

# JURSE 2017 PROGRAM

MONDAY, MARCH 6TH, 2017

8.00-	Registration	
8.30 - 9.00	Welcome Remarks	
9.00 - 9:45	Keynote 1: Prof. Peter Wonka	
9:45 - 10:30	Keynote 2 : Noel Gorelick	
10.30 - 11.00	Coffee Break	
11.00 - 12.40	<b>Session 1: Thermal Urban Remote Sensing: Challenges and Applications -1</b>	<b>Session 2: Deep Learning</b>
12.40 - 14.10	Lunch	
14.10 - 15.50	<b>Session 3: Urban Modeling</b>	<b>Session 4: UAV Image Processing and Analysis</b>
15.50 - 16.50	Coffee Break	
	Poster session - 1	
16.50 - 18.30	<b>Session 5: Applications of SAR in Urban Remote Sensing</b>	<b>Session 6: UrbanEARS - Urban Ecosystem Analysis supported by Remote Sensing</b>
Welcome Reception		

TUESDAY, MARCH 7TH, 2017

9.00 - 10.40	<b>Session 7: Integrating Urban Remote Sensing and Social Science</b>	<b>Session 8: Data Fusion in Urban Remote Sensing</b>
10.40 - 11.00	Coffee Break	
11.00 - 12.40	Address by Director General of Dubai Municipality	
	Opening of Exhibition Area	
12.40 - 14.10	Lunch	
14.10 - 15.30	<b>Session 9: Urban remote sensing for sub-Saharan Africa</b>	<b>Session 10: Advances in vision based geo-localization in urban environments</b>
16.00 - 22.00	Social Program - Desert Safari	

WEDNESDAY, MARCH 8TH, 2017

9.00 - 10.40	Keynote 3: Prof. Qihao Weng	
9:45 - 11:00	Poster session - 2	
	Coffee Break	
11.00 - 12.40	<b>Session 11: VHR image processing</b>	<b>Session 12: Integrated analysis and monitoring approaches for liveable cities</b>
12.40 - 14.10	Lunch	
14.10 - 15.50	<b>Session 13: The city of the poor: Remote sensing for classifying and analyzing informal settlements/slums</b>	<b>Session 14: Remote sensing of urban heat fluxes</b>
15.50 - 16.10	Coffee Break	
16.10 - 17.50	<b>Session 15: Thermal Urban Remote Sensing: Challenges and Applications -2</b>	<b>Session 16: Urban landcover Mapping</b>
17.50 - 18.30	Awards and Closing Ceremony	

## Session 1: *Thermal Urban Remote Sensing: Challenges and Applications -1*

Session Chairs: *Iphigenia Keramitsoglou, National Observatory of Athens, Greece*  
*Benjamin Bechtel, Universität Hamburg, Germany*

1a.1	<b>Towards a Continuous Climatological Assessment of Urban Surface Heat Islands.</b> Michael Allen, James Voogt and Andreas Christen <b>Student Paper Competition</b>
1a.2	<b>Statistical analyses of Land Surface Temperature in Local Climate Zones: Case study of Brno and Prague (Czech Republic).</b> Jan Geletič, Michal Lehnert and Petr Dobrovolný
1a.3	<b>Modeling the urban thermal environment distributions in Taipei Basin using Local climate zone (LCZ).</b> Yu-Cheng Chen, Wan-Yu Shih and Tzu-Ping Lin
1a.4	<b>Mapping the Diurnal Thermal Response of the Urban Heat Island with Landsat TIRS.</b> Christopher Small and Christopher Zappa
1a.5	<b>Morphological Control on Urban Thermal Anisotropy.</b> Scott Krayenhoff and James Voogt

## Session 2: *Deep Learning*

Session Chairs: *Michele Volpi, University of Zurich, Switzerland*  
*Xavier Ceamanos, ONERA, France*

