

36th Asian Conference on Remote Sensing 2015 (ACRS 2015)

Fostering Resilient Growth in Asia

Quezon City, Metro Manila Philippines
19-23 October 2015

Volume 1 of 6

Editor in Chief:

Alfredo Mahar Lagmay

ISBN: 978-1-5108-1721-0

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© (2015) by the Asian Association on Remote Sensing
All rights reserved.

Printed by Curran Associates, Inc. (2016)

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

SESSION SP.MO1 – DEVELOPMENTS IN SATELLITE PROGRAMS FOR ASIA

SP.MO1.1 SPOT 6/7 AND PLEIADES CONSTELLATION: NEW PERSPECTIVES FOR MAPPING	1
<i>Jérôme Soubirane, Michael Tonon, Gilles Pichon</i>	
SP.MO1.2 GLOBAL CHANGE OBSERVATION MISSION (GCOM)	6
<i>Haruhisa Shimoda, Yoshiyuki Otake</i>	
SP.MO1.3 MICRO SATELLITES FOSTERING TECHNOLOGY DEVELOPMENT AND TRAINING IN SPACE EMERGING NATIONS	13
<i>Kasia Wisniewska, Alex Da Silva Curiel, Susan Jason, Faïsa Price, Vince Nsengumuremyi, Guiglielmo Aglietti, Martin Sweeting</i>	
SP.MO1.4 NEXT-GENERATION SPACE DEVELOPMENT PIONEERED BY ASIAN MICRO-SATELLITE CONSORTIUM	23
<i>Yukihiro Takahashi</i>	

SESSION SP.MO2 – FOSTERING RESILIENCY WITH REMOTE SENSING

SP.MO2.1 INTEGRATION OF SPATIAL INFORMATION TECHNOLOGY AND MULTIPLE DROUGHT INDICES FOR DROUGHT VULNERABILITY MAPPING IN ODISHA, INDIA	24
<i>S. Sangita Mishra, R. Nagarajan</i>	
SP.MO2.2 DEVELOPING A PHILIPPINE CLIMATE-OCEAN TYPOLOGY AS INPUT TO NATIONAL VULNERABILITY ASSESSMENTS	34
<i>Laura T. David, Roselle Borja-Del Rosario, Ei-Leen L. Peñaflo, Kristina Cordero-Bailey, Flaviana Hilario, Rosalina De Guzman, Cesar L. Villanoy, Wilfre-Do Rhoel Licuanan, Porfirio M. Aliño</i>	
SP.MO2.3 QUANTIFYING SPATIAL-TEMPORAL PAT-TERNS OF URBAN HEAT ISLAND IN BEIJING: AN IMPROVED ASSESSMENT USING LAND SURFACE TEMPERATURE (LST) TIME SE-RIES OBSERVATIONS FROM LANDSAT, MODIS, AND CHINESE NEW SATELLITE GAOFEN-1	39
<i>Kai Liu, Hongbo Su, Xueke Li, Weimin Wang</i>	
SP.MO2.4 USAID NASA JOINT INITIATIVE SERVIR-MEKONG: A NEEDS ASSESSMENT OF GEO-SPATIAL DATA AND TECHNOLOGIES IN THE LOWER MEKONG REGION	49
<i>Gabrielle Iglesias, Peter Cutter, Brett Shields, Bud-Dhadasa Weerasinghe, David J. Ganz, Peeranan Towashiraporn, Sheena Agarwal</i>	

SESSION SP.MO3 – REMOTE SENSING FOR GROWTH AND DEVELOPMENT

SP.MO3.1 THE ROLE OF EDUCATION AND TRAINING IN REMOTE SENSING TECHNOLOGY TRANSFER	51
<i>John Van Genderen, Christine Pohl, Patrick Van Der Heiden</i>	
SP.MO3.2 RESEARCH EXCELLENCE AND GAPS WITHIN GEOINFORMATIC-BASED IN ASEAN REGION ACCORDING TO SCI-VAL SPOTLIGHT ANALYSIS	52
<i>Mazlan Hashim, Amin Beirvand Pour, Nadzri Mohd Reba, S. W. Jaw</i>	
SP.MO3.3 TRACING CLIMATE CHANGE IMPACT ON SOCIOECONOMIC DEVELOPMENT	60
<i>Kyaw Sann Oo, Aung Kyaw Than, Tun Win</i>	

SESSION SP.FR1 – DEVELOPMENTS IN SATELLITE PROGRAMS FOR ASIA

SP.FR1.1 INTERSATELLITE LINK ASSESSMENT FOR THAICHOTE EOS SATELLITE COMMUNICATION ENHANCEMENT	65
<i>Likhit Waranon, Shinichi Nakamura, Wasanchai Vongsantivanich</i>	
SP.FR1.2 MONITORING OF SURFACE DEFORMATION DUE TO EARTHQUAKE USING DINSAR TECHNIQUE AND PALSAR-2 DATA: A CASE STUDY OF THE GORKHA EARTHQUAKE IN NEPAL, 2015	74
<i>Anis Afirah Mohamad Radhi, Md Latifur Rahman Sarker, Nasuha Ishak</i>	
SP.FR1.3 EVALUATION AND IMPROVEMENT OF GEO-METRIC ACCURACY OF HIMAWARI-8/AHI "JAPAN AREA" DATA	82
<i>Masayuki Matsuoka, Atsuko Nonomura, Hitoshi Moriya, Rie Honda, Hiroki Yoshioka, Shin Akatsuka, Masataka Takagi</i>	

SESSION SP.FR2 – FOSTERING RESILIENCY WITH REMOTE SENSING

SP.FR2.1 VIIRS MONITORING OF LIT FISHING BOAT ACTIVITY IN EAST AND SOUTHEAST ASIA	86
<i>Christopher D. Elvidge, Kimberly Baugh, Mikhail Zhizhin, Feng-Chi Hsu</i>	
SP.FR2.2 INTEGRATING DOPPLER-BASED FORE-CASTED RAINFALL AND 2-D FLOOD INUN-DATION MODELING IN THE DEVELOPMENT OF AN URBAN CATCHMENT FLOOD FORECASTING SYSTEM	90
<i>John Louie D. Fabila, Enrico C. Paringit, Khristoffer Ryan Quinton</i>	

SP.FR2.3 GIS-BASED ECOCROP MODELLING TO AS-SESS POTENTIAL CLIMATE CHANGE EFFECTS ON SAGO PALM SUITABILITY DISTRIBUTION	91
<i>Meriam M. Makinano-Santillan, Jojene R. San-Tillan</i>	
SP.FR2.4 A STUDY ON DETECTING DISASTER DAMAGED AREAS	98
<i>Kohei Cho, Kiyonari Fukue, Osamu Uchida, Kazumi Terada , Hiroyuki Wakabayashi, Toshiaki Sato, Chi-Farn Chen</i>	

SESSION SP.FR3 – REMOTE SENSING FOR GROWTH AND DEVELOPMENT

SP.FR3.1 URBAN DEVELOPMENT AND ITS IMPACT ON AGRICULTURAL LANDS	102
<i>Dewayany Sutrisno, Nyoman Gde Ustriyana</i>	
SP.FR3.2 PRELIMINARY DEVELOPMENT OF TIME-SERIES HUMAN SETTLEMENT MAPS USING LANDSAT DATA	109
<i>Hiroyuki Miyazaki, Ryosuke Shibasaki</i>	
SP.FR3.3 IDENTIFICATION OF URBAN EXPANSION THROUGH GIS AND LANDSAT DATA	113
<i>Ahangama Kankanamge Rasika Nishamanie Ranasinghe, Deepika Samantha Munasinghe, Udeni Gnannpriya Anuruddha Puswewala</i>	

SESSION TU1.1 – RS/GIS APPLICATIONS: GEOHAZARDS AND DISASTERS 1

TU1.1.1 OBJECT-BASED CLASSIFICATION OF LAND IMPACTS UNDER TYPHOON PABLO IN COMPOSTELA VALLEY, MINDANAO	123
<i>Tzu-Hsin Chen, Kuan-Hui Elaine Lin, Chung-Pai Chang</i>	
TU1.1.2 APPLICATION OF THE ANALYTIC HIERARCHY PROCESS AND GIS IN SUSCEPTIBILITY MAPPING OF EARTHQUAKE-TRIGGERED LANDSLIDES: A CASE STUDY OF BOHOL ISLAND, CENTRAL PHILIPPINES	132
<i>Noelynna T. Ramos, Kathrine V. Maxwell, Betchaida D. Payot, Nichole Anthony D. Pacl</i>	
TU1.1.3 THE DETECTION OF INCREASING VULNERABILITY TO FLASH FLOOD IN PERI-URBAN AREA OF ULAANBAATAR, MONGOLIA THROUGH SPATIAL ANALYSIS OF VHR SATELLITE IMAGERIES	139
<i>Izuru Saizen, Narumasa Tsutsumida, Reiiichiro Ishii, Masayuki Matsuoka</i>	
TU1.1.4 DEVELOPMENT OF A RISK EVALUATION MODEL FOR RAINFALL-INDUCED FLOOD HAZARD BASED ON HYDROLOGIC FREQUENCY ANALYSIS AND FRAGILITY CURVES	147
<i>Tsu-Chiang Lei, Chun-Ping Chin, Shien Tsung Chen, Yi-Min Huang, You Da Zhong, Re-Yang Lee, Yi-Shiang Shiu</i>	
TU1.1.5 EARTHQUAKE HAZARDS SCENARIO ANALYSIS FOR CHENNAI CITY, INDIA – USING REMOTE SENSING AND GIS TECHNIQUES	154
<i>Ganapathy Pattukandan Ganapathy, Saravana Ganesh Manoharan</i>	
TU1.1.6 ACTIVE SURFACE DEFORMATION IN THE HIMALAYA AND ADJOINING PIEDMONT ZONE OF THE GANGA PLAIN, UTTARAKHAND, INDIA	163
<i>Chung-Pai Chang, Akano Yhokha, Pradeep K Goswami, Jiun-Yee Yen, Kuo-En Ching</i>	

SESSION TU1.2 – RS APPLICATIONS: AGRICULTURE AND SOIL 1

TU1.2.1 IDENTIFICATION OF SMALLHOLDERS’ OIL PALM PLANTATIONS USING ALOS DATA (A CASE STUDY IN LAMPUNG PROVINCE, INDONESIA)	164
<i>Lissa Fajri Yayusman, Ryota Nagasawa</i>	
TU1.2.2 NEAR-REAL TIME METEOROLOGICAL DROUGHT MONITORING AND EARLY WARNING SYSTEM FOR CROPLANDS IN ASIA	171
<i>Wataru Takeuchi, Soni Darmawan, Rizatus Shofi-Yati, Mai Van Khiem, Kyaw San Oo, Uday Pimple, Suthy Heng</i>	
TU1.2.3 TROPICAL PEATLAND IDENTIFICATION USING L-BAND FULL POLARIMETRIC ALOS PALSAR: A CASE STUDY IN CENTRAL KALI-MANTAN, INDONESIA	179
<i>Dandy Aditya Novresandi, Ryota Nagasawa</i>	
TU1.2.4 IDENTIFICATION OF SALINITY AFFECTED BLACK SOIL AREAS AND THEIR ASSESSMENT IN SEMI-ARID REGION	187
<i>Sachin Kishor Patil, R. Nagarajan</i>	
TU1.2.5 MAPPING SOIL WETNESS INDEX TO ASSIST FIELD ACID SULFATE SOIL SURVEY USING MULTI-RESOLUTION REMOTELY SENSED DATA	195
<i>Wirastuti Widyamanti, Yanuar Adjie Nugroho</i>	
TU1.2.6 CHANGE DETECTION OF HIGH MOOR PLANT COMMUNITIES IN THE KUSHIRO WETLANDS BY LOW ALTITUDE BALLOON AND CESSNA IMAGES	N/A
<i>Kunihiko Yoshino, Fusayuki Kanda</i>	

SESSION TU1.3 – ECOLOGY/ENVIRONMENT CHANGE 1

TU1.3.1 ASSESSMENT OF THE VULNERABLE AREA OF CLIMATE CHANGE IMPACTS ON THE COASTAL REGION OF MEKONG RIVER USING GEOGRAPHIC INFORMATION TECHNOLOGY (GIS) TECHNIQUE	201
<i>Nguyen Thi Hong Diep, Vo Quang Minh, Phankieu Diem</i>	

TU1.3.2 INTEGRATION OF REMOTE SENSING DATA AND FIELD STUDIES IN GEO ENVIRONMEN-TAL MAPPING IN SOUTH OF SYRIA	206
<i>Mohamad Rukieh</i>	
TU1.3.3 STUDY ON THE RELATIONSHIP BETWEEN URBAN FORM AND NET PRIMARY PRODUC- TIVITY USING REMOTE SENSING	212
<i>Chi-Chuan Cheng</i>	
TU1.3.4 MAPPING SNOW-ALGAE WITH MULTI-TEMPORAL SATELLITE REMOTE SENSING DATA FOR INDICATOR OF CLIMATE CHANGE EFFECTS IN ANTARCTIC PENINSULA	218
<i>Mazlan Hashim, Syariffudin Misbari, Nadzri Mohd Reba, Mohd Firdaus Abdul-Wahab, Amin Beirvand Pour, Mohd Fahrid Muhamad Saïd, Abdul Hafidz Omar, Kamaruzaman Soeed</i>	
TU1.3.5 THE IMPACT OF LANDCOVER CHANGES ON CARBON STOCK: A STUDY CASE IN CEN-TRAL KALIMANTAN FOREST	224
<i>Irmadi Nahib, Suharto Widjojo</i>	
TU1.3.6 CHANGE DETECTION OF HIGH MOOR PLANT COMMUNITIES IN THE KUSHIRO WETLANDS BY LOW ALTITUDE BALLOON AND CESSNA IMAGES	233
<i>Kunihiko Yoshino, Fusayuki Kanda</i>	

SESSION TU1.4 – NEW GENERATION SENSORS AND APPLICATIONS 1

TU1.4.1 FOURTH-DIMENSIONAL OPTICAL HOLO-GRAM INTERFEROMETRY OF RAPID EYE FOR JAPAN TSUNAMI EFFECTS	240
<i>Maged Marghany</i>	
TU1.4.2 A PILOT STUDY ON THE USE OF HANDHELD LASER SCANNER FOR LANDFORM MAPPING AND SLOPE INVESTIGATION IN HONG KONG	246
<i>Anthony C. T. So, Loretta L. Y. Pau, David Jonas, Brenton Weigler</i>	
TU1.4.3 A NEW APPROACH TO GROUND INFRA-STRUCTURE – KSAT SMALL ANTENNA NETWORK	257
<i>Kenneth Olafsson, Martin Krynitc</i>	
TU1.4.4 INVESTIGATING SHORT-TERM TREND OF SOCIO-ECONOMIC DATA BY NPP-VIIRS DNB	261
<i>Naoki Katayama, Wataru Takeuchi</i>	
TU1.4.5 LEVERAGING GEOSPATIAL BIG DATA	271
<i>Shailesh Shankar</i>	
TU1.4.6 21AT AND ITS TRIPLESAT CONSTELLATION SERVICES	272
<i>Wei Sun</i>	

SESSION TU1.5 – SPECIAL SESSION: PHIL-LIDAR 1

TU1.5.1 COMPARATIVE ANALYSIS OF DIGITAL ELEVATION MODELS GENERATED WITH SFM (STRUCTURE-FROM-MOTION) USING AERIAL IMAGERY AND WITH LIDAR (LIGHT DETECTION AND RANGING) TECHNOLOGY	273
<i>Mark Sueden Lyle Magtalas, Edgardo V. Gubatanga, Jovelle Anjeanette S. Canlas</i>	
TU1.5.2 COMPARISON OF DIFFERENT MACHINE LEARNING CLASSIFIERS FOR BUILDING EXTRACTION IN LIDAR-DERIVED DATASETS	282
<i>Ivan Marc H. Escamos, Allen Roy C. Roberto, Edwin R. Abucay, Gillian Katherine L. Inciong, Miyah D. Queliste, Joseph Anthony C. Hermocilla</i>	
TU1.5.3 BUILDING FOOTPRINT EXTRACTION AND TREE REMOVAL IN LIDAR-DERIVED DIGITAL ELEVATION MODELS	292
<i>K. Martin, L. T. O. Pengson, G. Bernardez, M. J. Sinnaco, M. R. S. Soriano, C. S. Pascua</i>	
TU1.5.4 EVALUATION OF BUILDING FOOTPRINT GENERATION FROM LIDAR DATA AND OR- THOIMAGES USING OBJECT-BASED ANALYSIS TECHNIQUE	297
<i>Elainne Lopez, Harmond F. Santos, Raymund Rhommel C. Sta. Ana, Sarah Jane Samalboro</i>	

SESSION TU1.6 – DATA PROCESSING: ALGORITHM AND MODELING 1

TU1.6.1 SATELLITE REMOTE SENSING IMAGE RESTORATION BASED ON MARKOV RANDOM FIELDS	307
<i>Zhingzhong Wang, Qingjun Zhang</i>	
TU1.6.2 COMPARATIVE PERFORMANCE ANALYSIS BETWEEN TOPOGRAPHIC CORRECTION MODELS FOR LANDSAT-8 OLI IMAGES	315
<i>Sung-Hwan Park, Hyung-Sup Jung</i>	
TU1.6.3 THE APPLICATION OF SUPPORT VECTOR MACHINES AND RANDOM FORESTS FOR INTERPRETING GARLIC PLANTED FIELDS	320
<i>Chia-Yi Tsai, Re-Yang Lee, Deng-Yuan Ou</i>	
TU1.6.4 FUSION OF OPTICAL AND SAR IMAGES FOR ENHANCEMENT OF FOREST CLASSES	330
<i>D. Amarsaikhan, V. Battsengel, G. Bolor, D. Enkhjargal, E. Jargaldalai</i>	
TU1.6.5 IMAGE ANALYSIS BASED ON PROBABILISTIC MODELS	335
<i>Christian Heipke, Franz Rottensteiner</i>	

TU1.6.6 RESEARCH ON SPATIAL-TEMPORAL-SPECTRAL DATA (SPATS) ORGANIZATION FOR SATELLITE IMAGES	343
<i>Lifu Zhang, Jun Yan, Dongjie Fu, Hao Chen, Xuejian Sun, Qingxi Tong</i>	

SESSION TU1.7 – REMOTE SENSING AND GIS INTEGRATION 1

TU1.7.1 UTILIZATION OF SRTM V3 AND ZONAL ANALYSIS FOR STUDYING THE EFFECTS OF LOCATION AND TOPOGRAPHICAL FACTORS TOWARD PRECIPITATION IN JAWA TENGAH AND D.I. YOGYAKARTA, INDONESIA	351
<i>Hamim Zaky Hadibasyir, Rizkalia Atika</i>	
TU1.7.2 A STUDY ON THE HOME RANGE AND HABITAT UTILIZATION OF A TRANSLOCATED ELEPHANT USING REMOTE SENSING AND GIS	359
<i>Suhaida Aini, Norizan Abdul Patah, Alias Mohd Sood, Salman Saaban</i>	
TU1.7.3 MICRO-LEVEL DROUGHT VULNERABILITY ASSESSMENT USING STANDARDISED PRECIPITATION INDEX, STANDARDISED WATER-LEVEL INDEX, REMOTE SENSING AND GIS	369
<i>Ramakrishna Nagarajan, Ganapuram Sreedhar</i>	
TU1.7.4 REMOTE SENSING AND GIS APPLICATION ON CHANGE DETECTION IN COASTAL ZONE OF AMU DARYA AT EMAM SAHEP DISTRICT OF KUNDUZ IN NORTH OF AFGHANISTAN	377
<i>Arzu Erenler, M. Reza Shirzad</i>	
TU1.7.5 APPLICATION OF REMOTE SENSING AND GIS FOR MEDICAL GEOGRAPHY: A CASE STUDY OF MALARIA AND DENGUE MAPPING IN LY SON ISLAND, QUANG NGAI PROVINCE, VIETNAM	385
<i>Binh Quang Bui</i>	
TU1.7.6 GEOSPATIAL CHARACTERIZATION OF SCHISTOSOMIASIS AFFECTED AREAS IN MAINIT, SURIGAO DEL NORTE	391
<i>Joy Mae S. Jadap, Meriam M. Santillan, Jojene R. Santillan</i>	

SESSION TU2.1 – RS/GIS APPLICATIONS: GEOHAZARDS AND DISASTER 2

TU2.1.1 DETECTION OF LANDSLIDES IN THE 2015 GORKHA, NEPAL EARTHQUAKE USING SATELLITE IMAGERY	400
<i>Risako Tsuchida, Wen Liu, Fumio Yamazaki</i>	
TU2.1.2 USING LIDAR AND CBMS DATA TO DEVELOP DISASTER PREPAREDNESS TOOLS FOR CANAMAN MUNICIPALITY AND AN INTRODUCTION TO CREATING DISASTER SIMULATIONS USING AERO3DPRO®	410
<i>Ralph Lante</i>	
TU2.1.3 3D MODEL GENERATION USING AERIAL IMAGES OBSERVING THE 2014 HIROSHIMA DEBRIS FLOW AND COMPARISON WITH LIDAR DATA	418
<i>Hiroyuki Kawano, Masashi Matsuoka, Toshiaki Sato, Hideo Suzuki, Isao Sato, Jun Miura</i>	
TU2.1.4 ASSESSMENT OF TERRAIN STABILITY MAPPING THROUGH COMPARISON OF MOST LIKELY LANDSLIDE INITIATION POINTS WITH MAPPED LANDSLIDE AREAS OF COMPOSTELA VALLEY	424
<i>Carmille Marie Escape, Maricar Rabonza, Paul Kenneth Luzon, Alfredo Mahar Lagmay</i>	
TU2.1.5 THE GROWTH OF NISHINOSHIMA ISLAND AS OBSERVED BY SPACEBORNE SAR	433
<i>Tadashi Sasagawa, Fukashi Maeno</i>	
TU2.1.6 FLOOD HAZARD MAPPING OF MAINIT-TUBAY RIVER BASIN, MINDANAO, PHILIPPINES USING LIDAR AND NUMERICAL MODELS	440
<i>Arthur M. Amora, Jojene R. Santillan, Meriam Makinano-Santillan, Jennifer T. Marqueso</i>	

SESSION TU2.2 – RS APPLICATIONS: COASTAL ZONE AND FISHERIES 1

TU2.2.1 CELLULAR AUTOMATA-MARKOV MODEL OF VEGETATION COVER CHANGES ON A SMALL ISLAND SPERMONDE ARCHIPELA-GO, INDONESIA	451
<i>Muhammad Akbar Achmad Sohopi, Buce Saleh, Nurjannah Nurdin, Ibnu Sofian</i>	
TU2.2.2 ESTIMATION OF THE THERMAL FRONT MOVEMENT FOR COASTAL AREAS BASED ON SEA SURFACE TEMPERATURE FROM LANDSAT 8 (CASE STUDY: THE NORTH COAST OF JAVA ISLAND, INDONESIA)	465
<i>Rossi Hamzah, Syarif Budhiman</i>	
TU2.2.3 THE ASSOCIATED SATELLITE IMAGERY AND COASTAL RADAR FOR OIL SPILL MONITORING	472
<i>Nuttorn Kaewpoo, Siriluk Prukpitikul, Varatip Buakaew, Watchara Kesdech, Apisit Kongprom</i>	
TU2.2.4 USING REMOTE SENSING AND GIS TO PERFORM MONITORING OF FISH CORRALS AND SUITABILITY ANALYSIS ON POSSIBLE AREAS OF ERECTION IN VICTORIAS CITY, NEGROS OCCIDENTAL	480
<i>Mark Anthony A. Cabanlit, Judith R. Silapan, Ariadne Victoria S. Pada, Florencio Campomanes V, Julius Jason S. Garcia</i>	
TU2.2.5 INTER-ANNUAL CHANGES OF TSM IN SOUTHERN MARINE REGIONS OF VIETNAM: AN OBSERVATION OF MODIS AND IN-SITU DATA	490
<i>Phan Minh-Thu, Bui Hong Long, Pham Thi Phu-Ong Thao, Michael S. Twardowski, Thai Tieu Minh, Nguyen Huu Huan</i>	

TU2.2.6 USING OBJECT BASED IMAGE ANALYSIS IN EXTRACTING NEARSHORE AQUACULTURE FEATURES IN VICTORIAS CITY, NEGROS OCCIDENTAL	498
<i>Mark Anthony A. Cabanlit, Judith R. Silapan, Ariadne Victoria S. Pada, Florencio Campomanes, Julius Jason S. Garcia</i>	

SESSION TU2.3 – RS APPLICATIONS: VEGETATIONS AND CROPS 1

TU2.3.1 A COMPARISON OF GROUND AND SATELLITE BASED PHENOLOGIES FOR MONITORING RICE FIELD	507
<i>Narut Soontranon, Siam Lawawirojwong, Kulsawasd Jitkajornwanich, Panu Srestasathiem, Preesan Rakwatin</i>	
TU2.3.2 SPATIAL PATTERNS AND PLANT SPECIES ASSOCIATIONS OF COFFEE (COFFEA SPP.) ALONG THE EASTERN SLOPES OF MOUNT MAKILING FOREST RESERVE, LUZON PHILIPPINES	517
<i>Vanessa Gail L. Borja, Damasa Magcale-Macandog, Ivy Amor Lambio, Roland Brandl, Stefan Hotes, Josef Settele, Martin Wiemers</i>	
TU2.3.3 VALIDATION OF NDVI-LAI MODEL FOR A CORN PLOT IN ILAGAN CITY, ISABELA, PHILIPPINES USING GROUND MEASUREMENTS AND MODIS	527
<i>Edgardo Tongson, Daniel Marc G. Dela Torre, Gay Jane P. Perez</i>	
TU2.3.4 RICE CROP MAPPING WITH RADARSAT-2 DATA IN THE MIDDLE OF TAIWAN	528
<i>Jyun-Bin Chen, Chi-Farn Chen, Nguyen-Thanh Son, Ly-Yu Chang, Cheng-Ru Chen</i>	
TU2.3.5 SPATIAL DISTRIBUTION OF SUGAR PALM (ARENGA PINNATA MERR.) IN GUNUNG BEDIL RESORT GUNUNG HALIMUN SALAK NATIONAL PARK	535
<i>Soraya Nurul Ichwani</i>	
TU2.3.6 SATELLITE-BASED DAMAGE ASSESSMENT OF RICE GROWING AREAS AFTER THE 2011 TSUNAMI IN JAPAN	544
<i>Nguyen-Thanh Son, Chi-Farn Chen, Cheng-Ru Chen</i>	

SESSION TU2.4 – HYPERSPECTRAL SENSING 1

TU2.4.1 AN IMAGE SEGMENTATION ALGORITHM FOR THE HYPERSPECTRAL REMOTE SENSING IMAGE	549
<i>Ke Wang</i>	
TU2.4.2 WATER STRESS ASSESSMENT IN MAIZE CROP USING FIELD HYPERSPECTRAL DATA	555
<i>V. S. Manivasagam, Ramakrishna Nagarajan</i>	
TU2.4.3 CROWN SEGMENTATION OF RAMIN MELAW-IS TREE USING HYPERSPECTRAL IMAGERY	563
<i>Zulkiflee Abd Latif, Sitoratikah Nordin, Hamdan Omar</i>	
TU2.4.4 SEMI-SUPERVISED EXTRACTION OF ECONOMIC ZONES IN URBAN AREA USING HYPERSPECTRAL DATA	571
<i>Shailesh Shankar Deshpande, Kunal Ray, Har-Rick Vin, Arun Inamdar</i>	
TU2.4.5 SPECTRAL DISCRIMINATION OF <i>Prosopis glandulosa</i> (MESQUITE) IN ARID ENVIRONMENT OF SOUTH AFRICA; TESTING THE UTILITY OF IN SITU HYPERSPECTRAL DATA AND GUIDED REGULARIZED RANDOM FOREST ALGORITHM	580
<i>Nyasha F. Mureriwa, Elhadi Adam, Anshuman Sahu, Solomon Tesfamichael</i>	
TU2.4.6 SUPERRESOLUTION OF HYPERSPECTRAL IMAGES USING LINEAR SPECTRAL UNMIXING AND SPARSE CODING	590
<i>Azam Karami, Zahra Nezhad Hashemi</i>	

