



ISPRS Hannover Workshop 2017

Final Programme



HRIGI - High-Resolution Earth Imaging for Geospatial Information

CMRT - City Models, Roads, Traffic

ISA - Image Sequence Analysis

EuroCOW - European Calibration and Orientation Workshop

June 6 - 9, 2017

Institute of Photogrammetry and GeoInformation (IPI)
Leibniz Universität Hannover, Königsworther Platz 1, Building 1507

HANNOVER, Germany

	Tues. June 6	Wed. June 7	Thurs. June 8	Fri. June 9
09:00		Key Note	Key Note	Key Note
09:30 - 11:00	10:00 Opening Key Note	TS 3	TS 6	TS 8
11:00-11:30	Morning Coffee/Tea			
11:30 - 13:00	TS 1	TS 4	TS 7	TS 9
13:00-14:30	Lunch			
14:30 - 15:30	PS 1	PS 3	Leica Masterclass (14:30 - 16:00)	TS 10
15:30 - 17:00	TS 2	TS 5	Coffee/Tea	Closing
17:00 - 18:00	Coffee/Tea + PS 2	Coffee/Tea + PS 4	Industry session (16:30 - 18:00)	
19:30	Get together, Meßdach		Workshop Dinner	

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Opening 10:00 Opening Key Note Mubarak Shah

Center for Research in Computer Vision, Uni. of Central Florida, Orlando, FL

Wide area surveillance and camera networks

Session Moderator: Christian Heipke / Uwe Stilla

Oral Sessions

Tuesday, June 06, 2017

TS 1 11:30 - 13:00 Images sequence analysis ISA

Session Moderator: Alper Yilmaz

110	<u>Wentong Liao</u> , Chun Yang, M. Y. Yang, B. Rosenhahn	Leibniz Universität Hannover; Uni of Twente	Security Event Recognition for Visual Surveillance
137	Changlin Xiao, Alper Yilmaz, Shirui Li	Ohio State University	Visual Tracking Utilizing Object Concept from Deep Learning Network
152	<u>Wang, Xin</u> ; Heipke, Christian	IPI, Leibniz Universität Hannover	An efficient method to detect mutual overlap of a large set of unordered images for structure-from-motion
135	Gehring, Joachim; Hebel, Marcus; Arens, Michael; Stilla, Uwe	Fraunhofer IOSB; Photogrammetry and Remote Sensing, TU München	An approach to extract moving objects from MLS data using a volumetric background representation

TS 2 15:30 - 17:00 Orientation and matching HRIGI / EuroCOW

Session Moderator: Mattia Crespi

123	Biasutti, Pierre; Aujol, Jean-François; Brédif, Mathieu; Bugeau, Aurélie	Uni. de Bordeaux, LaBRI + IMB; Université Paris-Est, LASTIG MATIS, IGN	Disocclusion of 3D LiDAR point cloud using range images
158	Li-Chee-Ming, Julien; Armenakis, Costas	York University	Matching real and synthetic panoramic images using a variant geometric hashing
176	Bosch, Marc; Leichtman, Andrea; Chilcott, Denise; Goldberg, Hirsh; <u>Brown, Myron</u>	The Johns Hopkins University, USA	Metric Evaluation Pipeline for 3D Modeling of Urban Scenes
192	Jende, Phillipp; Nex, Francesco; Vosselman, George; Gerke, Markus	Universiteit Twente, ITC; TU Braunschweig	Fully autom. feature-based reg. of mobile mapping and aerial nadir images for enabling the adjustment of mobile platform locations in GNSS-denied urban env.

19:30 Get together Meßdach, IPI - Leibniz Universität Hannover
Nienburger Str. 1, Hannover

Wednesday, June 07, 2017

Key Note 09:00 Kohei Cho
 Department of Human and Information Science, Tokai University, Tokyo
Monitoring the recovery of tsunami damaged areas after the Japan earthquake

Session Moderator: Christian Heipke

TS 3 09:30 - 11:00 Classification methods HRIGI / CMRT
 Session Moderator: Jan Dirk Wegner

162	Maas, Alina Elisabeth; Rottensteiner, Franz; Heipke C.	IPI - Leibniz Universität Hannover	Classification under label noise based on outdated maps
136	Niessner, Robin; Schilling, Hendrik ; Jutzi, Boris	Fraunhofer IOSB; Karlsruhe Institute of Technology	Investigations on the potential of Convolutional Neural Networks for vehicle classification based on RGB and LiDAR data
151	Postadjian, Tristan; Mallet, Clément; Le Bris, Arnaud; Sahbi, Hichem	Univ. Paris-Est, LASTIG MATIS, IGN, ENSG; CNRS LTCI, Télécom ParisTech	INVESTIGATING THE POTENTIAL OF DEEP NEURAL NETWORKS FOR LARGE-SCALE CLASSIFICATION OF VERY HIGH RESOLUTION SATELLITE IMAGES
138	Drees, Lukas; Roscher, Ribana	University of Bonn	ARCHETYPAL ANALYSIS FOR SPARSE RE- PRESENTATION-BASED HYPERSPECTRAL SUB-PIXEL QUANTIFICATION