1b.1	<b>CNN-based Pansharpening of Multi-resolution Remote-sensing Images.</b> Giuseppe Masi, Davide Cozzolino, Luisa Verdoliva and Giuseppe Scarpa
1b.2	<b>Training Convolutional Neural Networks for Semantic Classification of Remote Sensing Imagery.</b> Marco Castelluccio, Giovanni Poggi, Carlo Sansone and Luisa Verdoliva
1b.3	<b>Deep Learning for Urban Remote Sensing.</b> Nicolas Audebert, Alexandre Boulch, Hicham Randrianarivo, Bertrand Le Saux, Marin Ferecatu, Sébastien Lefèvre and Renaud Marlet
1b.4	<b>Learning Class- and Location-specific Priors for Urban Semantic Labeling with CNNs.</b> Benjamin Kellenberger, Michele Volpi and Devis Tuia
1b.5	<b>Patch-based Deep Learning Architectures for Sparse Annotated Very High Resolution Datasets. Student Paper Competition</b> Maria Papadomanolaki, Maria Vakalopoulou and Konstantinos Karantzas

### Session 3: *Urban Modeling*

Session Chair: *Yifang Ban, KTH, Sweden*

2a.1	<b>Urban ventilation corridors – performance evaluation using remote sensing data.</b> Marzena Wicht and Andreas Wicht <b>Student Paper Competition</b>
2a.2	<b>Modeling wind flow over complex urban terrain.</b> Maximilian Langheinrich, Peter Fischer and Thomas Krauß <b>Student Paper Competition</b>
2a.3	<b>Providing water for the poor - Towards optimal water supply infrastructures for informal settlements by using remote sensing data.</b> John Friesen, Lea Rausch and Peter F. Pelz
2a.4	<b>Land use modeling in North Rhine-Westphalia with interaction and scaling laws.</b> Devis Tuia, Gabriele Moser, Michael Wurm and Hannes Taubenböck
2a.5	<b>Towards Large-Area Morphologic Characterization of Urban Environments Using the TanDEM-X Mission and Sentinel-2.</b> Christian Geiß, Michael Wurm and Hannes Taubenböck

### Session 4: *UAV Image Processing and Analysis*

Session Chairs: *Caroline Gevaert, University of Twente, Netherlands*  
*Abdallah Zeggada, University of Trento, Italy*

2b.1	<b>Multilabeling UAV Images with Autoencoder Networks.</b> Abdallah Zeggada and Farid Melgani
2b.2	<b>Vehicle Detection in UAV Remotely Sensed Images.</b> Mohamed Salah Ismail and Mohammed A.-M. Salem
2b.3	<b>Bayesian Linear Regression for Crowd Density Estimation in Aerial Images.</b> Shiyong Cui, Oliver Meynberg and Peter Reinartz
2b.4	<b>An Automated Technique for Basemap Updating Using UAV Data.</b> Caroline M. Gevaert, Claudio Persello, Sander Oude Elberink, George Vosselman and Richard Sliuzas <b>Student Paper Competition</b>

### Session 5: *Applications of SAR in Urban Remote Sensing*

Session Chairs: *Giampaolo Ferraioli, Università Parthenope, Italy*

*Michael Schmitt, Technical University of Munich, Germany*

3a.1	<b>A CNN for the Identification of Corresponding Patches in SAR and Optical Imagery of Urban Scenes. Student Paper Competition</b> Lichao Mou, Michael Schmitt, Yuanyuan Wang and Xiao Xiang Zhu
3a.2	<b>Building Height Estimation in Single SAR image using OSM building footprints.</b> Yao Sun, Muhammad Shahzad and Xiao Xiang Zhu
3a.3	<b>EO4Urban: Sentinel-1A SAR and Sentinel-2A MSI Data for Global Urban Services.</b> Yifang Ban, Luke Webber, Paolo Gamba and Marc Paganini
3a.4	<b>Fusion of very high resolution SAR and optical images for the monitoring of urban areas.</b> Carlos Villamil Lopez, Harald Anglberger and Uwe Stilla
3a.5	<b>Urban SAR image filtering exploiting Bayesian estimation theory.</b> Fabio Baselice, Giampaolo Ferraioli, Angel Caroline Johnsy, Vito Pascazio and Gilda Schirinzi