SESSION TU2.5 – SPECIAL SESSION: PHIL-LIDAR 1

TU2.5.1 FLOOD HAZARD MAPPING OF RIVER BASINS IN CARAGA REGION, MINDANAO, PHILIPPINES THROUGH THE CSU PHIL-LIDAR 1 PROJECT	599
<i>Meriam Makinano-Santillan, Jojene R. Santillan</i>	
TU2.5.2 FLOOD HAZARD MAPPING USING LIDAR TECHNOLOGY IN TALOMO RIVER DAVAO DEL NORTE: THE SCOPE AND CHALLENGES ENCOUNTERED	611
<i>Joseph E. Acosta, Genelin Ruth P. James, Ryan P. Calvo, Cinmayii G. Manliguez, Ryan Keath L. De Leon, Richard M. Logronio</i>	
TU2.5.3 SEDIMENT YIELD AND SOIL SUSTAINABILITY ASSESSMENT IN TAGANIBONG WATERSHED USING GEOWEPP MODEL	620
<i>George R. Puno, Angela Grace T. Bruno, Melanie S. Norbe, Rose Angelica L. Amper</i>	
TU2.5.4 AUTOMATED FILTERING OF NON-TERRESTRIAL POINTS FROM A LIDAR POINT CLOUD DATA USING A PYTHON SCRIPT	628
<i>Edgardo V. Gubatanga Jr., Ma. Rosario Concepcion O. Ang</i>	
TU2.5.5 HYDROLOGIC MODEL FOR THE PREDICTION OF RUNOFF FOR OGD WATERSHED	635
<i>Ferdinand E. Bien, Herminio A. Magpantay, Emelina G. Regis</i>	
TU2.5.6 LAND COVER CLASSIFICATION USING LIDAR DATA	645
<i>Felen A. Divina II, Dante M. Aquino, Jose Felipe P. Romero</i>	

SESSION TU2.6 – GIS APPLICATIONS, DECISION SUPPORTS AND MODELS 1

TU2.6.1 GIS APPLICATIONS AND AGRICULTURE MODEL: A CASE STUDY IN HAI PHONG, VIETNAM	651
<i>Thanh Van Hoang, Tien Yin Chou</i>	

TU2.6.2 DEFENSE GEO-DATABASE: DRUG TRAFFICKING	659
<i>Ornprapa Robert, Yongyoot Witheetrirong, Ampun Janpengpen, Colonel Chatree Kittikachorn</i>	
TU2.6.3 EVACUATION SITE EVALUATION THROUGH GIS HAZARD SUSCEPTIBILITY MAPPING	665
<i>Maria Cecilia Paringit, Jan Michael Taylo, Alexis Fillone</i>	
TU2.6.4 DEVELOPMENT OF ARCGIS-CUSTOMIZED TOOL FOR FLOOD RISK ASSESSMENT AND REPORT GENERATION IN BUTUAN CITY	666
<i>Alexander T. Demetillo, Michelle V. Japitana, Dennis Y. Villanueva, Cherry Mae P. Tulfo</i>	
TU2.6.5 SENSING QUALITY OF LIFE IN MANGGAR CITY USING GIS AND MULTICRITERIA DECISION MAKING	674
<i>Mohamad Marzuki Tambunan, Ishar Isnaldi, Fahrudin Sera'le</i>	
TU2.6.6 CRITICAL PATH ANALYSIS FOR DISASTER RELIEF EFFORTS IN TYPHOON HAIYAN-AFFECTED MUNICIPALITIES BASED ON MUL-TI-CRITERIA EVALUATION APPROACH	680
<i>Christopher Ian P. Santos, Ken Adrian B. Ara-Can, Dinnah Feye H. Andal</i>	

SESSION TU3.1 – RS APPLICATIONS: FOREST RESOURCES 1

TU3.1.1 MONITORING AND PREDICTING THE CHANGE OF MANGROVE FORESTS IN IRRA-WADDY DELTA, SOUTH MYANMAR	690
<i>Shou-Hao Chiang</i>	
TU3.1.2 USING MODIS TIME SERIES DATA TO DETECT FOREST COVER CHANGE DURING 2000 TO 2010: A CASE STUDY OF DAXING'ANLING AREA, CHINA	695
<i>Zou Taohong, Yoshino Kunihiko</i>	
TU3.1.3 CHARACTERIZATION OF MANGROVE FOREST TYPES BASED ON ALOS-PALSAR MOSAIC FOR ESTIMATING ABOVE GROUND BIOMASS IN SOUTH EAST ASIA	702
<i>Soni Darmawan, Wataru Takeuchi, Etsuko Naka-Zono, Yenni Vetrira, Gathot Winarso, Vu Tien Dien, Kyaw San Oo, Ketut Wikantika, Dewi Kania Sari</i>	
TU3.1.4 COMPARATIVE PERFORMANCE OF FOREST FIRE DETECTION IN KOREA D.P.R. BY MODIS AND TIRS	712
<i>Masataka Mizutani, Wataru Takeuchi, Masao Moriyama</i>	
TU3.1.5 CARBON MONITORING IN TROPICAL AND TEMPERATE FORESTS BASED ON INTER-FEROMETRIC SAR	718
<i>Karl H. Thunes, Svein Solberg</i>	
TU3.1.6 EXAMINING TEXTURE PARAMETERS OF ALOS PALSAR-2 DATA FOR ESTIMATING TROPICAL FOREST CARBON STOCKS: A PRELIMINARY RESULT	726
<i>Rajesh Bahadur Thapa, Manabu Watanabe, Takeshi Motohka, Masanobu Shimada, Shinichi Suzuki, Takuya Itoh</i>	

SESSION TU3.2 – RS APPLICATIONS: LAND USE / LAND COVER 1

TU3.2.1 PHENOLOGY-BASED CLASSIFICATION OF LANDSAT-8 DATA, CASE STUDY OF THE RED RIVER, VIETNAM	730
<i>Hang Thi Thuy Nguyen</i>	
TU3.2.2 MAPPING SPATIAL PATTERNS AND URBAN MORPHOLOGY CHANGES DUE TO SPECIAL ECONOMIC ZONES IN THE UNITED ARAB EMIRATES USING LANDSAT ARCHIVAL DATA	731
<i>Naeema Alhosani</i>	
TU3.2.3 AN OBSERVATORY OF LAND SURFACE TEMPERATURE CHANGES BY LAND USE AND LAND COVER CHANGES OF YANGON MEGA CITY, MYANMAR	741
<i>Khin Mar Yee, Hoyong Ahn, Dong Yoon Shin, Jinwoo Park, Hohyun Jeong, Chuluong Choi</i>	
TU3.2.4 RAPID DETERMINATION OF LAND USE/COVER CHANGES USING DATA FUSION	751
<i>Sinasi Kaya, Cem Gazioglu, Elif Sertel, Dursun Z. Seker, Ugur Alganci</i>	
TU3.2.5 LANDUSE/LANDCOVER EXTRACTION FROM SPOT 6 IMAGERY USING OBJECT IMAGE ANALYSIS APPROACH: A CASE STUDY OF JAKARTA, INDONESIA	756
<i>Zylshal Zylshal, Fajar Yulianto, Junita M. Pasa-Ribu, Indah Prasasti</i>	
TU3.2.6 USING COLLECT EARTH TO ASSESS AND MONITOR LAND USE CHANGE IN SELECTED REGIONS OF THE PHILIPPINES	766
<i>Guillermo Mendoza, Giulio Marchi, Mayumi Quintos-Natividad, Mark De Claro, Nilda Patiga, Bonifacio Rabang, Ildefonso Quillooy, Danilo Mollicone, Adiya Bey, Alfonso Sanches Paus-Diaz</i>	

SESSION TU3.3 – RS APPLICATIONS: WATER QUALITY AND RESOURCES

TU3.3.1 SECCHI DEPTH: THEORETICAL INTERPRETATION OF THE MOST COMMON WATER-QUALITY PRODUCT	776
<i>Zhongping Lee, Shaoling Shang, Chuanmin Hu, Keping Du, Alan Weidemann, Weilin Hou, Junfang Lin, Gong Lin</i>	
TU3.3.2 DEVELOPMENT OF WATER INFORMATION SYSTEM FOR SWG BASED SIMULATION ANALYSIS	782
<i>Jaehyun Yoo, Kyehyun Kim, Yonggil Park</i>	
TU3.3.3 CHANGES IN WATER QUALITY AT BUNG RIVER BASIN, QUANG NAM AFTER THE DAM CONSTRUCTION	789
<i>Hung Nguyen Viet, Long Bui Ta</i>	

TU3.3.4 UTILIZING SPOT 5 IMAGERY FOR WATER QUALITY STUDY IN BATANG LASSA (LASSA RIVER) UPPER STREAM, SARAWAK	796
<i>Kasumaiya Mahajir, Ahmad Nadzri Mohamed, Norizan Abdul Patah, Abdul Majid Wahab</i>	

VOLUME 2

TU3.3.5 GEOSTATISTICAL ANALYSIS OF WATER QUALITY IN BOLINAO, PANGASINAN	803
<i>Roseanne V. Ramos, Ariel C. Blanco</i>	
TU3.3.6 POPULATION GROWTH AND IMPACTS OF NILE WATER DEFICIENCY ON EGYPT USING GIS AND OTHER TECHNIQUES	812
<i>Ahmed Ibrahim Ramzi, Alaa El-Nahry</i>	

SESSION TU3.4 – SPECIAL SESSION: JAXA

TU3.4.1 COMBINING REMOTE SENSING AND STATISTICAL TECHNIQUES TO IMPROVE RICE AR-EA AND PRODUCTION ESTIMATES	822
<i>Lakshman Nagraj Rao</i>	
TU3.4.2 MONITORING OF RICE CROP IN THE ME-KONG DELTA VIETNAM USING RADAR RE-MOTE SENSING DATA	823
<i>Nguyen Lam-Dao, Thuy Le-Toan, Phung Hoang-Phi, Thy Pham-Thi-Mai</i>	
TU3.4.3 CONNECTING REMOTE SENSING WITH INTERNATIONAL DEVELOPMENT	824
<i>Tadayoshi Yahata</i>	
TU3.4.4 OVERALL OF JAPAN ACTIVITY FOR RS APPLICATION	825
<i>Shinichi Sobue, Yutaka Kaneko, Ko Hamamoto, Michihiro Koide, Kei Oyoshi, Lal Samarakoon, Tsugito Nagano, Toshio Okumura</i>	

SESSION TU3.5 – SPECIAL SESSION: PHIL-LIDAR 2

TU3.5.1 OBJECT-BASED IMAGE ANALYSIS FOR MANGROVES EXTRACTION USING LIDAR DATASETS AND ORTHOPHOTO	831
<i>Rey L. Jalbuena, Rudolph V. Peralta, Ayin M. Tamondong</i>	
TU3.5.2 USING UNCALIBRATED LIDAR INTENSITY FOR CLASSIFICATION OF AGRICULTURAL CROPS IN PANGASINAN, PHILIPPINES	839
<i>Coleen D. U. Carranza, Ariel C. Blanco</i>	
TU3.5.3 GENERATION OF LAND COVER CLASSIFICATION MAP FROM LIDAR AND AERIAL IMAGE USING OBJECT BASED IMAGE ANALYSIS AND FLOOD SUSCEPTIBILITY ASSESSMENT OF AGRICULTURAL AREAS	848
<i>Ronaldo T. Alberto, Shirley C. Serrano, Guiller B. Damian, Eliza E. Camaso, Ariel R. Biagtan, Mi-Guelito F. Isip, Klifford M. Orge, Mark Joseph C. Quinto, Romnick C. Tagaca</i>	
TU3.5.4 URBAN WIND FLOW SIMULATION OF LIDAR-EXTRACTED BUILDING GEOMETRY IN UP DILIMAN, QUEZON CITY, PHILIPPINES USING COMPUTATION FLUID DYNAMICS MODEL	855
<i>Jara Kaye S. Villanueva, Ma. Rosario Con-Cepcion O. Ang, Loureal Camille V. Inocencio, Ma. Victoria D. Rejuso, Jerome T. Tolentino</i>	
TU3.5.5 DELINEATING WATER EDGES FROM LIDAR DTM USING BANKFULL-FLOODING TECHNIQUE	864
<i>Kevin Angelo C. Gonzales, Noel Jerome B. Borlongan, Nestor T. Olfindo, Roel M. De La Cruz, Anjillyn Mae C. Perez</i>	
TU3.5.6 COUPLING LIDAR DATA AND LANDSAT 8 OLI IN DELINEATING CORN PLANTATIONS IN BUTUAN CITY, PHILIPPINES	865
<i>Michelle V. Japitana, James Earl D. Cubillas, Arnold G. Apdohan</i>	

SESSION TU3.6 – GIS VISUALIZATION 1

TU3.6.1 THE COMPARISON OF FLOOD AREA BETWEEN TWO DIFFERENCE DETERMINISTIC SURFACES	873
<i>Anujit Vansarochana</i>	
TU3.6.2 CU-VIDEO TRACKER: QGIS PLUGIN FOR VIDEO TRACKER	879
<i>Suchawadee Sillaparat, Sanphet Chunithipai-San</i>	
TU3.6.3 A STUDY ON THE EFFICIENT IMAGE TRANSMISSION TECHNIQUE FOR THE GIS DIGITAL MAP	884
<i>Myung-Hee Jo, Dong-Hyun Kim, Ju-Sung Park, Jin-Hwan Park</i>	
TU3.6.4 3D URBAN SIMULATION FOR EARTH-QUAKE RISK ASSESSMENT	892
<i>Javkhaa Gereltuya</i>	
TU3.6.5 RASTER MAPPING OF TOPOGRAPHIC PARAMETERS DERIVED FROM HIGH RESOLUTION DIGITAL ELEVATION MODELS	900
<i>Yi-Hua Wang, Yi-Hsing Tseng</i>	
TU3.6.6 A NEW PERSPECTIVE TOWARDS THE VISUALIZATION OF THE TEMPORAL ASPECTS OF GEOGRAPHIC INFORMATION	908
<i>Yu-Ting Su, Jung-Hong Hong</i>	

SESSION TU3.7 – HAZARDS AND DISASTER RISK REDUCTION AND MANAGEMENT I

TU3.7.1 ANALYZING THE EFFECTS OF IMPERVIOUS SURFACE AREA AND RAINFALL VARIABLES ON FLOOD HAZARD IN TAINAN CITY, TAIWAN	918
<i>Man-Han Hsu, Shou-Hao Chiang, Chi-Farn Chen</i>	
TU3.7.2 ESTIMATING LAND VALUE AND DISASTER RISK IN URBAN AREA IN YANGON, MY-MANMAR USING STEREO HIGH-RESOLUTION IMAGES AND MULTI-TEMPORAL LANDSAT IMAGES	923
<i>Tanakorn Sritarapipat, Wataru Takeuchi</i>	
TU3.7.3 IMPORTANCE OF INTEGRATING HIGH-RESOLUTION 2D FLOOD HAZARD MAPS IN THE FLOOD DISASTER MANAGEMENT OF MARIKINA CITY	932
<i>Ben Joseph Marquez Tapales, Alfredo Mahar Fran-Cisco Amante Lagmay, Jerico Mendoza, Christo-Pher Uichanco, Mark Anthony Moises, Patricia Anne Delmendo, Neil Eneri Tingin, Laurize Santos, Nicanor Pellejera III</i>	
TU3.7.4 ANALYSIS AND EVALUATION OF BRIDGE DAMAGES USING HIGH-RESOLUTION SAR IMAGERY	942
<i>Kazuki Inoue, Wen Liu, Mark Wieland, Tadashi Sasagawa, Fumio Yamazaki</i>	
TU3.7.5 SOME PROBLEMS OF PREPARING GEO-SPATIAL DATABASE FOR INDONESIAN NATIONAL RESILIENCE: THE ROLE OF REMOTE SENSING TO IMPROVE THE AVAILABILITY OF GEOSPATIAL DATA AND INFORMATION	951
<i>Sukendra Martha</i>	
TU3.7.6 RAPID INSIGHT FROM EARTH OBSERVATION IMAGERY	957
<i>Kang Kian Hong</i>	

SESSION TU3.8 – WHITE ELEPHANT SESSION

TU3.8.1 THESIS WRITING	N/A
<i>H. C. Armin Gruen</i>	
TU3.8.2 RESEARCH PROJECT PROPOSAL WRITING	N/A
<i>Orhan Altan</i>	
TU3.8.3 PRESENTATION TECHNIQUES	N/A
<i>Shunji Murai</i>	

SESSION TU4.1 – RS APPLICATIONS: FOREST RESOURCES 2

TU4.1.1 FOREST BIOPHYSICAL CHARACTERISTICS ESTIMATION USING DIGITAL AERIAL PHOTOGRAMMETRY AND AIRBORNE LASER SCANNING FOR TROPICAL MONTANE FOREST	958
<i>Wilson V. C. Wong, Satoshi Tsuyuki, Mui-How Phua, Keiko Ioki, Gen Takao</i>	
TU4.1.2 SATELLITE-DERIVED VEGETATION INDICES AND AN OBJECT-BASED ANALYSIS OF FOREST CONDITIONS IN SEMI-ARID TROPICS	968
<i>Urawan Chanket, Charat Mongkolsawat</i>	
TU4.1.3 ANALYSES OF FOREST INVENTORY DATA IN RELATION TO REMOTELY SENSED DATA FOR ESTIMATION OF FOREST BIO-MASS AND FOREST CARBON	978
<i>Maung Moe Myint, Kyaw Thinn Latt</i>	
TU4.1.4 DETECTION OF CANOPY CHANGES IN TROPICAL FOREST USING MULTI-TEMPORAL LIDAR DATA	987
<i>Noor Azura Awang, Hamdan Omar</i>	
TU4.1.5 FOREST PLANTATION INVENTORY, ESTIMATION AND ANALYSIS OF PARAMETERS USING LIDAR DATA	994
<i>Rena Christina C. Puno, Abigail J. Labadan</i>	
TU4.1.6 ESTIMATION OF FOREST CANOPY HEIGHT USING MODIS SHADOW INDEX	1000
<i>Akiko Ono, Wataru Takeuchi, Sachiko Hayashida</i>	

RS APPLICATIONS: AGRICULTURE AND SOIL 2

TU4.2.1 C-BAND SAR BACKSCATTERING CHARACTERISTICS OF SAGO PALMS AND OTHER LAND-COVER TYPES	1007
<i>Jojene R. Santillan</i>	
TU4.2.2 MONITORING AND DELINEATING THE PROGRESS OF RICE SOWING AND CROPPING CALENDAR ASSISTING IN EARLY WARNING PEST AND DISEASE IN MEKONG DELTA	1015
<i>Vo Quang Minh, Tran Thi Hien, Ho Van Chien</i>	
TU4.2.3 SPATIAL DEPENDENCY OF SOIL LINE COEFFICIENTS DERIVED FROM LANDSAT ETM+ AND MODIS IMAGERY IN KYRGYZSTAN	1022
<i>Kunihiko Yoshino, Taohong Zou, Khishig-Suren Nyamsambu, Pham Tien Dat, Hiroshi Okabe</i>	
TU4.2.4 GIS APPLICATION FOR LAND SUITABILITIES OF LOCAL FRUITS CULTIVATION: CASE STUDY DURIAN CULTIVATION IN PURWOREJO AREA - INDONESIA	1030
<i>Kris Sunarto, Niendyawati Supardan</i>	
TU4.2.5 INTER-COMPARISON OF SATELLITE BASED VEGETATION INDICES TO ESTIMATE CROP YIELD IN IRRIGATED AREAS OF INDUS BASIN	1038
<i>Muhammad Usman Liaqat, Muhammad Jehanzeb Masud Cheema, Talha Mahmood</i>	

TU4.2.6 ACTUAL EVAPOTRANSPIRATION MODEL FOR NORTH VIETNAM USING VEGETATION INDICES OF MODIS DATA	1046
<i>Tuong Ngoc Tran, Ke Chinh Luong</i>	

SESSION TU4.3 – RS APPLICATIONS: ATMOSPHERE/OCEANOGRAPHY 1

TU4.3.1 REMOTE SENSING TECHNIQUE FOR RETRIEVAL OF BIOMASS BURNING HAZE IN MALAYSIA	1051
<i>Muhamad Faridzul Adli Bin Zakaria, Md Latifur Rahman Sarker, Ahmad Mubin Bin Wahab</i>	
TU4.3.2 EVALUATION OF ATMOSPHERIC WATER VAPOR PRODUCT FROM THE MODIS ONLINE VISUALIZATION AND ANALYSIS SYSTEM DURING THE SUMMER OF 2015	1057
<i>Red Castilla, Edgar Vallar Maria Cecilia Galvez, Mylene Cayetano, James Simpas, Melliza Cruz, Rheo Lamorena-Lim, Len Herald Lim, Preciosa Corazon Pabroa, Ronald Macatangay, Gerry Bag-Tasa, Vernon Morris</i>	
TU4.3.3 SEA LEVEL RISE QUANTIFICATION USING MULTI-MISSION SATELLITE ALTIMETER OVER MALAYSIAN SEA	1067
<i>Ami Hassan Md Din, Mohd Nadzri Md Reba, Kamaludin Mohd Omar, Muhammad Faiz Pa'Suya, Sahrum Ses</i>	
TU4.3.4 ASSESSMENT OF M5 MODEL TREE FOR ESTIMATING REFERENCE EVAPOTRANSPIRATION WITH NOAA/AVHRR DATA	1077
<i>Ali Rahimikhoob</i>	
TU4.3.5 SEA SURFACE CURRENT IN THE GULF OF THAILAND BASED ON NINETEEN YEARS ALTIMETRIC DATA AND GPS TRACKED DRIFTING BUOY	1084
<i>Muhammad Faiz Pa'Suya, Benny Peter, Ami Hassan Md Din, Kamaludin Mohd Omar</i>	
TU4.3.6 THE IMPACT OF HUMAN ACTIVITIES ON THE HEAT ISLAND EFFECT - A CASE STUDY OF ANNUAL ACTIVITIES	1092
<i>Ren-De Chiu, Yi-Shiang Shiu, Re-Yang Lee, Tsu-Chiang Lei</i>	

SESSION TU4.4 – RS APPLICATIONS: UAV/UAS

TU4.4.1 GENERATION OF DIGITAL SURFACE TEMPERATURE MODEL FROM THERMAL IMAGES COLLECTED BY THERMAL SENSOR ON QUADROPTER UAV	1102
<i>Yao-Chen Hsieh, Shih-Hong Chio</i>	
TU4.4.2 ACCURACY ANALYSIS OF A MULTI-CAMERA IMAGING SYSTEM MOUNTED ON A UAS AFTER IMAGE MOSAICKING	1111
<i>Yi-Tang Li, Jyun-Ping Jhan, Jiann-You Rau</i>	
TU4.4.3 IMAGE MOSAIC METHODS FOR UAV SEQUENCE IMAGES	1121
<i>Bahareh Kalantar Ghorashi Harandi, Shattri Bin Mansor, Helmi Zulhaidi M. Shafri</i>	
TU4.4.4 EFFECTIVENESS OF UAV IN AGING OF CONCRETE	1128
<i>Hiroaki Sugiyama, Mitsuharu Tokunaga</i>	
TU4.4.5 THE EVALUATION OF VEGETATION CLASSIFICATION BY NARROW-BAND MULTISPECTRAL UAV IMAGES	1132
<i>You-Wei Bai, Jiann-You Rau, Jyun-Ping Jhan, Cho-Ying Huang</i>	
TU4.4.6 TEST FLIGHTS OF A DRONE-BORNE MULTISPECTRAL IMAGER USING THE LCTF TECHNOLOGY	1140
<i>Junichi Kurihara, Tetsuro Ishida, Yukihiro Takahashi</i>	

SESSION TU4.5 – SPECIAL SESSION: PHIL-LIDAR 2

TU4.5.1 RULE-BASED CLASSIFICATION OF AGRICULTURAL RESOURCES THROUGH OBJECT-BASED IMAGE ANALYSIS USING LIDAR DERIVATIVES AND ORTHOPHOTO: THE CASE OF TABONTABON, LEYTE, PHILIPPINES	1141
<i>Reyfel Niño G. Maglines, Mc Laurence S. Compendio, Mitch Allan A. Haboc, Michael B. Omela, Omar Jayag, Pastor P. Garcia, Jannet C. Bencure</i>	
TU4.5.2 APPLICATION OF OBJECT-BASED IMAGE ANALYSIS AND SUPPORT VECTOR MACHINE IN MAPPING MANGROVE FOREST USING LIDAR AND ORTHOPHOTO: A CASE STUDY IN CALATAGAN, BATANGAS	1147
<i>Lawrence Charlemagne G. David, Alejandro H. Ballado Jr.</i>	
TU4.5.3 ESTIMATION OF TROPICAL FOREST TREE DIAMETER AT BREAST HEIGHT FROM AIRBORNE LIDAR METRICS	1154
<i>Reginald Jay L. Argamosa, Enrico C. Paringit, Gio P. Zaragosa, Nathaniel C. Bantayan, Carlyn Ann G. Ibañez, Regine Anne G. Faelga, Mark Anthony V. Posilero, Nancy A. Dimayacyac, Karla Jane Gonzalvo, Manuel L. Castillo</i>	
TU4.5.4 LIDAR-BASED ESTIMATION OF CANOPY FUEL PARAMETERS OF TREE PLANTATIONS IN BUKIDNON, PHILIPPINES	1165
<i>Jorge Andrew B. Cipriano, Jojemar Bantugan, Nycel S. Barbadillo</i>	
TU4.5.5 A CONTEXT-BASED APPROACH IN MANGROVE PATCHES EXTRACTION FROM LIDAR DATA: A CASE STUDY IN PINA-MUNGAJAN, CEBU, CENTRAL PHILIPPINES	1166
<i>Juan Carlos A. Graciosa, Renante R. Violanda, Annie G. Diola, Wenifel P. Perpetcho, Danilo T. Dy, Rolando Emerito S. Otadoy</i>	

TU4.5.6 MANGROVE EXTRACTION IN E.B. MAGALONA, NEGROS OCCIDENTAL USING LIDAR DATA	1174
<i>Ariadne Victoria S. Pada, Judith R. Silapan, Mark Anthony A. Cabanlit, Florencio P. Campomanes V, Julius Jason S. Garcia</i>	

SESSION TU4.6 – URBAN ENVIRONMENT

TU4.6.1 THE RECONSTRUCTION OF URBAN CULTURAL LANDSCAPE AND THE CHANGE ANALYSIS OF URBAN LANDSCAPE AND TEXTURE – A CASE STUDY OF THE OLD DOWNTOWN IN CENTRAL DISTRICT, TAICHUNG CITY, TAIWAN	1183
<i>Yi-Shiang Shiu, Tsu-Chiang Lei, Re-Yang Lee, Feng-Cheng Lin, Tzu-How Chu</i>	
TU4.6.2 CLASSIFICATION OF BUILDING ATTRIBUTES IN DENSE URBAN AREAS USING ALOS-2 DATA AND AIRBORNE LIDAR DATA	1193
<i>Tatsuya Yamamoto, Masafumi Nakagawa</i>	
TU4.6.3 SPATIO-TEMPORAL ASSESSMENT OF URBAN GROWTH IMPACT IN PUNE CITY USING REMOTELY SENSED DATA	1201
<i>Piyush Yadav, Shailesh Deshpande</i>	
TU4.6.4 URBAN LAND USE MAPPING BASED ON OBJECT-BASED IMAGE ANALYSIS USING WORLDVIEW-3 SATELLITE IMAGERY	1210
<i>Kanoksuk Chankon, Samwit Iabchoon, Sangdao Wongsai</i>	
TU4.6.5 A STUDY ON THE INFLUENCES OF URBAN HEAT ISLAND EFFECT ON INDUSTRIAL DEVELOPMENT AND ITS CONTRIBUTING FACTORS	1219
<i>Lung-Shih Yang, Chung-Tien Huang, Tien-Yin Chou, Mei-Ling Yeh</i>	
TU4.6.6 ANALYSIS OF THE URBAN SPATIAL PATTERNS IN NINH BINH CITY, VIETNAM USING REMOTE SENSING AND SPATIAL METRICS	1230
<i>Hang Thi Thuy Nguyen</i>	