TS 4 11:30 - 13:00 Semantic segmentation HRIGI / CMRT
 Session Moderator: Stefan Hinz

139	Dechesne, C. Mallet, C.; Le-Bris, A.; Gouet-Brunet, V.	IGN, France	Semantic segmentation of forest stands of pure specie as global optimisation
144	Wuttke, Sebastian; Middelmann, Wolfgang; Stilla, Uwe	Fraunhofer IOSB; TU München	Improving active queries with a local segmentation step and application to land cover classification
164	Vogt, K.; Paul, A.; Rottensteiner, F.; Ostermann, J.; Heipke, C.	TNT + IPI - Leibniz Universität Hannover	Boosted Unsupervised Multi-Source Selection for Domain Adaptation
124	Seong, Jeong Chang; Hwang, Chul Sue; Gibbs, Ryan; Mehdi, Mohammed Raza; Oh, Chungweon; Jeong, Jae Joon	Uni. W. Georgia, Carrollton, GA; Kyunghee Uni.; Uni., Ka- rachi; NamSeoul Uni., Cheon An.; Sung Shin Women's Uni.	LANDSAT BIG DATA ANALYSIS FOR DETECTING LONG-TERM WATER QUALITY CHANGES: A CASE STUDY IN THE HAN RIVER, SOUTH KOREA

TS 5 15:30 - 17:00 Aerial and satellite mapping HRIGI
 Session Moderator: Norbert Haala

180	Jacobsen, Karsten	IPI - Leibniz Universitaet Hannover	PROBLEMS AND LIMITATIONS OF SATELLITE IMAGE ORIENTATION FOR DETERMINATION OF HEIGHT MODELS
218	Qiu, Chunping; Schmitt, Michael; Zhu, Xiao Xiang	Signal Processing in Earth Observation, TU München; IMF, DLR	A TIE POINT MATCHING STRATEGY FOR VERY HIGH RESOLUTION SAR-OPTICAL STEREOGRAMMETRY OVER URBAN AREAS
141	Stephene, N.; Hallot, E.; Beau- mont, B.; Lenartz, F.; Lefebvre, F.; Lauwaet, D.; Poelman, L; Wolff, E.	ISSeP, VITO ; ANAGEO, IGEAT- ULB, Belgium	EXPOSURE AND VULNERABILITY GEOSPATIAL ANALYSIS USING EO DATA IN THE CITY OF LIEGE, BELGIUM
115	Ok, Ali Ozgun; Ozdarici-Ok, Asli	Nevsehir H.B.V. University, Turkey	Detection Of Citrus Trees From UAV DSMs

Thursday, June 08, 2017

Key Note 09:00 Christoph Stiller
 Institut für Mess- und Regelungstechnik, Karlsruher Institut für Technologie (KIT)
On the blessing and curse of maps for automated driving

Session Moderator: Uwe Stilla

TS 6 09:30 - 11:00 Sensors and calibration EuroCOW
 Session Moderator: Jan Skaloud

215	Gruber, Michael; Wiechert, Alexander	Vexcel Imaging GmbH, Austria	CALIBRATING AND TESTING NEW ULTRACAM SENSORS
266	Lin, Dong; Westfeld, Patrick; Maas, Hans-Gerd	Institute of Photogrammetry and Remote Sensing, TU Dresden	Shutter-less Temperature-dependent Correction for Uncooled Thermal Camera under Fast Changing FPA Temperature
130	Voges, Raphael; Wieghardt, Christian S.; Wagner, Bernardo	IRS - Leibniz Universität Hannover	Timestamp offset determination between an actuated laser scanner and its corresponding motor
165	S. Aghayari, M. Saadatseresht, M. Omidalizarandi, I. Neumann	University of Tehran	GEOMETRIC CAL. OF FULL SPHERICAL PANORAMIC RICOH-THETA CAMERA

TS 7 11:30 - 13:00 Systems for mapping HRIGI / EuroCOW
 Session Moderator: Jon Mills

179	Ullrich, Andreas	RIEGL Laser Measurement Systems GmbH, Austria	Near real-time automatic registration of terrestrial scan data
230	Kremer, Jens	IGI mbH, Germany	The IGI UrbanMapper - a 2-IN-1 Camera for the Efficient Simultaneous Capturing of Nadir and Oblique Aerial Images
161	Blaser, Stefan; Nebiker, Stephan; Cavegn, Stefan	Institute of Geomatics Engineering, FHNW Muttenz,; Inst. for Photogram., Uni. of Stuttgart	System Design, Calibration and Performance Analysis of a Novel 360° Stereo Panoramic Mobile Mapping System
131	Eckardt, Andreas; Reulke, Ralf	DLR, Berlin, Germany; HU-Berlin, Germany	On the design of high resolution imaging systems