### Session 6: *UrbanEARS - Urban Ecosystem Analysis supported by Remote Sensing*

Session Chairs: *Frieke Van Coillie, UGhent, Belgium*

*Frank Canters, Vrije Universiteit, Belgium*

3b.1	<b>Mapping functional urban green types using hyperspectral remote sensing.</b> Jeroen Degerickx, Martin Hermy and Ben Somers
3b.2	<b>Optimizing mixed spectra generation for regression-based unmixing of land cover in urban areas.</b> Frederik Priem, Akpona Okujeni, Sebastian van der Linden and Frank Canters
3b.3	<b>High resolution modeling of the urban hydrological response.</b> Charlotte Wirion, Willy Bauwens and Boud Verbeiren
3b.4	<b>Thermal evaluation of the Local Climate Zone scheme in Belgium.</b> Marie-Leen Verdonck, Akpona Okujeni, Sebastian van der Linden, Matthias Demuzere, Hans Hooyberghs, Robert De Wulf and Frieke Van Coillie
3b.5	<b>Beyond the urban mask: Local climate zones as a generic descriptor of urban areas – Potential and recent developments.</b> Benjamin Bechtel, Matthias Demuzere, Yong Xu, Marie-Leen Verdonck, Patrícia Lopes, Linda See, Chao Ren, Frieke Van Coillie, Devis Tuia, Cidália C. Fonte, Arthur Cassone, Noushig Kaloustian, Olaf Conrad, Matthias Tamminga and Gerald Mills

## Session 7: Integrating Urban Remote Sensing and Social Science

Session Chairs: *Michael Wurm and Christian Geiss, German Aerospace Center*

4a.1	<b>Issues and challenges of remote sensing–based local climate zone mapping for high-density cities.</b> Yong Xu, Chao Ren, Meng Cai and Ran Wang
4a.2	<b>Evaluating public green spaces for the quality of life in cities by integrating RS mapping tools and social science techniques.</b> Ellen Banzhaf and Francisco De La Barrera
4a.3	<b>The potential of Earth Observation to support the Olympic Games both as a major sporting event as well as a vehicle for the urban regeneration of host cities.</b> Constantinos Cartalis
4a.4	<b>Monitoring of green, open and sealed urban space - URBIS – EO data based support for sustainable urban development.</b> Tomas Bartalos, Katerina Jupova, Gabriele Moser, Sebastiano B. Serpico, Vladimir Krylov, Michaela de Martino, Nina Manzke, Nicholas Rochard and Tomas Soukup
4a.5	<b>Digital deserts on the ground and from space - An experimental spatial analysis combining social media and earth observation data in megacity Mumbai.</b> Martin Klotz, Michael Wurm, Zhu Xiaoxiang and Hannes Taubenböck

## Session 8: Data Fusion in Urban Remote Sensing

Session Chairs: *Bertrand Le Saux, ONERA, France*

*Josiane Zerubia, INRIA, France*

4b.1	<b>Using 3D information for atmospheric correction of airborne hyperspectral images of urban areas.</b> Xavier Ceamanos, Xavier Briottet, Guillaume Roussel, Hugo Gilardy and Karine Adeline
4b.2	<b>Multi-scale decision level data fusion by means of spatial regularization and image weighting.</b> Andreas Salentinig and Paolo Gamba
4b.3	<b>FusioNet: A Two-Stream Convolutional Neural Network for Urban Scene Classification using PolSAR and Hyperspectral Data.</b> Jingliang Hu, Lichao Mou, Andreas Schmitt and Xiao Xiang Zhu
4b.4	<b>Fusion of Heterogeneous Data in Convolutional Networks for Urban Semantic Labeling.</b> Nicolas Audebert, Bertrand Le Saux and Sébastien Lefèvre <b>Student Paper Competition</b>
4b.5	<b>Multi-resolution Classification of Urban Areas Using Hierarchical Symmetric Markov Mesh Models.</b> Ihsen Hedhli, Gabriele Moser, Josiane Zerubia and Sebastiano Bruno Serpico