SESSION TU4.7 – RS/GIS APPLICATIONS: RESOURCE MANAGEMENT I

TU4.7.1 ASSESSMENT TREND OF INUNDATION AND SALINITY INTRUSION IN COASTAL ZONE, MEKONG DELTA THROUGH CLIMATE CHANGE SCENARIOS	1231
<i>Phan Kieu Diem, Vo Quang Minh, Nguyen Thi Hong Diep</i>	
TU4.7.2 AN IMPLEMENTATION REALIZING THE TASKING CAPABILITIES OF INTERNET OF THINGS	1240
<i>Chen-Hung Wu, Chih-Yuan Huang</i>	
TU4.7.3 LAND USE AND LAND COVER CHANGE INSIDE PRODUCTION FOREST IN SOUTH KALIMANTAN PROVINCE, INDONESIA AS ANALYZED USING LANDSAT IMAGERY AND DYNAMIC SYSTEM MODEL	1248
<i>Widiatmaka Widiatmaka, Wiwin Ambarwulan, Irman Firmansyah, Chandrasa Sjamsudin, Cecep Kusmana</i>	
TU4.7.4 COMMUNITY-BASED WATERSHED MONITORING SYSTEM FOR BIODIVERSITY CONSERVATION	1256
<i>Armando N. Espino Jr., Marvin M. Cinense, Nicasio C. Salvador, Annie Melinda Paz-Alberto, Restituto C. Bauan</i>	
TU4.7.5 THE VARIATION ASSESSMENT OF RICE CROPS UNDER IMPACTS OF CLIMATE CHANGE IN BAC LIEU PROVINCE, VIETNAM BY GIS TECHNOLOGY AND REMOTE SENSING	1266
<i>Mi H. Nguyen, Minh Q. Vo, Du T. Thai</i>	
TU4.7.6 USE OF SATELLITE DATA AND POTENTIAL SURFACE ANALYSIS FOR URBAN EXPANSION OF SA KAO PROVINCE, THAILAND	1267
<i>Thirakan Chaikongthong, Suvalak Nakya, Thanwarat Anan, Tatiya Chuentragun</i>	

SESSION WE1.1 – RS APPLICATIONS: GEOHAZARDS AND DISASTER 3

WE1.1.1 DAMAGE ASSESSMENT OF URBAN AREAS DUE TO THE 2015 NEPAL EARTHQUAKE USING PALSAR-2 IMAGERY	1277
<i>Rendy Bahri, Wen Liu, Fumio Yamazaki</i>	
WE1.1.2 FLOOD RISK EXPOSURE DETERMINATION USING BUILDING EXTRACTION NEAR HIMOGAAN RIVER	1287
<i>Naressa Belle A. Saripada, Jao Hallen L. Bañados Chito L. Patiño, Jonnifer R. Sinogaya</i>	
WE1.1.3 ASSESSMENT OF THE EXPOSURE OF COASTAL ENVIRONMENTS TO NATURAL HAZARDS THROUGH REMOTE SENSING: A PROPOSAL	1295
<i>Gay Jane Perez, Peter T. Y. Shih, Tee-Ann Teo</i>	
WE1.1.4 GIS APPLICATION IN HIGHWAY AND SLOPE ENGINEERING	1296
<i>Gerardo P. Apor</i>	
WE1.1.5 SITE SUITABILITY ANALYSIS FOR DISSEMINATION OF FLOOD AND DROUGHT-TOLERANT RICE VARIETIES IN NEPAL	1307
<i>Amrendra N. Singh, Devi D. Sinha, Uma S. Singh</i>	
WE1.1.6 SPATIAL ANALYSIS OF DISASTER VULNERABILITY IN LINUGOS WATERSHED MINDANAO, PHILIPPINES	1317
<i>Eric N. Bruno, Angela Grace I. Toledo-Bruno, Rose L. Ann Barro</i>	

SESSION WE1.2 – RS APPLICATIONS: CHM/DEM/DTM GENERATION

WE1.2.1 CREATING BETTER DIGITAL SURFACE MODELS FROM LIDAR POINTS	1324
<i>Anahita Khosravipour, Martin Isenburg, Andrew K. Skidmore, Tiejun Wang</i>	
WE1.2.2 3D MOSAIC: A WAY FORWARD	1332
<i>Frank Bignone</i>	
WE1.2.3 INTEGRATION HEIGHT MODEL USING SRTM C, X SAR, ASTER GDEM, AND ALOS PALSAR	1337
<i>Atriyon Julzarika</i>	
WE1.2.4 DENSE MATCHING FOR WORLDVIEW-3 MULTISPECTRAL STEREO IMAGES	1347
<i>I-Ling Kuo, Tee-Ann Teo</i>	
WE1.2.5 THE RESOLUTION DILEMMA: FINDING THE OPTIMUM DEM RESOLUTION FOR LARGE-SCALE SOLAR ENERGY RE-SOURCE ASSESSMENT USING R.SUN	1357
<i>Ben Hur Pintor, Eula Fae Sola, Justine Teves, Loureal Camille Inocencio, Ma. Rosario Concepcion Ang</i>	
WE1.2.6 SCENARIO-BASED MAPS USING FLO-2D AND IFSAR-DERIVED DIGITAL ELEVATION MODELS ON THE NOVEMBER 2006 RAINFALL-INDUCED LAHARS, MAYON VOLCANO, PHILIPPINES	1367
<i>Francesca Llanes, Peter Khallil Ferrer, Romer Gacusan, Victoriano Realino II, Julius Obrique, Rodri-Go Narod Eco, Alfredo Mahar Francisco Lagmay</i>	

SESSION WE1.3 – ECOLOGY/ENVIRONMENTAL CHANGE 2

WE1.3.1 CONTRIBUTION OF GOSAT PROJECT TO GHG MONITORING AND CARBON FLUX ESTIMATION OVER ASIAN REGION	1374
<i>Tatsuya Yokota, Nobuhiro Kikuchi, Yukio Yo-Shida, Isamu Morino, Osamu Uchino, Hiroshi Takagi, Heos-Sook Kim, Makoto Saito, Shamil Maksyutov, Hibiki Noda, Fumie Kawazoe, Masataka Ajiro</i>	
WE1.3.2 USING NORMALIZED DIFFERENCE VEGETATION INDEX (NDVI) TO ASSESS VEGETATION COVER CHANGE IN MINING AREAS OF TUBAY, AGUSAN DEL NORTE	1375
<i>Kendel P. Bolanio, Meriam Makinano-Santillan, Jojene R. Santillan, Rolyn C. Daguil</i>	
WE1.3.3 EVALUATION OF VEGETATION DENSITY CHANGES IN SUBURBAN AREA: A CASE STUDY OF ISTANBUL METROPOLITAN AREA	1383
<i>Sinasi Kaya, Paria E. Osgouei, Ugur Alganci, Dursun Z. Seker, Cem Gazioglu</i>	
WE1.3.4 CAUSES AND MITIGATION MEASURES OF ELEPHANT (<i>Loxodonta Africana</i>) MORTALITY IN NAROK COUNTY, KENYA	1389
<i>Elizabeth Naliaka Wakoli, Hellen Iparan, Noah Sitati, Paul Odwori</i>	
WE1.3.5 ANOMALOUS SEA SURFACE WARMING EVENTS IN THE CORAL TRIANGLE AND ITS POSSIBLE LINK TO VARIOUS CLIMATOLOGICAL PARAMETERS	1398
<i>Eileen L. Peñaflor, Laura T. David, William J. Skirving</i>	
WE1.3.6 THE IMPACT OF GAS EMISSIONS (AEROSOL) CAUSING GREENHOUSE AND INCREASING SURFACE TEMPERATURE OF NORTH VIETNAM QUANTIFIED BY MODIS DATA	1399
<i>Tuong Ngoc Tran, Ke Chinh Luong</i>	

SESSION WE1.4 – WEB GIS

WE1.4.1 A STUDY ON MEASURES FOR CONSTRUCTING GAME ENGINE-BASED 3D WEB GIS DISPLAY SYSTEM	1406
<i>Jun-Hyung Kim, Su-Myung Gang, Jin-Man Kim, Sung-Hyun Jang</i>	
WE1.4.2 REMOTE SENSING AND GIS WEB-BASED SYSTEM FOR PADDY CULTIVATION MANAGEMENT IN MALAYSIA	1410
<i>Siti Masayu Yahaya, Norhayati Che Musa, Zubaidah Mansor, Muhammad Nazir Siham, Sutha Veloo</i>	
WE1.4.3 AN INTEGRATED PERSPECTIVE TOWARDS THE COMBINATION OF SENSORS AND WARNING SYSTEMS: EXAMPLES OF UNDERPASS FLOOD	1416
<i>Yu-Sheng Chen, Jung Hong Hong</i>	
WE1.4.4 MAP4RM: AN ONLINE MAPPING SERVICE FOR MINING STAKEHOLDERS IN MINDANAO	1424
<i>Rolyn Cutamora Daguil, Junrie B. Matias, Michelle V. Japitana, Meriam M. Santillan</i>	
WE1.4.5 UTILIZATION OF OPENGEO SUITE IN BUILDING WEB APPLICATION FOR LARGE SCALE GIS DATA	1428
<i>Michelle V. Japitana, Melbert R. Bonotan</i>	
WE1.4.6 BUILDING A SEARCH ENGINE FOR GEOSPATIAL DATA	1438
<i>Hao Chang, Chih-Yuan Huang</i>	

SESSION WE1.5 – RS APPLICATIONS: AGRICULTURE AND SOIL 3

WE1.5.1 USABILITY OF SENTINEL-1 DUAL POLARIZATION C-BAND DATA FOR PLANTATION DETECTION IN INSULAR SOUTHEAST ASIA	1445
<i>Jukka Miettinen, Soo Chin Liew, Leong Keong Kwoh</i>	
WE1.5.2 ESTIMATION OF ACTUAL EVAPOTRANSPIRATION USING SURFACE ENERGY BALANCE APPROACH AND LANDSAT-8 IMAGES OF SEMARANG AREA, CENTRAL JAVA	1451
<i>Khalifah Insan Nur Rahmi, Projo Danoedoro</i>	

WE1.5.3 MULTITEMPORAL SOIL MOISTURE ESTIMATION USING C-BAND SAR IMAGES	1460
<i>D. Amarsaikhan, G. Bolor, V. Battsengel, B. Bayarbaatar</i>	
WE1.5.4 STUDY OF ALOS AVNIR-2 IMAGE PROCESSING FOR ESTIMATING VEGETATION CANOPY WATER CONTENT IN PART OF GUNUNGKIDUL REGENCY	1464
<i>Pendi Tri Sutrisno, Nur Mohammad Farda</i>	
WE1.5.5 CLASSIFICATION OF VEGETATION AND OIL PALM AGE USING SPOT6: THE CASE OF TANA LAUT SOUTH KALIMANTAN, INDONESIA	1472
<i>Ita Carolita, Jansen Sitorus, Rizqi Ianatus</i>	
WE1.5.6 MAPPING RICE AND CORN AREAS IN NORTHERN PHILIPPINE USING MODIS DATA	1480
<i>Nathaniel Alibuyog, Josefino C. Comiso</i>	

SESSION WE1.6 – RS APPLICATIONS: VEGETATION AND CROPS 2

WE1.6.1 REMOTE SENSING TECHNIQUE FOR ESTIMATING THE AGE OF OIL PALM USING HIGH RESOLUTION IMAGE	1490
<i>Siti Aishah Mansor, Md Latifur Rahman Sarker</i>	
WE1.6.2 MAPPING PROSOPIS GLANDULOSA (MESQUITE) INVASION AND ITS COEXISTANT SPECIES IN THE SEMI-ARID ENVIRONMENT OF SOUTH AFRICA USING WORLDVIEW-2 IMAGERY AND MACHINE LEARNING CLASSIFIERS	1498
<i>Nyasha Mureriwa, Elhadi Adam</i>	
WE1.6.3 COMPARISONS OF USING RANDOM FOREST AND MAXIMUM LIKELIHOOD CLASSIFIERS WITH WORLDVIEW-2 IMAGERY FOR CLASSIFYING CROP TYPES	1508
<i>Re-Yang Lee, Deng-Yuan Ou, Yi-Shiang Shiu, Tsu-Chiang Lei</i>	
WE1.6.4 ESTIMATION OF GREEN WATER FOOT-PRINT OF RICE PADDIES IN TAITUNG AREA USING MODIS DATA	1518
<i>Chih-Da Wu, Tzu-Yu Huang, Shih-Yuan Lin, Chun-Te Lin</i>	
WE1.6.5 MAPPING PADDY AREA IN KANDAL AND PREY VENG PROVINCES IN CAM-BODIA USING MULTI-TEMPORAL MODIS IMAGES	1527
<i>Lakmal Deshapriya, Men Sothy, Heng Yuthin, Lal Samarakoon, Manzul Hazarika</i>	
WE1.6.6 THE POTENTIAL OF VERY HIGH SPATIAL RESOLUTION REMOTE SENSING IN SMALLHOLDER AGRICULTURE	1533
<i>Dimitris Stratoulas, Rolf A. De By, Raul Zurita-Milla, Wietske Bijker, Valentyn Tolpekin, Urs Schul-Thess, Zia Uddin Ahmed</i>	

SESSION WE1.7 – SPECIAL SESSION: APPLICATIONS OF REMOTE SENSING TECHNOLOGIES TO NATURAL RESOURCES MANAGEMENT: EXPERIENCES OF THE USAID-B+WISER PROGRAM

WE1.7.1 SUPPORT TO SUSTAINABLE FOREST MANAGEMENT IN THE PHILIPPINES THROUGH TECHNICAL ASSISTANCE AND CAPACITY BUILDING IN GEOSPATIAL TECHNOLOGIES	1540
<i>Randy Vinluan, Ricardo Calderon, Bonifacio Rabang, Oliver Agoncillo, Elizabeth Lebow, Amanda Whitehurst, Guillermo Mendoza, Felix Gaschick</i>	
WE1.7.2 HIGH CONSERVATION VALUE AREAS AS A STRATEGIC APPROACH FOR PROTECTED AREA MANAGEMENT IN THE PHILIPPINES	1547
<i>Jose Don De Alban, Joni Acay, Felix Gaschick, Rai Gomez, April Faith Guinto, Mimie Ledesma, Neil Aldrin Mallari, Jemica Paula Masigan, Angelica Kristina Monzon, Joanne Rae Pales, Margie Parinas, Sheryl Rose Reyes, Edmund Leo Rico, Christian Supsup, Dennis Tablazon, Roven Tumaneng, Merlijn Van Weerd, Rizza Karen Veridiano, Jackie Wenceslao</i>	
WE1.7.3 ESTIMATING FOREST BIOMASS OF NORTHERN SIERRA MADRE NATURAL PARK USING SAR DATA	1557
<i>Angelica Kristina Monzon, Rizza Karen Veridiano, Guillermo Mendoza, Randy Vinluan, Oliver Agoncillo, Jose Don De Alban</i>	
WE1.7.4 ROLE OF GEOSPATIAL TECHNOLOGIES FOR ASSESSING REDD+ FEASIBILITY AT THE SUB-NATIONAL LEVEL IN THE PHILIPPINES	1566
<i>Rizza Karen Veridiano, Angelica Kristina Monzon, Jose Don De Alban, Roven Tumaneng</i>	
WE1.7.5 A SEMI-AUTOMATED PREPROCESSING MODULE FOR 25-METER RESOLUTION ALOS/PALSAR MOSAIC DATA	1575
<i>Sheryl Rose Reyes, Angelica Kristina Monzon, Mari Trix Estomata, Jose Don De Alban</i>	

SESSION WE1.8 - SPECIAL SESSION: DIWATA-1: FIRST PHILIPPINE MICROSATELLITE

WE1.8.1 DIWATA, THE PHILIPPINES' FIRST EARTH OBSERVATION MICROSATELLITE	1582
<i>Kaye Kristine Vergel, Benjamin Jonah P. Magallon, Yukihiko Takahashi, Ishida Tetsuro, Gay Jane, P. Perez, Mark Edwin A. Tupas, Joel S. Marciano</i>	
WE1.8.2 RECENT UPDATES ON THE DESIGN AND IMPLEMENTATION OF DIWATA-1 – THE PHILIPPINES' FIRST MICROSATELLITE FOR SCIENTIFIC EARTH OBSERVATION	1583
<i>Doreena Karmina A. Pulutan, Ariston N. Gon-Zalez, Joel S. Marciano Jr.</i>	
WE1.8.3 DATA PROCESSING, ARCHIVING AND DISTRIBUTION (DPAD) SUB-SYSTEM DESIGN FOR THE PHILIPPINE EARTH OBSERVATION MICROSATELLITE	1584
<i>Romer Kristi Danduan Aranas, Gener Mosico, Jerine Amado, Benjamin Magallon, Ayin Tamondong, Mark Edwin Tupas</i>	

WE1.8.4 CALIBRATION AND VALIDATION OF REMOTE SENSING INSTRUMENTS FOR PHILIPPINE MICROSATELLITE (PHL-MICROSAT)	1585
<i>Enrico C. Paringit, Tetsuro Ishida, Fra Angelico Viray, Mara Alain Maestro, James Albert Calvo, Gay Jane Perez, Shiolo Namuco, Louise Anne Fulgencio, Francisco Miguel Felicio, Brent Fallarcuna, Pauline Joanne Arceo, Mary Catherine Elizabeth Baliguas, Millie Shane Reyes, Iro Niel Roxas, Joida Prieto</i>	
WE1.8.5 AIRBORNE CAMPAIGN USING LCTF MULTI-SPECTRAL CAMERA IN NORTHERN SAMAR	1586
<i>Tetsuro Ishida, Yukihiko Takahashi, Junichi Kurihara, Enrico Paringit, Fra Angelico Viray, Gay Jane Perez, Shiolo Namuco</i>	
WE1.8.6 PHL-MICROSAT PRODUCT DEVELOPMENT: PROGRESS ON LEVEL 0 TO LEV-EL 1 DATA CALCULATIONS USING RISING-2 DATA	1587
<i>Jeremy Porquez, Ellison Castro, Paul Leonard Atchong Hilario, Shiolo Namuco, Gay Jane Perez</i>	

SESSION WE2.1 – HAZARDS AND DISASTER RISK REDUCTION AND MANAGEMENT 2

WE2.1.1 RADIOACTIVE POLLUTION OF FUKU-SHIMA DAIICHI NUCLEAR POWER PLANT	1588
<i>Yajing Ge, Ogawa Susumu</i>	
WE2.1.2 IDENTIFICATION OF EVACUATION ROUTES IN TACLOBAN CITY USING GEOGRAPHIC INFORMATION SYSTEM	1595
<i>Joy Santiago, Jerico E. Mendoza, Alfredo Mahar Francisco A. Lagmay</i>	
WE2.1.3 ANTHROPOGENIC FIRE REGIME DETECTION USING 1953 AERIAL PHOTOGRAPH REPOSITORY FROM THE WEST-ERN DESERT OF AUSTRALIA	1596
<i>Fabian Surya Pramudya, Michael Holton Price, Agung Budi Harto, Ketut Wikantika, Rebecca Bliege Bird</i>	

VOLUME 3

WE2.1.4 ASSESSING THE IMPACTS OF FLOOD-ING IN TAGO RIVER BASIN, MINDANAO, PHILIPPINES THROUGH INTEGRATION OF HIGH RESOLUTION ELEVATION DA-TASETS, LANDSAT IMAGE ANALYSIS, AND NUMERICAL MODELLING	1606
<i>Meriam Makinano-Santillan, Jojene R. Santillan, Arthur M. Amora, Jennifer Tolo Marqueso, Linbert C. Cutamora, Jesiree L. Serviano, Ronald M. Makinano, Lorie Cris A. Asube</i>	
WE2.1.5 THE NATURAL DISASTER PREVENTIONS IN JAPAN USING GIS TECHNOLOGIES	1618
<i>Yuriko Koike, Mineo Haze, Makiko Tomita</i>	

SESSION WE2.2 – RS APPLICATIONS: FOREST RESOURCES 3

WE2.2.1 FOREST MAPPING IN MONGOLIA USING OPTICAL AND SAR IMAGES	1624
<i>D. Enkhjargal, D. Amarsaikhan, G. Bolor, N. Tsetsegjargal, G. Tsogzol</i>	
WE2.2.2 TREE HEIGHT AND TOTAL ABOVE-GROUND BIOMASS (TAGB) EXTRACTION USING AIRBORNE LIDAR	1629
<i>Ab. Latif Ibrahim, Siow Wei Jaw, Salahudin Al Ayubbi Bin Saleh, Tze Huey Tam, Mou Leong Tan</i>	
WE2.2.3 PROTOTYPE OF PRECISION FORESTRY INTEGRATING RADIO-FREQUENCY IDENTIFICATION (RFID) AND GEOMATICS	1636
<i>Nathaniel C. Bantayan</i>	
WE2.2.4 IMPROVING LIDAR-BASED FOREST RE-SOURCES ASSESSMENT USING PRE-CISE FIELD VALIDATION TECHNIQUES OF TREE INVENTORY DATA	1641
<i>Carlyn Ann G. Ibañez, Enrico C. Paringit, Reginald Jay L. Argamosa, Nancy A. Dimayacyac, Regine Anne G. Faelga, Fe Andrea M. Tandoc, Mark Anthony V. Posilero, Gio P. Zaragosa, Nathaniel C. Bantayan</i>	
WE2.2.5 ON THE INTERCHANGE OF SUBSISTENCE AGRICULTURE AND RAINFOREST: AN INDONESIA CASE	1648
<i>Daniel Useng, Stikstus Gusli, Darmawan, Jeff Neilson, Sarip Hidayat</i>	
WE2.2.6 QUANTIFYING FOREST COVER CHANGES IN THE PHILIPPINES FROM 2000-2012 FROM LANDSAT-DERIVED GLOBAL FOREST COVER DATASET	1653
<i>Brent Fallarcuna, Gay Jane Perez</i>	

SESSION WE2.3 – RS APPLICATIONS: ATMOSPHERE/OCEANOGRAPHY 2

WE2.3.1 THE FEASIBILITY OF SATELLITE APPROACH IN DETECTING NO₂ EMISSION	1663
<i>Maslina Natar, Mazlan Hashim</i>	
WE2.3.2 REMOTE SENSING OF AEROSOL OPTICAL DEPTH OVER URBAN AND RURAL AREAS FROM SATELLITE AND GROUND-BASED OBSERVATIONS	1670
<i>Nguyen Thi Thuy Hang, Tang-Huang Lin</i>	
WE2.3.3 STUDY OF ATMOSPHERIC EFFECT VARIABILITY USING PSEUDO INVARIANT FEATURES OVER SUNNIEST PLACES IN EARTH BY MULTI-TEMPORAL LANDSAT 8 OLI IMAGE DATA	1678
<i>Nguyen Dinh Duong</i>	
WE2.3.4 DIURNAL VARIATIONS OF SEASONAL RAINFALL OVER THE STATE OF HIMACHAL PRADESH AS OBSERVED BY SATELLITE DATA	1694
<i>Vidhi Bharti, Charu Singh</i>	

WE2.3.5 ANALYSIS OF SHORELINE CHANGES IN NORTHERN PASSAGE OF THUAN AN INLET, THUA THIEN HUE PROVINCE IN PERIOD 2000-2014 BY USING GIS AND REMOTE SENSING	1701
<i>Nguyen Huy Anh, Ho Ngoc Anh Tuun, Dinh Thanh Kien</i>	
WE2.3.6 EVALUATION OF AQUARIUS SEA SUR-FACE SALINITY IN THE SOUTH CHINA SEA	1706
<i>Yonghong Li, Tongtong Liu, Shaoling Shang</i>	

SESSION WE2.4 – GPS APPLICATIONS

WE2.4.1 MONITORING VERTICAL LAND MOTION IN MALAYSIA USING GLOBAL POSITIONING SYSTEM (GPS)	1716
<i>Ami Hassan Md Din, Mohd Nadzri Md Reba, Kam-Aludin Mohd Omar, Sahrum Ses, Amir Sharifuddin Ab Latip</i>	
WE2.4.2 DEVELOPMENT OF PUBLIC FACILITY AND HOUSEHOLD LOCATOR TOOL USING MOBILE GIS AND ANDROID TECHNOLOGY	1727
<i>Alexander T. Demetillo, Michelle V. Japi-Tana, Sonny S. Norca</i>	
WE2.4.3 ROAD SURFACE STRUCTURE MONITORING AND ANALYSIS USING HIGH PRECISION GPS MOBILE MEASUREMENT SYSTEMS (MMS)	1732
<i>Bonifacio R. Prieto</i>	
WE2.4.4 FEASIBILITY OF DOL-VRS SERVICE FOR ESTABLISHING SURVEY CONTROL USING POST-PROCESSING METHOD	1739
<i>Kitsanut Chanutboonsin, Constantin-Octavian Andrei, Kanok Weerawong, Teetat Charoenkalunyuta</i>	
WE2.4.5 ANDROID APPLICATION DEVELOPMENT FOR GPS-BASED TREE LOCATION TRACKER	1748
<i>Alexander T. Demetillo, Michelle V. Japitana, Sonny S. Norca</i>	

SESSION WE2.5 – MICROWAVE SENSORS / SAR / INSAR / D-INSAR 1

WE2.5.1 HOPFIELD NEURAL NETWORK BASED PARETO OPTIMAL FOR RETRIEVING SEA SURFACE CURRENT FROM RADARSAT-2 SAR	1754
<i>Maged Marghany</i>	
WE2.5.2 SURFACE DEFORMATION ASSESS-MENTS IN HANOI, VIETNAM USING ALOS PALSAR INTERFEROMETRY	1760
<i>Tuan S Le, Chung-Pai Chang</i>	
WE2.5.3 A STUDY FOR THE METHODOLOGY TO MONITOR MT. SHINMOE-DAKE VOLCANO BY COMBINING ALOS-2, RADARSAT-2, AND TERRASAR-X SATELLITES' DATA	1767
<i>Daisuke Sango, Shunichi Kusano, Takashi Shibayama, Kazuo Yoshikawa</i>	
WE2.5.4 THE STUDY OF LAND USE/LAND COVER IN COASTAL AREA OF CHANTHA-BURI PROVINCE, THAILAND, USING COSMO-SKYMED : X BAND AND RA-DARSAT-2 : C-BAND	1777
<i>Wimon Pathong, Amornchai Prakobya, Suramongkon Siripon, Nuttorn Kaewpoo</i>	
WE2.5.5 THREE-DIMENSIONAL HYBRID GENETIC ALGORITHM PHASE UNWRAPPING FOR NEPAL EARTHQUAKE DISPLACEMENT USING SENTINEL-1A SATELLITE	1786
<i>Maged Marghany</i>	
WE2.5.6 GENERATION OF DEM USING HIGH RESOLUTION SAR DATA IN TROPICAL REGION	1792
<i>Nasuha Ishak, Md Latifur Rahman Sarker, Anis Afirah Mohammad Radhi</i>	

SESSION WE2.6 – DATA PROCESSING: DATA FUSION AND DATA MINING

WE2.6.1 HYPERSPECTRAL IMAGE FUSION	1801
<i>Charis Lanaras, Emmanuel Baltasvias, Konrad Schindler</i>	
WE2.6.2 MULTISENSOR APPROACH TO OIL PALM PLANTATION MONITORING USING DATA FUSION AND GIS	1809
<i>Christine Pohl, Chong Khai Loong, John Van Genderen</i>	
WE2.6.3 FUSION OF OPTICAL AND SAR IN EXTRACTING SHORELINE AT NORTHEAST COAST OF PENINSULAR MALAYSIA	1819
<i>Syafitunizam Abd Manaf, Norwati Mustapha, Md Nasir Sulaiman, Nor Azura Husin, Mohd Radzi Abdul Hamid</i>	
WE2.6.4 VERTICAL ACCURACY VALIDATION OF DIGITAL ELEVATION MODELS (DEMS) IN SHIKOKU ISLAND, JAPAN	1827
<i>Kwanchai Pakoksung, Masataka Takagi</i>	
WE2.6.5 MULTI-SENSOR DATA FUSION OF VNIR AND TIR SATELLITE IMAGERY	1836
<i>Nam-Ki Jeong, Hyung-Sup Jung, Sung-Hwan Park, Kwan-Young Oh</i>	
WE2.6.6 MULTI-STAGE SEGMENTATION OF RA-DAR INTERFEROMETRY IMAGERY FOR LANDFORM MAPPING IN TROPICAL REGION	1841
<i>Wirastuti Widyatmanti, Prima Dinta Rahma Syam, Ikhsan Wicaksono</i>	

