAGES	1762
<i>Hui-Hsin Kao, Liang-Chien Chen</i>	
IMAGE COLLECTION PLANNING OF MULTI-SATELLITE OPERATION FOR KOMPSAT SERIES	1768
<i>Heejin Bae, Myungjin Choi, Tae-Byeong Chae</i>	
CAPABILITY BETWEEN HYPERSPECTRAL AND MULTISPECTRAL IMAGE FOR WATER QUALITY ESTIMATION	1772
<i>Jung-Il Shin, Kyu-Sung Lee</i>	
EXTRACTION OF PLANES CONSISTING OF BUILDINGS FOR MODELING USING CLOSE-RANGE PHOTOGRAMMETRY	1776
<i>Yuta Kurokawa, Junichi Susaki</i>	
ANALYSIS OF THE DETECTION METHODS FOR RICE PADDY AREA USING MULTI-TEMPORAL TERRA/ASTER DATA	1782
<i>Kanae Miyaoka, Masayasu Maki</i>	
UNSUPERVISED SOFT CLASSIFICATION OF HYPERSPECTRAL DATA USING CONSTRAINED LEAST SQUARES METHOD	1788
<i>Abolfazl Jamshidzadeh, Yahya Allahtavakoli, Saeid Homayouni, Abdolreza Safari</i>	

PS-2

PLOT-LEVEL FOREST VOLUME ESTIMATION USING QUICK BIRD SATELLITE DATA IN THE HYRCANIAN FOREST	1794
<i>Salam Yazdani, Shaban Shataee, Manouchehr Babanejad</i>	
DERIVATION OF BIOCHEMICAL INDICATOR OF TROPICAL RAINFOREST USING ASTER DATA	1800
<i>Norsheilla Mohd Johan Chuah, Mazlan Hashim</i>	
ANALYSIS OF COLD PATCH ON THE SEA OFF NORTHEASTERN TAIWAN	1806
<i>Yu-Hsin Cheng, Chung-Ru Ho</i>	

THE FILTERING OF SATELLITE IMAGERY APPLICATION USING METEOROLOGICAL DATA AIMING TO THE MEASURING, REPORTING AND VERIFICATION (MRV) FOR REDD	1812
<i>Salinhip Kungyalchoketchai, Haruo Sawada</i>	
APPLYING ATMOSPHERIC MOISTURE TO IMPROVE RAINFALL ESTIMATION DURING HURRICANES	1818
<i>Peng Jia, Jie Wu</i>	
CHANGE IN HABITAT SELECTION BY JAPANESE MACAQUES AND HABITAT FRAGMENTATION ANALYSIS USING TEMPORAL REMOTELY SENSED DATA IN NIIGATA PREFECTURE, JAPAN	1824
<i>Shota Mochizuki, Takuhiko Murakami</i>	
REMOTE SENSING ESTIMATION OF LITTERFALL DYNAMICS.....	1830
<i>Hsueh-Ching Wang, Huai-Tse Yang, Cho-Ying Huang</i>	
REGISTRATION OF 3-D BUILDING MODELS AND LIDAR POINT CLOUDS USING LEAST SQUARE 3D SURFACE MATCHING	1836
<i>Shih-Han Huang, Tee-Ann Teo, Chieh-Tsung Chen, Hui-Ting Huang</i>	
COMPARISON OF WAVEFORM DECOMPOSITION METHODS FOR AIRBORNE FULL-WAVEFORM LIDAR	1842
<i>Yu-Shan Lin, Tee-Ann Teo</i>	
LAND USE CLASSIFICATION BASED ON OBJECT-ORIENTED ANALYSIS - A SHIHMEN RESERVOIR CASE.....	1848
<i>Kuan-Tsung Chang, Jin-King Liu, Edward Wang, Zhu-Yi Wang, Yan-Xiang Lin</i>	
USAGE OF REMOTE SENSING ON CROP MAPPING IN TAIWAN.....	1854
<i>Hong-Yue Guo, Lun-Ping Su, Chu-Chung Chen, Ping-Yu Wu</i>	
COOLING EFFECT RANGE ASSESSMENT OF PADDY FIELDS IN URBAN NEIGHBORHOOD BY LANDSAT THERMAL IMAGERY	1857
<i>Chih-Hung Tan, Tzyy-Woei Chu, Chao-Chih Jao</i>	
THE POSSIBILITY OF SAILING ACROSS OCEANS BY STAR CHARTS IN EARLY 15TH CENTURY	1863
<i>His-Min Chao</i>	
ACTIVITIES OF OCEAN SATELLITE REMOTE SENSING APPLICATIONS IN SOUTH KOREA: 1) SHIP IDENTIFICATION, 2) OIL SPILL MONITORING, AND 3) SEA ICE AND FOG DETECTION.....	1866
<i>Chan-Su Yang, Tae-Ho Kim, Eun Kyung Oh, Bae Sang Soo</i>	
THE INVESTIGATION OF AIR QUALITY OVER LANGKAWI ISLAND USING LANDSAT TM5	1867
<i>S. A. Hashim, M. Z. Mat Jafri, K. Abdullah, Z. H. Hashim</i>	
ESTIMATING CAMERA FOCAL LENGTH AND ROTATION FROM A SINGLE VANISHING POINT AND SCALE RATIO.....	1873
<i>Po-Lun Lai, Alison Sheets</i>	
SUITABILITY OF THE PERPENDICULAR VEGETATION (PD54) INDEX IN THE AREAS IN WHICH BIOLOGICAL SOIL CRUSTS ARE COMMON	1879
<i>Ardavan Ghorbani, David Bruce</i>	
MEASUREMENT AND PARAMETERS DERIVATION OF RADIOMETRIC CALIBRATION FOR HOPE HYPERSPECTRAL IMAGER.....	1884
<i>Jyun-Yi Lai, Ming-Fu Chen, Long-Jeng Lee, Ting-Ming Huang</i>	
INTEGRATION OF GIS AND DATA MINING TECHNOLOGY FOR LAND MANAGEMENT.....	1890
<i>Ya-Wen Lin, Ming-Chi Wu, Yao-Cheng Kuo, Chi-Farn Chen</i>	
INVESTIGATING THE LOW TEMPERATURE EFFECT ON VEGETATION COVER DURING EARLY SPRING AT LIEN-HUA-CHI EXPERIMENT FOREST IN TAIWAN	1896
<i>Su-Fen Wang, Ya-Ting Liu</i>	
DATA INTEGRATION PLATFORM USING WSN FOR RIVER MONITORING AND MANAGEMENT	1901
<i>Shao-Ang Chen, Hsiu-Yi Ko, Jolyu Liu, Ping-Cheng Lin, Yao-Ming Fang, Zhi-Da Hung, Hong-Bin Yang, Rui-Bin Wu</i>	
EXPLORING OIL AND GAS DEPOSITS BY TEMPERATURE ANOMALY SHOWN IN SATELLITE THERMAL INFRARED IMAGES BEFORE EARTHQUAKES IN THE NORTHERN SOUTH CHINA SEA	1905
<i>Jie Wang, Dengrong Zhang, Junfeng Xu</i>	
STUDY ON DESERTIFICATION MONITORING IN TIBET QIANG POOL NATIONAL NATURE RESERVE BASED ON MODIS VEGETATION INDEX.....	1911
<i>Zhaohong Gong, Wei-Cai Zhou, Yong Du</i>	
RESEARCH ON REMOTE SENSING MONITORING APPLICATION SYSTEM OF WATER RESOURCE BASED ON SWAT MODEL IN TIBET	1920
<i>Zhaohong Gong, Yong Du</i>	
GRAVEL BED ROUGHNESS DETERMINED FROM AIRBORNE LASER SCANNING	1927
<i>Guo-Hao Huang, Chi-Kuei Wang</i>	
USING LANDSAT SATELLITE IMAGERY TO EXAMINE SPATIAL URBAN EXPANSION OF FIVE MUNICIPALITIES IN TAIWAN	1933
<i>Yi-Chia Huang, Chi-Farn Chen, Chi-Ming Chen, Yao-Cheng Kuo, Hsiang-Ling Chien, Yu-Chen Yeh, Pei-Jung Li</i>	
3D MODEL RECONSTRUCTION FROM A SINGLE IMAGE WITH IMU DATA	1939
<i>Tzu-Fei Chen, Huan Chang, Fuan Tsai</i>	
THE USE OF TERRASAR-X TIME-SERIES FOR MONITORING THE HYDRIC STATES OF SLAKING CRUSTS IN AGRICULTURAL FIELDS	1945
<i>Maëlle Aubert, Nicolas Baghdadi, Mehrez Zribi, Mahmoud El Hajj</i>	
INTEGRATING SIFT AND HARRIS CORNER DETECTOR FOR DEFINITE KEYPOINT EXTRACTION FOR IMAGE MATCHING.....	1951
<i>Cheng-Yi Chen, Shih-Hong Chio</i>	

