

2021 7th Asia-Pacific Conference on Synthetic Aperture Radar (AP SAR 2021)

**Virtual Conference
1 – 3 November 2021**



**IEEE Catalog Number: CFP2141C-POD
ISBN: 978-1-7281-7334-4**

**Copyright © 2021 by the Institute of Electrical and Electronics Engineers, Inc.
All Rights Reserved**

Copyright and Reprint Permissions: Abstracting is permitted with credit to the source. Libraries are permitted to photocopy beyond the limit of U.S. copyright law for private use of patrons those articles in this volume that carry a code at the bottom of the first page, provided the per-copy fee indicated in the code is paid through Copyright Clearance Center, 222 Rosewood Drive, Danvers, MA 01923.

For other copying, reprint or republication permission, write to IEEE Copyrights Manager, IEEE Service Center, 445 Hoes Lane, Piscataway, NJ 08854. All rights reserved.

****** This is a print representation of what appears in the IEEE Digital Library. Some format issues inherent in the e-media version may also appear in this print version.***

IEEE Catalog Number:	CFP2141C-POD
ISBN (Print-On-Demand):	978-1-7281-7334-4
ISBN (Online):	978-1-7281-7333-7
ISSN:	2474-8196

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) 758-2633
E-mail: curran@proceedings.com
Web: www.proceedings.com

CURRAN ASSOCIATES INC.
proceedings
.com

TABLE OF CONTENTS

A DOUBLE-LAYER DISTRIBUTED TRANSMISSION AND PROCESSING STRUCTURE FOR MULTI-CHANNEL APERTURE SYNTHESIS PASSIVE IMAGING SYSTEMS	1
<i>Yu Wang, Xinbao Gong, Gang Song</i>	
MULTI-SENSOR SATELLITE-IMAGING DATA FUSION FOR EARTHQUAKE DAMAGE ASSESSMENT AND THE SIGNIFICANT FEATURES	7
<i>Gunjan Joshi, Ryo Natsuaki, Akira Hirose</i>	
DEVELOPMENT OF X-BAND MICROSTRIP ANTENNA FOR CIRCULARLY POLARIZED SYNTHETIC APERTURE RADAR ONBOARD UAV	13
<i>Hisato Kashihara, Josaphat T. S. Sumantyo</i>	
HIGH-PERFORMANCE IMPLEMENTATION OF UAV MINISAR IMAGING ALGORITHM BASED ON GPU	17
<i>Xudong Yuan, Yixiang Luomei, Jiaxuan Liu, Feng Wang</i>	
KA-BAND DRONE SAR FLYING WITHOUT GPS	23
<i>Weixian Liu, Hongchuan Feng, Yilong Lu</i>	
COMPARISON OF MF AND CS ALGORITHM IN 3-D NEAR-FIELD SAR IMAGING	27