### Session 9: *Urban remote sensing for sub-Saharan Africa*

Session Chairs: *Eléonore Wolff, Université libre de Bruxelles, Belgium*

*Michal Shimoni, Royal Military Academy, Belgium*

5a.1	<b>Extraction of African urban and rural structural features using SAR Sentinel-1 data.</b> Juanfran Lopez, Michal Shimoni and Tais Grippa
5a.2	<b>Assessing the quality of Global Human Settlement Layer products for Kampala, Uganda.</b> Richard Sliuzas, Monika Kuffer and Thomas Kemper
5a.3	<b>Contribution of nDSM derived from VHR stereo imagery to urban land-cover mapping in Sub-Saharan Africa.</b> Sabine Vanhuyse, Tais Grippa, Moritz Lennert, Mahamadou Idrissa and Eléonore Wolff
5a.4	<b>Automated Supervised Classification of Ouagadougou Built-up Areas in Landsat Scenes Using OpenStreetMap.</b> Yann Forget, Catherine Linard and Marius Gilbert <b>Student Paper Competition</b>

### Session 10: *Advances in vision based geo-localization in urban environments*

Session Chairs: *Valerie Gouet and Bahman Soheilian, IGN, France*

5b.1	<b>Cross-domain Image Localization by Adaptive Feature Fusion.</b> Neelanjan Bhowmik, Li Weng, Valérie Gouet-Brunet and Bahman Soheilian <b>Student Paper Competition</b>
5b.2	<b>Semantic Segmentation for 3D Localization in Urban Environments.</b> Anil Armagan, Martin Hirzer and Vincent Lepetit <b>Student Paper Competition</b>
5b.3	<b>Vehicle Positioning in the Absence of GNSS Signals: Potential of Visual-Inertial Odometry.</b> Kourosh Khoshelham and Milad Ramezani
5b.4	<b>An Overview on Sensor Map Based Localization for Automated Driving.</b> Liang Li, Ming Yang, Chunxiang Wang and Bing Wang



## Session 11: VHR image processing

Session Chairs: *Peijun Li, Peking University, China*

*Yun Zhang, University of New Brunswick, Canada*

6a.1	<b>An Efficient Approach for Image-DSM Co-Registration for Urban Building Extraction.</b> Alaeldin Suliman and Yun Zhang
6a.2	<b>Urban scene classification with VHR images.</b> Shihong Du, Xiuyuan Zhang and Luo Guo
6a.3	<b>Distance Dependent Chinese Restaurant Process for VHR Satellite Image oversegmentation.</b> Xuejun Zhai, Xiaonan Niu, Hong Tang, Ting Mao and Xin Yang
6a.4	<b>Dense Matching Quality Evaluation—An Empirical Study.</b> Zhenchao Zhang, Markus Gerke, Michael Peter, Michael Ying Yang and George Vosselman
6a.5	<b>Supervised region merging based on binary classification and active learning strategy for segmentation of very high resolution imagery.</b> Peijun Li and Bo Hu

## Session 12: Integrated analysis and monitoring approaches for liveable cities

Session Chair: *Thomas Blaschke, University of Salzburg, Austria*

6b.1	<b>From The 'Good Living' to The 'Common Good': What is the role of GIScience?</b> Pablo Cabrera-Barona
6b.2	<b>Indicator-based assessment of green space in growing cities as planning tool - experiences from the Sino-German 'Green Cities Project.</b> Karsten Grunewald, Ralf-Uwe Syrbe, Benjamin Richter, Martina Artmann, Juliane Mathey, Stefanie Rößler, Anne Seiwert, Wolfgang Wende, Junxiang Li, Jiang Chang, Tinghao Hu, Pingjia Luo, Jürgen Breuste, Lennart Kümper-Schlake
6b.3	<b>City Nighttime Light Variations Using ISS Images.</b> Monika Kuffer, Karin Pfeffer, Richard Sliuzas, Isa Baud and Martin van Maarseveen
6b.4	<b>Integration of Geo-Spatial Technologies and CA for Urban Growth Assessment and Prediction.</b> Ankita Saxena and Mahesh Kumar Jat
6b.5	<b>Derive an understanding of Green Infrastructure for the quality of life in cities by means of integrated RS mapping tools.</b> Jingxia Wang and Ellen Banzhaf