DETECTING SPATIAL CLUSTERS OF NDVI CHANGE IN SOUTH KOREA USING AMOEBA-CH ALGORITHM	1957
<i>Jeong-Hun Lee, Yang-Won Lee</i>	
CAMBODIAN FORESTS BIOMASS ESTIMATION USING ALOS PALSAR 50M MOSAIC DATA FOR REDD+ POLICIES IMPLEMENTATION	1962
<i>Ram Avtar, Haruo Sawada</i>	
PRELIMINARY RESULTS OF THE XSAT IN-ORBIT IRIS CALIBRATION AND VALIDATION CAMPAIGN	1968
<i>Wee Juan Tan, Kim Hwa Lim, Leong Keong Kwoh</i>	
SPATIOTEMPORAL CHARACTERIZATION OF MONGOLIAN GRASSLANDS BASED ON VEGETATION TREND ANALYSIS — REVISITED	1974
<i>Akira Hirano, Bayaraa Batbileg</i>	
USING ITERATIVE WEIGHTING TO FIT THE CIRCULAR PARAMETERS OF VERTICAL CYLINDER IN POINT CLOUDS	1980
<i>Min-Yu Li, Wei Chang, Shih-Hong Chio</i>	
FAULT LINE DETECTION AND MAPPING FOR EARTHQUAKE USING PHOTOGRAMMETRIC TECHNIQUE WITH GPS/INS EXTERIOR ORIENTATIONS	1986
<i>Kuen-Sheng Yeh, Lien-Huang Chen</i>	
SPATIAL APPLICATION OF DISASTER INVESTIGATION AND DECISION SUPPORT WITH MOBILE DEVICE	1992
<i>Chihwei Kuan, Chihyuan Chien</i>	
TECTONIC ACTIVITY OF THE PULI BASIN IN CENTRAL TAIWAN: OBSERVATION FROM SPACE AND FIELDS	1998
<i>Ting-Hsuan Hsu, Chung-Pai Chang, Chih-Heng Lu, Shen-Hsiung Liang</i>	
FOREST TYPE SCREENING BASED ON VEGETATION INDEXES: MYANMAR MANGROVE PERSPECTIVE	2002
<i>Kyaw Sann Oo, Van Ngoc An, Wataru Takeuchi, Nyan Hlaing, Maung Maung Than</i>	
FOREST COVER MAPPING FROM 2001 TO 2010 IN LAO PDR, VIETNAM, MYANMAR AND CAMBODIA	2008
<i>Kyaw Sann Oo, Van Ngoc An, Wataru Takeuchi</i>	
BASIN-WIDE DEBRIS FLOW MONITORING –DEVELOPMENT OF PORTABLE UNITS AND DEPLOYMENT STUDY	2014
<i>Hung-Ping Wang, Yi-Min Huang, Yao-Min Fang, Tine-Yin Chou, Hsiao-Yuan Yin</i>	
SELECTION OF THE OPTIMAL REFUGE DURING THE DISASTER USING GIS	2020
<i>Hironori Uchida, Tsukasa Hosomura, Ryo Watanabe</i>	
CHANGE DETECTION OF LAND USE MAP OBTAINED BY GIS	2024
<i>Kenta Kitazima, Tsukasa Hosomura, Ryo Yamashita, Shinichi Miyano</i>	
AN OPTIMUM TOTAL NUMBER OF CLASSES OF THE UNSUPERVISED WISHART CLASSIFIER FOR FULLY POLARIMETRIC SAR IMAGE DATA	2029
<i>Hiroshi Ohkura, Motoo Ukawa, Yoshio Yamaguchi</i>	
A STUDY ON OCCURRENCE CHARACTERISTICS OF MARINE DEBRIS IN THE YELLOW SEA OF KOREA	2034
<i>Seon-Woong Jang, Hong-Joo Yoon</i>	
IN-FLIGHT CALIBRATION PLAN OF FORMOSAT-5 REMOTE SENSING INSTRUMENT	2040
<i>Kuo-Hsien Hsu, Cynthia Liu, Nai-Yu Chen, Bo Chen</i>	
LESSON AND LEARN OF THE ADJUSTMENT OF GAIN LEVEL SETTINGS FOR FORMOSAT-2 REMOTE SENSING INSTRUMENT	2046
<i>B. H. Wu, J. Y. Liu, K. H. Hsu, A. M. Wu</i>	
AEROSOL CHARACTERISTICS OVER ULAANBAATAR USING SATELLITE REMOTE SENSING	2052
<i>S. Enkhbat, R. Tsolmon</i>	
NUT SPECIES MAPPING FOR DETECTING THE HABITAT SUITABILITY AREA OF JAPANESE MACAQUES (MACACA FUSCATA)	2058
<i>Shota Kanaya, Shota Mochizuki, Takuhiko Murakami</i>	
UPPER OCEAN RESPONSE TO INTENSE TYPHOONS IN THE SOUTH CHINA SEA	2063
<i>Zhe-Wen Zheng, Chung-Ru Ho, Nan-Jung Kuo, Yu-Hsin Cheng</i>	
USING MODIS SATELLITE IMAGE TO OBSERVE LONG TERM DROUGHT	2069
<i>Pei-Yao Yuan, Chi-Farn Chen, Li-Yu Chang</i>	
TREE SPECIES CLASSIFICATION USING AERIAL PHOTOGRAPH AND HIGH-SPATIAL RESOLUTION REMOTELY SENSED DATA IN THE SATOYAMA (SECONDARY FOREST) OF JAPAN	2073
<i>Yuka Watanabe, Takuhiko Murakami, Shota Mochizuki, Ayaka Kotoda, Tomohiko Kamitani</i>	
ALOS/RPC FILE AND ITS APPLICATION TO DISASTER MONITORING	2079
<i>Kazuhiko Tashiro, Yutaka Houraku, Susumu Takagishi</i>	
OPTIMUM NARROW-BAND INDICES FOR ESTIMATION OF VEGETATION WATER CONTENT USING HYPERSPECTRAL REMOTE SENSING CONSIDERING SOIL BACKGROUND	2083
<i>Roshanak Darvishzadeh, Ali Reza Shakiba, Ali Akbar Matkan, Mojgan Mirzaie</i>	
RADIOMETRIC CALIBRATION OF A NOVEL FIELD IMAGING SPECTROMETER SYSTEM (FISS)	2089
<i>Changping Huang, Lifu Zhang, Junyong Fang, Jinnian Wang, Qingxi Tong</i>	
SUCCESSFUL OF REMOTE SENSING AND GIS APPLICATION IN SUPPORTING OPIUM POPPY SURVEY AND ERADICATION IN THAILAND	2095
<i>Varissara Yasamuth, Somsri Tidwongsa, Apichart Chaiwan</i>	