SESSION WE2.7 – RS GIS APPLICATIONS – COASTAL ZONE MONITORING

WE2.7.1 ASSESSMENT OF THE STATUS OF CORAL REEF AREAS IN STA. CRUZ AND MALALAG, DAVAO DEL SUR USING LANDSAT SATELLITE IMAGERIES	1842
<i>Remie M. Aurelio Jr., John Paul B. Onez, Melvin S. Pasaporte, Cleto L. Nanola Jr., Annabelle U. Novero</i>	

WE2.7.2 MONITORING SHORELINE CHANGES IN EAST COASTS OF KOREA USING MULTI-TEMPORAL LANDSAT IMAGERY	1849
<i>Young Choung</i>	
WE2.7.3 REMOTE SENSING APPLICATION OF THE GEOPHYSICAL CHANGES IN THE COASTLINES AND RIVERS OF ZAMBALES, PHILIPPINES	1852
<i>Annie Melinda Paz-Alberto, Melissa Joy M. Sison, Edmark Pablo Bulaong, Marietta A. Pakaigue</i>	
WE2.7.4 HYPERSPECTRAL DATA, ALOS AND LANDSAT IMAGES FOR CORAL REEFS DETECTION OF THE SMALL ISLANDS, SPERMONDE ARCHIPELAGO, INDONESIA	1862
<i>Nurjannah Nurdin, Teruhisa Komatsu, M. Akbar As, Suhai Sawayama</i>	

SESSION WE3.1 – RS APPLICATIONS: COASTAL ZONE AND FISHERIES 2

WE3.1.1 GEOSPATIAL TECHNIQUES ON HARMFUL ALGAL BLOOM DETECTION IN THE PHILIPPINE WATERS	1863
<i>Aldwin Torres Almo, Laura T. David, John Hedley</i>	
WE3.1.2 ON MODELS FOR ESTIMATION OF SUBMERGED SEAGRASS ABOVEGROUND BIOMASS IN SHALLOW COASTAL WATER	1870
<i>Syarifuddin Misbari, Mazlan Hashim</i>	
WE3.1.3 BENTHIC-HABITAT CLASSIFICATION AND MAPPING USING SUPPORT VECTOR MACHINE ALGORITHM IN HINATUAN, SURIGAO DEL SUR, PHILIPPINES	1878
<i>Michelle V. Japitana, James Earl D. Cubillas</i>	
WE3.1.4 REMOTE SENSING CUM MULTIVARIATE STATISTICAL ANALYSIS APPLICATION TO FISH CATCH DISTRIBUTION MAP-PING USING SEASONAL CHLOROPHYLL-A CONCENTRATION AND SEA SURFACE TEMPERATURE IN CARMEN, AGUSAN DEL NORTE, PHILIPPINES	1888
<i>Francis Ben D. Taglucop, Michelle V. Japitana, Monalaine M. Bermoy</i>	
WE3.1.5 SOCIAL SENSOR AS AN EMERGING REMOTE SENSING TOOL AND ITS APPLICATION TO SENSING TAAL LAKE FISHKILL	1897
<i>Jaderick P. Pabico, Arnold R. Salvacion, Dama-Sa B. Magcale-Macandog</i>	
WE3.1.6 PREDICTING ABUNDANCE OF DIFFERENT TUNA SPECIES IN THE PHILIPPINES	1905
<i>Ellen Mae C. Leonardo, Gay Jane P. Perez</i>	

SESSION WE3.2 – RS APPLICATIONS: GEOLOGY/GEOGRAPHY/GEOMORPHOLOGY 1

WE3.2.1 PALSAR-2 SATELLITE REMOTE SENSING DATA FOR GEOLOGICAL STRUCTURE MAPPING: PENINSULAR MALAYSIA	1914
<i>Amin Beiranvand Pour, Mazlan Hashim</i>	
WE3.2.2 2.5-DIMENSIONAL ANALYSIS ON PEAT-LAND SUBSIDENCE AND ITS RELATION TO GROUNDWATER TABLE IN JAMBI, INDONESIA	1920
<i>Sho Tsunoda, Wataru Takeuchi</i>	
WE3.2.3 MORPHOTECTONIC AND SATELLITE IMAGERY ANALYSIS FOR IDENTIFYING QUATERNARY FAULT AT SOUTHERN PART OF CIANJUR-GARUT REGION, WEST JAVA, INDONESIA	1930
<i>Emi Sukiyah, Ildrem Syafri, Achmad Sjafrudin, Eza Nurfadli, Puspa Khaerani, P. A. S. Dian</i>	
WE3.2.4 LANDSCAPE UNIT FOR ABOVEGROUND BIOMASS ESTIMATION (PRELIMINARY STUDY AT BALURAN NATIONAL PARK)	1940
<i>Theresia Retno Wulan, Junun Sartohadi, Nurwadjadi</i>	
WE3.2.5 LAND SUBSIDENCE MONITORING USING PERSISTENT SCATTERER INSAR (PSINSAR) IN KELANTAN CATCHMENT	1948
<i>Ami Hassan Md Din, Mohd Nadzri Md Reba, Kamaludin Mohd Omar, Mohammad Rashidi Bin Md Razli, Noradila Rusli</i>	
WE3.2.6 INTEGRATION OF SATELLITE REMOTE SENSING DATA FOR GOLD PROSPECTING IN TROPICAL REGIONS	1959
<i>Amin Beiranvand Pour, Mazlan Hashim</i>	

SESSION WE3.3 – RS APPLICATIONS: ECOLOGY/ENVIRONMENT CHANGE 3

WE3.3.1 FRACTAL ANALYSIS FOR ENVIRONMENTAL SOUNDS	N/A
<i>Kai Miyazaki, Susumu Ogawa</i>	
WE3.3.2 REMOTE SENSING OF AEROSOL OPTICAL DEPTH OVER URBAN AND RURAL AREAS FROM SATELLITE AND GROUND-BASED OBSERVATIONS	N/A
<i>Nguyen Thi Thuy Hang, Tang-Huang Lin</i>	
WE3.3.3 WILD FIRE RISK MAP IN THE EASTERN STEPPE OF MONGOLIA USING SPATIAL MULTI-CRITERIA ANALYSIS	1966
<i>Elbegjargal Nasanbat, Ochirkhuyag Lkhamjav</i>	
WE3.3.4 HEAT ISLAND DETECTION IN COAL MINING AREAS USING MULTITEMPORAL REMOTE SENSING	1975
<i>Nurul Ihsan Fawzi, Retnadi Heru Jatmiko</i>	
WE3.3.5 CHARACTERIZING SPATIAL DISTRIBUTION AND ENVIRONMENTS OF SUMATRAN PEAT SWAMP USING 250 M MULTI-TEMPORAL MODIS DATA	1984
<i>Yudi Setiawan, Hidayat Pawitan, Lilik Budi Prasetyo, Muhammad Irfansyah Lubis, May Parlindungan, Annisa Nurdiana</i>	

WE3.3.6 UNDERSTANDING THERMAL FLUXES IN AND AROUND PUNE CITY USING RE-MOTELY SENSED DATA	1993
<i>Ravina More, Neha Kale, Garima Kataria, Piyush Yadav, Shailesh Shank Deshpande</i>	

SESSION WE3.4 – RS APPLICATIONS: GIS SPATIAL DATABASE & MOBILE MAPPING

WE3.4.1 INTERFACING A GEO-DATABASE AND A TRAINING SCENARIO LIBRARY FOR AN ONLINE SCENARIO DATABASE ACCESSIBLE TO DEFENSE SIMULATORS	2002
<i>Nirut Chalainanont, Chamnan Kunsap, Worakhong Meekhla</i>	
WE3.4.2 SEAMLESS EMERGENCY REPORTING SYSTEM USING MOBILE APPLICATION	2009
<i>Mark Phil B. Pacot, Rolyn C. Daguil</i>	
WE3.4.3 ANDROID APPLICATION DEVELOPMENT FOR DATA CAPTURING AND MAPPING LAND FEATURES: A MAPPING AND PROJECT MONITORING TOOL FOR PHIL-LIDAR 2.B.14 PROJECT	2016
<i>Michelle V. Japitana, Roel G. Damalerio</i>	
WE3.4.4 DEVELOPMENT OF A MOBILE DATA COLLECTION AND MANAGEMENT SYSTEM	2026
<i>Nguyen Thi Mai Dung, Tran Trung Chuyen, Nguyen Truong Xuan, Tran Truong Giang, Le Hong Anh, Dao Ngoc Long</i>	
WE3.4.5 WEB APPLICATION FOR REAL TIME VISUALIZATION AND DATA COLLECTION VIA SMARTPHONES	2033
<i>Laurence Jay Mabao Lerit, Alex S. Olpen-Da</i>	
WE3.4.6 3D BUILDING GIS DATABASE GENERATION FROM LIDAR DATA AND FREE ONLINE WEB MAPS AND ITS APPLICATION FOR FLOOD HAZARD EXPOSURE ASSESSMENT	2037
<i>Jojene R. Santillan, Meriam Makinano-Santillan, Linbert C. Cutamura, Jesiree L. Serviano</i>	

SESSION WE3.5 – RS APPLICATIONS: LASER SENSORS/LIDAR 1

WE3.5.1 AIRBORNE LIDAR FOR ESTIMATING ABOVEGROUND BIOMASS IN DIPTERO-CARP FORESTS OF MALAYSIA	2051
<i>O. Hamdan, O. Nor Azura, A. D. Nurul Dasani, F. Mohd Azahari K. Abd Rahman</i>	
WE3.5.2 ASSESSMENT OF VEGETATION LANDSCAPE INDEX IN URBAN AREAS FROM TERRESTRIAL LIDAR DATA	2061
<i>Takuhiro Wakita, Junichi Susaki, Amane Kuriki</i>	
WE3.5.3 THE APPLICATION OF LIDAR DERIVED HIGH RESOLUTION DIGITAL TERRAIN MODELS (HRDTMS) FOR THE LAND-SLIDE DETECTION AND INVENTORY MAPPING OF CAMERON HIGHLANDS, MALAYSIA	2068
<i>Mohamad Abd Mana, Khamarrul Azahari Razak, Azhari Ahmad, Ferdous Ahmad, Mazlan Mohamad Zin, Mohammad Firuz Ramli</i>	
WE3.5.4 LIDAR-DERIVED ELEVATION AND TER-RAIN FOR REPLANTING OPERATION OF OIL PALM IN MALAYSIA	2073
<i>Mohd Hasmadi Ismail, Mohamad Khairil Mohamad Razi, Helmi Zulhaidi Mohd Shafri</i>	
WE3.5.5 LIDAR DATA VALIDATION FIELD METHODOLOGIES	2081
<i>Louie P. Balicanta, Joemarie S. Caballero, Patrizcia Mae P. Dela Cruz</i>	
WE3.5.6 NEW, FLEXIBLE APPLICATIONS WITH THE MULTI-SPECTRAL TITAN AIR-BORNE LIDAR	2082
<i>David Collison, Paul E. Larocque, Ahmed Shaker</i>	

SESSION WE3.6 – RS APPLICATIONS: EDUCATION AND TRAINING 1

WE3.6.1 REMOTE SENSING TECHNOLOGY TRANSFER AND ABSORPTIVE CAPACITY IN ASIA	2105
<i>Patrick Van Der Heiden, Christine Pohl, John Van Genderen</i>	
WE3.6.2 ENHANCING SPATIAL THINKING IN HIGH-SCHOOL EDUCATION: AN EVALUATION OF GEOGRAPHY TEXTBOOKS IN TAIWAN	2115
<i>Jinn-Guey Lay, Chih-Ying Wu, Chia-Jung Wu, Chung-An Wang</i>	
WE3.6.3 WAY-FINDING TEST USING GOOGLE MAP STREET VIEW: A PILOT STUDY ON SPATIAL COGNITION	2121
<i>Chun-Min Chou, Jinn-Guey Lay, Chia-Jung Wu</i>	
WE3.6.4 COMPARISON ON THE APPLICATIONS OF OLD (1":1MILE) SCALE TOPO-GRAPHIC MAPS AND NEW SCALE (1:50, 000) UTM MAPS IN MYANMAR	2125
<i>Tin Aung Moe</i>	
WE3.6.5 ADDRESSING THE GEOSPATIAL DATA GAP FOR DRR IN THE PHILIPPINES: OPENSTREETMAP AND RELATED OPEN PLATFORMS	2126
<i>Julius Millano Bañgate</i>	

SESSION WE3.7 – RS APPLICATIONS: GIS VISUALIZATION 2

WE3.7.1 KYOTO HEIAN CAPITAL 4D IMADAS 2015 FOR 3D CITY MODELING	2127
<i>Hiroyuki Hasegawa, Mahesh Gogate, Kengo Miyahara</i>	
WE3.7.2 EXTRACTION AND VISUALIZATION OF WIND SPEED IN A GIS ENVIRONMENT FROM A WEATHER RESEARCH AND FORECASTING (WRF) OUTPUT USING PYTHON	2137
<i>Jerome T. Tolentino, Victoria Rejuso, Jara Kaye Villanueva, Loureal Camille Inocencio, Rosario Concepcion Ang</i>	

WE3.7.3 VISUALIZATION OF OPEN DATA: A CASE STUDY OF CLIMATE DATA	2146
<i>Wan-Hsin Mao, Jihn-Fa Jan</i>	
WE3.7.4 INVESTIGATION OF URBAN DEVELOPMENT AND ITS SOCIO-ECONOMIC ASPECTS OF TRANS-SIBERIAN RAILWAY (TSR)	2156
<i>Seina Uchida, Wataru Takeuchi, Kiichiro Hatoyama, Yuri Mazurov</i>	
WE3.7.5 GIS BASED FOR DEVELOPING SUPPORT APPLICATION OF CONCRETE CONSTRUCTION UNDER THE VARIOUS ENVIRONMENT	2165
<i>Hiroki Ishida, Sumiko Anno, Takeshi Iyoda</i>	
WE3.7.6 SEDIMENT LOAD ESTIMATION IN LEM-ON CREEK: ANALYSIS BASED ON HY-DROGRAPHIC SURVEY AND 3D GIS	2171
<i>Jared P. Culdora, Melfred Anthony Berdera, Meriam M. Santillan, Jojene R. Santillan</i>	

SESSION WE3.8 – JOINT AARS AND ASPRES SPECIAL SESSION: INTERLINKING FROM ASIA ON GLOBAL CLIMATE CHANGE AND ITS IMPACTS

WE3.8.1 VULNERABILITY, ADAPTATION AND RESILIENCE TO CLIMATE CHANGE	N/A
<i>Mitsunori Yoshimura</i>	
WE3.8.2 DISASTER RISK REDUCTION AND RE-MOTE SENSING SOLUTIONS	N/A
<i>Oscar Lizardo</i>	
WE3.8.3 DISASTER RISK MANAGEMENT: A PER-SPECTIVE FROM GLOBAL TO REGION-AL ISSUES	N/A
<i>Orhan Altan</i>	

SESSION WE4.1 – RS APPLICATIONS: COASTAL ZONE AND FISHERIES 3

WE4.1.1 A COMBINATION METHOD OF DIFFERENTIAL EVOLUTION ALGORITHM AND NEURAL NETWORK FOR AUTOMATIC IDENTIFICATION OIL SPILL AT VIETNAM EAST SEA	2180
<i>Le Minh Hang, Vu Van Truong</i>	
WE4.1.2 DAY TIME VARIATIONS OF NDVI FROM GEOSTATIONARY OCEAN COLOR IMAGER (GOCI) DATA	2189
<i>Hwa-Seon Lee, Kyu-Sung Lee</i>	
WE4.1.3 ESTIMATION OF CHLOROPYLLA CONCENTRATION ON OLIGOTROPHIC OPEN WATERS OF THE PHILIPPINES: A CASE STUDY FOR POLILIO	2191
<i>Mark Jayson B. Felix, Jamaica N. Pangasinan, Gay Jane P. Perez</i>	
WE4.1.4 EVALUATION OF CANNY EDGE DETECTION AND MUTI-THRESHOLD SEGMENTATION TECHNIQUE FOR PRECISE MAPPING AND INVENTORY OF AQUA-CULTURE PONDS IN COASTAL AREAS	2195
<i>Rudolph V. Peralta, Ayin M. Tamondong</i>	
WE4.1.5 MONITORING THE EFFECT OF SEASON-AL VARIATION ON THE OCEAN PRODUCTIVITY: A CASE STUDY IN THE BAY OF BENGAL	2203
<i>Noor Saadah Sabarudin, Md Latifur Rahman Sarker</i>	
WE4.1.6 OBJECT-BASED IMAGE ANALYSIS: SEAMLESS CLASSIFICATION OF COASTAL RESOURCES IN TABANGO, LEYTE AFTER TYPHOON HAIYAN	2211
<i>Sheila Marie S. Rabi, Christine R. Beltran, Rianel April A. Palo, Omar P. Jayag, Humberto R. Montes Jr., P Garcia</i>	

SESSION WE4.2 – RS APPLICATIONS: LAND USE/LAND COVER 2

WE4.2.1 A COMPARISON OF LAND COVER CLASSIFICATION RESULTS OF OPTICAL AND RADAR IMAGES USING OBJECT BASED IMAGE ANALYSIS	2218
<i>Sheryl Rose Cay Reyes, Angelica Kristina Monzon, Jose Don De Alban, Margie Parinas, Daniel Marc Dela Torre</i>	
WE4.2.2 CHANGING LANDSCAPE OF JAMBI PROVINCE: A MULTI TEMPORAL ANALYSIS USING MODERATE RESOLUTION SATELLITE IMAGERIES	2219
<i>Muhammad Irfansyah Lubis, Yudi Setiawan, Hidayat Pawitan, Lilik Budi Prasetyo</i>	
WE4.2.3 THE USE OF TIME SERIES ANALYSIS IN LAND USE/COVER CHANGE	2226
<i>Fulya Basak Sariyilmaz, Nebiye Musaoglu</i>	
WE4.2.4 MIXTURE ANALYSIS OF MODIS NDVI AND NDWI TIME-SERIES TO DETECT ABANDONED FARMLANDS	2232
<i>Asahi Sakuma, Hiroto Shimazaki</i>	
WE4.2.5 IMPACT OF LAND USE CHANGE ON THE WEATHER RESEARCH AND FORE-CASTING (WRF) OUTPUT: A CASE STUDY FOR THE PHILIPPINES	2238
<i>Robert Baluyot Badrina, Jay Samuel L. Combinido, Gay Jane P. Perez</i>	
WE4.2.6 THE POTENTIAL ABILITY OF CHINESE HJ-1B SATELLITE DATA IN DROUGHT MONITORING FROM SURFACE MINING AFFECTED AREA IN THE SEMI-ARID GRASSLAND	2247
<i>Feifei Zhao, Nisha Bao, Lixin Wu, Shanjun Liu, Yanan Liu</i>	

SESSION WE4.3 – RS APPLICATIONS: HYDROLOGY 1

WE4.3.1 INTEGRATION OF GIS AND HEC-RAS HYDRAULIC MODEL FOR FLOOD INUNDATION MAPPING IN SUNGAI SU BASIN	2257
<i>Mohd Nadzri Md Reba, Mohd Khairul Abdullah Halim, Nurul Hani Roslan</i>	
WE4.3.2 IMPROVED RIVER LEVEL RETRIEVAL IN SOUTH ASIA BY SARAL/ALTIKA RADAR ALTIMETRY	2268
<i>Kuo-Hsin Tseng, Guan-Ting Liu</i>	
WE4.3.3 REMOTELY SENSED DATA FOR GROUND WATER MONITORING	2273
<i>Kyaw Sann Oo, Wataru Takeuchi</i>	
WE4.3.4 EFFECT OF LAND USE CHANGE ON SURFACE RUNOFF IN AN UNGAUGED BASIN IN WESTERN HIMALAYA, INDIA	2278
<i>Pratik Dash, Narender Verma, S. P. Aggarwal</i>	
WE4.3.5 PARAMETERIZATION AND SENSITIVITY ANALYSIS USING SUFI-2 IN SWAT-CUP FOR CALIBRATION OF WATERSHED MODEL IN TANJAY RIVER NEGROS ORIENTAL	2287
<i>Ana Margarita Guillemo, Dindo Karl Mari Malonzo, Rowane May Fesalbon, Loureal Camille Inocencio, Ma. Rosario Concepcion Ang</i>	
WE4.3.6 FLOOD RISK ASSESSMENT USING HYDROLOGIC MODELLING IN MUSIMUSI RIVER BASIN, MINDANAO, PHILIPPINES: A PRELIMINARY RESULT	2292
<i>Lory Jane J. Dejos, Rose Angelica L. Amper, George R. Puno</i>	

SESSION WE4.4 – RS APPLICATIONS: GIS APPLICATIONS IN RESOURCE MANAGEMENT 2

WE4.4.1 ESTABLISHMENT OF 3D GIS-BASED WATER RESOURCES INFORMATION MANAGEMENT SYSTEM IN THE PHILIPPINES	2298
<i>Hyun-Cheol Park, Yun-Jae Choung, Jae-Woong Yun, Kwang-Se Lee, Myung-Hee Jo</i>	
WE4.4.2 GIS SPATIAL MODEL BASED FOR DAM RESERVOIR ON DRY WADIS	2303
<i>Abdelnasser Rashash Ali, Mohamed E. S., Belal A. El-Shirbeny M.</i>	
WE4.4.3 OPTIMALITY ANALYSIS FOR BIOMASS ENERGY DEVELOPMENT IN NUEVA ECIJA, PHILIPPINES	2318
<i>Klathea H. Sevilla, Marjorie Remolador, Bryan Baltazar, Imee Saladaga, Loureal Camille Inocencio, Rosario Concepcion Ang</i>	
WE4.4.4 EXAMINING SPATIAL DISTRIBUTION OF CROW SPECIES BY COMBINING ARCMAP & MAXENT MODEL	2324
<i>Talal Yousuf Al-Awadhi, Samira Al-Lamki, Reem Al-Lamki</i>	
WE4.4.5 GIS-BASED CROP SUITABILITY AND CLIMATE CHANGE VULNERABILITY OF FARMING SYSTEMS IN CAGAYAN VALLEY	2330
<i>Januel P. Floresca</i>	
WE4.4.6 SELECTION OF OPTIMUM SITES FOR SOLAR ENERGY FARMS USING A GIS-BASED SOLAR RADIATION MODEL AND SITE SUITABILITY ANALYSIS	2340
<i>Eula Fae Duroy Sola, Ben Hur S. Pintor, Justine G. Teves, Loureal Camille V. Inocencio, Ma. Rosario Concepcion O. Ang</i>	

SESSION WE4.5 – RS APPLICATIONS: LASER SENSORS/LIDAR 2

WE4.5.1 LAND-COVER IDENTIFICATION FROM AIRBORNE WAVEFORM LIDAR USING A WAVEFORM STACKING METHOD	2347
<i>Hsien-Ming Wu, Tee-Ann Teo</i>	
WE4.5.2 DEVELOPING SEMI-AUTOMATED TOOLBARS FOR DATA PROCESSING AND FLOOD MODELLING: THE CASE OF HAZARD ASSESSMENT AND MAP-PING IN MIMAROPA AND LAGUNA, PHILIPPINES	2357
<i>Gillian Katherine L. Inciong, Edwin R. Abucay, Leendel Jane D. Punzalan, Sarah Joy A. Acepcion, Gemmalyn E. Magnaye, Jayson L. Arizapa, Kevin M. Manalo, Ivan Marc H. Escamos</i>	
WE4.5.3 EXTRACTION OF WATERFALLS FROM DTM USING OBIA: A CASE STUDY OF MANTAYUPAN FALLS IN BARILI, CEBU	2367
<i>Anthony Val C. Camposano, Marx Sandino Pelone, Renante Violanda, Atanacio T. Almocera Jr., Roland Otadoy</i>	
WE4.5.4 OBJECT-BASED POINT CLOUD CLASSIFICATION USING AIRBORNE WAVE-FORM LIDAR	2373
<i>Tee-Ann Teo</i>	
WE4.5.5 AIRBORNE LIDAR SURVEYING IN THE PHILIPPINES: DATA ACQUISITION OF THE NATIONWIDE DISASTER RISK AND EXPOSURE ASSESSMENT FOR MITIGATION (DREAM) PROGRAM IN THE 18 MAJOR RIVER BASINS	2382
<i>Kristine Joy Andaya, Jasmine Alviar, Pearl Mars, Christopher Cruz, Czar Jakiri Sarmiento, Louie Balicanta, Enrico Paringit</i>	
WE4.5.6 3D GIS MODELING APPLICATION FOR DEVELOPING THE 3D CITY MODEL OF BUTUAN CITY, PHILIPPINES	2392
<i>Alexander Demetillo, Michelle Japitana, Peter John Galamiton</i>	

SESSION WE4.6 – RS APPLICATIONS: ATMOSPHERE/OCEANOGRAPHY 3

WE4.6.1 ESTIMATION OF WATER DEPTH WITH MULTISPECTRAL SATELLITE IMAGE	2393
<i>Wei-Tsun Lin, Peter Tian-Yuan Shih, Jiu-Fu Huang, Jie-Chung Chen</i>	

WE4.6.2 STUDY OF BATHYMETRY EXTRACTION INFORMATION USING LANDSAT-8 DATA	2399
<i>Kuncoro Teguh Setiawan, Syifa Wismayati Adawiah, Yennie Marini, Gathot Winarso</i>	

VOLUME 4

WE4.6.3 SPATIAL CHARACTERISTICS OF THE SURFACE CIRCULATION AND WAVE CLIMATE USING HIGH-FREQUENCY RADAR	2405
<i>Apisit Kongprom, Siriluk Prukpitikul, Varatip Buakaew, Watchara Kesdech, Teerawat Su-Wanlertcharoen</i>	
WE4.6.4 RAINFALL INTENSITY CLASSIFICATION FROM MODERATE RESOLUTION IMAGING SPECTRODIOMETER (MODIS) CLOUD PRODUCTS	2415
<i>Jason P. Punay, Gay Jane P. Perez</i>	
WE4.6.5 MULTI-TEMPORAL SATELLITE IMAGES WITH BATHYMETRY CORRECTION FOR MAPPING AND ASSESSING SEAGRASS BED CHANGES IN DONGSHA ATOLL	2416
<i>Chih-Yuan Lin, Hsuan Ren</i>	
WE4.6.6 WIND ENERGY RESOURCE ASSESSMENT USING WEATHER RESEARCH & FORECASTING (WRF) MODEL	2424
<i>Victoria D. Rejuso, Jara Kaye Villanueva, Gerry Bagtasa, Rosario Concepcion Ang</i>	

SESSION WE4.7 – RS APPLICATIONS: GPS AND PHOTOGRAMMETRY 1

WE4.7.1 CSEAS WILLIAMS HUNT COLLECTION 4D-IMADAS 2015	2425
<i>Hiroyuki Hasegawa, Satoru Kobayashi</i>	
WE4.7.2 USING MECHANICAL INTERPOLATION METHOD FOR ORTHORECTIFICATION TO GENERATE LARGE SCALE IMAGE MAP FROM HIGH RESOLUTION DATA	2435
<i>Wei Ruan</i>	
WE4.7.3 A STUDY OF PLÉIADES TRI-STEREO SATELLITE IMAGERY FOR LARGE SCALE TOPOGRAPHIC MAPPING IN INDONESIA	2438
<i>Budhy Soeksmantono, Agung Budi Harto, Naoya Kanamoto, Saptomo H. Mertotaruno, Ketut Wikantika</i>	
WE4.7.4 COLORED POINT CLOUD RECONSTRUCTION BASED ON IMAGE INPAINTING	2446
<i>Masafumi Nakagawa, Shido Tanaka, Tatsuya Yamamoto</i>	
WE4.7.5 PATH DESIGN FOR GROUND-BASED PANORAMIC IMAGE ACQUISITION	2453
<i>Shido Tanaka, Masafumi Nakagawa</i>	
WE4.7.6 ARCGIS – A COMPREHENSIVE PLATFORM FOR IMAGERY	N/A
<i>Sheen Eisele Dalde</i>	