<i>Zichen Zhou, Shunjun Wei, Mou Wang, Xinyuan Liu, Jinshan Wei, Jun Shi, Xiaoling Zhang</i>	
ANALYSIS ON THE IMPACT OF CONSTELLATION CONFIGURATION OVER MULTISTATIC SAR IMAGES	32
<i>Chaerin Chung, Sumin Kim, Jeongbae Kim, Uimin Lee, Byoungdoo Lee, Min-Ho Ka</i>	
HIGH-SQUINT SAR IMAGING TECHNIQUE BASED ON MULTI-CHIP DSP	37
<i>Lan Dong, Xingwei Meng, Daiyin Zhu</i>	
VALIDITY OF SAG IN HIGH-RESOLUTION KU-BAND FMCW SAR WITH HIGH-VELOCITY PLATFORM	48
<i>Young-Geun Kang, Seong-Ook Park, Dae-Hwan Jung</i>	
MAPPING THE VEGETATIVE STAGE OF RICE CULTIVATION USING DEEP LEARNING	52
<i>Fadhlullah Ramadhani, Misnawati</i>	
FLOOD IDENTIFICATION MODEL DESIGN WITH DEEP LEARNING	57
<i>Jung-Hoon Lee, Kyeongrok Kim, Jae-Hyun Kim</i>	
SPATIAL RESOLUTION OF COMPLEX-VALUED RESERVOIR COMPUTING IN ASPECT CLASSIFICATION USING INSAR DATA	61
<i>Bungo Konishi, Akira Hirose, Ryo Natsuaki</i>	
CLOUD REMOVAL OF OPTICAL REMOTE SENSING IMAGERIES USING SAR DATA AND DEEP LEARNING	65
<i>Xiao Xiao, Yilong Lu</i>	
DEVELOPMENT OF AN AIRBORNE X-BAND APAA-SAR SYSTEM	70
<i>Takehiro Hoshino, Hiroaki Fujihara, Hideki Hasegawa, Tasuku Kuriyama, Kenji Ura, Tadashi Hamasaki</i>	
DEVELOPMENT AND ORBIT DEMONSTRATION OF SMALL SYNTHETIC APERTURE RADAR SATELLITE	74
<i>Hirobumi Saito, Koji Tanaka, Mako Mita, Prilando R. Akbar, Budhaditya Pyne, Masato Tanaka, Naoto Onodera, Jiro Hirokawa, Toshihiro Obata, Kosei Ishimura, Hiromi Watanabe</i>	
DEVELOPMENT STATUS OF METASENSING STARSAR-X: A MULTI-MODE HIGH-RESOLUTION SPACEBORNE X-BAND SAR PAYLOAD	79
<i>Adriano Meta, Mario Azcueta, Gerard Masalias, Simone Placidi</i>	
DESIGN OF BROADBAND X-BAND SUB-ARRAY ANTENNA WITH HYBRID-SEQUENTIAL ROTATION FED FOR AIRBORNE CP-SAR	84
<i>Cahya E. Santosa, Josaphat T. S. Sumantyo</i>	
A MULTI-OBJECTIVE NEURAL NETWORK FOR SAR DESPECKLING BASED ON AN HYBRID TRAINING APPROACH	94
<i>Sergio Vitale, Giampaolo Ferraioli, Vito Pascazio, Gilda Schirinzi</i>	
DESPECKLING OF SYNTHETIC APERTURE RADAR IMAGE USING DEEP-LEARNING MODEL	99
<i>YuFan Cai, Josaphat T. S. Sumantyo</i>	
AN ITERATIVE NON-LOCAL DENOISING METHOD OF SAR IMAGE BASED ON MULTI-RESOLUTION	105
<i>He Huang, Penghui Huang, Xingzhao Liu, Fengwei Shao, Shaoqian Li, Xin Lin</i>	