THE STUDY ON 3D MODEL RECONSTRUCTION SOFTWARE ON THE INTERNET— A CASE STUDY OF PHOTOSYNTH AND PHOTOFLY	2101
<i>Jie-Shi Weng, Yi-Ting Tsai, Jin-Tsong Hwang</i>	
TEXTURE ANALYSIS USING GABOR FILTERS FOR IMAGE CLASSIFICATION BASED ON SVM	2107
<i>Yi-Ting Tsai, Jin-Tsong Hwang</i>	
PPP-RTK PLATFORM PERFORMANCE BASED ON SINGLE-FREQUENCY GPS DATA	2113
<i>Dennis Odijk, Peter J. G. Teunissen, Baocheng Zhang</i>	
APPLICATION OF PERSISTENT SCATTERER AND SMALL-BASELINE SAR INTERFEROMETRY IN MONITORING THE SURFACE DEFORMATION IN THE CHOUHUI RIVER ALLUVIAL FAN OF CENTRAL TAIWAN	2119
<i>Yi-An Chen, Chung-Pai Chang, Jiun-Yee Yen</i>	
FEATURE INTEGRATION FROM AIRBORNE IMAGERY AND LIDAR POINT CLOUDS	2125
<i>Yun-Jou Lin, Liang-Chien Chen, Yao-Tsung Lin, Shin-Hui Li</i>	
QUANTIFICATION OF THE MODEL PARAMETER UNCERTAINTIES ON SOIL MOISTURE SIMULATION	2131
<i>Liuying Lin, Zhongli Zhu, Shaomin Liu</i>	
THEMATIC MAPPING SERVICE FOR TIME SERIES GEOSPATIAL DATA VISUALIZATION	2137
<i>Teerayut Horanont, Ryosuke Shibasaki</i>	
AUTOMATIC ROOF MODEL RECONSTRUCTION USING THE TIN-MERGING AND RESHAPING ALGORITHM	2141
<i>Po-Chia Yeh, Jiann-Yeou Rau</i>	
RETRIEVAL OF BOUNDARY LAYER AND CLOUD BASE HEIGHTS IN MANILA FROM A TWO-WAVELENGTH LIDAR MEASUREMENT	2147
<i>Maria Cecilia D. Galvez, Ernest P. Macalalad, Edgar A. Vallar</i>	
A STUDY OF IMAGE REGISTRATION AND COLOR BLENDING FOR CLOSE-RANGE AND AERIAL IMAGES	2152
<i>Han-Szu Chou, Chao-Hung Lin</i>	
A GEO-SPATIAL ANALYSIS OF ELEPHANT INTRUSION IN HUMAN SETTLEMENTS: A STUDY ABOUT THE SEASONAL TRENDS AND THE RELATIONSHIP WITH THE RAINFALL IN SRI LANKA	2158
<i>R. M. C. W. M. Rathnayake, Masahiko Nagai, Kiyoshi Honda</i>	
COMPARISON OF RESIDUAL GEOID HEIGHT MODELING USING LSC AND FFT METHODS IN KOREA	2165
<i>Minkyoo Youm, Hongsik Yun, Dongha Lee, Seongchan Kang</i>	
GEOSTROPHIC CURRENT ESTIMATION FROM THE MOST RECENT MSS AND EARTH GRAVITY MODEL AROUND THE KOREAN PENINSULA	2170
<i>Jaemyoung Cho, Hongsik Yun, Miran Lee, Hyunjoon Cho</i>	
DEVELOPMENT OF SOIL COMPACTION ANALYSIS PROGRAM BASED ON VARIOUS GIS ANALYSIS METHODS	2173
<i>Jiinsang Hwang, Hongsik Yun, Woojin Sung, Mansik Kong</i>	
THE DESIGN AND CALIBRATION OF A PORTABLE PANORAMIC IMAGE MAPPING SYSTEM	2179
<i>Ping-Chuan Wang, Po-Ching Tsai, Yung-Chuan Chen, Yi-Hsing Tseng</i>	
COMPARISON OF SEBAL AND METRIC-BASED EVAPOTRANSPIRATION MODELS IN A SEMI-ARID REGION	2185
<i>Mohammad Mokhtari, Ibrahim Busu, Kave Deilami</i>	
ESTABLISHING 3D VIRTUAL CAMPUS USING OPEN SOURCE SOFTWARE	2192
<i>Fan-En Kung, Jihn-Fa Jan</i>	
VARIATIONS OF SEA LEVEL AND SEA SURFACE TEMPERATURE IN THE KOREAN SEAS IN THE LONG TERMS USING REMOTE SENSING	2198
<i>Seung-Yeol Oh, Hong-Joo Yoon</i>	
ON CHARACTERISTICS OF HARMFUL ALGAL BLOOMS IN THE SOUTHEAST COASTAL WATERS OF KOREA USING SATELLITE DATA	2204
<i>Do-Hyun Hwang, Seung-Yeol Oh, Hong-Joo Yoon</i>	
A STUDY ON UNMANNED AERIAL VEHICLE APPLIED TO ACQUIRE TERRAIN INFORMATION OF LANDSLIDE	2210
<i>Mei-Ling Yeh, Yuan-Chan Hsiao, Yen-Hung Chen, Jo-Chi Chung</i>	
ADAPTIVE CONTRAST STRETCHING METHOD FOR VISUAL ENHANCEMENT OF MODIS IMAGE DISPLAY	2216
<i>Hwa-Seon Lee, Sun-Hwa Kim, Kyu-Sung Lee</i>	
COMBINING PLSR AND KRIGING METHOD TO RETRIEVE SOIL SALINITY WITH ALI DATA IN YELLOW RIVER DELTA	2222
<i>Xingwang Fan, Jinmei Tao, Yongling Wengp</i>	
Volume 4	
STUDIE ON DETECING FOREST DECLINE USING MODIS TIME SERIES COMPOSITE DATA	2228
<i>Atsushi Nakabayashi, Tetsuro Sakai</i>	
A STUDY ON EFFECT OF SWAT'S NON-POINT SOURCE POLLUTION ESTIMATION USING THE ROAD CLASSIFICATION	2232
<i>Dae-Sun Kim, Yong-Cheol Suh</i>	