Masterclass - Leica Geosystems 14:30 - 16:00
 Session Moderator: Hartmut Rosengarten, Leica

MC-1	Hartmut Rosengarten	Leica Airborne Sensors - High Productivity for any Application
MC-2	Klaus Neumann	Leica CityMapper - Evolution in 3-D Mapping
MC-3	Christian Müller	A method for in-flight geometric calibration for large format mapping cameras

Industry Session 16:30 - 18:00
 Session Moderator: Karsten Jacobsen

I-1	Michael Gruber	Vexcel Imaging, Graz	Vexcel Imaging, the Company and the Products
I-2	Philipp Grimm	IGI mbH, Kreuztal	IGI – Integrated Geospatial Innovations
I-3	Emmanuel d'Angelo	Pix4D	Pix4D, applied photogrammetry
I-4	Sébastien Tripodi	Luxcarta	Global chain for automatic city modeling of urban scenes

19:30 Workshop Dinner Brauhaus Ernst August, Schmiedestr. 13, Hannover

Friday, June 09, 2017

Key Note 09:00 Raul Feitosa
Dep. de Engenharia Elétrica, Pontifícia Universidade Católica do Rio de Janeiro
Multi-temporal probabilistic models for crop recognition

Session Moderator: Uwe Sörgel

TS 8 09:30 - 11:00 SAR HRIGI
Session Moderator: Mahdi Motagh

105	Auer, Stefan; Balss, Ulrich	DLR German Aerospace Center, Germany	EVALUATION OF LIGHT POSTS AND STREET SIGNS AS 3-D GEOLOCATION TARGETS IN SAR IMAGES
117	Yang, Chia-Hsiang; Pang, Ye; Soergel, Uwe	University of Stuttgart	Monitoring of Building Construction by 4D Change Detection Using Multi-temporal SAR Images
163	Mirzaee, Sara; Motagh, Mahdi; Akbari, Bahman; Roessner, Sigrid; Wetzels, Hans-Ulrich	Forest, Range and Watershed management of Iran; GFZ, Dep. of Geodesy, Section of Remote Sensing, Potsdam	Evaluating of 3 InSAR time-series methods to assess creep motion, case study: Masouleh landslide in north Iran
271	Fagir, Julian; Schubert, Adrian; Frioud Max; Henke, Daniel	Universität Zürich, Switzerland	SAR and Oblique Aerial Optical Image Fusion for Urban Area Image Segmentation

TS 9 11:30 - 13:00 Point cloud processing CMRT
Session Moderator: Charles Toth

102	Becker, Carlos; Häni, Nicolai; Rosinskaya, Elena; d'Angelo, Emmanuel; Strecha, Christoph	Pix4D, Switzerland	Classification of Aerial Photogrammetric 3D Point Clouds
118	Xu, Yusheng; Hoegner, Ludwig; Tuttas, Sebastian; Stilla, Uwe	Photogrammetry and Remote Sensing, TU München	Voxel- and graph-based point cloud segmentation of 3D scenes using perceptual grouping laws
126	Hackel, Timo; Savinov, Nikolay; Ladicky, Lubor; Wegner, Jan Dirk; Schindler, Konrad; Pollefeys, Marc	ETH Zürich, Switzerland	SEMANTIC3D.NET: A NEW LARGE-SCALE POINT CLOUD CLASSIFICATION BENCHMARK
142	Weinmann, Martin; Jutzi, Boris; Mallet, Clément; Weinmann, Michael	KIT; IGN; University of Bonn	Geometric features and their relevance for 3D point cloud classification

TS 10 14:30 - 16:00 Mobile mapping and buildings CMRT
Session Moderator: Franz Rottensteiner

119	Röth, Oliver Bertin; Zaum, Daniel; Brenner, Claus	Robert Bosch GmbH, Germany; ikg - Leibniz University of Hannover	Extracting Lane Geometry and Topology Information from Vehicle Fleet Trajectories in Complex Urban Scenarios using a Reversible Jump MCMC Method
121	Bulatov, Dimitri; Wenzel, Susanne; Häufel, Gisela; Meidow, Jochen	Fraunhofer IOSB; Photogrammetry Group, IGG Bonn	CHAIN-WISE GENERALIZATION OF ROAD-NETWORKS USING MODEL SELECTION
122	Meidow, Jochen; Förstner, Wolfgang	Fraunhofer IOSB; Inst. of Geodesy and Geoinformation, Uni. of Bonn	Utilizing the Uncertainty of Polyhedra for the Reconstruction of Buildings
148	Rahmani, Kujtim; Huang, Hai; Mayer, Helmut	Universität der Bundeswehr München	Facade Segmentation With a Structured Random Forest