**Session 13: *The city of the poor: Remote sensing for classifying and analyzing informal settlements/slums***

**Session Chairs:** *Hannes Taubenböck, DLR, Germany*

*Tobias Leichtle, SLU, Germany*

7a.1	<b>Exploitation of textural and morphological image features in Sentinel-2A data for slum mapping.</b> Michael Wurm, Matthias Weigand, Andreas Schmitt, Christian Geiß and Hannes Taubenböck
7a.2	<b>Spatial Patterns of Slums - Comparing African and Asian Cities.</b> Monika Kuffer, Felix Orina, Richard Sliuzas and Hannes Taubenböck
7a.3	<b>Object-Based Change Detection of Informal Settlements.</b> Peter Hofmann and Gulnaz Bekkarnayeva
7a.4	<b>Slum mapping: From space to unmanned aerial vehicle based approaches.</b> Richard Sliuzas, Monika Kuffer, Karin Pfeffer, Caroline Gevaert and Claudio Persello
7a.5	<b>Evaluating the Relationship between Spatial and Spectral Features Derived from High Spatial Resolution Satellite Data and Urban Poverty in Colombo, Sri Lanka.</b> Ryan Engstrom, Andrew Copenhaver, David Newhouse, Jonathen Hersh and Vishwesh Haldavanekar

**Session 14: *Remote sensing of urban heat fluxes***

**Session Chairs:** *Nektarios Chrysoulakis, Foundation for Research and Technology, Greece*

*Christian Feigenwinter, Univ. of Basel, Switzerland*

7b.1	<b>Anthropogenic Heat Flux Estimation from Space: Results of the second phase of the URBANFLUXES Project.</b> Nektarios Chrysoulakis, Mattia Marconcini, Jean-Philippe Gastellu-Etchegorry, Sue Grimmond, Christian Feigenwinter, Fredrik Lindberg, Fabio Del Frate, Judith Klostermann, Zina Mitraka, Thomas Esch, Lucas Landier, Andy Gabey, Eberhard Parlow and Frans Olofson
7b.2	<b>EO-based Products in Support of Urban Heat Fluxes Estimation.</b> Mattia Marconcini, Wieke Heldens, Fabio Del Frate, Daniele Latini, Zina Mitraka and Fredrik Lindberg
7b.3	<b>Towards discriminating between zones with different thermal behaviour in cities.</b> Zina Mitraka, Christian Feigenwinter, Nektarios Chrysoulakis, Eberhard Parlow, Sue Grimmond, Fredrik Lindberg, Andreas Wicki and Mattia Marconcini
7b.4	<b>Spatial Distribution of Sensible and Latent Heat Flux in the URBANFLUXES case study city Basel (Switzerland).</b> Christian Feigenwinter, Parlow Eberhard, Roland Vogt, Michael Schmutz, Nektarios Chrysoulakis, Mattia Marconcini, Fabio Del Frate and Fredrik Lindberg
7b.5	<b>Assessing urban canopies 3D radiative and energy budgets with remote sensing and DART model.</b> Ahmad Al Bitar, Lucas Landier, Jerome Guilleron, Nicolas Lauret, Jean-Philippe Gastellu-Etchegorry, Tiangang Yin, Mitraka Zina, Christian Feigenwinter and Nektarios Chrysoulakis

## Session 15: *Thermal Urban Remote Sensing: Challenges and Applications -2*

Session Chairs: *Iphigenia Keramitsoglou, National Observatory of Athens, Greece*  
*Benjamin Bechtel, Universität Hamburg, Germany*