A SCHEMA DESIGN FOR WEB MAP SERVICE ON THE TRAVEL INFORMATION USING GOOGLE APP ENGINE	2238
<i>Jin-Woo Park, Young-Cheol Suh</i>	
3D BUILDING MODEL RETRIEVAL FOR POINT CLOUD MODELING	2243
<i>Po-Chi Hsu, Jyun-Yuan Chen, Chao-Hung Lin</i>	
DSM MEASUREMENT FOR EXPOSED GRAVEL SURFACE USING CLOSE-RANGE PHOTOGRAMMETRY WITH MULTI-SCALE IMAGES	2249
<i>Jui-Teng Tsung, Chi-Kuei Wang</i>	
ESTIMATING THE DEATH RATE DUE TO THE GREAT EAST JAPAN EARTHQUAKE USING NATIONAL CENSUS AND THE LIST OF THE DEAD	2255
<i>Kenji Naito, Ryosuke Shibasaki</i>	
WEB-BASE EXPERIMENTAL VARIOGRAM MODEL FOR ESTIMATE COASTAL TOPOGRAPHY USING GOOGLE WEB TOOLKIT	2258
<i>Cheng-Tsen Lai, Sung-Shan Hsiao, Tian-Yuan Shih</i>	
A TERRAIN-AIDED NAVIGATION ALGORITHM FOR MARINE SYSTEMS BASED ON CORRELATION METHOD	2264
<i>Omid Elmi, Mohammad Ali Sharifi</i>	
3D BUILDING MODELING FROM LASER SCANNING DATA USING A PLANE-BASED BINARY SPACE PARTITIONING TREE	2270
<i>Changjae Kim, Sang Pil Kim, Joon Heo, Hong-Gyoo Sohn</i>	
POTENTIAL OF FOREST BIOMASS ESTIMATION WITH TOPOGRAPHIC VARIABLES GENERATED FROM SRTM DATA	2274
<i>Mea-How Goh, Mui-How Phua, Toshiya Matsuura, Hirata Yasumasa, Hideki Saito</i>	
SIMPLE APPLICATION OF ANDROID-BASED SMART PHONE FOR FOREST FIELD SURVEY	2280
<i>In-Kyu Jeong, Youngsoo Ryu, Min-Gee Hong, Choen Kim</i>	
DETECTION OF SEASONAL INUNDATED AREA BY USING ALOS/PALSAR IN BRAZILIAN AMAZON	2285
<i>Kanya Tokunaga, Yoshito Sawada, Takahiro Endo, Haruo Sawada</i>	
EFFECT OF GREEN SPACES ON URBAN HEAT DISTRIBUTION USING SATELLITE IMAGERY	2286
<i>Hyunah Choi, Woo-Kyun Lee</i>	

PS-3

STRUCTURAL GEOLOGY IMPLICATIONS AS CRUCIAL FACTORS TO FACILITATE FORMING TYPHOON-TRIGGERED LANDSLIDES: CASE FROM HSAOLIN VILLAGE DURING TYPHOON MORAKOT, 2009	2290
<i>Huang Chih-Chieh, Chang Chung-Pai, Slawomir Jack Giletycz</i>	
HYBRID FEATURE EXTRACTION FOR OBJECT-BASED HYPERSPECTRAL IMAGE CLASSIFICATION	2297
<i>Ting-Yi Li, Pai-Hui Hsu</i>	
ANALYSIS ON PS-INSAR IN TAIWAN	2303
<i>Jia-Shiang Yang, Jaan-Rong Tsay</i>	
REMOTE SENSING AND GIS-BASED ASSESSMENT OF COASTAL VULNERABILITY OF BOLINAO, PANGASINAN TO SEA LEVEL RISE	2309
<i>Sheryl Rose C. Reyes, Ariel C. Blanco</i>	
CHARACTERIZING TEMPORAL VEGETATION DYNAMICS OF WAVELET-FILTERED MODIS EVI TO DETECT LAND USE CHANGE IN JAVA ISLAND	2316
<i>Yudi Setiawana, Kunihiko Yoshino</i>	
ANALYSIS OF LAKE CHANGE USING LANDSAT 7 ETM+ : A CASE STUDY IN LAKE ENRIQUILLO	2322
<i>Sangmin Kim, Joon Heo</i>	
ANALYSIS OF LIGHT DATA ON THE DMSP/OLS SATELLITE IMAGE USING EXISTING SPATIAL DATA FOR MONITORING HUMAN ACTIVITY IN JAPAN	2324
<i>Yuki Akiyama, Ryosuke Shibasaki</i>	
ESTIMATION OF THE DISTRIBUTION OF WATER-PIPELINE LENGTH BASED ON OTHER INFRASTRUCTURE DATA	2330
<i>Tomomi Kobayashi, Fumio Yamazaki, Shigeru Nagata</i>	
AUTOMATIC TIE-POINT MATCHING USING SURF-BASED IMAGE MATCHING SCHEME	2336
<i>Jyun-Ping Jhan, Jiann-Yeou Rau, Chien-Chuan Lin, Yi-Chen Shao</i>	
MODELLING THE RELATIONSHIP BETWEEN TREE CANOPY PROJECTION AREA AND ABOVE GROUND CARBON STOCK USING HIGH RESOLUTION GEOEYE SATELLITE IMAGES	2342
<i>Shyam Kumar Shah, Yousif Ali Hussin, Louise Van Leeuwen, Hammad Gilani</i>	
A DETAILED SPATIAL CLUSTER ANALYSIS TO FINDING DISTRIBUTION PATTERNS OF LONGEVITY POPULATION USING DASYMETRIC MAPPING METHOD	2348
<i>Don-Jeong Choi, Young-Seup Kim, Yong-Chul Suh</i>	
AN OPTIMIZED EMISSIVITY AND TEMPERATURE SEPARATION FROM HYPERSPECTRAL THERMAL INFRARED DATA	2354
<i>Hang Yang, Lifu Zhang, Qingxi Tong, Xiaoyun Cheng</i>	
ATMOSPHERIC TURBIDITY MEASUREMENTS USING A 355NM-532NM LIDAR AND A SUNPHOTOMETER IN MANILA, PHILIPPINES	2360
<i>Edgar Vallar, Ernest Macalalad, Michael Lajara, Ma. Cecilia Galvez</i>	