Closing, 16:00

Session Moderator: Christian Heipke / Uwe Stilla

Poster Sessions

Tuesday, June 06, 2017

PS 1 14:30 - 15:30 Mapping

101	Ouyang, Sida; Fan, Kuikui; Wang, Huibing; Wang, Zhongyuan	NASG, Sat. Surveying and Map. Appl. Center, Beijing; School of Env. Science and Spatial Informatics, China Uni. of Mining and Tech., Xuzhou	CHANGE DETECTION OF REMOTE SENSING IMAGES BY DT-CWT AND MRF
103	Maas, Alina Elisabeth; Alrajhi, Muhamad; Alobeid, Abdalla; Heipke, Christian	IPI - Leibniz Universitaet Hannover; MOMRA, Riyadh	AUTOMATIC CLASSIFICATION OF HIGH RESOLUTION SATELLITE IMAGERY - A CASE STUDY FOR URBAN AREAS IN THE KINGDOM OF SAUDI ARABIA
128	Pawluszek, Kamila; Borkowski, Andrzej; Tarolli, Paolo	Insti. of Geodesy and Geo-information, Wroclaw Uni. of Env. and Life Sciences; Dep. of Land, Env., Agriculture and Forestry, Uni. Padova	TOWARDS THE RIGHT PIXEL SIZE OF DEM FOR AUTOMATIC MAPPING OF LANDSLIDE AREAS
143	Langheinrich, Maximilian; Fischer, Peter; Krauß, Thomas; Probeck, Markus; Ramminger, Gernot; Wagner, Thomas	DLR, Wessling; GAF AG, München	AN ENHANCED ALGORITHM FOR AUTOMATIC RADIOMETRIC HARMONIZATION
155	Ouerghemmi, Walid (1); Le-Bris, Arnaud; Chehata, Nesrine; Mallet, Clement	IGN, France; ENSEGID-IPB Bordeaux	A TWO-STEP DECISION FUSION STRATEGY: APPLICATION TO HYPERSPETRAL AND MULTISPECTRAL IMAGES FOR URBAN CLASSIFICATION
174	Rahaman, S Abdul; S, Aruchamy; K, Balasubramani; R, Jegankumar	Bharathidasan University	LAND USE / LAND COVER CHANGES IN SEMI-ARID MOUNTAIN LANDSCAPE IN SOUTHERN INDIA: A GEOINFORMATICS BASED MARKOV CHAIN APPROACH
183	Cerra, Daniele; Traganos, Dimosthenis; Gege, Peter; Reinartz, Peter	DLR, Germany	Unmixing-based Denoising as a Pre-processing Step for Coral Reef Analysis
184	Traganos, Dimosthenis; Cerra, Daniele; Reinartz, Peter	DLR, Germany	Cubesat-derived detection of seagrasses using Planet imagery following Unmixing-based Denoising: Is small the next big?
189	Baidar, Tina; Shrestha, Anu Bhalu; Ranjit, Rita; Adhikari, Ruby; Ghimire, Subash; Shrestha, Nawaraj	Survey Dep., Nepal; Tech. Resources Int. Inc, USA; Nep. Army, Survey Mahasakha; Dep. of Civil and Geomatics Eng., Kathmandu Uni.	IMPACT ASSESSMENT OF MIKANIA MICRANTHA ON LAND COVER AND MAXENT MODELING TO PREDICT ITS POTENTIAL INVASION SITES
191	Yang, KaiJun; Cao, Li; Lei, Fan; Zeng, Haibo	Hunan land and Resources Planning Institute, Hunan	The Correlation Analysis of Subsidence Monitoring by D-InSAR and The Change of Urban Construction Land
210	Bhosle, Kavita Vishwasrao; Musande, Vijaya	Maharashtra Inst. of Tech., Aurangabad; MGM's Jawaharlal Nehru Engineering College, Aurangabad	STRESS MONITORING OF MULBERRY PLANTS BY FINDING REP USING HYPERSPETRAL DATA
216	Vizilter, Yuri V.; Rubis, Aleksey Y.; Zheltov, Sergey Y.; Vygolov, Oleg V.	State Research Institute of Aviation Systems (GosNIIAS), Russian Federation	Change detection via selective guided contrasting filters
221	Wittke, Samantha; Karjalainen, Mika; Karila, Kirsi; Puttonen, Eetu; Hellsten, Antti; Auvinen, Mikko	Finnish Geospatial Research Institute; Finnish Met. Inst.; Dep. of Physics, Uni. Helsinki	EXTRACTING URBAN MORPHOLOGY FOR ATMOSPHERIC MODELING FROM MULTISPECTRAL AND SAR SATELLITE IMAGERY
225	Gaudel, Angelique; Languille, Florie; Delvit, Jean-Marc; Michel, Julien; Cournet, Myriam; Poulain, Vincent; Youssefi, David	CNES, France; Thales Services, France; CS-SI	SENTINEL-2: GLOBAL REFERENCE IMAGE VALIDATION AND APPLICATION TO MULTI-TEMPORAL PERFORMANCES AND HIGH LATITUDE DIGITAL SURFACE MODEL