8a.1	<b>Blending multi-spatiotemporal resolution land surface temperatures over heterogeneous surfaces.</b> Jinling Quan
8a.2	<b>Local Climate Zones and Annual Surface Thermal Response in a Mediterranean City.</b> Noushig Kaloustian, Matthias Tamminga and Benjamin Bechtel
8a.3	<b>Identifying and Characterizing the Diurnal Evolution of Urban Land Surface Temperature Patterns.</b> Panagiotis Sismanidis, Iphigenia Keramitsoglou and Chris T. Kiranoudis
8a.4	<b>Land surface temperature climatology over urban surfaces: A blended approach.</b> Paul Alexander, Barry O'Dwyer, Michael Brennan, Gerald Mills and Paul Lynch
8a.5	<b>Quantifying the Trends in Daytime and Nighttime Land Surface Temperature and Urban Heat Island Intensity in Mediterranean Cities.</b> Constantinos Cartalis, Anastasios Polydoros and Thaleia Mavrakou

## Session 16: *Urban Landcover Mapping*

Session Chairs: *Xin Huang, Wuhan University, China*  
*Paolo Gamba, University of Pavia, Italy*

8b.1	<b>A comparison on multiple level features for fusion hyperspectral and LiDAR data.</b> Wenzhi Liao, Aleksandra Pizurica, Renbo Luo and Wilfried Philips
8b.2	<b>A Spectral Clustering Based Method for Hyperspectral Urban Image.</b> Lefei Zhang and Jane You
8b.3	<b>Mega-regions in China - A spatial analysis of settlement pattern using Earth observation data.</b> Hannes Taubenböck, Philipp Bauer, Christian Geiss and Michael Wurm
8b.4	<b>Multi-level Change Detection in Urban Areas Using ZY-3 Multi-temporal Stereo Imagery.</b> Dawei Wen, Hui Liu, Jiayi Li and Xin Huang
8b.5	<b>Per City-Block Density Estimation at Build-Up Areas from Aerial RGB Imagery with Deep Learning.</b> Theodosia Vardoulaki, Maria Vakalopoulou and Konstantinos Karantzalos

## Poster Session – 1

Session Chair: *Wenzhi Liao, Ghent University, Belgium*

Papers from sessions 1 - 4 are also part of Poster Session 1

P1	<b>Searching Method for the Optimal Evacuation Routes at the Time of Earthquake Outbreak.</b> Kayoko Yamamoto
P2	<b>An Optimized Method of Seamline Detection Based on A* Algorithm.</b> Shuo Li, Hui Wang and Qiuhe Ma
P3	<b>Earth Observation-Supported Service Platform for the Development and Provision of Thematic Information on the Built Environment – the TEP-Urban Project.</b> Thomas Esch, Soner Uereyen, Hubert Asamer, Martin Boettcher, Fabrice Brito, Andreas Hirner, Mattia Marconcini, Emmanuel Mathot, Annekatrin Metz, Hans Permana, Tomas Soukup, Filip Stanek, Stepan Kuchar, Julian Zeidler and Jakub Balhar
P4	<b>Chronicling Urbanization and Vegetation Changes Using Annual Gap Free Landsat Composites from 1984 to 2012.</b> Yuhao Lu, Nicholas Coops and Txomin Hermosilla
P5	<b>Mapping Local Climate Zones for urban morphology classification based on airborne remote sensing data.</b> Carlos Bartesaghi Koc, Paul Osmond, Alan Peters and Matthias Irger
P6	<b>Albedo and surface temperature relation in urban areas: analysis with different sensors.</b> Stefania Bonafoni, Giorgio Baldinelli, Antonella Rotili and Paolo Verducci
P7	<b>The variation of air and surface temperatures in London within a 1km grid using vehicle-transect and ASTER data.</b> Rochelle Schneider Dos Santos, Jonathon Taylor, Michael Davies, Anna Mavrogianni and James Milner
P8	<b>A simple method for detecting and tracking vehicles and vessels from high resolution spaceborne videos.</b> Seyed Ali Ahmadi and Ali Mohammadzadeh
P9	<b>The comparison of GLCM and granulometry for distinction of different classes of urban area.</b> Inna Uwarowa and Przemyslaw Kupidura