ALOS PALSAR FOR TEMPORAL ANALYSIS OF SURFACE DEFORMATION ON MUD VOLCANO ERUPTION IN SIDOARJO USING DINSAR TECHNIQUE	2363
<i>Luhur Bayuaji, Josaphat Tetuko Sri Sumantyo</i>	
THE STUDY ON GEOSPATIAL INTEROPERABILITY BASED ON ONTOLOGY INTEGRATION	2367
<i>Chengfang Hu, Liping Di, Wenli Yang, Xiao Xiao</i>	
FMLE SAR SPECKLE FILTER USING THE DISTANCE CONSISTENCY PROPERTY IN HOMOSKEDASTIC LOG-TRANSFORMED DOMAIN	2373
<i>Thanh-Hai Le, Ian V. McLoughlin</i>	
COMPARISON OF GOOGLE MAPS API AND OPENLAYERS FOR WEBGIS DEVELOPMENT	2379
<i>Ping-Yu Huang, Jihn-Fa Jan</i>	
LADYBUG3 CAMERA CALIBRATION	2383
<i>Chih-Yang Chen, Jiann-You Rau</i>	
DEBLURRING THROUGH WATER IMAGE BY USING LUCY-RICHARDSON ALGORITHM	2389
<i>Wei-Shen Lo, Chi-Kuei Wang</i>	
DEVELOPMENT OF PEOPLE MOVEMENT MODEL USING DYNAMIC ESTIMATED POPULATION DATA	2395
<i>Mayumi Hadano, Yuki Akiyama, Ryosuke Shibasaki, Toshikazu Nakamura</i>	
USING VIEWSHED ANALYSIS FOR RIVER MONITORING AND MANAGEMENT	2400
<i>Yi-Jen Lee, Chih-I Fan, Hui-Ju Ho, Li-Yu Chang, Yao-Cheng Kuo, Lung-Cheng Chen, Hsi-Hsin Hsu, Chien-Hsin Liao, Chi-Farn Chen</i>	
RESEARCH ON WETLANDS LANDSCAPE PATTERN CHANGE BASED ON REMOTE SENSING — TAKING DUERBOTE COUNTY FOR EXAMPLE	2405
<i>Huizhen Zhou, Yaobin Chi, Zhiyong Wang, Qiang Wen, Aihua Wang</i>	
LAND SURFACE TEMPERATURE RETRIEVAL BASED ON BEIJING THERMAL INFRARED DATA OF HJ-1B	2411
<i>Qing-Wei Zeng, Li Li, Chang Liu, Jing Zhang, Ai-Hua Wang, Qiang Wen</i>	
SELECTION OF DIFFERENT EXTRATERRESTRIAL SOLAR SPECTRAL IRRADIANCE DATASETS AND ITS EFFECTS ON MEAN SOLAR EXOATMOSPHERIC IRRADIANCE	2417
<i>Shunshi Hu, Lifu Zhang, Yu Su, Li Liu</i>	
A NEW OBSERVATION ERROR ESTIMATION METHOD IN REGIONAL SOIL MOISTURE DATA ASSIMILATION	2423
<i>Mingchao Liu, Qiming Qin, Jinliang Wang, Lin Zhu, Heng Dong, Leilei Chai</i>	
INFILTRATION ROUTE ANALYSIS USING GENETIC ALGORITHM	2429
<i>Sang Pil Kim, Hong Gyoo Sohn, Soo Nam Bang</i>	
MONITORING OF SURFACE DEFORMATION IN NORTHERN TAIWAN USING PSINSAR TECHNIQUES	2431
<i>Kai-Ting Fan, Chung-Pai Chang, Horng-Yuan Yen, Jiun-Yee Yen, Chieh-Hung Chen</i>	
CHANGE OF SEA SURFACE HEIGHT IN THE EAST ASIA SEAS FROM SATELLITE ALTIMETER DATA	2436
<i>Chung-Ru Ho, Yu-Hsin Cheng, Nan-Jung Kuo, Shih-Jen Huang</i>	
COMPARATIVE STUDY OF THREE WAVEFORM RE-TRACKING METHODS TEST FIELD: LOUISIANA WETLAND	2441
<i>Alireza A. Ardalan, Saman Khajeh</i>	
THE GIS MAPPING TO DETECT TEMPORAL CHANGE ON MARINE ENVIRONMENTS AROUND POWER PLANT – CASE STUDY ON ULJIN NUCLEAR POWER PLANT	2447
<i>Jae-Moon Park, Hong-Joo Yoon</i>	
SIMULATION AND ANALYSIS OF AIRBORNE LIDAR BATHYMETRY ON CAPILLARY-GRAVITY WATER SURFACE DETECTION	2453
<i>Chih-Kai Meng, Jen-Jer Jaw</i>	
FORMOSAT-2 GAIN MAP	2459
<i>Shih-Chieh Chou, Kuo-Hsien Hsub, An-Ming Wu</i>	
HIGH-RESOLUTION URBAN AREA MAP FOR 3372 CITIES OF THE WORLD	2465
<i>Hiroyuki Miyazaki, Koichiro Itabashi, Xiaowei Shao, Koki Iwao, Ryosuke Shibasaki</i>	
A FAST TOPOGRAPHIC MAPPING SYSTEM BASED ON PANORAMIC VISION FOR NEAR REGION TERRAIN CORRECTION IN REGIONAL GRAVITY SURVEY	2471
<i>Kaichang Di, Kai Wu, Zhaoqin Liu, Wenhui Wan, Zhizhong Di, Gang Li</i>	
USE OF MODELS, REMOTE SENSING AND GIS TECHNOLOGIES FOR DISASTER MANAGEMENT – ANDHRA PRADESH A CASE STUDY	2477
<i>K. Mruthyunjaya Reddy, B. Manga Rao, P. V. Ramana Murty, A. R. K. Naga Raju</i>	
THRESHOLD-CONSTRAINED MINIMUM SPANNING TREE REGION MERGING METHOLD OF FOREST INVENTORY PATCHES	2482
<i>Bian Zhao, Tang Ping, Zheng Ke</i>	
FORMOSAT-2 IMAGING SIMULATION AND GEOMETRIC ERROR ANALYSIS	2487
<i>Hui-Yu Shen, An-Ming Wu, Gianmarco Radice</i>	
THE STUDY OF TAICHUNG AREA LAND USE CHANGE ON HEAT ISLAND EFFECT	2493
<i>Chia-Wei Ho, Lung-Shih Yang, Pi-Hui Huang, Mei-Ling Ye, Tine-Yin Chou</i>	
STRIP ADJUSTMENT OFAIRBORNE FULL-WAVEFORM LIDAR DATA	2499
<i>Shih-Yuan Lin, Szu-Jui Liao</i>	
VIEWSHED ASSESSMENT OF TRAILS IN MOUNTAIN PARKS, SABAH	2505
<i>Wilson Wong, Mui-How Phua</i>	
PETROLEUM EXPLORATION USING SUBPIXEL IMAGE CLASSIFICATION	2510
<i>Ali Ghafouri</i>	