237	Mirzaee, Sara; Motagh, Mahdi; Akbari, Bahman	Forest, Range and Watershed management of Iran; GFZ Dep. of Geodesy, Section of Remote Sensing, Potsdam	Slow moving landslide monitoring using InSAR time-series and GPS observations, case study: Shabkola landslide in north Iran
238	Poli, Daniela; Moe, Kjersti; Legat, Klaus; Toschi, Isabella; Lago, Francesco; Remondino, Fabio	Terra Messflug GmbH, Imst; Vermessung AVT-ZT-GmbH, Imst; 3D Opt. Metr. Unit, FBK, Trento	USE OF VERTICAL AERIAL FLIGHTS FOR SEMI-OBLIQUE MAPPING
245	Toschi, Isabella; Ramos, Maria Magdalena; Lago, Francesco; Nocerino, Erica; Menna, Fabio; Remondino, Fabio; Moe, Kjersti; Poli, Daniela; Legat, Klaus	3D Opt. Metr. Unit, Bruno FBK, Trento; Terra Messflug, Imst, Vermessung AVT	OBLIQUE PHOTOGRAMMETRY SUPPORTING 3D URBAN RECONSTRUCTION OF COMPLEX SCENARIOS
247	Toschi, Isabella; Nocerino, Erica; Remondino, Fabio; Revolti, Andrea; Soria, Gustavo; Piffer, Stefano	3D Opt. Metr. Unit, FBK, Trento; Trilogis Srl, Trento	GEOSPATIAL DATA PROCESSING FOR 3D CITY MODEL GENERATION, MANAGEMENT AND VISUALIZATION
264	Pervez, Wasim; Khan, Shoab Ahmad	Nat. Uni. Science & Tech. , Islamabad	LANDSAT-8 OPERATIONAL LAND IMAGER CHANGE DETECTION ANALYSIS

PS 2 17:00 - 18:00 Classification and object extraction

129	Kumar, Pankaj; Angelats, Eduard	Centre Tec. de Telecom. de Catalunya (CTTC)	An automated road roughness detection from mobile laser scanning data
146	Hosseinyalamdary, Siavash; Peter, Michael	Faculty of ITC, University of Twente	Lane level localization; using images and HD maps to mitigate the lateral error
150	Tutzauer, Patrick; Haala, Norbert	Inst. for Photogrammetry, University of Stuttgart	PROCESSING OF CRAWLED URBAN IMAGERY FOR BUILDING USE CLASSIFICATION
153	Guinard, Stéphane; Landrieu, Loïc	IGN, France	Weakly supervised segmentation-aided classification of urban scenes from 3D LIDAR point clouds
154	Mu, Jia; Cui, Shiyong; Reinartz, Peter	Elektr. Fahrwerksysteme GmbH; RS Tech. Inst., DLR	BUILDING DETECTION USING AERIAL IMAGES AND DIGITAL SURFACE MODELS
178	Di, Yanan; Jiang, Gangwu	Beijing SatImage Info. Tech. Co.; Geospat. Info. Inst., Information Eng. Uni. China	Multi-scale segmentation of high resolution remote sensing images by integrating multiple features
188	Warnke, Sven; Bulatov, Dimitri	Fraunhofer IOSB, Germany	Variable Selection for Road Segmentation in Aerial Images
194	Gao, Guoming; Zhang, Meiling; Gu, Yanfeng	Harbin Institute of Technology, China	Object-based Manifold Alignment for Multi-temporal High Resolution Remote Sensing Images Classification
195	Commandre, Benjamin; Ennejary, Driss; Pibre, Lionel; Chaumont, Marc; Delenne, Carole; Chahinian, Nanée	HSM, Univ. Montpellier; LIRMM, Univ. Montpellier; Inria, Lemon, Montpellier; Berger-Levrault, Montpellier; Univ. Nîmes, Nîmes	MANHOLE COVER LOCALIZATION IN AERIAL IMAGES WITH A DEEP LEARNING APPROACH
211	Li, Penglong; Hu, Xiangyun; Hu, Yan; Ding, Yi; Wang, Lan; Li, Li	Chongqing Geomatics Center; School of RS and Info. Eng., Wuhan University	A efficient detection method of artificial area from high resolution remote sensing images based on multi scale and multi feature fusion
213	Tian, Jiaojiao; Krauß, Thomas; d'Angelo, Pablo	German Aerospace Center (DLR), Germany	AUTOMATIC ROOFTOP EXTRACTION IN STEREO IMAGERY USING DISTANCE AND BUILDING SHAPE REGULARIZED LEVEL SET EVOLUTION
224	Dahlke, Dennis	German Aerospace Center (DLR), Germany	SPLITTING TERRACED HOUSES INTO SINGLE UNITS USING OBLIQUE AERIAL IMAGERY
226	Wolfe, Jason; Jin, Xiaoying; Bahr, Thomas; Holzer, Nicolai	Harris Corp., Broomfield, Colorado.; Harris Corpo., Gilching	Application of Softmax Regression and its Validation for Spectral-Based Land Cover Mapping
227	Chen, Chaoyue; Gong, Weiguo; Hu,	Chongqing Uni., Chongqing	Learning Oriented Region-based