P10	<b>Feature level fusion of Thermal data and SAR texture images for urban land cover classification.</b> Fatemeh Tabib Mahmoud, Alireza Arabsaeedi and Seyed Kazem Alavipanah
P11	<b>Monitoring spatial-temporal changes heat island in Babol city due to land use changes.</b> Seyed Kazem Alavipanah and Mohammad Karimi Firozjaei
P12	<b>Validation of the DLR Global Urban Footprint in rural areas: A case study for Burkina Faso.</b> Matthias Mück, Martin Klotz and Hannes Taubenböck
P13	<b>Road Detection Using Deep Neural Network In High Spatial Resolution Images.</b> Mohammad Rezaee and Yun Zhang
P14	<b>Fully Automatic Analysis of Archival Aerial Images Current status and challenges.</b> Sébastien Giordano, Arnaud Le Bris and Clément Mallet
P15	<b>Extraction of Build-up Area from SAR Images Using Unsupervised Ensemble Learning.</b> Xiangli Yang, Wen Yang, Neng Zhong and Mingsheng Liao
P16	<b>Investigating the relationship between local climate zone and land surface temperature - A case study in Shanghai.</b> Meng Cai, Chao Ren and Yong Xu
P17	<b>Deriving urbanization pattern of Guangzhou City with remote sensing imagery with Decision Tree.</b> Yangbo Chen and Peng Dou
P18	<b>Urban vegetation extraction with multi-angular Pléiades images.</b> Antoine Lefebvre, Jean Nabucet, Thomas Corpetti and Laurence Hubert-Moy
P19	<b>Evaluation of clustering algorithms for unsupervised change detection in VHR remote sensing imagery.</b> Tobias Leichtle, Christian Geiss, Michael Wurm, Tobia Lakes and Hannes Taubenböck
P20	<b>Airborne SAR for high resolution imaging.</b> Antonio Natale, Paolo Berardino, Carmen Esposito and Stefano Perna
P21	<b>Multitemporal synthetic aperture radar for urban planning and critical infrastructure monitoring.</b> Donato Amitrano, Francesca Cecinati, Gerardo Di Martino, Antonio Iodice, Pierre-Philippe Mathieu, Giuseppe Ruello and Daniele Riccio
P22	<b>Hierarchically exploring the width of spectral bands for urban material classification.</b>

	Arnaud Le Bris, Nesrine Chehata, Xavier Briottet and Nicoals Paparoditis
P23	<b>Urban objects classification by spectral library: feasibility and applications.</b> Walid Ouerghemmi, Sébastien Gadal, Gintautas Mozgeris, Donatas Jonikavičius and Christiane Weber
P24	<b>Using OpenStreetMap data to assist in the creation of LCZ maps.</b> Patrícia Lopes, Cidália Fonte, Benjamin Bechtel and Linda See
P25	<b>Classification of Quickbird Imagery Over Urban Area Using Convolutional Neural Network.</b> Khelifa Djerriri and Moussa Sofiane Karoui
P26	<b>Modelling soil sealing density in residential areas for Flanders and the Brussels Capital Region.</b> Frank Canters and Sven Vanderhaegen
P27	<b>Towards a damage assessment in a tsunami affected area using L-band and X-band SAR data.</b> Hideomi Gokon, Shunichi Koshimura and Kimiro Meguro
P28	<b>The Impact of Urban Development Patterns on Thermal Distribution in Taipei.</b> Wanyu Shih
P29	<b>Impact of Spatial Filters on Land-use Changes Modelling Using Urban Cellular Automata.</b> Najmeh Neysani Samany and Morteza Omidipoor
P30	<b>Fusion of SAR and Optical Data for Unsupervised Change Detection: A Case Study in Beijing.</b> Osama Yousif and Yifang Ban

## Poster Session – 2

Papers from Sessions 5 – 16 are part of Poster Session - 2