USING RADAR REMOTELY SENSED DATA FOR HYDROCARBON EXPLORATION	2515
<i>Ali Ghafouri</i>	
INTERDISCIPLINARY UTILIZATION SYSTEM OF EARTH OBSERVATION DATA WITH MULTI DOMAIN GLOSSARY	2517
<i>Masafumi Ono, Masahiko Nagai, Ryosuke Shibasaki</i>	
THE SOLUTION AND AFFECTION OF LTAN DRIFT ON BODY-MOUNTED SOLAR ARRAY	2522
<i>Sun Peihong, Li Deli, Liu Chang, James Northam</i>	
UTILITY OF WAVELET AND REGRESSION ANALYSIS WITH LAND COVER MAP FOR DTM EXTRACTION FROM ASTER GDEM	2528
<i>Ryotaro Takeda, Wataru Takeuchi</i>	
SHADOW DETECTION AND COMPENSATION FOR COLOR AERIAL IMAGES	2534
<i>Chih-Wei Chang, Jaan-Rong Tsay, Ruey-An Chen</i>	
LAND COVER CLASSIFICATION IN UYANGA SUBPROVINCE	2540
<i>N. Enkhjargal, R. Tsolmon</i>	
OPTICAL PERFORMANCE COMPARISON OF TWO DIGITAL AERIAL CAMERA LENSES	2546
<i>Hui-Jean Kuo, Wei-Cheng Lin, Steng-Tsong Chang, Ho-Lin Tsay, Ting-Ming Huang</i>	
BIOMASS OF FIRE-AFFECTED PEAT SWAMP FOREST FROM OBJECT BASED CLASSIFICATION OF QUICKBIRD DATA	2550
<i>Zia-Yiing Ling, Mui-How Phua</i>	
ACQUISITION OF THE DISTRIBUTION OF TSUNAMI-GENERATED DEBRIS	2557
<i>Yushi Nakao, Haruo Sawada</i>	
SIMULATION AND ANALYSIS OF SATELLITE SMART AGILITY IMAGING SYSTEM	2561
<i>Ching-Fu Liao, Pai-Hui Hsu</i>	
THE ASSESSMENT OF WIND ENERGY IN INDONESIA BY USING SATELLITE DATA	2567
<i>Denny Widhiyanuriyawan, Nurkholis Hamidi, Sugiarto, Triyanna Widhiyaningtyas</i>	
SINGLE-FREQUENCY GPS/SBAS RTK POSITIONING USING AUGMENTATION ADAPTIVE EXTENDED KALMAN FILTER	2572
<i>Shiou-Gwo Lin</i>	
GENERATING OF MAPS IN 1:5000 RATIO SCALE WITH HIGH RESOLUTION SATELLITE DATA	2578
<i>Ammar Ghannadi-Maragheh</i>	
SPACE SCIENCE AND REMOTE SENSING EDUCATION IN MONGOLIA	2583
<i>V. Oyudari, R. Tsolmon, N. Enkhjargal, S. Chylyntsetseg</i>	
APPLICATIONS OF OPTICAL AND MICROWAVE RS FOR FOREST MAPPING IN MONGOLIA	2594
<i>D. Amarsaikhan, V. Battsengel, Sh. Amarjargal, E. Egshiglen, M. Ganzorig, D. Enkhjargal</i>	
EVALUATION OF MODEL ESTIMATED ANTHROPOGENIC PM2.5 EMISSIONS OVER ASIA	2599
<i>Hirotoshi Kishi, Wataru Takeuchi, Haruo Sawada</i>	
A STUDY OF SUBTROPICAL FOREST STRUCTURE USING HIGH DENSITY AIRBORNE LIDAR DATA	2605
<i>Chung-Cheng Lee, Chi-Kuei Wang</i>	
FOREST FIRE INFORMATION SYSTEM (FORFIS): TOOLS FOR FOREST FIRE INFORMATION DISSEMINATION	2611
<i>M. H. Siti Atikah, A. P. Norizan, I. Adnan, H. Hasni, C. M. Norhayati</i>	
STRONG UPPER OCEAN COOLING DUE TO THE STIR OF PHET SUPER CYCLONE	2615
<i>K. Muni Krishna</i>	
USING REMOTE SENSING DATA TO MAPPING FOREST FIRE RISK	2621
<i>M. Zaya, R. Tsolmon, B. Khosbayar, M. Saandar</i>	
APPLICATIONS OF FULL SPATIAL RESOLUTION SPACE-BASED ADVANCED INFRARED SOUNDING IN THE PRE-CONVECTION ENVIRONMENT	2627
<i>Chian-Yi Liu, Jun Li</i>	
ESTIMATION OF 3D OBJECT POINTS FROM OMNI-DIRECTIONAL IMAGES ACQUIRED BY A ROTATING LINE CAMERA	2634
<i>Sojung Oh, Impyeong Lee</i>	
HISTORICAL TREATISE OF SHORE DYNAMICS AND SPIT GROWTH NEAR KAKINADA COAST, GODAVARI DELTA, ANDHRA PRADESH	2640
<i>K. Mruthyunjaya Reddy, B. L. Deekshatulu</i>	
DISTRIBUTION SERVICE OF GEOSTATIONARY OCEAN COLOR IMAGER IN KOSC	2646
<i>Sang-Soo Bae, Suk Yoon, Tai-Hyun Han, Hee-Jeong Han, Joo-Hyung Ryu, Yu-Hwan Ahn</i>	
USING COMMERCIAL SOFTWARE TO ENHANCE COMMERCIAL SATELLITE ACQUISITION	2652
<i>Adam Gorski</i>	
EVALUATING CHANGE DETECTION IN KWANGNEUNG EXPERIMENT FOREST USING BOTH ALOS PALSAR AND AVNIR-2	2660
<i>Min-Gee Hong, Joonsoo Choi, Choen Kim</i>	
AN ALGORITHM OF DEFECTS INSPECTION BASED ON A CHIP IMAGE AND METHODS OF EDGE DETECTION AND BINARY IMAGE HISTOGRAM	2664
<i>Ming-Fu Chen, Chun-Chao Chang, Ting-Ming Huang, Jyh-Yeong Chang</i>	
RANGE IMAGE AND PLATFORM CALIBRATION OF MICROSOFT KINECT	2671
<i>M. Saadatseresht, M. Davoodiamidali, M. Shankayi</i>	
IMAGE TO MAP REGISTRATION BASED ON META-HEURISTIC ALGORITHMS	2676
<i>Farhad Samadzadegan, Ghasem Abdi, Seyed Hossein Seyed Pourazar</i>	