	Yan; Chen, Yongliang; Ding, Yi	Geomatics Center, China	Convolutional Neural Networks for Building Detection in Satellite Remote Sensing Images
229	Frommholz, Dirk; Meißner, Henry; Linkiewicz, Magdalena; Dahlke, Dennis	German Aerospace Center (DLR), Germany	Reconstructing Buildings with Discontinuities and Roof Overhangs from Oblique Aerial Imagery
234	Bittner, Ksenia; Cui, Shiyong; Reinartz, Peter	German Aerospace Center (DLR), Germany	BUILDING EXTRACTION FROM REMOTE SENSING DATA USING FULLY CONVOLUTIONAL NETWORKS
241	Coenen, Max; Rottensteiner, Franz; Heipke, Christian	IPI - Leibniz Universität Hannover	Detection and 3D Modelling of Vehicles from Mobile Mapping Stereo Images
242	Zhang, Wenkai ; Huang, Hai; Sun, Xian; Wang, Hongqi; Mayer, Helmut	Inst. of Electronics, Chin. Acad. of Sci., China; Uni. der Bundeswehr München	A Multi-Resolution Fusion Model Incorporating Color with Elevation for Semantic Segmentation
251	Rußwurm, Marc; Körner, Marco	TU München	Multi-temporal Land Cover Classification with Long Short-Term Memory Neural Networks
265	Hu, Yan; Li, Zhenghao; Li, Penglong; Ding, Yi; Liu, Yutian	Chongqing Geomatics Center; School of RSand Info. Eng., Wuhan Uni.; College of Optoelec. Eng., Chongqing Uni.	Accurate and Fast Building Detection using Binary Bag-of-Features
272	Li, Zhenghao; Liu, Yutian; Hu, Yan; Li, Penglong; Ding, Yi	Key Lab. for Optoelec. Tech. and Systems, Chongqing Univ.; Chongqing Geomatics Center; School of RS and Inf. Eng., Wuhan Uni.	Compact and Hybrid Feature Description for Building Extraction
274	Partovi, Tahmineh; Fraundorfer, Friedrich; Azimi, Seyedmajid; Marmanis, Dimitrios; Reinartz, Peter	DLR, Germany; Inst. for Comp. Graphics and Vision, Graz Uni. of Tech., Graz	ROOF TYPE SELECTION BASED ON PATCH-BASED CLASSIFICATION USING DEEP LEARNING FOR HIGH RESOLUTION SATELLITE IMAGERY