MULTI-MODALITY TRANSLATION FROM SAR IMAGE TO OPTICAL IMAGE FOR REMOTE SENSING APPLICATIONS	110
<i>Hao Zhou, Xiao Xiao, Yilong Lu</i>	
CONVOLUTIONAL NEURAL NETWORKS FOR TOMOGRAPHIC MIMO GROUND PENETRATING RADAR IMAGING	114
<i>Michele Ambrosiano, Stefano Franceschini, Maria M. Autorino, Vito Pascazio</i>	
INTEGRATE TRADITIONAL HAND-CRAFTED FEATURES INTO MODERN CNN-BASED MODELS TO FURTHER IMPROVE SAR SHIP CLASSIFICATION ACCURACY	119
<i>Tianwen Zhang, Xiaoling Zhang</i>	
A PYLON DETECTION METHOD BASED ON FASTER R-CNN IN HIGH-RESOLUTION SAR IMAGES	125
<i>Xiaoling Lv, Jiankun Chen, Xiaolan Qiu</i>	
AN UNSUPERVISED NEURAL NETWORK FOR CHANGE DETECTION IN SAR IMAGES	131
<i>Zijia Xu, Yue Zhou, Xue Jiang</i>	
OIL PLATFORM DETECTION IN POLARIMETRIC SAR IMAGES BASED ON LEVEL SET SEGMENTATION AND CONVOLUTIONAL NEURAL NETWORK	136
<i>Chun Liu, Tingting Wu, Zenghui Li</i>	
RFI SUPPRESSION BASED ON AZIMUTH FREQUENCY DOMAIN NOTCH FOR LOW FREQUENCY UWB SAR	140
<i>Kang Liang, Hongtu Xie, Ni Xie, Xinqiao Jiang, Kaipeng Chen, Guoqian Wang</i>	
AN IMPROVED SIGNAL PROCESSING ALGORITHM BASED ON DOPPLER SHIFTING TECHNIQUE FOR VIDEO-SAR	144
<i>Chulki K. Kim, Seong O. Park</i>	
DESIGN OF FPGA BOARD FOR CP-SAR IMAGE PROCESSING SYSTEM	148
<i>Takumi Aoyama, Kazuteru Namba, Josaphat T. S. Sumantyo</i>	
STUDY ON THREE-DIMENSIONAL FAST FACTORIZED BACK PROJECTION USING ONE-DIMENSIONAL BISTATIC ANTENNA ARRAY FOR SECURITY RADAR	152
<i>Takayuki Kitamura, Kei Suwa, Satoshi Kageme</i>	
EFFICIENT INSTANCE SEGMENTATION METHOD FOR HIGH-RESOLUTION SAR IMAGERY	163
<i>Xiangfeng Zeng, Shunjun Wei, Jun Shi, Xiaoling Zhang</i>	
ROBUST ADAPTIVE PULSE COMPRESSION UNDER ENCODER-DECODER NETWORK FOR SYNTHETIC APERTURE RADAR	177
<i>Qianrong Lu, Xiji Wang, Zhicheng Wang, Xianchao Ma, Na Yang</i>	
IMPLEMENTATION OF ATI-GMTI PROCESS ON AIRBORNE AND AUTOMOBILE SAR DATA	182
<i>Sangho An, Duk-jin Kim, Ji-hwan Hwang, Juyoung Song</i>	
MULTI-SCALE CAPSULE NETWORK WITH COORDINATE ATTENTION FOR SAR AUTOMATIC TARGET RECOGNITION	187
<i>Huilin Xu, Feng Xu</i>	
INVESTIGATION OF THE EFFECT OF THE FLIGHT PATH ON THE THREE DIMENSIONAL LOCATABILITY OF TARGETS	192
<i>Fabian Hartmann, Jörn Ostermann</i>	
ADVANCED SAR SIMULATOR FOR ATR AND AI DATABASE GENERATION	198
<i>Alessandro Vetere, Simone Placidi, Adriano Meta, Eugenio Pino</i>	
CHANDRAYAAN-2 DUAL FREQUENCY SYNTHETIC APERTURE RADAR (DFSAR) FULL AND COMPACT POLARIMETRIC DATA ANALYSIS FOR THE LUNAR SURFACE	204
<i>Narayanarao Bhogapurapu, Avik Bhattacharya, Y. S. Rao</i>	
INFLUENCE OF EARTH ROTATION ON OBSERVATION REGION LOSS FOR A MULTI-STATIC SPACEBORNE HRWS-SAR CONSTELLATIONS IN A CHASING MODE	209
<i>He Huang, Penghui Huang, Xingzhao Liu, Shaoqian Li, Fengwei Shao, Wenbin Gong</i>	
SAR MARGINAL ICE ZONE SURFACE ROUGHNESS VISUALIZATION AND ELECTROMAGNETIC INTERACTION INVESTIGATION BASED ON SEA STATE CONDITIONS	213
<i>Iman H. Shahrezaei, Hyun-Cheol Kim</i>	
DEVELOPMENT OF CIRCULARLY POLARIZED MICROSTRIP ANTENNA FOR HIGH TEMPERATURE ENVIRONMENT OBSERVATION BY SYNTHETIC APERTURE RADAR	217
<i>Takahiro Miyazaki, Josaphat T. S. Sumantyo, Ayaka Takahashi, Motoyuki Naito</i>	
IMPROVED COMPUTERIZED IONOSPHERIC TOMOGRAPHY BASED ON THE SPACEBORNE SAR, IONOSONDE AND GPS DATA	222
<i>Cheng Wang, Hai-sheng Zhao, Wu-long Guo, Bo Liu, Liang Chen</i>	