DETERMINATION OF INFILTRATION RATE IN TROPICAL WATERSHED USING REMOTE SENSING AND HYDROLOGICAL MODEL	2682
<i>Nor Liyana, Ab. Latif, Muhammad Zulkarnain</i>	
A STUDY ON THE DEVELOPMENT OF TECHNOLOGIES FOR THE MAINTENANCE AND MANAGEMENT OF RIVERS IN CONNECTION WITH RIMGIS (RIVER INFORMATION MANAGEMENT (GIS) IN KOREA)	2686
<i>Kyung Jun Kim, Hyen Cheol Park, Yun Jae Choung, Myung-Hee Jo</i>	
A STUDY ON THE DEVELOPMENT OF EVALUATION TECHNOLOGIES FOR THE RESOURCE AMOUNT OF SOLAR ENERGY BY USING THE SPATIAL INFORMATION TECHNOLOGY	2692
<i>Sung Jae Kim, Yun Won Jo, Myung Hee Jo, Kwangdeuk Kim, Chang Yeol Yun</i>	
GEOMETRIC VERIFICATION OF A LIDAR SIMULATOR	2698
<i>Minsoo Son, Seongjoon Kim, Impyeong Lee</i>	
ESTABLISHING A HORIZONTAL VELOCITY MODEL OF TAIWAN USING GPS OBSERVATIONS AND THE LEAST-SQUARES COLLOCATION TECHNIQUE	2704
<i>Ching-Jung Hung, Ming Yang</i>	
IDENTIFICATION OF LANDSLIDES AND VEGETATION RECOVERY ASSESMENT AFTER HURRICANE MITCH IN LA CEIBA AND EL PORVENIR, HONDURAS.	2710
<i>M. C. Valdez, C. F. Chen, L. Y. Chang</i>	
3D GEO-INFORMATION FOR LADDER TRUCK FIRE-FIGHTING SIMULATION IN URBAN AREAS	2716
<i>Chia-Hao Wu, Liang-Chien Chen</i>	
ASSESSMENT OF 3D POPULATION DISTRIBUTION UNDER TRAFFIC IMPACTS USING GIS AND FINE-RESOLUTION DTMS	2722
<i>Chih-Da Wu, Shih-Chun Candice Lung, Jih-Fa Jan, Yung-Chung Chuang</i>	
THE COMPARATIVE DG ACCURACY ANALYSIS OF A LAND BASED MMS USING LC AND TC INS/GNSS INTEGRATION SCHEMES	2728
<i>Chien-Hsun Chu, Yun-Wen Huang, Kai -Wei Chiang, Jiann-Yeou Rau, Yi-Hsing Tseng</i>	
INTEGRATION OF BUILDING MODELS WITH INFORMATION-BASED ATTRIBUTES	2734
<i>Min-Lung Cheng, Chung-Rui Lee, Fuan-Tsai, Chieh-Tsung Chen</i>	
COMMERCIAL SATELLITE-BASED EARTH OBSERVATION INDUSTRY ANALYSIS	2738
<i>Feng-Tai Hwang, Sheng-Yun Yan, Shih-Chieh Chou</i>	
QUALITY OF MMS FORWARD-PHOTOGRAPHED IMAGE INTERSECTION	2744
<i>Wen-Hau Lan, Jaan-Rong Tsay, Yen-Ting Lee</i>	
LAND COVER CHANGE DETECTION IN MONGOLIA IN LAST DECADE USING MODIS IMAGERY	2750
<i>Narangarav Dugarsuren, Chinsu Lin, Hongor Tsogt</i>	
MOBILE APPLICATION OF OPEN SOURCE REMOTE SENSING USING DORIS AND OTB AS APPLICATION SERVER	2756
<i>Sanggoo Kang, Kiwon Lee</i>	
REMOTE SENSING APPLICATION BASED ON WEB MAPPING API AND HTML5	2762
<i>Kwangseob Kim, Kiwon Lee</i>	
MAPPING SEAWEED DISTRIBUTION USING HIGH-RESOLUTION MULTISPECTRAL IMAGERY	2767
<i>Agustan, Marina C. G. Frederik, Retno Andiastruti, Nani Hendiarti</i>	

SPECIAL SESSIONS

GRSS WORKSHOP

IEEE GEOSCIENCE AND REMOTE SENSING SOCIETY (GRSS) WORKSHOP ON FOREST MAPPING, FOREST CARBON, AND REDD+	2773
<i>N/A</i>	

ISPRS WG VI/1,2 WORKSHOP E-LEARNING 2011 WITHIN ACRS –1

PARADIGM SHIFT IN PHOTOGRAMMETRY	2774
<i>Orhan Altan</i>	
SUSTAINABLE DEVELOPMENT OF E-LEARNING MATERIAL FOR OPENGIS STANDARDS	2775
<i>Robert Kaden, Gerhard König</i>	
SEOS – EARSSEL'S PROJECT ON SCIENCE EDUCATION THROUGH EARTH OBSERVATION FOR HIGH SCHOOLS	2781
<i>Rainer Reuter</i>	
SATELLITE BASED LIVE AND INTERACTIVE DISTANCE LEARNING PROGRAM IN THE FIELD OF GEOINFORMATICS – A PERSPECTIVE OF INDIAN INSTITUTE OF REMOTE SENSING, INDIA	2785
<i>P. L. N. Raju, P. K. Gupta, P. S. Roy</i>	

ISPRS WG VI/1,2 WORKSHOP E-LEARNING 2011 WITHIN ACRS –2

GIS ADOPTION AND DIFFUSION AMONG SENIOR HIGH SCHOOL GEOGRAPHY TEACHERS IN TAIWAN	2792
<i>J. G. Lay, Y. W. Chen</i>	

CLOUD BASED WEB 3D GIS TAIWAN PLATFORM	2798
<i>Whey-Fone Tsai, Jo-Yu Chang, Sheng Yun Yan, Bo Chen</i>	
COMBINING DISTANCE AND FACE-TO-FACE TEACHING AND LEARNING IN SPATIAL COMPUTATIONS	2802
<i>Elizabeth-Kate Gulland, A. G. T. Schut, Bert Veenendaal</i>	
GRAPE - GIS REPETITION USING AUDIO-VISUAL REPETITION UNITS AND ITS LEARNING EFFECTIVENESS	2808
<i>M. Niederhuber, S. Brugger</i>	
THE DEVELOPMENT OF GIS EDUCATIONAL RESOURCES SHARING AMONG CENTRAL TAIWAN UNIVERSITIES	2814
<i>Tien-Yin Chou, Mei-Ling Yeh, Yu-Chen Lai</i>	

ISPRS WG VI/1,2 WORKSHOP E-LEARNING 2011 WITHIN ACRS –3

E-LEARNING AIDED TEACHING PHOTOGRAMMETRY IN NCKU TAIWAN TAIWAN	2818
<i>Jaan-Rong Tsay</i>	
CURRENT SITUATION OF THE EDUCATIONAL PROJECT ON DISASTER PREVENTION IN TAIWAN	2824
<i>Chung-Pai Chang, Yi-An Chen, Ting-Hsuan Hsu</i>	
USE OF OPENLY AVAILABLE SATELLITE IMAGES FOR REMOTE SENSING EDUCATION	2827
<i>C.-K. Wang</i>	
DESIGNING E- GEOGRAPHIC ATLAS OF THAI NGUYEN PROVINCE FOR SCHOOL GEOGRAPHY TEACHING	2831
<i>Hoang Thanh Van</i>	
THE DESIGN OF AN INTERACTIVE E-LEARNING PLATFORM FOR SURVEYING EXERCISE	2835
<i>Shu-Chen Cheng, Peter T. Y. Shih, Shing-Lin Chang, Guan-Yu Chen</i>	

ISPRS WG VI/1,2 WORKSHOP E-LEARNING 2011 WITHIN ACRS –3

AN INTRODUCTION OF SURVEYING AND GEOMATICS EDUCATION WITH E-PLATFORM IN NCTU, TAIWAN	2841
<i>Tee-Ann Teo, Peter Tian-Yuan Shih</i>	
GIS AWARENESS FOR SURVEYORS – A SPATIAL DATA DISTRIBUTION PERSPECTIVE	2844
<i>Jung-Hong Hong, Hone-Jay Chu</i>	