Wednesday, June 07, 2017

PS 3 14:30 - 15:30 Point clouds and DTM/DSM

108	Li, Guoyuan; Tang, Xinming	Satellite Surveying and Mapping Application Center, NASG, China	Vertical Accuracy Assessment of ZY-3 Digital Surface Model using ICESat/GLAS Laser Altimeter Data
116	Ilehag, Rebecca Maria; Auer, Stefan; d'Angelo, Pablo	KIT; DLR	Exploitation of Digital Surface Models Generated from WorldView-2 Data for SAR Simulation Techniques
120	Nurunnabi, Abdul A M; Sadahiro, Yukio; Lindenbergh, Roderik	University of Tokyo; Delft University of Technology	ROBUST CYLINDER FITTING IN THREE-DIMENSIONAL POINT CLOUD DATA
127	Mousa, Yousif Abdul-kadhim; Helmholtz, Petra; Belton, David	Curtin University, Australia	NEW DTM EXTRACTION APPROACH FROM AIRBORNE IMAGES DERIVED DSM
132	Susetyo, Danang Budi; Syafiudin, Moh. Fifik; Prasetyo, Yudo	Geospatial Info. Agency, Indonesia; Dept. of Geodetic Eng., Diponegoro Uni., Semarang, Indonesia	DTM GENERATION FROM TERRASAR-X USING TIN ALGORITHM IN PAPUA ISLAND, INDONESIA
140	Boerner, Richard; Hoegner, Ludwig; Stilla, Uwe	TU Munich	Voxel based segmentation of large airborne topobathymetric lidar data
145	Gézero, Luis Filipe; Antunes, Carlos	Fac. de Ciências, Uni. de Lisboa; LandCOBA, Consultores de GIS Digital Lda; Instituto Dom Luiz, Fac. de Ciências, Uni. de Lisboa	A REGISTRATION METHOD OF POINT CLOUDS COLLECTED BY MOBILE LIDAR USING SOLELY STANDARD LAS FILES INFORMATION
112	Xie, Linfu; Hu, Han; Zhu, Qing	State Key Lab. of Info. Eng. in Surveying Mapping and RS + Collab. Innovation Center of Geospatial Tech., Wuhan Uni.	Hierarchical Regularization of 2D Polygons for Photogrammetric Point Clouds of Oblique Images
169	Büyüksalih, Gürçan; Bayburt, Serdar; Kurtak, A. Busra; Jacobsen, Karsten	BIMTAS, Turkey; IPI - , Leibniz Universität Hannover	GEOMETRIC ACCURACY ANALYSIS OF WORLDDDEM IN RELATION TO AW3D30, SRTM AND ASTER GDEM2
181	Bayburt, Serdar; Buyuksalih, Ismail; Schardt, Mathias; Buyuksalih, Gurcan	BIMTAS, Turkey; JOANNEUM Research, Digital, TU Graz	FOREST STEM VOLUME CALCULATION USING AIRBORNE LIDAR DATA
186	Gézero, Luis Filipe; Antunes, Carlos	Fac. de Ciências, Uni. de Lisboa; LandCOBA, Consultores de GIS Digital Lda; Instituto Dom Luiz, Fac. de Ciências, Uni. de Lisboa	AN EFFICIENT METHOD TO CREATE DIGITAL TERRAIN MODELS FROM POINT CLOUDS COLLECTED BY MOBILE LIDAR SYSTEMS
201	Dal Poz, Aluir Porfírio; Marcato Fernandes, Vanessa Jordão	São Paulo State University	BUILDING ROOF BOUNDARY EXTRACTION FROM LIDAR AND IMAGE DATA BASED ON MARKOV RANDOM FIELD
204	Yue, Qingxing; Tang, Xinming; Gao, Xiaoming	sasmac, China	GF-7 IMAGING SIMULATION AND DSM ACCURACY ESTIMATE
206	Widyaningrum, Elyta; Gorte, Ben	Delft University of Technology; Geospatial Information Agency, Indonesia	CHALLENGES AND OPPORTUNITIES: ONE STOP PROCESSING OF AUTOMATIC LARGE-SCALE BASE MAP PRODUCTION USING AIRBORNE LIDAR DATA WITHIN GIS ENVIRONMENT CASE STUDY: MAKASSAR CITY, INDONESIA
220	Octariady, Jali; Hikmat, Agus; Widyaningrum, Elyta; Mayasari, Ratna; Fajari, Marda Khoiria	Geospatial Information Agency of Indonesia (BIG), Indonesia	VERTICAL ACCURACY COMPARISON OF DIGITAL ELEVATION MODEL FROM LIDAR AND MULTITEMPORAL SATELLITE IMAGERY
223	Bagheri, Hossein; Schmitt, Michael; Zhu, Xiaoxiang	Signal Processing in Earth Observation, TU München IMF, DLR	UNCERTAINTY ASSESSMENT AND WEIGHT MAP GENERATION FOR EFFICIENT FUSION OF TANDEM-X AND CARTOSAT-1 DEMS
233	Parida, Gaurav; Rajan, K. S.	International Institute of Information Technology, Hyderabad, India	Localized segment based processing for automatic building extraction from LIDAR data

250	Schachtschneider, Julia; Schlichting, Alexander; Brenner, Claus	Ikg - Leibniz Universität Hannover, Germany	Assessing temporal behavior in LiDAR point clouds of urban environments
259	KUÇAK, Ramazan Alper; ÖZDEMİR, Emre; EROL, Serdar	Istanbul TU, Civil Engineering Faculty, Istanbul	THE SEGMENTATION OF POINT CLOUDS WITH K-MEANS AND ANN (ARTIFICIAL NEURAL NETWORK)
269	Nascetti, Andrea; Ravanelli, Roberta; Di Rita, Martina; Crespi, Mattia	University of Rome "La Sapienza"	Free global DSM assessment on large scale areas exploiting the potentialities of the innovative Google Earth Engine platform
270	Di Rita, Martina; Nascetti, Andrea; Crespi, Mattia	University of Rome "La Sapienza"	FOSS4G DATE ASSESSMENT ON THE ISPRS OPTICAL STEREO SATELLITE DATA: A BENCHMARK FOR DSM GENERATION