FARADAY ROTATION ESTIMATION BASED ON POLSAR DATA: A DENOISING TECHNIQUE	226
<i>Xun Wang, Dong Li, Yunhua Zhang, Jiefang Yang, Xiaojin Shi, Liting Liang</i>	
IMPROVED CONTRAST OPTIMIZATION AUTOFOCUS ALGORITHM FOR COMPENSATING IONOSPHERIC PHASE DISPERSION EFFECT ON SPACEBORNE P-BAND ULTRAWIDEBAND SAR	231
<i>Huguang Yao, Zhuo Li</i>	
ANALYSIS OF THE SPATIAL-VARIATION FEATURES OF SCINTILLATION PHASE ERROR IN SPACEBORNE SYNTHETIC APERTURE RADAR IMAGES	235
<i>Nan Gan, Qilei Zhang, Yongsheng Zhang, Yifei Ji, Zhen Dong, Lei Yu</i>	
NON-LINE-OF-SIGHT RADAR 3-D IMAGING VIA SPARSE RECONSTRUCTION	240
<i>Xinyuan Liu, Shunjun Wei, Jinshan Wei, Zichen Zhou, Mou Wang, Jun Shi, Xiaoling Zhang</i>	
CLASSIFICATION OF SHIP TYPE USING SENTINEL 1 IMAGERY	244
<i>Muhammad I. Habibie, Teguh A. Pianto, Harun I. Akbar</i>	
INSHORE SHIP DETECTION IN SAR IMAGES VIA AN IMPROVED SSD MODEL WITH WAVELET DECOMPOSITION	249
<i>Tian Miao, Hongcheng Zeng, He Wang, Wei Yang</i>	
APPROACH FOR RANGE-AMBIGUOUS CLUTTER SUPPRESSION IN AN AEW RADAR SYSTEM	254
<i>Hao Yang, Penghui Huang, Yongyuan Sun, Guozhong Chen, Xin Lin, Xingzhao Liu</i>	
PERFORMANCE ANALYSIS OF WEIGHT WINDOW STAP FOR SPACEBORNE EARLY WARNING RADAR	260
<i>Zihao Zou, Penghui Huang, Xingzhao Liu, Xin Lin, Guozhong Chen, Yanyang Liu</i>	
PALSAR-3 DBF SAR SIGNAL SIMULATION	271
<i>Katia N. Urata, Takeo Tadono, Takeshi Motohka</i>	
ANALYSIS TWO BEAMS LHCP ARRAY TRIANGULAR TRUNCATED MICROSTRIP ANTENNA FOR CP-SAR SENSOR	276
<i>Muhammad F. E. Purnomo, Vita Kusumasari, Rudy Yuwono, Rahmadwati, Azizurrahman Rafli, Yuyu Wahyu, Hadi Suyono, Onny Setyawati, Rini N. Hasanah</i>	
POLARIMETRIC CALIBRATION USING PARCS IN THE PRESENCE OF FR	285
<i>Jun S. Kim, Konstantinos Papathanassiou</i>	
DEVELOPMENT AND VALIDATION OF COMPACT ALL TIME IMAGING SAR SENSOR SYSTEM (CATIS)	290
<i>Heein Yang, Mirza M. Waqar, Myeong-Ryong Nam</i>	
SOIL MOISTURE ESTIMATION USING SIMULATED NISAR DUAL POLARIMETRIC GRD PRODUCT OVER CROPLANDS	294
<i>Narayanarao Bhogapurapu, Subhadip Dey, Avik Bhattacharya, Y. S. Rao</i>	
REGRESSION NEURAL NETWORK FOR SOIL MOISTURE ESTIMATION	300
<i>Dušan Gleich, Blaž Pongrac</i>	
NOVEL CLUSTERING TECHNIQUE FOR MONITORING CROP PHENOLOGY USING SAR DATA	304
<i>Subhadip Dey, Narayanarao Bhogapurapu, Avik Bhattacharya, Dipankar Mandal, Heather McNairn, Y. S. Rao</i>	
HISTORICAL PADDY RICE GROWTH AND PHENOLOGY PATTERN ESTIMATION USING DUAL POLARIZATION OF SENTINEL 1	310
<i>Choirunnisa Salsabila, Mochamad F. Ghazali, Ahmad Zaenudin</i>	
UTILIZATION OF SENTINEL-1 AND SENTINEL-2 TIME-SERIES DATA FOR MAPPING PADDY FIELDS CHANGES IN KLATEN REGENCY, INDONESIA	315
<i>Giara I. Nanda, Pronika Kricella, Rizatus Shofiyati, Kustiyo</i>	
VARIABILITY OF INTERNAL SOLITARY WAVES DETECTION IN THE LOMBOK STRAIT OBSERVED BY SENTINEL-1 SAR: THE ROLE OF MONSOON, IOD, AND ENSO	320
<i>Chonnanayah, Takahiro Osawa, I. W. G. A. Karang, A. R. As-syakur</i>	
RESEARCH ON LUNEBERG LENS WITH BUILT-IN FLOATING BUOYS THAT CAN BE OBSERVED BY SAR SATELLITES	325
<i>Toshiyuki Miyazaki, Fumihiro Takahashi, Takashi Hosokawa</i>	
FOREST AREAS WITH A HIGH POTENTIAL RISK OF FIRE MAPPING ON PEATLANDS USING INTERFEROMETRIC SYNTHETIC APERTURE RADAR	330
<i>Joko Widodo, Hammam Riza, Arie Herlambang, Rahmat Arief, Pakhrur Razi, Farohaji Kurniawan, Yuta Izumi, Daniele Perissin, Josaphat T. S. Sumantyo</i>	
PRE-ASSESSMENT OF THE POTENTIAL OF DUAL POLARIZATION OF SENTINEL 1 DATA FOR MAPPING THE MANGROVE TREE SPECIES DISTRIBUTION IN SOUTH BALI, INDONESIA	334
<i>Mochamad F. Ghazali, Ketut Wikantika</i>	