SESSION WE4.8 – RS APPLICATIONS: AMSR-2

WE4.8.1 SEA SURFACE TEMPERATURE OBSERVATION THROUGH CLOUDS BY THE ADVANCED MICROWAVE SCANNING RADIOMETER – 2	2459
<i>Akira Shibata</i>	
WE4.8.2 CURRENT STATUS OF THE GLOBAL CHANGE OBSERVATION MISSION 1ST - WATER “SHIZUKU” (GCOM-W) AND THE ADVANCED MICROWAVE SCANNING RADIOMETER 2 (AMSR2)	2464
<i>Takashi Maeda, Keiji Imaoka, Misako Kachi, Hiroyuki Tsutsui, Marehito Kasahara, Norimasa Ito, Taikan Oki, Haruhisa Shimoda</i>	
WE4.8.3 EVALUATION OF SOIL MOISTURE ESTIMATES DERIVED FROM THE ADVANCED MICROWAVE SCANNING RADIOMETER 2 (AMSR2) IN THE PHILIPPINES	2465
<i>Erika Mari R. Macapagal, Gay Jane P. Perez</i>	
WE4.8.4 GLOBAL FLOOD DETECTION AND SPATIO-TEMPORAL ANALYSIS FROM 2002-2015 BY AMSR-E, WINDSAT AND AMSR2	2475
<i>Xi Li, Wataru Takeuchi</i>	
WE4.8.5 ADVANTAGES OF AMSR2 FOR MONITORING SEA ICE FROM SPACE	2485
<i>Kohei Cho, Kazuhiro Naoki</i>	
WE4.8.6 USING AMSR-E AND AMSR2 DATA FOR SEA ICE TREND AND CLIMATE STUDIES	2493
<i>Josefino C. Comiso</i>	

SESSION TH1.1 – RS/GIS APPLICATIONS: GEOHAZARDS AND DISASTER 4

TH1.1.1 ASSESSING THE INCREASE IN EXPOSURE TO FLOOD HAZARD OF CRITICAL RIVER SYSTEMS BY INTEGRATING PREDICTED CHANGE IN RAINFALL SCENARIOS BASED ON GLOBAL CIRCULATION MODELS: A CASE STUDY FOR THE CAGAYAN DE ORO RIVER SYSTEM	2494
<i>John Louie Dusaban Fabila, Girlie F. David, Mark Joshua Salvacion</i>	
TH1.1.2 GEOGRAPHIC INFORMATION SYSTEM-ASSISTED FLOOD HAZARD MAPPING OF BUCAO AND SANTO TOMAS RIVER WATER-SHED	2500
<i>Annie Melinda Paz-Alberto, Armando N. Espino Jr., Nicasio C. Salvador, Bennidict P. Pueyo, Christopher R. Genaro</i>	
TH1.1.3 ENABLING INCREASED RESILIENCE TO FLOOD DISASTERS WITH SATELLITE RADAR	2507
<i>James Antifaev</i>	

TH1.1.4 FLOOD INUNDATION MAPPING ALONG THE PROPOSED DIKE SYSTEM OF THE CAGA-YAN DE ORO RIVER: THE SENDONG SCALE FLOOD	2512
<i>Dexter S. Lo, Jan Taat, Carl Ammiel P. Lapure, Augustini Ave O. Paduganan, Glenn Leandri Brylle L. Lamparas, Khim M. Baculio</i>	
TH1.1.5 ACTIVE FAULT IN THE UPPER REGION OF CIMANUK RIVER RELATED TO ITS IMPLICATION OF LANDSLIDE RISK ZONE	2522
<i>Nana Sulaksana, Ludya Hermayanti, Puguh Setiyanto, Ildrem Syafri, Murni Sulastri</i>	
TH1.1.6 GIS-AIDED FLOOD VULNERABILITY AS-SESSMENT OF HOUSEHOLDS IN BARAN-GAY TAGUIBO, BUTUAN CITY	2537
<i>Lorie Cris S. Asube, Pastor P. Garcia</i>	

SESSION TH1.2 – RS APPLICATIONS: GEOLOGY/GEOGRAPHY/GEOMORPHOLOGY 2

TH1.2.1 LIGHT-WEIGHT AERIAL HYPERSPECTRAL IMAGING REMOTE SENSING SYSTEM FOR REGIONAL GEOLOGICAL AND MINERAL RESOURCES SURVEYS	2544
<i>Peng Zhang, Taixia Wu, Lifu Zhang, Qingxi Tong</i>	
TH1.2.2 APPLICATION OF EARTH OBSERVING-1 (EO1) ADVANCED LAND IMAGER (ALI) AND HYPERION DATA FOR PORPHYRY COPPER EXPLORATION	2552
<i>Amin Beiranvand Pour, Mazlan Hashim</i>	
TH1.2.3 GEOMORPHOLOGY AND INUNDATION BE-HAVIOR OF THIRTY CRITICAL WATER-SHEDS IN MINDANAO	2558
<i>George R. Puno, Rose Angelica L. Amper</i>	
TH1.2.4 TYPICAL APPLICATIONS OF AIRBORNE LIDAR TECHNOLOGY IN GEOLOGICAL INVESTIGATION	2564
<i>Zheng Xiongwei, Xiao Chunlei</i>	
TH1.2.5 MAPPING SABKHA HABITATS IN THE UNITED ARAB EMIRATES (UAE) USING LAND-SAT 8 DATA, PRINCIPAL COMPONENT ANALYSIS AND SOIL SALINITY INFORMATION	2571
<i>Abdelgadir Abuelgasim</i>	
TH1.2.6 GEOMORPHOLOGY OF BOHOL: IMPLICATION TO GEOHAZARD ASSESSMENT	2578
<i>Karra Fenine M. Lopez, Dr. Arturo S. Daag</i>	

SESSION TH1.3 – RS APPLICATIONS: URBAN CHANGE MONITORING

TH1.3.1 THE IMPACT OF HUMAN ACTIVITIES ON THE HEAT ISLAND EFFECT - A CASE STUDY OF ANNUAL ACTIVITIES	N/A
<i>Ren-De Chiu, Yi-Shiang Shiu, Re-Yang Lee, Tsu-Chiang Lei</i>	
TH1.3.2 PS-INSAR ANALYSIS AND ACCURACY EVALUATION OF A KNOWN TARGET WITH HEIGHT CHANGE	2588
<i>Hiroimichi Hirata, Ryo Saito, Hideya Tomita, Takakazu Ishii, Yukie Inoue, Hisatoshi Toriya, Minoru Murata</i>	
TH1.3.3 MONITORING AND PREDICTING URBAN GROWTH IN TAOYUAN CITY, TAIWAN	2592
<i>Tzu-Hsuan Hung, Shou-Hao Chiang</i>	
TH1.3.4 ANALYZING 3D URBAN DEVELOPMENT IN TAIPEI CITY	2599
<i>Yung-Ting Chuang, Shou-Hao Chiang, Chi-Farn Chen</i>	
TH1.3.5 LARGE SCALE MAPPING AND MONITORING OF SETTLEMENT AND URBAN AREAS WITH SPOT 6/7	2604
<i>Jérôme Soubirane, Hervé Poilve, Patrice Bicheron, Claire Brushini</i>	
TH1.3.6 WIDESPREAD LAND SUBSIDENCE IN METRO MANILA AND SURROUNDING AREAS SEEN FROM INSAR TIME-SERIES ANALYSIS	2610
<i>Rodrigo C. Eco, Anieri M. Morales Rivera, A. Mahar F. A. Lagmay, Falk Amelung, Kelvin S. Rodolfo</i>	

SESSION TH1.4 – DATA PROCESSING: ALGORITHM AND MODELING 2

TH1.4.1 COMPRESSION AND DENOISING OF HY-PERSPECTRAL IMAGES USING COMBINATION OF TUCKER DECOMPOSITION AND COMPRESSED SENSING METHODS	2611
<i>Azam Karami, Shirin Hassanzadeh</i>	
TH1.4.2 UTILIZATION OF MTSAT-2R, TRMM-2A12, AND ASTER GDEM-2 FOR RAINFALL ESTIMATION IN CENTRAL PART OF JAVA, INDO-NESEA	2612
<i>Hamim Zaky Hadibasyir, Hartono</i>	
TH1.4.3 ASSESSING THE WATER TURBIDITY OF TIEN AND HAU RIVER IN THE SOUTH OF VIETNAM BY USING LANDSAT-8 IMAGES	2613
<i>Luong Chinh Ke, Pham Thi Mai Thy, Lam Dao Nguyen</i>	
TH1.4.4 FRACTAL ANALYSIS FOR ENVIRONMENTAL SOUNDS	2614
<i>Kai Miyazaki, Susumu Ogawa</i>	
TH1.4.5 LAND COVER CHANGE ANALYSIS IN LEYTE AND SAMAR USING MODIS VEGETATION INDICES, PCA, AND ISODATA	2624
<i>Ariel C. Blanco, Alvin C. Baloloy</i>	

TH1.4.6 ASSESSMENT OF HAZE OPTIMIZED TRANS-FORM FOR THIN CLOUD REMOVAL: CASE STUDY IN DAVAO ORIENTAL PHILIPPINES	2625
<i>Mark Edwin A. Tupas, Jerimae Acosta, Alder-Man Alminana, Joana Decilos</i>	

SESSION TH1.5 – NEW GENERATION SENSORS AND APPLICATIONS 2

TH1.5.1 DEVELOPMENT OF HYPERSPECTRAL IMAGING SENSOR WHICH MOUNTED ON UNMANNED AIRCRAFT FOR COASTAL ZONE STUDIES	2626
<i>Genya Saito, Haruyuki Seki, Kuniaki Uto, Yukio Kosugi, Teruhisa Komatsu</i>	
TH1.5.2 FLOCK 1 DATA MULTI-OBJECTIVE EVOLUTIONARY ALGORITHM FOR TURBULENT FLOW DETECTION	2632
<i>Maged Marghany</i>	
TH1.5.3 RECENT ADVANCES IN FULL WAVEFORM LIDAR ACQUISITION AND PROCESSING VIA THE PULSEWAVES FORMAT AND API	2638
<i>Martin Isenburg</i>	
TH1.5.4 INTEGRATION OF RGB-D SENSOR AND DSLR CAMERA FOR INDOOR 3D MODEL GENERATION	2644
<i>Tzy-Shyuan Wu, Fuan Tsai</i>	
TH1.5.5 DETECTING FIRES USING HIGH RESOLUTION MULTISPECTRAL SHORT-WAVE INFRARED SATELLITE SENSORS	2648
<i>Soo Chin Liew, Leong Keong Kwoh</i>	
TH1.5.6 A STUDY OF EFFECT OF PLANTING DENSITIES AND DIRECTIONS ON RICE GROWTH MEASUREMENT USING LASER SCANNER	2649
<i>Anh Thu Phan Thi, Kazuyoshi Takahashi, Atsushi Rikimaru</i>	

SESSION TH1.6 – WEBGIS & DIGITAL EARTH

TH1.6.1 FLOOD EVIDENS: A WEB-BASED APPLICATION FOR NEAR-REAL TIME FLOOD EVENT VISUALIZATION AND DAMAGE ESTIMATIONS	2655
<i>Jojene R. Santillan, Edsel Matt O. Morales, Meriam Makinano-Santillan</i>	
TH1.6.2 THE OPTIONS OF BOUNDARY LINE DELIMITATION BETWEEN INDONESIA AND MALAYSIA IN THE WATER OF WEST COAST OF SEBATIK ISLAND, TERUSAN TAMBOE AND TERUSAN SIKAPAL	2665
<i>Amin Nurdin, Hasanuddin Z. Abidin, Eka Djunarsjah</i>	
TH1.6.3 MALAYSIAN WATER INFORMATION SYSTEM (MYWIS): A WEB-BASED GEOGRAPHIC INFORMATION SYSTEM FOR WATER YIELD INFORMATION IN PENINSULAR MALAYSIA	2675
<i>Mohd Nadzri Md Reba, Ivin Amri Musliman, Mazlan Hashim</i>	
TH1.6.4 WEBGIS TOOL FOR VISUALIZING ELEVATION PROFILES FOR PASIL B AND C HYDROELECTRIC POWER PLANT CONSTRUCTION PROJECT IN KALINGA, IFUGAO	2676
<i>Charmyne B. Mamador, Luis Caesar, Ian K. Panganiban</i>	
TH1.6.5 NEAR-REAL TIME RAINFALL MONITORING IN THE CARAGA REGION, MINDANAO, PHILIPPINES USING OPENLAYERS API AND JAVASCRIPT	2677
<i>Edsel Matt O. Morales, Jojene R. Santillan, Meriam M. Makinano-Santillan</i>	
TH1.6.6 WEB-BASED SCENARIO ASSESSMENT FOR EMERGENCIES AS A SCALABLE TOOL FOR DISASTER MITIGATION AND MANAGEMENT IN THE PHILIPPINES	2683
<i>Jenilyn Alconis, Ken Adrian Aracan, Alfredo Mahar Francisco Lagmay</i>	

SESSION TH1.7 – DEEP SPACE AND SPACE TECHNOLOGY

TH1.7.1 CUUT: A PRELIMINARY DATA ANALYSIS AT A NEW MULTI-GNSS CORS STATION	2684
<i>Constantin-Octavian Andrei, Chalermchon Satirapod, Phisan Santitamnont</i>	
TH1.7.2 A LOW COST VIDEO AND STILL IMAGING CONSTELLATION FOR HIGH TEMPORAL COVERAGE	2692
<i>Alex Da Silva Curiel, Andrew Cawthorne, Martin Sweeting</i>	
TH1.7.3 MISSION PLANNING TOOL FOR THAICHOTE EARTH OBSERVATION SATELLITE	2702
<i>Supatcha Chaimatanan, Wasanchai Vongsantivanich</i>	
TH1.7.4 AGILSPACE GEOSERVICES FOR SAFER AND GREENER ENVIRONMENTS	2711
<i>Seah Peng Hwee, Tan Tze Chung Maverick, Tan Wei Cheng Jennifer</i>	
TH1.7.5 GEOINFORMATION SERVICES OF THE RUSSIAN REMOTE SENSING SYSTEMS OPERATOR	2719
<i>Yulia Fedorkova</i>	

SESSION TH2.1 – RS APPLICATIONS: HYDROMETEOROLOGICAL HAZARDS

TH2.1.1 CONSEQUENCE OF CYCLONIC STORM HUD HUD ON COASTAL REGION OF VISAKHAPATNAM, ANDHRA PRADESH	2720
<i>G. Vivek</i>	

TH2.1.2 HAIL PROGNOSYS IN INDONESIA BY USING SEVERE HAIL INDEX METHOD BASED ON DOPPLER WEATHER RADAR OBSERVATION DATA	2721
<i>Abdullah Ali</i>	
TH2.1.3 ASSESSING TROPICAL CYCLONE DAMAGE USING MODERATE SPATIAL RESOLUTION SATELLITE IMAGERY: CYCLONE SIDR, BANGLADESH 2007	2730
<i>Muhammad Al-Amin Hoque, Stuart Phinn, Chris Roelfsema, Iraphne Childs</i>	
TH2.1.4 EXTRACTION OF SNOW COVER FRACTION AND SNOW DEPTH IN SOUTH KOREA FROM MODIS IMAGES	2737
<i>Jeong-Cheol Kim, Jae-Won Choi, Hyung-Sup Jung</i>	
TH2.1.5 EXTREME VALUE ANALYSIS OF EVAPORATIVE STRESS INDEX AS INPUT TO ASSESS AGRICULTURAL DROUGHT RISK IN THE PHILIPPINES	2741
<i>Resi O. Olivares, Marco D. Macapagal, Gay Jane P. Perez</i>	
TH2.1.6 IMPACT ASSESSMENT OF TROPICAL CYCLONE HUD HUD ON VISAKHAPATNAM, ANDHRA PRADESH, INDIA	2751
<i>G. Vivek, Kumar T. Srinivasa</i>	

SESSION TH2.2 – RS APPLICATIONS: VEGETATION AND CROPS 3

TH2.2.1 DATA CONTINUITY VALIDATION OF LAND-SAT 7 ETM+ AND LANDSAT 8 OLI BASED ON VEGETATION INDICES	2760
<i>Yi Cen, Hua Wang, Xiaojun She, Lifu Zhang, Taixia Wu, Changping Huang</i>	
TH2.2.2 GREEN OPEN SPACE DETECTION AND OWNERSHIP DISTRIBUTION IDENTIFICATION ON SPECIAL CAPITAL REGION OF JAKARTA USING SPOT-6 SATELLITE DATA IMAGERY	2770
<i>Arista Nurbaya, Alinda Fm Zain, Ruchyat Deni</i>	
TH2.2.3 POTENTIAL OF SUGAR CANE MONITORING USING SYNTHETIC APERTURE RADAR IN CENTRAL THAILAND	2778
<i>Thanit Intarat, Preesan Rakwatin, Panu Srestasathien, Peeteenut Triwong, Chanwit Tangsirirorakul, Samart Noivun</i>	
TH2.2.4 HORTICULTURE PLANTATION MAPPING USING REMOTE SENSING & GEOINFORMATICS IN HIMACHAL PRADESH	2787
<i>Alka Sharma, Sushma Panigrahy, M. H. Kalubarme</i>	
TH2.2.5 DETECT CHANGES IN RICE CROPPING SYSTEMS FROM 1980s TO 2010s USING LONG TERM DATA RECORD IN INDO-CHINA PENINSULA	2795
<i>Yi Ma, Nan N. Wang, Zhanyu Y. Liu</i>	
TH2.2.6 IDENTIFICATION OF DENT CORN USING L-BAND SAR-CASE STUDY OF KONSEN, HOKKAIDO, JAPAN	2805
<i>Naoki Ishitsuka, Nobuhiro Tomiyama, Tsukasa Makino</i>	

SESSION TH2.3 – DATA PROCESSING: AUTOMATIC/INTELLIGENT CLASSIFICATION; FEATURE EXTRACTION 1

TH2.3.1 AUTOMATIC DETECTION TECHNIQUE FOR REGION OF INTEREST IN THE SATELLITE IMAGE	2808
<i>Warinthorn Kiadtikornthaweeyot, Adrian R. L. Tatnall</i>	
TH2.3.2 A PIPELINE ALGORITHM FOR BUILDINGS AND STRUCTURES SHAPES GENERATION USING DERIVED LAS DATASET: AN EFFICIENT ALTERNATIVE TO MANUAL DIGITIZATION FROM ORTHOPHOTOS IN FLOOD HAZARD FEATURE EXTRACTION	2818
<i>Bernardino Jerez Buenaobra, Aure Flo Oraya, Aries Martin Openiano, Claurice L. Mangle, Lora Magnolia F. Cubero, Kirby Henriksen L. Tan, Arthur Gil T. Sabandal, Laarllyn N. Abalos, Janice B. Jamora, Ricardo Fornis, Roland Emerito S. Otadoy</i>	
TH2.3.3 OBJECT BASED SEGMENTATION EFFECT ON ROAD NETWORK EXTRACTION FROM SATELLITE IMAGES	2828
<i>Mehdi Maboudi, Jalal Amini</i>	
TH2.3.4 APPLICATION OF WAVELET BASED TEXTURE FEATURES IN CONTEXT OF OBJECT EXTRACTION FROM HIGH RESOLUTION SATELLITE IMAGES	2838
<i>Kuldeep, P. K. Garg</i>	
TH2.3.5 DELINEATION OF ROADS AND BUILT-UPS FROM LIDAR POINT CLOUD DERIVATIVES	2846
<i>Rena Christina C. Puno, Ray Mari N. Mozo, Alex S. Olpenda, Jigg L. Pelayo</i>	
TH2.3.6 ANALYSIS OF SPATIAL AND TEMPORAL DISTRIBUTION OF CHLOROPHYLL-A AND SEA SURFACE TEMPERATURE USING AQ-UA-MODIS SATELLITE IN SURROUNDING WAWONII ISLAND, SOUTHEAST SULAWESI PROVINCE-INDONESIA	2850
<i>Muslim Tadjuddah</i>	

SESSION TH2.4 – REMOTE SENSING AND GIS INTEGRATION 2

TH2.4.1 SATELLITE IMAGES AND GEOGRAPHIC INFORMATION SYSTEM FOR LANDSCAPE STRUCTURE ANALYSIS AND ASSESSMENT, NAKHON RATCHASIMA, THAILAND	2851
<i>Intareeya Suthivanich, Suriporn Charungthanakij</i>	

TH2.4.2 MODELING OF POPULATION DENSITY BASED ON LAND COVER USING GEOSPATIAL DATA WITH 90 M RESOLUTION	2861
<i>Albertus Deliar, Riantini Virriana, Agung Budi Harto, Irawan Sumarto, Udjianna S Pasaribu, Mohammad Taufik, Aminah Kastuari</i>	
TH2.4.3 IFSAR AND LANDSAT-BASED POPULATION DENSITY MAPPING AS BASIS FOR NATION-WIDE EXPOSURE AND NEEDS ASSESSMENTS FOR EXTREME WEATHER EVENTS IN THE PHILIPPINES	2871
<i>Ken Adrian Aracan, Noel Jerome Borlongan, Jenalyn Alconis, Alfredo Mahar Francisco Lagmay</i>	
TH2.4.4 SURFACE RUNOFF ANALYSIS FOR CHAND RIVER BASIN USING SCS-CN METHOD AND GEOGRAPHIC INFORMATION SYSTEM	2872
<i>Abhijit M. Zende, R. H. B. Ramamurthy, Sachin K. Patil</i>	
TH2.4.5 ANALYSIS OF AIR QUALITY IN INDIAN CITIES USING REMOTE SENSING AND ECONOMIC GROWTH PARAMETERS	2879
<i>Prakhar Misra, Wataru Takeuchi</i>	
TH2.4.6 BUILDING A FOOD SOVEREIGNTY IN THE ISLANDS MARITIME	2887
<i>Bambang Riadi</i>	

SESSION TH2.5 – DEEP SPACE EXPLORATION, SPACE ENVIRONMENT AND TECHNOLOGY

TH2.5.1 FOUR YEARS NORMAL OPERATION OF COMS FOR EARTH OBSERVATION MISSION	2893
<i>Young-Min Cho</i>	
TH2.5.2 INCLINED SATELLITE ORBITS AND RESULTING GROUND STATION NETWORK SOLUTIONS FOR NEAR EQUATORIAL AREAS	2899
<i>Martin Krynitz, Kenneth Olafsson</i>	
TH2.5.3 MINIMIZING LATENCY BY USING EXISTING GLOBAL GROUND STATION NETWORKS	2905
<i>Kenneth Olafsson, Martin Krynitz</i>	
TH2.5.4 BIASED RANDOM KEY GENETIC ALGORITHM FOR MULTIPLE PRIORITIES TASK SCHEDULING APPLIED TO EARTH OBSERVING SATELLITE MISSION	2910
<i>Panwadee Tangpattanakul, Supatcha Chaimatanan</i>	
TH2.5.5 4-D GEOLOGICAL FEATURE RECONSTRUCTIONS IN MARS USING HIGH RESOLUTION STEREO CAMERA (HRSC)	2917
<i>Maged Marghany</i>	
TH2.5.6 SPOT SATELLITES TO SUPPORT REDD AT NATIONAL & PROJECT SCALES	2923
<i>Jerome Soubirane, Patrick Houdry</i>	

SESSION TH2.6 – DATA PROCESSING: CHANGE DETECTION

TH2.6.1 A STUDY ON THE DEVELOPMENT OF DAMAGE SCALE ESTIMATION PROCESS TO IDENTIFY DAMAGES BY A NATURAL DISASTER	2928
<i>Seungho Hwang, Kye Hyun Kim, Seongkwang Oh</i>	
TH2.6.2 CHANGE DETECTION OF MULTI-TEMPORAL OBLIQUE AERIAL IMAGES	2935
<i>Yun-An Chen, Jing-Ping Jhan, Jiann-You Rau</i>	
TH2.6.3 UNSUPERVISED ENSEMBLE CHANGE DETECTION USING KERNEL PCA	2943
<i>Panu Srestasathien, Siam Lawawirojwong, Narut Soontranon, Preesan Rakwatin</i>	
TH2.6.4 DYNAMICS PATTERN ANALYSIS OF PADDY FIELDS IN INDONESIA FOR DEVELOPING A NEAR REAL-TIME MONITORING SYSTEM USING MODIS SATELLITE IMAGES	2952
<i>Yudi Setiawan, Liyantono, Alvin Fatikhunnada, Prita Ayu Permatasari, Muhammad Rizky Aulia</i>	
TH2.6.5 APPLICATIONS OF MULTITEMPORAL RS IMAGES FOR LAND COVER CHANGE STUDIES IN CENTRAL MONGOLIA	2960
<i>D. Amarsaikhan, E. Jargaldalai, D. Enkhjargal, A. Munkh-Erdene, D. Bayarbaatar</i>	
TH2.6.6 LONG-TERM WATER BALANCE IN THE MEKONG DELTA, VIETNAM	2966
<i>Susumu Ogawa</i>	

SESSION TH2.7 – RS APPLICATIONS: FORESTRY

TH2.7.1 MAPPING MANGROVE SPECIES WITH HIGH RESOLUTION OPTICAL AND POLARIMETRIC SAR SATELLITE DATA	2967
<i>Hongsheng Zhang, Hui Lin</i>	
TH2.7.2 TOPOGRAPHIC CORRECTION OF NDVI IN MOUNTAINOUS REGIONS	2974
<i>Ting-Chun Lin, Jhe-Syuan Lai, Fuan Tsai, Tang-Huang Lin</i>	
TH2.7.3 THE USAGE OF COMBINED LANDSAT 8 IMAGERY AND ADDITIONAL BANDS FOR RANDOM FOREST CLASSIFICATION IMPROVEMENT	2979
<i>Nagihan Aslan, Dilek Koc-San</i>	
TH2.7.4 SELECTING AN OPTIMUM INDEX TO EXAMINE FOREST QUALITY BASED ON MODEL AREA	2988
<i>Sunya Sarapirome, Phenraphai Phuthong</i>	
TH2.7.5 MONITORING IN NORTH KOREA USING MODIFIED NDVI METHOD	2997
<i>Sunmin Lee, Sung-Hwan Park, Hyung-Sup Jung</i>	

TH2.7.6 CHANGE DETECTION OF FOREST AREAS USING OBJECT-BASED IMAGE ANALYSIS (OBIA): THE CASE OF CARRASCAL, SURIGAO DEL SUR, PHILIPPINES	3001
<i>Amira Janine T. Magusara, Michelle V. Japitana</i>	

SESSION TH3.1 – RS APPLICATIONS: ATMOSPHERE

TH3.1.1 COMPARISON OF THE PERFORMANCE AOT RETRIEVAL USING RT CODE AND DIRECT APPROACH USING MODIS 500M DATA	3011
<i>Ahmad Mubin Wahab, Md Latifur Rahman Sarker</i>	
TH3.1.2 THE OPTIMAL USE OF AIRS AND AMSU RETRIEVED SOUNDINGS ON SHORT-TERM WEATHER FORECASTS	3020
<i>Szu-Chen Kuo, Chian-Yi Liu, Yu-Chi Yang, Gin-Rong Liu, Tang-Huang Lin</i>	
TH3.1.3 QUICK ATMOSPHERIC CORRECTION (QUAC) OF WORLDVIEW-3 MULTISPECTRAL IMAGERY – A COMPARISON TO HYPERSPECTRAL IMAGERY RESULTS	3025
<i>Stephen B. Carr</i>	
TH3.1.4 THE DIAGNOSIS OF CWB MODEL FORE-CAST BY USING COMMUNITY RADIATIVE TRANSFER MODEL	3035
<i>Meng-Yue Lin, Mei-Yu Chang, Chain-Yi Liu, Gin-Rong Liu</i>	
TH3.1.5 A COMPARATIVE STUDY OF AEROSOL OPTICAL DEPTH OVER SINGAPORE FROM 2007-2014: RESULTS FROM AERONET AND MODIS DATA ANALYSIS	3045
<i>Santo V. Salinas, Astrid Muller, Tan Li</i>	
TH3.1.6 SELECTING AN OPTIMAL ATMOSPHERIC CORRECTION MODEL FOR ABOVE-GROUND FOREST BIOMASS ESTIMATION	3051
<i>Nguyen Cong Hieu, Joon Heo</i>	