ISPRS TCVIII

INTEGRATED FRAMEWORK OF UTILIZING AMSR2 PRODUCTS	2849
<i>Taikan Oki, Misako Kachi, Kenji Imaoka, Shinta Seto, Kei Yoshimura</i>	
TERRESTRIAL WATER STORAGE VARIATION INFERRED FROM GRACE SATELLITE AND WATER BALANCE	2850
<i>Pat J.-F. Yeh</i>	
ESTIMATION OF RIVER DISCHARGES WITH REMOTELY SENSED IMAGERY	2856
<i>Kazuo Oki, Kohei Hashimoto, Jiro Kakehashi, Panya Polsan, Shinichiro Nakamura, Daisuke Komori, Taikan Oki</i>	
VALIDATING AN ISOTOPIC AGCM WITH NEW SATELLITE MEASUREMENTS OF WATER VAPOR ISOTOPOLOGUES	2860
<i>Kei Yoshimura</i>	
GLOBAL CHANGE OBSERVATION MISSION (GCOM)	2869
<i>Haruhisa Shimoda</i>	

JAXA SAFE (JAPAN AEROSPACE EXPLORATION AGENCY SPACE APPLICATIONS FOR ENVIRONMENT)

SAFE CONCEPT AND SPACE APPLICATION EXAMPLES	2875
<i>Toru Fukuda</i>	
COLLABORATION OF JAXA AND GIC/AIT IN TECHNICAL CAPACITY DEVELOPMENT IN ASIA ON THE APPLICATION OF SPACE BASED TECHNOLOGIES	2876
<i>Lal Samarakoon, Shinichi Sobue, Yuko Inomata</i>	
ABOVE GROUND BIOMASS MAPPING OF MANGROVE FOREST IN QUANG NINH PROVINCE OF VIETNAM BY ALOS PALSAR POLARIMETRIC MEASUREMENTS	2877
<i>Wataru Takeuchi, Dien Vu Tien, Vu Tan Phuong, An Ngoc Van, Kyaw San Oo</i>	
ANALYSIS OF ALONGSHORE BUDGETS OF SEDIMENT TRANSPORT ALONG THE WEST COAST OF SRI LANKA	2878
<i>Gunasekara Kavinda, Yoshimitsu Tajima, Wickramaarachchi Bandula, Lal Samarakoon, Shinichi Sobue, Tomoyuki Nukui</i>	
JAXA-GISTDA RICE CROP MONITORING PROJECT BY ALOS AND THEOS DATA	2879
<i>Kei Oyoshi, Rakwatin Preessan, Nobuhiro Tomiyama, Toshio Okumura, Shinich Sobue</i>	

JAXA ALOS SERIES

ALOS ACHIEVEMENT SUMMARY AND ALOS-2/3..... 2883
Masanobu Shimada, Takeo Tadono, Masuo Takahashi, Masato Ohki, Yousuke Miyagi, Manabu Watanabe, Takeshi Motooka, Tomohiro Shiraiishi, Nobuyuki Kawano, Rajesh Thapa

COMPARING LANDCOVER PATTERNS IN TOKYO, KYOTO, AND TAIPEI USING ALOS MULTISPECTRAL IMAGES..... 2889
Ke-Sheng Cheng, Wei-Chung Hung, Yen-Ching Chen

MONITORING OF ACTIVE DEFORMATION IN COLLISION ZONE OF EASTERN TAIWAN FROM PS-INSAR AND CONTINUOUS GPS OBSERVATION..... 2893
Jyr-Ching Hu, Johann Champenois, Kuan-Chuan Lin, Bénédicte Fruneau, Erwan Pathier

COMBINED ADJUSTMENT OF ALOS SAR AND OPTICAL IMAGES FOR 3D OBJECT POSITIONING..... 2895
Chin-Jung Yang, Liang-Chien Chen

NCDR (NATIONAL SCIENCE AND TECHNOLOGY CENTER FOR DISASTER REDUCTION)

INTRODUCTION OF SAFE TAIWAN INFORMATION SYSTEM (SATIS) FOR DECISION SUPPORT-AN EMERGENCY REMOTELY SENSED GROUP FOR DISASTER SURVEILLANCE..... 2899
Tzu-Yin Chang, Chia-Cheng Yeh, Shang-Yu Wu, Wen-Ray Su, Hsueh-Cheng Chou

SEISMIC HAZARD ASSESSMENT IN TAOYUAN-HSINCHU AREA: INSIGHTS FROM INSAR PERSISTENT SCATTERERS..... 2904
Sin Mei Ng, Jyr-Ching Hu, Chung-Pei Chang, Yih-Min Wu, Shui-Beih Yu

MODIS NEAR REAL-TIME AUTOMATIC ACTIVE FIRE MONITORING SYSTEM FOR SOUTHEAST ASIA - FROM REGIONAL TO NATIONAL SCALE..... 2910
Vivarad Phonekeo, Lal Samarakoon

PERFORMANCE OF DROUGHT MONITORING METHODS TOWARDS YIELD ESTIMATION OVER RICE CROPPING AREA IN JAWA ISLAND, INDONESIA..... 2916
Yuji Hosoya, Wataru Takeuchi

DERIVING LANDSLIDE DAM GEOMETRY FROM REMOTE SENSING IMAGE AND RAPID HAZARD ASSESSMENT..... 2920
Jia-Jyun Dong, Yun-Shan Li, Wen-Shung Li

NSPO (NATIONAL SPACE ORGANIZATION)

MONITORING OF THE TROPOSPHERE AND IONOSPHERE BY USING FORMOSAT-3/COSMIC..... 2926
J. Y. Liu, G. S. Chang

IMAGE RECONSTRUCTION ALGORITHM (STUDY) OF NON-EQUAL SPACING CMOS SENSOR OUTPUT RESPONSE..... 2927
Cynthia Liu, Nai-Yu Chen, Jer Ling

REMOTE SENSING SATELLITE, FORMOSAT-5..... 2933
Michael Tseng, Tony Tsai, Allen Shie, Jer Ling, H. P. Chang

THE FORMOSAT-2 RAPID RESPONSE FOR EMERGENCY OBSERVATION..... 2939
Chen Bo, Chang Li Hsueh, Chou Shih Chieh

THE NEXT GENERATION GNSS RADIO OCCULTATION CONSTELLATION MISSION..... 2945
Chen-Joe Fong, Jer Ling, Nick L. Yen, Vicky Chu, G.-S. Chang, Kendra Cook

SENTINEL ASIA SPECIAL SESSION

OVERVIEW OF SENTINEL ASIA & THE GREAT EAST JAPAN EARTHQUAKE..... 2951
Makoto Kawai, Kazuya Kaku

AN UNIQUE LARGE AREA POST-DISASTER OVERALL ASSESSMENT MECHANISM PROVIDED BY FORMOSAT-2..... 2957
Chen Bo, Chen Chi-Farn

THE DAMAGES BY THE GREAT EAST JAPAN EARTHQUAKE AND THE CONTRIBUTIONS BY SPACE TECHNOLOGY..... 2958
Masaru Arakida, Atsushi Koresawa, Yasuo Kawawaki

DISATER MONITORING BY MULTI-TEMPORAL AND MULTI-SOURCE DATA FOR THE GREAT EAST JAPAN EARTHQUAKE AND TSUNAMI..... 2962
Susumu Takagishi

DATA ANALYSIS NODE (DAN) NETWORK FOR SENTINEL ASIA..... 2965
Masahiko Nagai, Kulapramote Prathumchai

TZU CHI FOUNDATION AND ITS RELIEF WORK IN 311 JAPAN EARTHQUAKE..... 2968
Ching-Kuei Hsieh

WEBCON

WEBCON.....2969

N/A

Author Index