PS 4 17:00 - 18:00 Systems, calibration and orientation

107	Gao, Hui Ting; Ma, Yue; Liu, Wei	China Academy of Space Technology (CAST), China	SPECTRAL RECONSTRUCTION BASED ON SVM FOR CROSS CALIBRATION
111	Mo, Fan; Tang, Xinming; Xie, Junfeng; Yang, Chao	SASMAC, China	An Attitude Modelling Method Based on the Inherent Frequency of a Satellite Platform
113	Cheng, Chuanqi; Hao, Xiangyang; Li, Jiansheng	School of Nav. and Aerospace Engineering, Info. Eng. Uni., China	Relative Camera Pose Estimation Method Using Optimization on the Manifold
125	Zhou, Nan; He, Hongyan; Bao, Yunfei; Yue, Chunyu; Xing, Kun; Cao, Shixiang	Beijing Institute of Space Mechanics & Electricity, China	GEOMETRIC STITCHING METHOD FOR DOUBLE CAMERAS WITH WEAK CONVERGENCE GEOMETRY
156	Toth, Charles; Koppanyi, Zoltan; Navratil, Vaclav; Grejner-Brzezinska, Dorota	The Ohio State University	Georeferencing in GNSS-Challenged Environment: Integrating UWB and IMU Technologies
157	Hanel, Alexander; Stilla, Uwe	TU München	Structure-from-motion for calibration of a vehicle camera system with non-overlapping fields-of-view in an urban environment
166	Salach, Adam	Warsaw University of Technology, Dep. of Photogr., RS and Spat. Info. Systems	SAPC - application to adapting scanned, analogue photographs to use them in "Structure from motion" technology
167	Li, Guoyuan; Tang, Xinming	Satellite Surveying and Mapping Application Center, NASG, China	Pointing Angle Calibration of ZY3-02 Satellite Laser Altimeter using Terrain Matching
171	Nguyen, Truong Giang; Pierrot-Deseilligny, Marc; Muller, Jean-Michael; Thom, Christian	Université Paris-Est / IGN; IGN/DRE/ENSG/DIAS; IGN/DRE/LOEMI	Second iteration of photogrammetric pipeline for enhancing accuracy of image pose estimation
182	Carmona, E. Avbelj, J.; Alonso, K.; Bachmann, M.; Cerra, D.; Eckardt, A.; Gerasch, B.; Graham, L.; Günther, B.; Heiden, U.; Kerr, G.; Knodt, U.; Krutz, D.; Krawczyk, H.; Makarau, A.; Miller, R.; Müller, R.; Perkins, R.; Walter, I.	DLR - German Aerospace Establishment; GeoCue LLC, USA; Teledyne Brown Engineering	DATA PROCESSING FOR THE SPACE-BASED DESIS HYPERSPECTRAL SENSOR
202	Shults, Roman	Kyiv National University of Construction and Architecture, Ukraine	SIMULATION OF INERTIAL NAVIGATION SYSTEM ERRORS AT AERIAL PHOTOGRAPHY FROM UAV
207	Jiao, Jian chao; Wang, Bao hua; Wang, Chao; Zhang, Yue; Jin, Jian gao; Liu, Zheng kun; Su, Yun; Ruan, Ning juan	BISME, China; Uni. of Science and Technology of China	Study on high resolution membrane-based diffraction optical imaging on geostationary orbit
209	Jurjević, Luka; Gašparović, Mateo	Faculty of Geodesy, University of Zagreb, Croatia;	3D DATA ACQUISITION BASED ON OPENCV FOR CLOSE-RANGE PHOTOGRAMMETRY APPLICATIONS

239	Hein, Daniel; Bayer, Steven; Berger, Ralf; Kraft, Thomas; Lesmeister, Daniela	DLR / German Aerospace Center, Germany; ISAR Germany	An integrated rapid mapping system for disaster management
248	Cefalu, Alessandro; Haala, Norbert; Fritsch, Dieter	University of Stuttgart, Institute for Photogrammetry	HIERARCHICAL STRUCTURE FROM MOTION COMBINING GLOBAL IMAGE ORIENTATION AND STRUCTURELESS BUNDLE ADJUSTMENT
252	R. Reulke, I. Sebastian, C. Williges, R. Hohn	HU-Berlin, Germany; DLR, Germany	MTF DETERMINATION OF SENTINEL-4 DETECTOR ARRAYS
254	Williges, Christian; Hohn, Rüdiger; Reulke, Ralf	HU-Berlin, Germany; Airbus, Germany; DLR, Germany	Verification of the Sentinel-4 Focal Plane Subsystem
255	Akcay, Ozgun; Avsar, Emin Ozgur	Canakkale Onsekiz Mart University, Turkey	THE CONTRIBUTION OF IMAGE ENHANCEMENT TO THERMAL IMAGE MATCHING
256	Gong, Ke; Fritsch, Dieter	Inst.e for Photogrammetry, Universität Stuttgart	RELATIVE ORIENTATION AND MODIFIED PIECEWISE EPIPOLAR RESAMPLING FOR LARGE RANGE SATELLITE IMAGE
257	Tang, Xinming; Zhu, Xiaoyong	Sat. Surveying and Mapping Appl. Center,, NASG; ; LIESMARS, Wuhan Uni.	The Geometric Calibration and Validation for The ZY3-02 Satellite Optical Image
260	Onyango, Fredrick Arthur; Nex, Francesco; Peter, Michael; Jende, Phillipp	University of Twente	ACCURATE ESTIMATION OF ORIENTATION PARAMETERS OF UAV IMAGES THROUGH IMAGE REGISTRATION WITH AERIAL OBLIQUE IMAGERY
273	Mitishita, Edson; Martins, Marlo; Costa, Felipe	Federal University of Paraná – UFPR, Brazil	STUDY OF THE INTEGRATION OF LIDAR AND PHOTOGRAMMETRIC DATASETS BY IN SITU CAMERA CALIBRATION AND INTEGRATED SENSOR ORIENTATION