SESSION TH3.2 – RS APPLICATIONS: GEOLOGY/GEOGRAPHY/GEOMORPHOLOGY 3

TH3.2.1 COPPER MINE AUTOMATIC DETECTION FROM TERRASAR-X USING PARTICLE SWARM OPTIMIZATION I	3056
<i>Maged Marghany</i>	
TH3.2.2 LANDSAT TM AND SRTM SATELLITE DATA FOR GEOLOGICAL MAPPING IN TROPICAL ENVIRONMENTS: A CASE STUDY FROM PENINSULAR MALAYSIA	3061
<i>Amin Beiranvand Pour, Mazlan Hashim</i>	
TH3.2.3 LITHOLOGICAL MAPPING OF IGNEOUS AND METAMORPHIC ROCKS IN THE CENTRAL EASTERN DESERT OF EGYPT USING REMOTE SENSING DATA	3067
<i>Mohamed F. Sadek, Safaa M. Hassan, Mohamed W. Ali-Bik</i>	
TH3.2.4 MAPPING SURFACE DEFORMATION IN RED RIVER FAULT ZONE USING SPACEBORNE SAR INTERFEROMETRY	3077
<i>Xuan Thi Nguyen, Chung-Pai Chang</i>	
TH3.2.5 INTERPRETATION AND FIELD VERIFICATION OF GROUND SUBSIDENCE USING SAR INTERFEROMETRY IN BANDUNG, WEST JAVA INDONESIA	3083
<i>T. P. Sidiq, Irwan Gumilar, B. Subekti, H. Z. Abidin, Mohamad Gamal</i>	
TH3.2.6 IDENTIFICATION MINERALIZED ALTERATION ZONES USING MULTISPECTRAL REMOTE SENSING DATA SOUTH EASTERN DESERT EGYPT	3093
<i>Safaa Mohamed Sayed, Sultan Ahmed Sultan</i>	

SESSION TH3.3 – PHILGRSS SPECIAL SESSION: EL NINO 2015 AND DROUGHT EVENTS

TH3.3.1 CHARACTERIZING THE 2015 DRY SPELL IN THE PHILIPPINES USING SATELLITE DERIVED SOIL MOISTURE AND RAINFALL ESTIMATES	3094
<i>Erika Mari R. Macapagal, Gay Jane P. Perez</i>	
TH3.3.2 DETECTION OF AGRICULTURAL DROUGHT EVENTS IN THE PHILIPPINES USING MODIS LAND PRODUCTS	3095
<i>Marco D. Macapagal, Gay Jane P. Perez</i>	
TH3.3.3 IDENTIFICATION OF WATER IMPOUNDMENTS SITES FROM REMOTE SENSING DATA ANALYSIS AND HYDRAULIC MODELING	3104
<i>Sylvia Sueno, Enrico Paringit</i>	

SESSION TH3.4 – MICROWAVE SENSORS/SAR/INSAR/D-INSAR 2

TH3.4.1 DEVELOPMENT OF POLARIMETRIC DECOMPOSITION TECHNIQUES FOR LAND USE AND LAND COVER MAPPING USING RISAT-1 RADAR SATELLITE SENSOR DATA	3105
<i>Jayashree Sridhar, Sahana Mahadev, Ashoka Vanjare, S. N. Omkar, Pg Diwakar</i>	
TH3.4.2 MAPPING RICE AREAS IN MINDANAO USING THE FIRST IMAGES FROM SENTINEL-1A: THE PRISM PROJECT EXPERIENCE	3114
<i>Jeny Raviz, Mary Rose Mabalay, Alice Laborte, Andrew Nelson, Francesco Holecz, Eduardo Jimmy Quilang, Massimo Barbieri, Jovino De Dios, Frances-Co Collivignarelli, Luca Gatti, Arnel Rala, Cornelia Garcia, Pristine Mabalot, Jean Rochielle Mirandilla, Marjie Dovern</i>	

TH3.4.3 COMPARISON OF THE ADVANCED LAND OBSERVING SATELLITE (ALOS) DATA TO THE LIGHT DETECTION AND RANGING (LIDAR) DATA, SHUTTLE RADAR TOPOGRAPHY MISSION (SRTM) DATA, AND THE SYNTHETIC APERTURE RADAR (SAR) DATA FOR THE PHILIPPINES' DREAM/PHIL-LIDARI PROGRAM	3122
<i>Ryan James Nicholai Dizon, Gladys Mae Apat, Rosario Concepcion O. Ang</i>	
TH3.4.5 INVESTIGATION OF BACKSCATTERING CHARACTERISTICS OF AGRICULTURAL LAND ABANDONMENT AND NON-ABANDONMENT BASED ON ALPHA/ENTROPY/ANISOTROPY DECOMPOSITION OF ALOS PALSAR	3131
<i>Soni Darmawan, Wataru Takeuchi, Farrah Melissa Muharam, Muhamad Hafiz Abd. Razak</i>	
TH3.4.6 UTILIZATION OF EARTH GRAVITY DENSITY FOR COAL DETECTION USING REMOTE SENSING DATA	3132
<i>Atriyon Julzarika</i>	

SESSION TH3.5 – RS APPLICATIONS: COASTAL AND WATER RESOURCES

TH3.5.1 DETECTING AND PREDICTING CHANGES IN MANGROVE FOREST IN WEST AND CENTRAL AFRICA USING LANDSAT SATELLITE DATA	3133
<i>Tran-Thanh Dan, Chi-Farn Chen, Shou-Hao Chiang, Susumu Ogawa</i>	
TH3.5.2 MAPPING SEAGRASS BEDS AND CORAL REEFS IN THE COASTAL OF NINH HAI DISTRICT NINH THUAN PROVINCE OF VIETNAM USING LANDSAT 8 OLI IMAGE	3143
<i>Va-Khin Lau, Chi-Farn Chen, Hoang-Son Tong Phuoc</i>	
TH3.5.3 MAPPING OF SHALLOW WATER SEAGRASSES IN THE COAST OF SURIGAO DEL SUR, PHILIPPINES USING REMOTE SENSING TECHNIQUES	3149
<i>Michelle V. Japitana, Monalaine M. Bermoy</i>	
TH3.5.4 COMPARISON OF TWO ALGORITHMS ON HAB DETECTION	3158
<i>Yujie Shan, Shaoling Shang, Tongtong Liu, Jingyu Wu</i>	
TH3.5.5 A MULTI-SCALE APPROACH FOR BENTHIC HABITAT MAPPING OF SHALLOW WATER REGION OF GUIUAN, EASTERN SAMAR USING A 4-BAND HIGH RESOLUTION WORLDVIEW-2 SATELLITE IMAGE USING OBJECT-BASED IMAGE ANALYSIS	3164
<i>Mia Shaira P. Estabillo, Ayin M. Tamondong</i>	
TH3.5.6 CHANGES OF WATER CLARITY IN THE BOHAI SEA DURING 2003-2014	3171
<i>Shaoling Shang, Zhongping Lee, Gong Lin, Lianghai Shi, Guomei Wei, Xueding Li</i>	

SESSION TH3.6 – OTHER RS APPLICATIONS

TH3.6.1 IMPROVEMENT OF WBG T ESTIMATION METHOD FROM MTSAT BY COMBINING BIO-GEOPHYSICAL PARAMETERS	3181
<i>Shin Akatsuka, Kei Oyoshi, Wataru Takeuchi, Masataka Takagi</i>	
TH3.6.2 APPLICATION OF SATELLITE DATA FOR ARCHAEOLOGY AND ARCHAEO-ASTRONOMY	3185
<i>Karel Pavelka, Martina Faltymova, Eva Matouskova, Jaroslav Sedina</i>	
TH3.6.3 ANALYSIS OF THE INFLUENCE OF HUMAN SETTLEMENT ENVIRONMENTAL QUALITY TO MALNUTRITION RATE USING REMOTE SENSING IMAGERY APPROACH CASE STUDY: MATARAM URBAN AREA, LOMBOK	3192
<i>Yohanes Seffan, Sari Rahmadiyah, Fauziah Al-Munawaroh, Grefie Dwinita, Yosi Nuki Fitra Pratama, Indah Octavia Koeswandari, Tantri Utami Widhaningtyas, Prima Widayani</i>	
TH3.6.4 DROUGHT MONITORING IN UPPER KRISHNA RIVER BASIN USING REMOTE SENSING AND GIS	3201
<i>Chaithra Chandran, B. M. Dodamani, Krishna Reddy, E. K. Naseela</i>	
TH3.6.5 THE USE OF WORLDVIEW-1 IMAGERY FOR SALT PRODUCTION ESTIMATION IN SAM-PANG REGENCY, EAST JAVA PROVINCE, INDONESIA	3208
<i>Fajrun Wahidil Muharram, Nurul Khakhim</i>	
TH3.6.6 STUDY OF AUTOMATIC IMAGE MATCHING AND REGISTRATION OF SCANNED HISTORICAL AERIAL PHOTOGRAPHS	3216
<i>Hou-Ren Chen, Yi-Hsing Tseng</i>	

SESSION TH3.7 – DATA PROCESSING: AUTOMATIC/INTELLIGENT CLASSIFICATION; FEATURE EXTRACTION 2

TH3.7.1 ENHANCED FEATURE DETECTION USING LIDAR DATASETS BY NON-TRIVIAL DERIVATION THROUGH ALLOMETRIC AGGREGATION DATA ANALYSIS FOR CHARACTERIZING A DOMINANTLY AGRICULTURAL LANDCOVER	3223
<i>Jigg L. Pelayo, Alex S. Olpenda, Ray Mari N. Mozo, James B. Salig Jr.</i>	
TH3.7.2 MODELING LIDAR CLOUD POINT TO ESTIMATE TREE HEIGHT AND DELINEATION OF TREE CROWN FOR SELECTED VEGETATION IN SUB-URBAN KLUANG, JOHOR	3233
<i>Lindah Rozjani Jamru, Mazlan Hashim</i>	

TH3.7.3 OPTIMIZATION OF THE SVM REGULARIZATION PARAMETER C IN MATLAB FOR THE OBJECT-BASED CLASSIFICATION OF HIGH VALUE CROPS USING LIDAR DATA AND ORTHOPHOTO IN BUTUAN CITY, PHILIPPINES	3242
<i>Rudolph Joshua U. Candare, Michelle Japitana, James Earl Cubillas, Cherry Bryan Ramirez</i>	
TH3.7.4 GEOGRAPHIC OBJECT BASED IMAGE ANALYSIS (GEOBIA) FOR MANGROVE TREE CROWN DELINEATION USING WORLDVIEW-2 IMAGE DATA	3252
<i>Muhammad Kamal, Stuart Phinn, Kasper Johansen</i>	

VOLUME 5

TH3.7.5 BUILDING FOOTPRINT EXTRACTION USING LIDAR DATA AND SPECTRAL INDICES FROM AERIAL IMAGERY	3258
<i>Florencio P. Campomanes, Judith R. Silapan, Ariel C. Blanco</i>	
TH3.7.6 AN ENHANCED APPROACH FOR DETECTION OF BOULDERS ON NATURAL HILLSIDES USING IMAGE PROCESSING AND LIDAR TECHNOLOGIES	3265
<i>Wenzhong Shi, Rong Kou, W. L. Shum, Anthony C. T. So</i>	

SESSION TH3.8 – PHOTOGRAMMETRY AND MAPPING

TH3.8.1 BUNDLE ADJUSTMENT OF MULTI-STATION SPHERICAL PANORAMA IMAGES WITH GPS POSITIONING	3274
<i>Pin-Yun Chen, Kuan-Ying Lin, Yi-Hsing Tseng</i>	
TH3.8.2 APPLYING CLOSE-RANGE PHOTOGRAMMETRY TO MONITOR THE CRUSTAL DEFORMATION	3284
<i>Kai-Wen Hsiao, Jyun-Ping Jhan, Jiann-Yeou Rau, Kuo-En Ching, Chien-Ju Chen</i>	
TH3.8.3 CLOSE RANGE PHOTOGRAMMETRY FOR 3D MODELING OF CULTURAL HERITAGE USING COMMERCIAL OFF-THE-SHELF CAMERAS	3292
<i>Edgardo Macatulad, Enrico Rafael Iglesia, Edison Paraiso</i>	
TH3.8.4 INFLUENCE ANALYSIS ON THE LENS DISTORTION OF AMATEUR CAMERAS TO OBJECT-IMAGE FEATURE LINE CONTROL FOR ORIENTATION MODELING	3293
<i>Ching-Hui Hung, Liang-Chien Chen</i>	
TH3.8.5 AUTOMATICALLY COLLECT GROUND CONTROL POINTS FROM ONLINE AERIAL MAPS	3298
<i>Tengfei Long, Weili Jiao</i>	
TH3.8.6 PARAMETER ESTIMATION GNSS ASSISTED SURVEYING SYSTEM FOR GLOBAL GEODETIC REFERENCE FRAME (UN-GGRF) OF UN-GGIM	3308
<i>Hiroyuki Hasegawa, Keiichi Nishikawa</i>	

SESSION TH4.1 – RS APPLICATIONS: COASTAL ZONE AND FISHERIES 4

TH4.1.1 CORAL REEFS SPATIAL TRANSFORMATION VERSUS ANTHROPOGENIC ON SMALL ISLANDS OUTER ZONE SPERMONDE ARCHIPELAGO	3318
<i>Nurjannah Nurdin, Teruhisa Komatsu, Shuhei Sawayama, Khairul Amri, Abd. Rasyid Djalil, Farida Patittingi, Ilham Jaya, M. Akbar As, Agus Aris</i>	
TH4.1.2 SPECTRAL UN-MIXING OF SEAGRASS AND SEAWEED IN PHUKET, SOUTHERN THAILAND	3332
<i>Satomi Kakuta, Wataru Takeuchi, Anchana Prathep</i>	
TH4.1.3 MANGROVE ABOVE GROUND BIOMASS ESTIMATION USING COMBINATION OF LANDSAT 8 AND ALOS PALSAR DATA	3341
<i>Gathot Winarso, Yenni Vetrifa, Anang D. Purwanto, Nanin Anggraini, Soni Darmawan, Doddy M. Yuwono</i>	
TH4.1.4 PERFORMANCE OF EMPIRICAL C_A-DERIVATION ALGORITHMS ON THE COASTAL WATERS OF BAGAC AND POLILLO	3350
<i>Jamaica Pangasinan, Mark Jayson Felix, Gay Jane Perez</i>	
TH4.1.5 APPLICATION OF OBJECT-BASED IMAGE ANALYSIS AND SUPPORT VECTOR MACHINE TO CREATE BROADSCALE MAP OF SEAGRASS USING LANDSAT 8 IMAGE: A CASE STUDY IN CALATAGAN BATANGAS	3355
<i>Lawrence Charlemagne G. David, Alejandro H. Ballado Jr.</i>	
TH4.1.6 DIGITAL AERIAL IMAGES FOR COASTAL REMOTE SENSING APPLICATION	3361
<i>Emmanuel Oppong Afriyie, Vladimir Y. Mariano, Donald A. Luna</i>	

SESSION TH4.2 – RS APPLICATIONS: AGRICULTURE AND SOIL 4

TH4.2.1 EXTRACTION OF GULLY EROSION FEATURES ON HILLY CORN FIELD IN THE NORTHERN LUZON ISLAND OF THE PHILIPPINES USING SATELLITE REMOTE SENSING DATA	3367
<i>Satoshi Uchida, Fujio Nagumo</i>	
TH4.2.2 TUNING THE EXTENDED KALMAN FILTER FOR RICE CULTIVATION DATE ESTIMATION IN TROPICAL AREA USING MODIS NDVI DATA	3374
<i>Rata Suwanton, Panu Srestasathiern, Preesan Rakwatin, Saran Suwannachakul</i>	
TH4.2.3 PADDY FIELD MAPPING USING TEMPORAL MODIS DATA IN JAVA ISLAND INDONESIA	3382
<i>Ryota Nagasawa, Dandy Aditya Novresandi, Lissa Fajri Yayusman</i>	

TH4.2.4 INTEGRATING SPECTRAL INDICES AND GEOSTATISTICS BASED ON LANDSAT-8 IMAGERY FOR SURFACE CLAY CONTENT MAPPING IN GUNUNG KIDUL AREA, YOGYAKARTA, INDONESIA	3388
<i>Projo Danoedoro, Afida Zukhrufiyati</i>	
TH4.2.5 VEGETATION WATER STRESS ASSESSMENT USING SHORT WAVE INFRARED (SWIR) INDICES IN WHEAT	3397
<i>Manik H. Kalubarme, Alka Sharma</i>	
TH4.2.6 SPATIAL AND TEMPORAL CHANGES OF RICE CROPPING SEASON IN MEKONG DELTA VIETNAM BY MODIS SATELLITE IMAGES FROM 2000 TO 2013	3406
<i>Vo Quang Minh, Nguyen Thi Ha Mi, Phan Kieu Diem, Le Quang Tri, Tran Thi Hien, Chu Thai Hoanh, To Phuc Tuong</i>	

SESSION TH4.3 – HYDROLOGY 2

TH4.3.1 CALIBRATION OF WATERSHED LAG TIME EQUATION FOR PHILIPPINE HYDROLOGY USING RADARSAT DIGITAL ELEVATION MODEL	3407
<i>Fatima Cipriano, Alfredo Mahar Francisco Amante Lagmay, Matt Horritt, Enrico Paringit, Chris-Topher Uichanco, Jerico Mendoza, Glenn Sabio, Kenneth Nino Punay, Herbert James Taniza, Mary Rose Oquindo</i>	
TH4.3.2 THE STUDY OF THE DRAINAGE BASIN MORPHOMETRY OF PAPAGNI RIVER BASIN USING ASTER DEM	3416
<i>Narender Verma</i>	
TH4.3.3 CLIMATE CHANGE IMPACT ON HYDROLOGY BEAS RIVER BASIN IN NORTH WESTERN HIMALAYA	3426
<i>Ankur Dixit, Praveen K. Thakur, Shiv Prasad Ag-Garwal</i>	
TH4.3.4 MONITORING WATER LEVEL VARIATION IN MEKONG RIVER BY SATELLITE ALTIMETRY AND REMOTE SENSING APPROACHES	3427
<i>Guan-Ting Liu, Kuo-Hsin Tseng</i>	
TH4.3.5 EVALUATING THE IMPACTS OF LANDCOVER CHANGE TO RUN-OFF POTENTIAL OF TUBAY RIVER BASIN THROUGH THE ANALYSIS OF MULTITEMPORAL LANDSAT IMAGES	3435
<i>Sherwin P. Pulido, Meriam Makinano-Santillan, Jojene R. Santillan</i>	
TH4.3.6 UNDERSTANDING THE IMPACTS OF STORM INDUCED FLOODING AT THE LOCAL LEVEL THROUGH FLOOD MODELLING WITH SAR DEM LIDAR DTM & DSM, HEC HMS AND HEC RAS	3443
<i>Amor L. Gingo, Meriam M. Santillan, Jojene R. Santillan</i>	

SESSION TH4.4 – GIS APPLICATIONS: DECISION SUPPORTS AND MODELS 2

TH4.4.1 INTERFACING GRASS-GIS AND R: ROAD DESCRIPTIVE STATISTICAL REPRESENTATION BASED ON SLOPE	3452
<i>Kumari Pritee, R. D. Garg</i>	
TH4.4.2 SPATIAL MODELING OF SUSTAINABLE AGRICULTURAL LAND USING GEOGRAPHIC INFORMATION SYSTEM	3457
<i>Wikan Jaya Prihantarto, Gatot Supangkat Samidjo</i>	
TH4.4.3 GIS BASED MULTI-CRITERIA ANALYSIS FOR CEMENT PLANT SITE SELECTION FOR CUDDALORE DISTRICT	3463
<i>Aakash Chhabra, Christopher Samuel, R. Annadurai</i>	
TH4.4.4 EFFECTS OF GEOGRAPHICAL AND TOPOGRAPHICAL CO-VARIABLES ON RAINFALL INTERPOLATION IN LANG SUAN WATERSHED THAILAND	3470
<i>Sirikorn Duangpiboon, Thongchai Suteerasak, Wanchitra Towanlong</i>	
TH4.4.5 ANALYZING THE IMPACTS OF TROPICAL STORM-INDUCED FLOODING THROUGH NUMERICAL MODEL SIMULATIONS AND GEOSPATIAL DATA ANALYSIS	3479
<i>Jojene R. Santillan, Meriam M. Makinano-Santillan</i>	
TH4.4.6 THE COMBINATION OF THE PARKING SPACES EMERGENCE RESPONSE AND IOT TECHNOLOGY – USING FLOOD AS AN EXAMPLE	3488
<i>Ying-Chen Lin, Jung Hong Hong</i>	

SESSION TH4.5 – DATA PROCESSING: AUTOMATIC/INTELLIGENT CLASSIFICATION; FEATURE EXTRACTION 3

TH4.5.1 COMBINED DETECTION OF LANDSLIDE USING D-INSAR, HIGH SPATIAL RESOLUTION IMAGERY AND THERMAL IMAGING TECHNOLOGY	3496
<i>Shanjun Liu, Liming He, Jianwei Huang, Han Wang, Yachun Mao, Lixin Wu</i>	
TH4.5.2 DETECTION OF MEERIYABEDDA LAND-SLIDES FROM HIGH RESOLUTION OPTICAL SATELLITE DATA	3506
<i>Ahangama Kankanamge Rasika Nishamanie Ranasinghe, Gardiyawasam Balage Amesh Irantha Silva, Thilantha Lakmal Dammalage, Duminda Ranganath Welikanna, Udeni Gnanapriya Anuruddha Puwewala</i>	
TH4.5.3 GENETIC ALGORITHM FOR THREE-DIMENSIONAL ICE FLOES FROM TANDEM-X IMAGE	3515
<i>Maged Marghany</i>	
TH4.5.4 PARAMETER ANALYSIS FOR OBJECT-BASED SEMI-GLOBAL MATCHING	3521
<i>Wen-Chi Chang, Liang-Chien Chen</i>	

TH4.5.5 RAPID INVENTORY OF INLAND BODIES OF WATER USING LANDSAT TM IMAGERIES AND DIFFERENT FEATURE EXTRACTION TECHNIQUES	3526
<i>Kimberly A. Ilaos, Anjillyn Mae C. Perez, Roel M. De La Cruz, Nestor T. Olfindo, Noel Jerome B. Borlon-Gan</i>	
TH4.5.6 INTELLIGENT OPTIMIZATION SYSTEM FOR UNCERTAINTY MH370 DEBRIS DETECTION	3532
<i>Maged Marghany</i>	

SESSION TH4.6 – DATA PROCESSING: ALGORITHM AND MODELING 3

TH4.6.1 GENERATION OF EPIPOLAR IMAGES FOR VERY HIGH SPATIAL RESOLUTION SATEL-LITE WITH PUSHBROOM GEOMETRY	3538
<i>Chin-Jung Yang, Min Li, Leong Keong Kwoh, Soo Chin Liew</i>	
TH4.6.2 IMPROVED URBAN GROWTH PREDICTION WITH INTEGRATED MARKOV CHAIN AND KALMAN FILTER MODEL	3543
<i>Shamsuddin Nasiruddin Ladha</i>	
TH4.6.3 RADIOMETRIC NORMALIZATION OF MULTITEMPORAL SATELLITE IMAGES USING WEIGHTED PRINCIPAL COMPONENT ANALYSIS	3549
<i>Bo-Yi Lin, Kuan-Yi Lee, Chao-Hung Li</i>	
TH4.6.4 THE USE OF GENETIC ALGORITHM FOR PALM OIL FRUIT MATURITY DETECTION	3552
<i>Maher Ibrahim Sameen, Abdul Rashid B. Mohamed Shariff</i>	
TH4.6.5 INFLUENCE OF DEM RESOLUTION ON TOPOGRAPHIC CORRECTION MODELS USING SPOT SATELLITE IMAGE	3557
<i>Ting-Pin Chiu, Su-Fen Wang</i>	
TH4.6.6 COMPARISON OF CHLOROPHYLL-A CONCENTRATION DURING HAZE AND NO HAZE CONDITION IN RIAU ISLANDS INDONESIA	3563
<i>Susanna Nurdjaman, Ilham Armi</i>	

SESSION TH4.7 – GEOSPATIAL TECHNOLOGY FOR ENERGY

TH4.7.1 BIOMASS RESOURCE ASSESSMENT ON THEORETICAL AND AVAILABLE POTENTIAL OF SUGARCANE USING LIDAR-DERIVED AGRICULTURAL LAND-COVER MAP IN VICTORIAS CITY, NEGROS OCCIDENTAL, PHILIPPINES	3564
<i>Marciano B. Cadalin, Judith R. Silapan, Marjorie V. Remolador, Rosario Concepcion O. Ang</i>	
TH4.7.2 ANALYZING OPTIMAL LOCATION OF SOLAR FARMS IN BUTUAN CITY USING GEOGRAPHIC INFORMATION SYSTEM	3573
<i>Sheila B. Refamonte, Meriam Makinano-Santillan</i>	
TH4.7.3 SITE SUITABILITY ANALYSIS FOR BIOMASS POWER PLANT DEVELOPMENT IN NUEVA ECIJA PHILIPPINES USING LANDSAT-BASED BIOMASS RESOURCE MAP	3583
<i>Imee A. Saladaga, Marjorie V. Remolador, Klathea H. Sevilla, Bryan M. Baltazar, Loureal Camille V. Inocencio, Rosario Concepcion O. Ang</i>	
TH4.7.4 USING OPEN SOURCE GEOGRAPHIC INFORMATION SYSTEMS AND REMOTE SENSING SOFTWARES FOR GEOTHERMAL EXPLORATIONS	3593
<i>Can Ayday</i>	
TH4.7.5 SOLAR ENERGY RESOURCE ASSESSMENT USING R.SUN MODULE IN GRASS GIS AND SYNTHETIC APERTURE RADAR (SAR) DIGITAL ELEVATION MODEL (DEM) IN THE ZAMBOANGA PENINSULA (REGION 9), PHILIPPINES	3601
<i>Justine G. Teves, Eula Fae D. Sola, Ben Hur S. Pintor, Loureal Camille V. Inocencio, Ma. Rosario Concepcion O. Ang</i>	
TH4.7.6 THE USE OF MULTILEVEL REMOTE SENSING DATA IN THE TECHNICAL PREFEASIBILITY STUDY: HYDROELECTRIC POWER PROJECT IN KALINGA, PHILIPPINES	3609
<i>Lalaine B. Correa, Luis Ian K. Panganiban, Charmyne B. Mamador, Alih L. Mamerto, Rodel G. Elaydo, Michael Stephen T. Buendia</i>	