LONG-TERM PANTROPICAL FOREST MONITORING WITH ALOS-2 L-BAND SAR	340
<i>Christian N. Koyama, Manabu Watanabe, Masanobu Shimada, Takeo Tadono</i>	
LONG TERM GROUND DEFORMATION OF MOUNT RAUNG AS INFERRED BY INSAR AND GPS DATA	345
<i>Estu Kriswati, Agustan, Marina Frederik, Asep Saepuloh, Soni Darmawan, Hilma Alfianti</i>	
TOPOGRAPHY VARIABLE TO DOWNSCALE GPM SATELLITE PRECIPITATION DATA USING GEOGRAPHICALLY WEIGHTED REGRESSION	349
<i>Irfan Z. Irawan, Sudaryatno, Josaphat T. S. Sumantyo</i>	
OCCURRENCE OF GEOTHERMAL FEATURES BASED ON SURFACE ROUGHNESS AND GEOBOTANICAL ANALYSES DERIVED BY ALOS-2 PALSAR-2 AND SENTINEL-2 IMAGES	355
<i>Asep Saepuloh, Wahyuni C. Dewi, Agung B. Harto, Agustan</i>	
AVIATION TURBULENCE ON INDONESIA AND THE RELATIONSHIP TO HIMAWARI-8 WEATHER SATELLITE IMAGERY	361
<i>Muhammad A. Munandar, Josaphat T. S. Sumantyo, M. P. Hadi, Muh A. Marfai, Atsushi Higuchi</i>	
SURFACE DEFORMATION MONITORING INDUCED BY VOLCANIC ACTIVITY OF MOUNT AGUNG, INDONESIA, BY PS-INSAR USING SENTINEL-1 SAR FROM 2014-2021	366
<i>I. N. S. Parwata, Takahiro Osawa</i>	
METASENSING AIRBORNE INSAR SYSTEMS FOR DEM GENERATION: RESULTS FROM X, C & P-BAND CAMPAIGNS	370
<i>Karlus A. C. de Macedo, Alex Coccia, Adriano Meta, Simone Placidi</i>	
SPACE-BORNE INTERFEROMETRIC SAR FOR DIGITAL ELEVATION MODEL IN TROPICAL REGION: AN INITIAL RESULT OF SENTINEL-1 RADAR DATA OVER THE INDONESIAN ARCHIPELAGO	374
<i>Zylshal Zylshal, Mega Saputra, Athar A. Bayanuddin, Sukentyas E. Siwi, Musyarofah, Sartika, Andie Setiyoko, Rahmat Arief</i>	
A SLOPE ADAPTIVE FILTERING METHOD FOR MULTI-FREQUENCY INSAR	380
<i>You Zhenwan, Xu Huaping, Li Shuo, Li Wei</i>	
FUNDAMENTAL STUDY ON MAN-MADE OBJECT CLASSIFICATION BY DEGREE OF POLARIZATION USING POLSAR DATA OF PI-SAR2-X	385
<i>Yuta Suzuki, Hiroyoshi Yamada, Ryoichi Sato</i>	
PSINSAR ANALYSIS OF X-BAND SAR IMAGES FOR DETECTING URBAN GROUND DEFORMATION IN JAPAN	391
<i>Tomoya Kusunose, Junichi Susaki</i>	
INTERFEROMETRIC SAR PROCESSING USING WHOLE ALOS/PALSAR DATA ARCHIVE FOR MEASURING THE GLOBAL SURFACE DEFORMATION	397
<i>Ryu Sugimoto, Masanobu Shimada, Yu Morishita, Ryo Natsuaki, Ryosuke Nakamura, Chiaki Tsutsumi, Yoshio Yamaguchi</i>	
BRIDGING CONSECUTIVE DINSAR METHOD FOR LONG-TERM LAND DEFORMATION OBSERVATION	402
<i>Josaphat T. S. Sumantyo, Daniele Perissin, Joko Widodo, Ketut Wikantika, Heri Andreas, Mohammad R. Darminto, Mokhamad N. Cahyadi, Akbar Kurniawan, Teguh Hariyanto</i>	
LAND SUBSIDENCE MONITORING BY SBAS-INSAR TECHNIQUE WITH THE CONVERSION TO HORIZONTAL-VERTICAL DISPLACEMENTS IN SEMARANG	406
<i>Jumpei Takami</i>	
ASSESSMENT OF SENTINEL-1 AND SENTINEL-2 DATA FOR LANDSLIDES IDENTIFICATION USING GOOGLE EARTH ENGINE	412
<i>Ferman S. Nugroho, Projo Danoedoro, Sanjiwana Arjasakusuma, Danang S. Candra, Athar A. Bayanuddin, Guruh Samodra</i>	
DEFORMATION MONITORING OF LARGE-SCALE ROCKFILL DAM APPLYING PERSISTENT SCATTERER INTERFEROMETRY (PSI) USING SENTINEL-1 SAR DATA	418
<i>Hidenori Abo, Takahiro Osawa, Pinglan Ge, Akira Takahashi, Katsutoshi Yamagishi</i>	
2.5-D SURFACE DEFORMATION DUE TO THE 24 JANUARY 2020 ELAZIG, TURKEY EARTHQUAKE ESTIMATED BY MULTIPLE SENTINEL-1 INSAR DATA	424
<i>Hidayat Panuntun</i>	
DETECTION OF BUILDING DAMAGE DUE TO THE 2016 KUMAMOTO EARTHQUAKE USING TEXTURE COMBINATIONS OF SINGLE POST-EVENT AIRBORNE SAR DATA	429
<i>Bellanie Lopian, Wen Liu, Yoshihisa Maruyama, Fumio Yamazaki</i>	
ANALYSIS OF THE RECOVERY ACTIVITY AFTER THE KUMAMOTO EARTHQUAKE USING ALOS-2/PALSAR-2	433
<i>Takashi Nonaka, Tomohito Asaka, Keishi Iwashita</i>	
DETECTION OF SURFACE DEFORMATION CAUSED BY THE 2019 RIDGECREST EARTHQUAKE SEQUENCE WITH ALOS-2 DATA	437
<i>Kento Adachi, Masashi Omata, Jun Sugimoto, Takashi Shibayama</i>	