SESSION TH4.8 – RS APPLICATIONS: GEOLOGY/GEOGRAPHY/GEOMORPHOLOGY 4

TH4.8.1 ASTER AND LANDSAT TM REMOTE SENSING DATA FOR GEOLOGICAL MAPPING APPLICATION: CASE STUDY ESFANDAGHEH OPHIOLITE COMPLEX SOUTH OF IRAN	3616
<i>Amin Beiranvand Pour, Mazlan Hashim</i>	
TH4.8.2 INTEGRATED ANALYSIS OF REMOTELY- SENSED IMAGERY IN DESCRIBING THE MORPHOLOGY OF THE EDIFICE AND THE MASS WASTING EVENTS IN MOUNT ARAYAT, PHILIPPINES	3622
<i>Tatum Miko Herrero, Rodrigo Eco, Alfredo Mahar Lagmay, Benjamin Van Wyk De Vries, Jolly Joyce Sulapas</i>	
TH4.8.3 QUANTITATIVE MORPHOTECTONIC ANALYSIS USING DEM AND GIS – A CASE STUDY FROM SOUTH WEST COAST OF INDIA	3630
<i>Katihalli S. Jayappa, Vipin Joseph Markose, M. Nagaraju</i>	
TH4.8.4 A NOVEL METHOD TO IMPROVE COASTAL FLOOD MODELLING USING PUBLICLY AVAILABLE DEM	3638
<i>Xiaoping Du, Huadong Guo, Xiangtao Fan, Zhenzhen Yan, Komali Kantamaneni, Junjie Zhu</i>	

TH4.8.5 LITHOLOGICAL AND STRUCTURAL MAPPING IN TROPICAL ENVIRONMENTS WITH INTEGRATION OF ASTER AND PALSAR SATELLITE DATA	3639
<i>Amin Beiranvand Pour, Mazlan Hashim</i>	

POSTER SESSIONS

TUP SESSION 1

TUP1.1 LAND USE LAND COVER CHANGE DETECTION USING GEOSPATIAL TECHNOLOGIES - A CASE STUDY OF MANJEERA SUB-BASIN, A.P, INDIA	3646
<i>Abhilash Maryada, Mohammed Abdul Moid</i>	
TUP1.2 RESEARCH ON THE ADVANCEMENT OF ULTRAVIOLET DISTRIBUTION MAP USING SATELLITE IMAGES	3656
<i>Tepei Ishiuchi, Masaru Takata, Haruka Nakazawa</i>	
TUP1.3 DEVELOPMENT AND IMPLEMENTATION OF GIS-BASED AIR POLLUTION WARNING SERVICES USING A CONTEXT AWARENESS MODEL	3660
<i>Sungchul Hong, Taehoon Kim, Junhee Youn, Jeyoon Woo</i>	
TUP1.4 USING MODIS-NDVI AND CLIMATIC VARIABLES FOR VEGETATION ASSESSMENT AND MONITORING IN PAKISTAN AND ADJOINING SOUTH ASIAN COUNTRIES	3665
<i>Imran Ahmed Khan, Mudassar Hassan Arsalan</i>	
TUP1.5 MODIS IMAGES RESTORATION FOR VNIR BANDS ON FIRE SMOKE AFFECTED AREA	3672
<i>Li-Yu Chang, Chi-Farn Chen</i>	
TUP1.6 DEVELOPMENT AND EVALUATION OF EDUCATION PROGRAM USING INTERFEROMETRIC SAR	3679
<i>Hiroshi Ikemitsu, Kenta Nango, Yosuke Ito</i>	
TUP1.7 SEPARABILITY AND VARIABILITY OF RHIZOPHORACEAE AND AVICENNIACEAE IN A NATURAL MANGROVE FOREST USING POINT DENSITY DISTRIBUTION FROM LIDAR DATA	3688
<i>Regine Anne G. Faelga, Enrico C. Paringit, Gay Jane Perez, Reginald Jay L. Argamosa, Carlyn Ann Ibanez, Mark Anthony V. Posilero, Fe Andrea M. Tandoc, Gio P. Zaragosa</i>	
TUP1.8 COMPLEMENTARITY OF TWO RICE MAPPING APPROACHES: CHARACTERIZING STRATA MAPPED BY HYPERTEMPORAL MODIS AND RICE PADDY IDENTIFICATION USING MULTITEMPORAL SAR	3698
<i>Sonia Asilo, Kees (C. A. J. M.) De Bie, Andrew Skidmore, Andrew Nelson, Massimo Barbieri, Aileen Maunahan</i>	
TUP1.9 THE UTILIZATION OF ALOS-2 DATA TO IDENTIFY THE POTENTIAL AREA FOR PADDY FIELD	3699
<i>Agustan, Mubekti, Lena Sumargana</i>	
TUP1.10 DETECTION OF RIP CURRENTS USING OPTICAL CURRENT METER TECHNIQUES	3706
<i>Taerim Kim, Jaehyuk Lee</i>	
TUP1.11 LANDCOVER CLASSIFICATION OF HYPER-SPECTRAL IMAGES	3707
<i>A. Munkh-Erdene, M. Ganzorig</i>	
TUP1.12 COMPARISON BETWEEN OF TLS DATA EXTRACTION AND GPS FOR LANDSLIDE MONITORING IN CILOTO PUNCAK AREA	3713
<i>Vera Sadarviana, Hasanuddin Z. Abidin, Irwan Gumilar, R. T. Achmad, Pangeran Christofel Yoshua, Martin Josef Schuler</i>	
TUP1.13 TEXTURE MAPPING FOR BUILDING FAÇADES WITH REPEATED PATTERNS USING TERRESTRIAL IMAGERY AND LIDAR DATA	3720
<i>Liang-Chien Chen, Li-Ling Chan, Wen-Chi Chang</i>	
TUP1.14 APPLYING MACHINE LEARNING ALGORITHMS AND WORLDVIEW-2 SATELLITE IMAGERY TO CLASSIFY CROP TYPES	3724
<i>Wen-Lin Li, Re-Yang Lee, Tsu-Chiang Lei, Yi-Shiang Shiu</i>	
TUP1.15 A STUDY OF THE ACCURACY IMPROVEMENT OF ELEVATION DATA ON MEAN SEA LEVEL FROM WGS84 DATUM	3734
<i>Worapod Masiri, Thongthit Chayakula</i>	
TUP1.16 DETECTION OF DECLINING PHYTOPLANKTON CHLOROPHYLL CONCENTRATION LEVELS SOUTH OF THE ARABIAN PENINSULA FROM MODIS SATELLITE DATA	3742
<i>Nabila Al-Maharbi, Abdelgadair Abuelgasim</i>	
TUP1.17 AN ALTERNATIVE OPEN SOURCE WEB-BASED 3D GIS: CESIUM ENGINE ENVIRONMENT	3751
<i>Fuan Tsai, Jhe-Syuan Lai, Yu-Ching Liu</i>	
TUP1.18 GEOID OF JAKARTA	3755
<i>Dadan Ramdani, Yadi Aryadi, Bayu Triyogo Widyantoro</i>	
TUP1.19 CHANGE DETECTION IN THE CAGAYAN RIVER USING MULTITEMPORAL LANDSAT IMAGERY	3761
<i>Louisse Anne Fulgencio, Gay Jane Perez</i>	
TUP1.20 GROUND PENETRATING RADAR BACKSCATTER RECONSTRUCTION FOR SUBSURFACE UTILITY DETERMINATION	3762
<i>Siow Wei Jaw, Mazlan Hashim, Kee Hock Goh</i>	
TUP1.21 LAND SYSTEMS APPROACH IN DEVELOPING LIVESTOCK FARM IN WEST LOMBOK, INDONESIA	3772
<i>Suharto Widjojo, K. Sumarto, N. Supardan, I. Nahib</i>	

TUP1.22 TEMPORAL AND SPATIAL DYNAMICS OF SUBMERGED SEAGRASS AT MERAMBONG, JOHOR USING LANDSAT DATA	3778
<i>Syarifuddin Misbari, Mazlan Hashim</i>	
TUP1.23 PHYSICAL FEATURE EXTRACTION IN THE FLOOD PLAIN OF ALUBIJID WATERSHED, MISAMIS ORIENTAL	3785
<i>Jenifer L. Oganía, Rose Ann I. Barro, George R. Puno</i>	
TUP1.24 SIMULATING RICE YIELD BY INTEGRATING GIS DATA AND MODIS-LAI FOR JEOLLA-DO REGION IN SOUTH KOREA	3790
<i>Jeong Hyun Kim, Hieu Cong Nguyen, Jung Bin Lee, Joon Heo</i>	
TUP1.25 SIMULATION OF PAN-SHARPENING USING HYPERSPECTRAL DATA TO EVALUATE THE METHOD AND BAND COMBINATIONS	3794
<i>Masayuki Matsuoka, Takeo Tadono, Hiroki Yoshioka</i>	
TUP1.26 GEOTAGGING PHOTO FROM A SPATIALLY REFERENCED GPS DATA USING GEOTAG-PHOTO SOFTWARE	3799
<i>Ariel C. Amor, John Jagneil Vincent T. Licardo, George R. Puno</i>	
TUP1.27 AN EFFICIENT DETECTION METHOD OF FOREST FIRES FROM MODIS AND LAND-SAT SATELLITE IMAGES	3806
<i>Sunmin Lee, Jaewon Choi, Yunjee Kim, Hyung-Sup Jung</i>	
TUP1.28 AN ASSESSMENT OF SEISMIC HAZARD MAP WITHIN THE BUILDING RESIDENTIAL ENVIRONMENT IMPROVEMENT PROJECT AREAS IN JINJU, KOREA	3811
<i>Tae-Hong Won, Gyuhan Bae, Hwanhee Yoo</i>	
TUP1.29 ESTIMATION OF COASTAL FLOODING CONTAMINATED BY MUD-VULCANO ON FISH-PONDS AND MANGROVE AREA AT SIDOARJO DISTRICT, INDONESIA	3817
<i>Taufik Hidayatullah</i>	
TUP1.30 THE DISTRIBUTION CHARACTERISTICS OF AQUATIC ECOSYSTEM HEALTH IN NAK-DONG RIVER BASINS BASED ON SPATIAL ANALYSIS	3823
<i>Ju-Sung Park, Jo-Myung Hee, Kyung-Sook Seo, Sung-Hyun Jang</i>	
TUP1.31 ANALYSIS OF APPROPRIATE SPECTRAL SIMILARITY METHODS TO CLASSIFY TARGET SPECIES USING CASI HYPERSPECTRAL IMAGES	3828
<i>Ahram Song, Jaewan Choi, Yeji Kim, Yongil Kim</i>	
TUP1.32 AIR-TO-WATER PHOTOGRAMMETRIC INTERSECTION USING FRAME IMAGERY	3835
<i>Ting-Hsuan Chiu, Jen-Jer Jaw</i>	
TUP1.33 PRELIMINARY STUDY ON THE FEASIBILITY OF UTILIZING THE DETECTION OF COASTAL AREAS CHANGE IN THE USE OF UAV	3844
<i>Wonjong Lee, Jaemyeong Kim, Yongdeog Kang, Changeun Park</i>	
TUP1.34 A STUDY OF SPECTRAL FEATURE EXTRACTION METHODS FOR CROPS CLASSIFICATION BASE ON WORLDVIEW-2 IMAGE	3850
<i>Hshin-Ping Wang, Tsu-Chiang Lei, Tzu-How Chu, Yi-Shiang Shiu, Re-Yang Lee</i>	
TUP1.35 THE INFLUENCE OF PUBLIC FACILITIES AND AMENITIES ON SPATIAL PATTERN IN THE NORTHERN AREA OF BANDUNG: AN AGENT BASED MODELLING APPROACH	3858
<i>Budhy Soeksmantono, Ketut Wikantika</i>	
TUP1.36 GIS AND COMMUNITY PARTICIPATION FOR FLOOD MODEL DATA PREPARATION: A RIVER RECONNAISSANCE SURVEY IN LIPA-DAS, SOUTHERN MINDANAO, REGION XI	3862
<i>Genelin Ruth P. James, Jumilyn Bitang, Judy D. Hollite, Ryan P Calvo, Isaac T. Muncada, Joseph E. Acosta</i>	
TUP1.37 THE COUNTERMEASURE OF RIVER MANAGEMENT IN CHANNEL MIGRATION USING SATELLITE IMAGES	3871
<i>Chien Li, Chia-En Wu, Chi-Farn Chen, Wei-Cheng Zhen</i>	
TUP1.38 PESTICIDE USE AND RESIDUE IN THE ENVIRONMENT IN HUE, VIETNAM	3877
<i>Naoko Maeshibu, Baihe Han, Jinfeng Ma, Ken-Go Miyahara, Kiyoshi Torii, Ho Tan Duc, Tran Thi Thu Ha, Le Van An, Ho Trung Thong, Miki Akamatsu</i>	
TUP1.39 PERFORMANCE EVALUATION OF IMAGE CLUSTERING ALGORITHMS	3883
<i>Shih-Chieh Chou, Ming-Chih Cheng, Irene Hsu</i>	
TUP1.40 LAND SURVEYING PERFORMANCE OF COMMERCIALY-AVAILABLE INEXPENSIVE SMALL UAV	3887
<i>Jun-Nosuke Okamoto, Hiroto Shimazaki</i>	
TUP1.41 SEDIMENT SOURCE MAPPING IN LEMON WATERSHED	3891
<i>Janice G. Baay, Randolph P. Casindac, Lorie Cris S. Asube, Meriam M. Santillan</i>	
TUP1.42 DISH ANTENNA ORIENTATION ESTIMATION FROM REMOTE SENSING IMAGES	3898
<i>Chien-Ron Su, Hsuan Ren</i>	
TUP1.43 COMPARISON OF SAR AND LIDAR DEM FOR PRODUCING GEOMETRICALLY CORRECTED AIRBORNE HYPERSPECTRAL IMAGES	3903
<i>Angelo Carlo B. Bongat, John Louie Fabila, Joida F. Prieto</i>	
TUP1.44 LIDAR DATA DISTRIBUTION USING LIPAD, AN OPEN-SOURCE BASED LIDAR PORTAL FOR ARCHIVING AND DISTRIBUTION	3909
<i>Simonette Lat, Ruby Ann Marie Magturo, Mark Edwin Tupas, Enrico Paringit, Kenneth Langga, Ernanie Marin, Joyce Anne Laurente</i>	

TUP1.45 DEVELOPMENT OF A DATA ARCHIVING AND DISTRIBUTION SYSTEM FOR THE PHILIPPINES' LIDAR PROGRAM USING CEPH OBJECT STORAGE AND GEONODE CONTENT MANAGEMENT SYSTEM	3916
<i>Ruby Ann Marie Magturo, Ken Abryl Eleazar Salanio, Carlo Santos, Kenan Biel Virtucio, Kenneth Langga, Gene Paul Quevedo, Mark Edwin Tupas</i>	
TUP1.46 A STATISTICAL ANALYSIS OF THE RELATIONSHIP BETWEEN THE YELLOW DUST AND TOA REFLECTANCE DERIVED FROM GOSAT CAI DATA PRODUCTS	3922
<i>Tatsuhiko Ogawa, Hiroto Shimazaki</i>	
TUP1.47 OPTIMAL LOCATION ANALYSIS FOR BUILDING INTEGRATED PHOTO VOLTAIC SOUND-PROOFING WALL BY USING DIGITAL SURFACE MODEL	3926
<i>Junhee Youn, Je Yoon Woo</i>	
TUP1.48 KOMPSAT-3A DIRECT GEOREFERENCING MODE AND GEOMETRIC CALIBRATION/VALIDATION	3931
<i>Doochun Seo, Gibyeong Hong, Chunggil Jin</i>	
TUP1.49 A STUDY ON EXTRACTING THE TREND OF THIN ICE DISTRIBUTION IN THE SEA OF OKHOTSK USING AMSR-E AND AMSR2 DATA	3936
<i>Yasutomo Sato, Kazuhiro Naoki, Kohei Cho</i>	
TUP1.50 LAND USE AND COVER CHANGE SIMULATION AND PREDICTION IN HANGZHOU CITY BASED ON CA-MARKOV MODEL	3942
<i>Zhou Lei, Fang Guohua, Wen Xin</i>	
TUP1.51 COMPARISON BETWEEN SATELLITE IMAGES AND FIELD OBSERVATION IN THE LARGE SIZE LANDSLIDES	3947
<i>Yasuyuki Nabeshima</i>	
TUP1.52 DEVELOPMENT OF A LOW-COST SMALL DRONE-BASED LASER-SCANNER SYSTEM FOR RICE MONITORING	3952
<i>Kazuyoshi Takahashi, Phan Thi Anh Thu, Hiroki Irie, Takahiro Yamada</i>	
TUP1.53 LANDSLIDE RISK ASSESSMENT MONITORING WITH MULTIPASS L, X BAND INSAR ANALYSES	3958
<i>Hyewon Yun, Junrack Kim, Yunsoo Choi</i>	
TUP1.54 ACCURACY ASSESSMENT OF 3D BUILDING CONSTRUCTION BY MULTIVIEW IMAGES AND THE INTEGRATED APPLICATION WITH AUGMENTED REALITY	3967
<i>Jin-Tseong Hwang, Ting-Chen Chu, Chien-Hong Chen</i>	
TUP1.55 TEMPORAL ANALYSIS AMONG SAVI AND MSAVI	3977
<i>Masood Bari</i>	
TUP1.56 HIGH RESOLUTION AERIAL IMAGES FROM UAV FROM DRAINAGE PLANNING	3987
<i>Kuan-Tsung Chang, Ge-Wen Lee, Ben-Kang Chen, Jin-King Liu</i>	
TUP1.57 GENERATION OF DIGITAL ELEVATION MODEL USING SLOPE-BASED APPROACH	3996
<i>Tze Huey Tam, Ab. Latif Ibrahim, Muhammad Zulkarnain Abd Rahman, Mou Leong Tan</i>	
TUP1.58 PEAT LANDS CHANGES MONITORING USING MODIS AND LANDSAT DATA IN JAMBI PROVINCE, INDONESIA	3997
<i>Annisa Nurdiana, Yudi Setiawan, M. Irfansyah Lubis</i>	
TUP1.59 APPLYING HYPERSPECTRAL DATA TO IN-TERPRET VARIOUS CROP TYPES USING CHAOTIC EQUATIONS	3998
<i>I-Chen Yang, Re-Yang Lee, Chia-Hui Hsu</i>	
TUP1.60 RAPID ASSESSMENT OF PESTS AND DISEASES INFESTATIONS ON LOWLAND RICE USING UNMANNED AERIAL VEHICLE (UAV)	4008
<i>Daniel Useng, Sikstus Gusli, Hikmah Ali, Darmawan</i>	
TUP1.61 INTERNET GIS FOR PLANT DATABASE MANAGEMENT IN RATCHAPHATSADU LAND IN MAHA SARAKHAM, THAILAND	4009
<i>Thanawut Saisud, Rasamee Suwanwerakantorn</i>	
TUP1.62 THREE DIMENSIONAL CITY BUILDING MODELLING WITH LIDAR DATA (CASE STUDY: CIWARUGA, BANDUNG)	4019
<i>Hudan Asharyanto, Budhy Soeksmantono, Ketut Wikantika</i>	
TUP1.63 AGRICULTURAL LAND USE CHANGE ANALYSIS: A STUDY OF TAIWAN AREA	4029
<i>Yi-Wen Chou, Jihn-Fa Jan</i>	
TUP1.64 NEPAL EARTHQUAKE 4D-IMADAS 2015 FOR RECONSTRUCTION INITIATIVE FROM REMOTE SENSING TO 3D REMOTE MODELLING	4039
<i>Hiroyuki Hasegawa</i>	

WEP SESSION 2

WEP2.1 AN IMAGED-BASED APPROACH FOR THE AUTOMATIC ADJUSTMENT OF MULTI-TRACK MOBILE LIDAR POINT CLOUDS	4049
<i>Yi-Yen Peng, Yan-Ting Lin, Jen-Yu Han</i>	
WEP2.2 USE OF IMPROVED REMOTELY SENSED DATA FROM UAV FOR GIS AND MAPPING, A CASE STUDY OF GOMA CITY, DR CONGO	4058
<i>Cung Chin Thang</i>	

VOLUME 6

WEP2.3 LAND USE CHANGE ANALYSIS WITH RELATION TO THE ECOSYSTEM SERVICE VALUE IN SINGAI MERBOK FOREST RESERVE	4063
<i>Zailani Khuzaimah, Shattri Mansor, Hasmadi Ismail</i>	
WEP2.4 REPLACE WIND FACTOR BY TOPOGRAPHIC SHELTERING INDEX TO PREDICT THE SPATIAL PATTERN OF TAIWAN RED CYPRESS	4074
<i>Nan-Chang Lo, Wei-Kai Lai, Kai-Yi Huang</i>	
WEP2.5 RECONSTRUCTION OF PANORAMIC IMAGE 360° BASED ON 3D COORDINATES SYSTEM (CASE STUDY: INTERIOR ROOM)	4079
<i>Siti Hajar Aswad, Deni Suwardhi, Agung Budhi</i>	
WEP2.6 APPLICATIONS OF MULTITEMPORAL RS IMAGES FOR THE EVALUATION OF URBANIZATION PROCESS IN MONGOLIA	4088
<i>D. Amarsaikhan, D. Enkhjargal, G. Bolor, V. Battsengel, N. Tsetsegjargal, G. Tsogzol</i>	
WEP2.7 AN APPROACH TO EXTRACT ROADS FROM WORLDVIEW-2 SATELLITE IMAGES: A CASE STUDY FROM ISTANBUL-TURKEY	4093
<i>Mustafa Ogurlu, Bulent Bayram, Dursun Zafer Seker</i>	
WEP2.8 A NOVEL METHOD FOR FRACTIONAL VEGETATION COVERAGE RETRIEVAL BASED ON LANDSAT-8 AND MODIS IMAGERY	4099
<i>Xiaopo Zheng, Yuejun Sun, Qiming Qin, Ling Wu, Huazhong Ren, Chen Du, Lian He, Jian Hui, Shengjie Zhu</i>	
WEP2.9 DIFFERENTIATING NATURAL GROWTH FROM PLANTATION FOREST USING BINARY LOGISTIC REGRESSION FROM DIFFERENT LIDAR POINT DENSITIES	4104
<i>Reginald Jay L. Argamosa, Enrico C. Paringit, Fe Andrea M. Tandoc, Regine Anne G. Faelga, Carlyn Ann G. Ibanez, Mark Anthony V. Posilero, Gio P. Zaragoza</i>	
WEP2.10 COMPARISON OF PIXEL-BASED AND OBJECT-ORIENTED CLASSIFICATION METHODS	4111
<i>Cengizhan Ipbuker, Sinasi Kaya</i>	
WEP2.11 VULNERABILITY ASSESSMENT OF GOVERNMENT BUILDINGS IN SAGAY CITY THROUGH FLOOD MODELING AND MOBILE GIS	4121
<i>Isabella Pauline Quijano, Jarlou Valenzuela, Rey Sidney Carredo, Chito Patiño, Jonnifer R. Sinogaya</i>	
WEP2.12 DEVELOPMENT OF FOREST DATABASE IN MONGOLIA	4130
<i>Altangerel Munkh-Erdene, Z. Narangerel, D. Amarsaikhan</i>	
WEP2.13 IDENTIFICATION OF VILLAGE CHARACTER-ISTIC BY HIGH RESOLUTION IMAGE, CASE STUDY: DESA LEMBANG, KABUPATEN BANDUNG BARAT	4134
<i>Tisnasendjaja Achmad Ruchlihadiana, Vera Sadarviana, Irwan Gumilar</i>	
WEP2.14 STUDY ON REMOTE SENSING MODE OF CHEMICAL OXYGEN DEMAND IN THE PEARL RIVER ESTUARY	4140
<i>Sun Zhen, Huang Miaofen, Zhang Lianlong, Wang Zhonglin, Chen Yiru, Men Weidong</i>	
WEP2.15 A FAST CLOUD DETECTION APPROACH BY FUZZY C-MEAN AND ADAPTIVE THRESHOLD ON SATELLITE IMAGERY	4147
<i>Yao-Cheng Kuo, Chi-Farn Chen</i>	
WEP2.16 ESTIMATING PM 2.5 CONCENTRATION WITH MODIS FOR A 2014 PETROCHEMICAL INDUSTRIAL ACCIDENT	4152
<i>Hui-Hsin Chen, Peter Tian-Tuan Shin, Po-Huang Chiang, Pei-Hsuan Yu, Hui-Chen Tsou, Hsin-Ling Yeh</i>	
WEP2.17 INTEGRATION OF DECISION TREE AND FUZZY RULE INDUCTION ON LANDSLIDE SUSCEPTIBILITY MODELING	4160
<i>Jhe-Syuan Lai, Fuan Tsai</i>	
WEP2.18 ESTIMATION OF ACTUAL EVAPOTRANSPIRATION USING SURFACE ENERGY BALANCE APPROACH AND LANDSAT-8 IMAGES OF SEMARANG AREA, CENTRAL JAVA	4164
<i>Khalifah Insan Nur Rahmi, Projo Danoedoro</i>	
WEP2.19 IRREGULAR INTERNAL SOLITON IN LOMBOK STRAIT	4173
<i>Albert Sulaiman, Agustan</i>	
WEP2.20 EDGE-ENHANCED SGM	4178
<i>Hsin-Chi Lee, Jen-Jer Jaw</i>	
WEP2.21 FRACTAL ANALYSIS FOR DIFFERENT TYPES OF LAND USE USING SATELLITE IMAGES	4187
<i>Jianhua Wang, Ogawa Susumu</i>	
WEP2.22 FORMATION OF SOCIAL ECOSYSTEM SPACE AND ITS CHANGE IN DESERT AREA: A CASE STUDY IN MAFRAQ, NORTHERN CITY, JORDAN	4195
<i>Marie Sato</i>	
WEP2.23 RESULTS OF KOMPSAT-5 SATELLITE SAR INTERFEROMETRY	4200
<i>Dochul Yang, Okchul Jung, Donghan Lee</i>	
WEP2.24 LANDSLIDE SUSCEPTIBILITY MAPPING USING EVIDENTIAL BELIEF FUNCTION MODEL	4206
<i>Latif Ibrahim, Siow Wei Jaw, Muhammad Atizat Abdullah, Mohd Nadzri Md Reba, Tze Huey Tam, Mou Leong Tan</i>	
WEP2.25 APPLICATION OF MULTI-RESOLUTION SEGMENTATION AND SUPPORT VECTOR MACHINE IN IDENTIFYING AGRICULTURAL FEATURES IN SAN FERNANDO, CEBU, PHILIPPINES	4216
<i>Linda E. Saavedra, Philip Virgil B. Astillo, Beethoven M. Arellano Jr., Michael E. Loretero, Evelyn B. Taboada, Roland Emerito S. Otadoy, Renante R. Violanda</i>	
WEP2.26 3D GIS MODELING APPLICATION FOR DEVELOPING THE BUTUAN CITY 3D MODEL	4223
<i>Alexander T. Demetillo, Michelle V. Japitana, Peter John A. Galamiton</i>	