DAMAGE EXTRACTION OF THE 2021 OFF-FUKUSHIMA EARTHQUAKE BASED ON PALSAR-2 INTENSITY IMAGES	442
<i>Fumio Yamazaki, Wen Liu, Takanobu Suzuki</i>	
FLOOD AREA OBSERVATION USING QUAD-POLARIMETRIC SAR DATA BASED ON MODEL-BASED DECOMPOSITION	447
<i>Ryoichi Sato, Ryunosuke Kubo, Hiroyoshi Yamada</i>	
ANALYSIS OF HEAVY RAIN AND TYPHOONS EFFECT ON THE GROUND SURFACE USING DINSAR TECHNIQUE.....	452
<i>Katsunoshin Nishi, Masaaki Kawai, Kaori Nishi, Bowo Eko, Joko Widodo, Josaphat T. S. Sumantyo</i>	
CV4FEE: FLOOD EXTENT ESTIMATION USING CONSENSUS VOTING IN ENSEMBLE OF METHODS FOR CHANGE DETECTION IN SENTINEL-1 GRD SAR IMAGES	458
<i>Ragesh Thangavel, Jaya Sreevalsan-Nair</i>	
SENTINEL 1 SAR FOR RAPID IDENTIFICATION OF FLOODED INQUIRIES IN SOUTH KALIMANTAN PROVINCE	464
<i>Nugraheni Setyaningrum, Dionysius B. Sencaki, Fiolenta Marpaung, Muhammad Jusuf, Aji Perdana</i>	
MONITORING VERTICAL DEFORMATIONS OF THE COASTAL CITY OF PALU AFTER EARTHQUAKE 2018 USING PARALLEL-SBAS	469
<i>Argo G. Suhadha, Atriyon Julzarika, Mohammad Ardha, Farikhotul Chusnayah</i>	
Author Index	