WEP2.27 METHOD OF USING NATIONAL SPATIAL INFORMATION OPEN PLATFORM FOR 3D GIS MATCHING AND REALISTIC DISPLAY OF HYDROLOGICAL RADAR DATA	4230
<i>Hyeoungwook Choi, Sunghyun Jang, Junhyung Kim, Myunghee Jo</i>	
WEP2.28 AN ANALYSIS ON THE CHANGE CHARACTERISTICS OF URBAN ECONOMY UNDER THE INFLUENCE OF YELLOW SAND IN KOREA BY USING SNS DATA	4234
<i>Yonghan Jung, Taehong Won, Hwanhee Yoo</i>	
WEP2.29 DETERMINATION OF OPTIMAL LOCATION FOR POSSIBLE EVACUATION AREAS DURING FLOODING EVENT IN BARANGAY SUMAGUI, BANSUD, ORIENTAL MINDORO USING GIS MAP OVERLAY	4241
<i>Kathleen T. Dela Torre, Edwin R. Abucay, Maria Michaela A. Gonzales, John Alvin B. Reyes</i>	
WEP2.30 LIGHTWEIGHTING AND PROCESSING OF TMA SECONDARY AND TERTIARY MIRRORS	4246
<i>Kun-Huan Wu, Ming-Ying Hsu, S. Gregory Jones, Ting-Ming Huang</i>	
WEP2.31 EVALUATION OF THE HIGH ACCURACY POSITIONING BY QUASI-ZENITH SATELLITE	4253
<i>Naoaki Sekiguchi, Masaaki Shikada</i>	
WEP2.32 DISTINGUISHING URBAN BUILT-UP AND BARE SOIL FEATURES FROM LANDSAT 8 OLI IMAGERY USING DIFFERENT DEVELOPED BAND INDICES	4259
<i>Mark Daryl C. Janiola, Jigg L. Pelayo, John Louis J. Gacad</i>	
WEP2.33 SPATIO-TEMPORAL URBAN CHANGE DETECTION, ANALYSIS AND MODELING OF KATHMANDU VALLEY	4266
<i>Kamal Shahi, Janak Parajuli, Nawaraj Shrestha</i>	
WEP2.34 APPLICATION OF REMOTE SENSING TECHNOLOGY AND GEOGRAPHIC INFORMATION SYSTEMS TO MONITOR LAND USE SITUATION OF ARCHAEOLOGICAL SITES IN TAIWAN	4276
<i>Chian-Hui Lin, Yen-Sheng Ho, Yung-Chung Chuang</i>	
WEP2.35 THE RELATIONSHIP BETWEEN METHANE EMISSIONS AND PRECIPITATION OF TROPICAL RAINFOREST REGION.....	4284
<i>Jonggeol Park, Ippei Harada, Sooyoung Park</i>	
WEP2.36 REMOTE SENSING AND GIS ANALYSIS OF BARE LAND FOR LAN YANG RIVER IN TAIWAN	4290
<i>Chia-En Wu, Chi-Farn Chen, Chien Li, Wei-Cheng Zhen</i>	
WEP2.37 AUTOMATION OF THE CAGAYAN DE ORO RIVER FLOOD WATCH SYSTEM USING HEC HMS AND HECRAS.....	4296
<i>Enrico C. Paringit, Sylvia A. Sueno, Khristoffer Ryan F. Quinton, Girlie F. David, Miguel Del Rosario, Mark Pavia</i>	
WEP2.38 DETECTION AND ANALYSIS OF LAND-USE/LAND-COVER CHANGES IN NAY PYI TAW, MYANMAR USING SATELLITE REMOTE SENSING IMAGES	4306
<i>Kay Khaing Oo, Eiji Nawata, Kiyoshi Torii, Ke-Sheng Cheng</i>	
WEP2.39 USING LANDSAT TO STUDY AND MAP THE EFFECT OF TEMPERATURES IN RENEWABLE ENERGY GENERATION IN ILOCOS	4312
<i>Jholeeh Charls T. Madalipay</i>	
WEP2.40 USING INFORMATIVE PRIOR PROBABILITY TO ESTIMATE BAMBOO FOREST DISTRIBUTIONS IN JAPAN.....	4320
<i>Naoki Hara, Hiroto Shimazaki</i>	
WEP2.41 LIGHT DETECTION AND RANGING (LIDAR) DATA PROCESSING AND CLASSIFICATION FOR BATHYMETRIC DEM GENERATION OF PHILIPPINE SHALLOW WATERS.....	4324
<i>Jommer Mora Medina, Joida F. Prieto, Sarah Jane D. Samalboro, Rosario Concepcion O. Ang</i>	
WEP2.42 DETERMINISTIC LANDSLIDE MODELING OF THE JULY 1990 EARTHQUAKE USING NEWMARK METHOD.....	4332
<i>Fe Carmina Balajadia, Arturo Daag</i>	
WEP2.43 AUTOMATIC PRECISION CORRECTION OF KOMPSAT OPTICAL IMAGERY AND DATA MANAGEMENT	4342
<i>Kwangjae Lee, Heecheon Yun, Eunseon Kim, Younsoo Kim</i>	
WEP2.44 OVERVIEW OF KOMPSAT-3A CALIBRATION AND VALIDATION	4348
<i>Doochun Seo, Gibyeong Hong, Chunggil Jin, Daesun Park, Sukwon Ji, Donghan Lee</i>	
WEP2.45 THIN ICE DETECTION IN BERING SEA USING AMSR2 DATA.....	4354
<i>Shu Sugiura, Yasitomo Sato, Kazuhiro Naoki, Kohei Cho</i>	
WEP2.46 EVALUATING STATISTICAL ANALYSIS OF MISSING DATA METHODS FOR STREAM-FLOW DATA	4360
<i>Mohd Nadzri Md Reba, Mohd Khairul Abdullah Halim, Nurul Hani Roslan</i>	
WEP2.47 LAKE SURFACE SALINITY OF THE BRACKISH LAKE SHINJI ESTIMATED BY LANDSAT-8 DATA	4375
<i>Yuji Sakuno, Hidenobu Kunii</i>	
WEP2.48 COTTON PLANTING AREA EXTRACTION BASED ON MULTI-TEMPORAL LANDSAT8 IMAGES	4384
<i>Wenjing Wang, Xia Zhang, Lifu Zhang</i>	
WEP2.49 TIME-SERIES ANALYSIS OF VEGETATION CHANGE AND SOCIAL FACTORS IN THE LAST 35 YEARS, NORTH TORAJA, INDONESIA	4394
<i>Ayako Oide</i>	
WEP2.50 MULTI-TEMPORAL VEGETATION INDEX ANALYSIS ON PEAT LANDS IN MUARO JAMBI REGENCY, JAMBI PROVINCE, INDONESIA	4404
<i>Annisa Nurdiana, Yudi Setiawan</i>	
WEP2.51 A FEATURE-BASED PERSPECTIVE TOWARDS THE NATIONAL TOPOGRAPHIC MAP DATA	4411
<i>Jung-Hong Hong, Chin-Sung Yang</i>	

WEP2.52 VALIDATION OF MODIS NDVI WITH GROUND SPECTRAL MEASUREMENTS IN SUGARCANE FIELDS IN TARLAC AND BATANGAS, PHILIPPINES	4412
<i>Daniel Marc G. Dela Torre, Gay Jane P. Perez, Josefino C. Comiso</i>	
WEP2.53 CALIBRATION OF A GLOBAL BATHYMETRIC DATA FOR STORM SURGE MODELLING IN LEYTE GULF	4413
<i>Christine N. Ladiero, Bernadette Dimmog, Jose Victor Puno, Mark Allen Bahala, Trizia Mae Muldong, Ann Lourice Salonga, Alfredo Mahar Francisco Lag-May, Joy Santiago, John Kenneth Suarez</i>	
WEP2.54 SUN GLINT REMOVAL FOR IMPROVEMENT OF SHALLOW SEA BOTTOM FEATURES MAPPING ACCURACY	4414
<i>Nurul Nadiyah Yahya, Syarifuddin Misbari, Mazlan Hashim</i>	
WEP2.55 URBAN TREE COUNTING AND MAPPING USING AIRBORNE LASER SCANNER AND OBJECT-BASED IMAGE ANALYSIS	4415
<i>Ab. Latif Ibrahim, Siow Wei Jaw, Khairil Ali Mizam Harun Mizam, Tze Huey Tam, Mou Leong Tan</i>	
WEP2.56 APPLICATION OF GOOGLE CARDBOARD IN FIRE HAZARD SIMULATION	4416
<i>Kai-Jie Yang, Yan-Jun Chen, Kai-Wen Xu, Walter W. Chen</i>	
WEP2.57 SIMULATION OF SAR IMAGE CHARACTERISTICS ANALYSIS IN DAM WATERSHED	4422
<i>Dalgeun Lee, Ae-Sook Suh</i>	
WEP2.58 APPLYING SPATIAL DATA MINING TO DEVELOP A PREDICATIVE MODEL FOR ILLE-GAL LAND EXPLOITATION	4426
<i>Ya-Wen Lin, Chi-Farn Chen, S. H. Chiang</i>	
WEP2.59 GLOBAL LAND COVER CLASSIFICATION USING MODIS SURFACE REFLECTANCE PRODUCTS	4433
<i>Asahi Koyama, Kiyonari Fukue, Yoshiyuki Otake, Haruhisa Shimoda</i>	
WEP2.60 3D MODELING OF “INDONESIA MENGGUGAT” HISTORICAL BUILDING BAN-DUNG (INDONESIA) USING TERRESTRIAL LASER SCANNER	4439
<i>Irwan Gumilar, Muhammad Z. Mudzakir, Hasanuddin Z. Abidin, Riantini Vitriana</i>	
WEP2.61 APPLICATION OF REMOTE SENSING FOR IDENTIFICATION, MONITORING AND ASSESSMENT OF SELECTED ENVIRONMENTAL IMPACTS CAUSED BY UNDERGROUND MINING IN OSTRAVA-KARVINA COAL BASIN (CZECH REPUBLIC)	4446
<i>Tomas Penaz, Milan Lazecky</i>	
WEP2.62 KOMPSAT-5 PERFORMANCE ENHANCEMENT RESULT SUMMARY	4451
<i>Donghan Lee, Horyeong Jung, Do Chul Yang, Donghyun Kim, Chiho Kang, Sangryool Lee, Yongchul Hwang, Taejin Hwang, Fabrizio Impagnatiello</i>	

THP SESSION 3

THP3.1 GEOSPATIAL TOOLS FOR LANDSLIDE SUSCEPTIBILITY ASSESSMENT: A CASE STUDY IN LOMBOK, INDONESIA	4455
<i>Yukni Arifianti, Jewgenij Torizin, Dirk Balzer, Dirk Kuhn, Akbar Cita</i>	
THP3.2 TO RUN SPECIES DISTRIBUTION MODELS ON AN ITERATIVE BASIS WITH TOPOGRAPHIC WETNESS INDICES (TWIS) IN INITIAL ROUNDS IN GIS	4458
<i>Nan-Nan Wang, Wei-Kai Lai, Nan-Chang Lo, Zhanyu Liu, Kai-Yi Huang</i>	
THP3.3 SATELLITE-BORNE AND GROUND-BASED TOTAL OZONE COLUMN CONCENTRATION MEASUREMENTS IN THE PHILIPPINES: COMPARISONS AND VARIABILITY	4464
<i>John A. Manalo, Ronald C. Macatangay, Gerry Bagtasa, Mylene G. Cayetano, Leoncio Amadore, Thiranan Sonkaew, Edna L. Juanillo, Cherry Jane L. Cada, Marcelina Villafuerte</i>	
THP3.4 SIMULATION OF HIGH TEMPORAL RESOLUTION AND FINE SPATIAL RESOLUTION IMAGES USING MODIS AND LANDSAT-8 DATA	4474
<i>Yuejun Sun, Xiaopo Zheng, Qiming Qin, Huazhong Ren, Ling Wu</i>	
THP3.5 PAIRWISE COMPARISON METHOD FOR DETERMINING GEOGRAPHIC DIFFICULTY LEVEL (CASE STUDY: BANDUNG BARAT REGENCY)	4480
<i>Nur Ainiyah, Albertus Deliar, Riantini Virtriana</i>	
THP3.6 MAPPING THE COASTAL AREAS USING SINGLEBEAM ECHOSOUNDER (SBES) AND SIDE SCAN SONAR (SSS)	4488
<i>Nadya Oktaviani, Bambang Riadi, Nursugi</i>	
THP3.7 STUDY OF HIGHER ORDER IONOSPHERIC REFRACTION EFFECTS ON PRECISE POINT POSITIONING ACCURACY	4494
<i>Wan-Chi Hung, Lao-Sheng Lin</i>	
THP3.8 AN ALGORITHM TO INVERSE SEA SURFACE TEMPERATURES AT OFFSHORE WATER BY EMPLOYING LANDSAT 8 / TIRS DATA	4504
<i>Xing Xufeng, Liu Yang, Dong Wentong, Wang Zhonglin, Zhang Lianlong, Sun Zhen, Miaofen Huang</i>	
THP3.9 DESIGN OF RESAMPLING KERNEL FOR KOMPSAT-3A TO MAINTAIN SPATIAL PERFORMANCE	4512
<i>Dae-Soon Park, Jae Heon Chung, Doo Chun Seo, Dong-Han Lee</i>	
THP3.10 GOCE GRAVITY GRADIENT PREDICTIONS BY TAYLOR-KARMAN STRUCTURED COVARIANCE TENSOR	4519
<i>Rey-Jer You, Wei-Nan Kao</i>	
THP3.11 BENTHIC COVER TYPE CLASSIFICATION OF COASTAL AREA WITH HYPERSPECTRAL IMAGE	4524
<i>Jung-Il Shin, Hyun-Suk Kim, Dong-Uk Kim</i>	

THP3.12 STUDY ON THE ALGORITHM OF INVERSING AEROSOL OPTICAL DEPTH OF LIAODONG GULF BASED ON GOCI DATA	4530
<i>Lianlong Zhang, Miaofen Huang, Ying'En Huang, Zhen Sun, Zhongyong Sun, Zhonglin Wang</i>	
THP3.13 A GEOMORPHOLOGICAL STUDY OF BACHANG SHIH WITH AIRBORNE LIDAR	4537
<i>Pei-Hsuan Yu, Peter T. Y. Shih</i>	
THP3.14 THE CORRELATION OF MODIS-DERIVED PM2.5 AND EPIDEMIOLOGICAL DISEASES IN TAIWAN	4541
<i>Ngoc Thi Mong, Ching-Ju Liu, Chian-Yi Liu</i>	
THP3.15 REMOTE SENSING AND GIS INTEGRATION FOR PADDY PRODUCTION ESTIMATION IN BALI PROVINCE, INDONESIA	4547
<i>Sarono, Ridho Kurniawan, Nur Yahya Ahmad Karim, Hamim Zaky Hadibasyir, Muhammad Nurul Fadhillah, Muh Arif Trisnanto, Josua Hamonangan Sinaga</i>	
THP3.16 ANALYZING THE EFFECTIVE OF BIO-OPTIC ALGORITHM TO DETECT SEA BOTTOM SUBSTRATE USING REMOTE SENSING DATA	4554
<i>Norin Nazira Hamid, Mazlan Hashim, Syarifuddin Misbari</i>	
THP3.17 EVALUATION OF TRMM RAINFALL PRODUCTS FOR STREAMFLOW SIMULATION IN THE KELANTAN RIVER BASIN, MALAYSIA	4561
<i>Mou Leong Tan, Latif Ibrahim, Zulkifli Yusop, Noradila Rusli, Tze Huey Tam</i>	
THP3.18 BFAST CHANGE DETECTION FOR AGRICULTURAL LANDUSE CHANGES ANALYSIS IN SIDOARJO REGENCY, EAST JAVA, INDONESIA	4568
<i>Alvin Fatikhumada, Prita A. Permatasari, Yudi Setiawan, Liyantono</i>	
THP3.19 A STUDY ON THE TECHNIQUE OF DETECT-ING FISH FARM FACILITIES USING KOMPSAT-3 SATELLITE IMAGERY	4576
<i>Hyung-Sub Kim, Do-Ryeong Kim, Dong-Hyun Kim, Myung-Hee Jo</i>	
THP3.20 MEASURING THE ECONOMIC IMPACT OF CLIMATE DETERMINANTS ON DAVAO RE-GION AQUACULTURE: A RICARDIAN APPROACH	4580
<i>Andrea Jane Q. Galaura, Jon Marx Sarmiento, Pedro A. Alviola Iv, Marie Analiz April A. Limpoco, Cleto L. Nanola Jr., Annabelle U. Novero</i>	
THP3.21 METHODS OF DEVELOPMENT OF INFORMATION INVENTORY MANAGEMENT/LINKING MODULE AND INVENTORY PROTO-TYPE IN SUPPORTIVE OF DISASTER RESPONSE DECISION-MAKING	4590
<i>Sooyoung Choi, Su-Myung Gang, Bonghyuck Choi, Yunwon Jo</i>	
THP3.22 AN ANALYSIS ON THE CHARACTERISTICS OF SPATIAL CLUSTERING DISTRIBUTION IN THE URBAN FIRE, OF GYEONGSANGNAM-DO, KOREA	4597
<i>Gyuhwan Bae, Yonghan Jung, Hwanhee Yoo</i>	
THP3.23 SATELLITE IMAGE-BASED ANALYSIS TO ESTIMATE THE DEVELOPMENT OF INDUSTRIAL PARK IN TAIWAN	4604
<i>Hsin Chen Dang, Yu Ting Huang, Chi-Farn Chen</i>	
THP3.24 MANGROVE FOREST EXTENT MAPPING IN SIARGAO ISLAND, SURIGAO DEL NORTE, PHILIPPINES USING SUPPORT VECTOR MACHINE (SVM) CLASSIFICATION	4614
<i>Al Jayson G. Songcuan, Alvin B. Baloloy, Ariel C. Blanco, Laura T. David</i>	
THP3.25 NUMERICAL STUDY OF MONSOONAL EFFECT ON RAINFALL POTENTIAL OF TYPHOON MORAKOT (2009)	4622
<i>Yiling Chang, T.-H. Lin, G.-R. Liu, C.-Y. Liu</i>	
THP3.26 EVALUATION OF VEGETATION INDICES WITH OPTIMAL BANDS FOR VEGETATION CLASSIFICATION USING CASI HYPERSPECTRAL IMAGE	4623
<i>Yeji Kim, Jaewan Choi, Aram Song, Yongil Kim</i>	
THP3.27 VEGETATION TYPES COMPARISON UTILIZING LANDSAT IMAGERY IN MUSUAN, MARAMAG, BUKIDNON, PHILIPPINES	4627
<i>John Louis J. Gacad, Mark Daryl C. Janiola, Jorge Andrew B. Cipriano</i>	
THP3.28 CONTOUR COMPARISON OF SAR AND LIDAR DEM USING FIELD DATA POINTS	4631
<i>Jojemar Bantugan, Romy Anino, Alex S. Olpenda</i>	
THP3.29 INTEGRATION OF HETEROGENEOUS WEB-GIS LAND MANAGEMENT PLATFORM: US-ING MODEL-VIEW-CONTROLLER DESIGN PATTERN	4637
<i>Ms Shu-Lin Lin, Chi-Farn Chen</i>	
THP3.30 THE POTENTIAL ROLE OF THE COMMUNITY FOR THE FLOOD RISK ASSESSMENT USING FEATURES EXTRACTED FROM LIDAR DATASETS	4644
<i>Gus Kali R. Oguis, Genelin Ruth P. James, Cinmayii Manliguez, Christine Lou Adino Lazaga, Tisha Mae Lopena, Joseph E. Acosta</i>	
THP3.31 GIS-BASED EVALUATION ON THE POTENTIAL SITES OF SAGO (METROXYLON SAGO ROTTB.) PROCESSING FACILITY IN AGUSAN DEL SUR, PHILIPPINES	4649
<i>Judy Rose D. Hollite, Kimberly Hazel B. Camino, Joseph Acosta, Leo Manuel Estaña</i>	
THP3.32 THE GEOGRAPHICAL AND TEMPORAL ANALYSIS OF ILLEGAL DEVELOPMENT FOR SLOPELAND IN TAIWAN	4656
<i>Wei-Cheng Zheng, Chi-Farn Chen</i>	
THP3.33 ANALYZING VEGETATION PHENOLOGY IN YILAN USING MULTISOURCE REMOTE SENSING IMAGES	4662
<i>Liang Yun Li, Tsai Jung-En, Chang Chung-Te, Jan Jih-Fa</i>	
THP3.34 DESIGN OF A 3D MODEL VIEWER FOR MAN-AGING DRONE-BASED 3D RECONSTRUCTION MODEL OF DISASTER SITE	4675
<i>Changyoon Kim, Hyounseok Moon, Woosik Lee</i>	

THP3.35 TRANSFORMATION ANALYSIS OF MAN-GROVE ECOSYSTEM TO TRADITIONAL POND CULTURE ON WEST SULAWESI, INDONESIA	4678
<i>Nur Indah Sari Arbit, Nurjannah Nurdin, Suparjo Razasli Carong</i>	
THP3.36 SURFACE WATER EXTRACTION USING CASI 1500 HYPERSPECTRAL IMAGE	4683
<i>Sarah Jane D. Samalbuero, Joida F. Prieto, Regis Guhiting, Shiela Mae Santillan, Kenneth A. Suldum, John Louie Fabila, Ma. Rosario Concepcion O. Ang</i>	
THP3.37 ANALYSIS OF TROPOSPHERIC AND COLUMNAR OZONE MEASUREMENTS IN MANILA, PHILIPPINES	4687
<i>Edgar Vallar, Maria Cecilia Galvez, Red Cas-Tilla, Mylene Cayetano, James Simpas, Melliza Cruz, Rheo Lamorena-Lim, Len Herald Lim, Preciosa Cora-Zon Pabroa, Ronald Macatangay, Gerry Bagtasa, Teresita Peralta, Jean Rosete, Vernon Morris</i>	
THP3.38 BIODIVERSITY, FOREST CONDITION MAPPING AND FOREST HARVESTING MONITORING USING UAV	4695
<i>Karel Pavelka, Martina Faltynova, Eva Matous-Kova, Jaroslav Sedina</i>	
THP3.39 PHILSHORE TOOL: A WEB-BASED MARINE SPATIAL PLANNING TOOL	4703
<i>Luis Caezar Ian Ketchu Panganiban, Charmyne Mamador, Ma. Rosario Concepcion O. Ang, Oliver Dan G. De Luna, Michael D. Bausas, Joselito P. Cruz</i>	
THP3.40 MONITORING THE STABILITY OF MINE DUMP USING MULTI-SOURCE DATA AND COMBINED OBSERVATION WAY	4712
<i>Pengfei Pan, Yachun Mao, Houguang Sun, Xiaoming Fan, Shanjuan Liu</i>	
THP3.41 THE PERFORMANCE OF KOMPSAT-5 (K5) ENHANCED MODES	4718
<i>Horyung R. Jeong, D. H. Kim, D. C. Yang, D. H. Lee</i>	
THP3.42 OVERVIEW OF SPATIAL EDGE TARGET INSTALLATION FOR KOMPSAT-3A IR CALIBRATION/VALIDATION	4728
<i>Sukwon Ji, Doochun Seo, Chunggil Jin, Donghan Lee, Taesu Kim</i>	
THP3.43 SATELLITE-BASED INVENTORYING MAJOR LANDSLIDES IN KELANTAN RIVER BASIN DUE TO MASSIVE DECEMBER 2014 FLOOD EPISODE	4732
<i>Mazlan Hashim, Syarifuddin Misbari, Mohd Nadzri Reba, Amin Beirvand Pour, Siow Wei Jaw, Norzafirah Ab Lah, Mohd Khairul Abdullah Halim</i>	
THP3.44 IMPACT OF HAZARD MAPPING TECH-NIQUES EMPLOYED BY LGUs	4737
<i>Maria Cecilia R. Parangit</i>	
THP3.45 MAPPING AND ANALYSIS OF LAND COVER AND LAND USE CHANGE FOR A SUSTAINABLE DEVELOPMENT IN SAVANNAKHET PROVINCE, LAO PDR	4738
<i>Virany Sengtianthr, Nguyen Ngoc Thach, Le Thi Khanh Hoa, Pham Xuan Canh</i>	
THP3.46 SEMI-AUTOMATED TIDE CORRECTION TECHNIQUE FOR IN-SITU AND SATELLITE-DERIVED SHORELINES	4747
<i>Cyndi S. Ignacio, Cherry L. Ringor, Fernando P. Siringan</i>	
THP3.47 CROP EXTENT MAPPING USING MODIS DATA IN EL SALVADOR	4748
<i>Chi-Farn Chen, Nguyen-Thanh Son, Cheng-Ru Chen</i>	
THP3.48 TOWARDS THE QUICK ESTABLISHMENT OF METADATA FOR NATURAL DISASTER DATA SHARING FRAMEWORK	4753
<i>Jung-Hong Hong, Guan-Yu Zhou, Yu-Sheng Chen</i>	
THP3.49 ANALYSIS OF DAMAGED RICE FIELDS AND RICE RESTORATION AFTER THE GREAT EAST JAPAN TSUNAMI USING TIME-SERIES MODIS DATA	4761
<i>Ya-Yun Hsiao, Chi-Farn Chen, Shou-Hao Chiang, Nguyen-Thanh Son</i>	
THP3.50 FEATURE EXTRACTION BASED ON SEG-MENTATION WITH SPECTRAL BAND RATIOS AND SHAPE CHARACTERISTICS	4770
<i>Hyejin Kim, Yeji Kim, Ahram Song, Yongil Kim</i>	
THP3.51 EVALUATING THE POTENTIAL OF DOWNSCALED CFSV2 FOR DROUGHT FORECASTING USING MODIS AND TRMM OBSERVATIONS	4775
<i>Genevieve M. Macam, Gay Jane P. Perez</i>	
THP3.52 LANDSLIDE RISK ASSESSMENT MONITORING WITH MULTI PASS L, X BAND INSAR ANALYSES	4785
<i>Hyewon Yun, Junrack Kim, Yunsoo Choi</i>	
THP3.53 USING LANDSAT MULTI-TEMPORAL IMAGES IN MONITORING URBAN HEAT ISLAND EFFECT IN METRO MANILA	4786
<i>Jasper Tabili Madalipay, Gay Jane P. Perez</i>	
THP3.54 SCENARIO-BASED STORM SURGE VULNERABILITY ASSESSMENT OF CATANDUANES	4787
<i>Christine N. Ladiero, Judd P. Tablazon, Michael Marie Ramos, Bernadette Dimmog, Lea Desallas, Alfredo Mahar Francisco Lagmay, Joy Santiago, John Kenneth Suarez</i>	
THP3.55 SEAHABS—DEVELOPMENT OF A SEMI-AUTOMATED ALGAL BLOOM DETECTION SYSTEM FOR THE PHILIPPINE WATERS	4788
<i>Aldwin Torres Almo, Lovely Joy S. Villarín, Laura T. David, Aletta T. Yñiguez, Rhodora V. Azanza</i>	
THP3.56 LIDAR DATA VALIDATION: FLOOD VULNERABILITY AND MODERN FLOOD HAZARD MAPPING USING LIDAR TECHNOLOGY OF THE 14 RIVERS IN DAVAO REGION	4789
<i>Joseph Acosta, Genelin Ruth James, Ryan Calvo, Jon Gaviola, Richard Logronio, Jumilyn Bitang</i>	
THP3.57 VIRTUAL MODEL CREATION USING UAV PHOTOS	4790
<i>Yu-Tsao Tseng, Kai-Jie Yang, Walter W. Chen</i>	
THP3.58 CONCEPTUAL FRAMEWORK AND DEVELOPMENT OF VULNERABILITY ASSESSMENT METHODS FOR THE COASTAL RESOURCES IN THE PHILIPPINES	4796
<i>Kristina Ticman, Roseanne Ramos, Homer Pagkalinawan, Ayin Tamondong</i>	

THP3.59 AUTOMATED BUILDING FOOTPRINTS EX-TRACTION FROM DTM AND DSM IN ARCGIS	4797
<i>Melba Dominique A. Burdeos, Meriam Makinano-Santillan, Arthur M. Amora</i>	
THP3.60 COMBINING LIDAR DATA, FIELD SURVEYS AND HYDROLOGIC MODELLING TECH-NIQUES FOR DRAINAGE SYSTEM ASSESSMENT.....	4803
<i>Joy C. Casinginan, Rogermil S. Austria, Mark Angelou E. Bala, Meriam Makinano-Santillan</i>	
THP3.61 ANALYZING THE EFFECTS OF SEDIMENTA-TION ON RICEFIELD PRODUCTIVITY AND CONVERSION THROUGH PARTICIPATORY MAPPING AND SATELLITE IMAGES	4811
<i>Clarvi May G. Moran, Meriam Makinano-Santillan, Jojene R. Santillan</i>	
THP3.62 ANALYZING GEOMORPHOLOGICAL CHANGES IN WATERWAY SYSTEM USING LIDAR DATA AND TOPOGRAPHIC SURVEYS.....	4817
<i>Alyssa Kaiser C. Roa, Alvar R. Sahipa, Meriam Makinano-Santillan, Jojene R. Santillan</i>	
THP3.63 RADIOMETRIC CALIBRATION OF THE KOMPSAT-3A	4823
<i>Hoyong Ahn, Dongyoon Shin, Jinsoo Kim, Chuluong Choi</i>	
THP3.64 RESOURCE ASSESSMENT AND SITE SELECTION FOR SMALL ISLAND ELEFICIATION USING TIDAL IN-STREAM ENERGY CONVERSION SYSTEM	4828
<i>Justine Jose De La Cruz, Rosario Conception O. Ang</i>	
Author Index	