



(24 - 26 June 2019)

The Second International Conference on Urban Informatics (ICUI 2019) Rundown

Location: 2/F, Block Z, PolyU

	24 June 2019	(Mon) AM	
8:30 - 9:15	Registration @ Z2/F podium, Block Z, Poly	U	location
	Opening Ceremony Welcome Remarks Ir Prof. You-Lin XU, Dean of Faculty	Session Chair: Prof. John SHI of Construction and Environment;	
9:15 - 9:30	Opening Address Mr. Kin-wah Ray LEUNG, JP, Deputy Introduction	ring, The Hong Kong Polytechnic University Director, Lands Department, HKSAR Gov't	Z209
9:30 - 10:00	Prof. Wen-zhong John SHI, Chair of C Keynote Speech 1: Urban Analytics and St Prof. Michael BATTY, University College I	mart Cities	
10:00 - 10:30	Group Photo &	c Coffee Break @ Z2/F podium	<u>i</u>
10:30 - 11:00	Keynote Speech 2: Senseable Cities Prof. Carlo RATTI, Director, MIT Senseable Technology, USA	Session Chair: Prof. Michael Goodchild le City Lab, Massachusetts Institute of	
11:00 - 11:30		apping Spatial Variations in Travel Choices or of the Martin Centre for Architectural and	Z209
11:30 - 12:00		Challenges in Pan-Space Information System nese Academy of Sciences; Director of the State nent Information System, China	
12:00 - 13:30	Lunch @ Chinese R	estaurant, 4/F, Communal Building	





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	24 June 2019 (Mon) PM	
	13:30 – 13:50: <tbc> by Mr. Tony WONG, Office of the Government Chief Information Officer, HKSAR Gov't 13:50 – 14:10: Digital Reality to support Smart Nation by Dr. Victor KHOO, Singapore Land Authority 14:10 – 14:30: Reflections and Exploration on the Progress in Geographic Information Systems (GIS): An Urban Perspective by Mrs. Wei SUN, Shenzhen Municipal Planning & Land & House Information Center, China 14:30 – 14:50: Urban Geospatial Data Platforms by Mr. Carsten ROENSDORF, Ordnance Survey, UK 14:50 – 15:10: Map Application Programming Interfaces, a Building Block of Common Spatial Data Infrastructure for Urban Informatics by Mr. Samuel NGAN, Lands Department, HKSAR Gov't 15:10 – 15:30: 3D Planning and Design System: A New Planning Tool in the Digital Era by Mr. Rico TSANG, Planning Department, HKSAR Gov't 15:30 – 15:50: Automatic Meter Reading (AMR) by Mr. Kin-bong HO, Water Supplies Department,</tbc>	Z207
13:30 - 16:00	2.1) Transports System I 13:30 – 13:50: Investigating Local Travel Speed with Spatial Network Structures and Properties by Dr. Yaoli WANG, Peking University, China 13:50 – 14:10: Investigating Relationships between Bike-sharing and Public Transit: A Spatial-Temporal Approach by Mr. Yuchuan HUANG, University of Minnesota, Twin Cities, US 14:10 – 14:30: A Heuristic Roulette Gambling Method for Bus Line Planning Based on Trajectories Data of Large-scale Floating Cars by Dr. Haixia MAO, Shenzhen Polytechnic, China 14:30 – 14:50: An Approach for Filter Divergence Refraining in Sequential Data Assimilation and its Application in Short-term Traffic Flow Prediction by Ms. Runjie WANG, The Hong Kong Polytechnic University, HK 14:50 – 15:10: Study On the Quantitative Relationship Between Urban Traffic Congestion Point and its Adjacent Environment by Mr. Sheng YE, Chongqing Geomatics Centre, China 15:10 – 15:30: Quantifying the Shared Mobility Pattern and Electrification Potential in Beijing Using Massive GPS Trajectories by Prof. Wei TU, Shenzhen University, China	Z206
(Parallel Sessions)	3) Urban Metabolisms Session Chairs: Prof. Changbin WU & Dr. Charles WONG 13:30 – 13:50: Spatiotemporal Characteristics and Mechanism Analysis of Urban Multi-Year Real Estate Registration: A Case Study of Suzhou, China by Prof. Changbin WU, Nanjing Normal University, China 13:50 – 14:10: Study on the Transformation Path of Brownfield from the Perspective of Urban Renewal by Dr. Haobing WANG, Southeast University, China 14:10 – 14:30: Analysis on the Spatiotemporal Changes of the Coastline of Hainan Island from 1975 to 2018 by Ms. Wanlu QIAN, Wuhan University, China 14:30 – 14:50: How Does Assessor-Based Land Value Changes from 1972 – 2015: An Assessment Study of Land Valuation Practices in Baybay City, Philippines by Mrs. Jannet BENCURE, Asian Institute of Technology, Thailand 14:50 – 15:10: Multi-Scale Evaluation of Factors of Coastline Change in Hainan Island based on the Improved Weighted Apriori Algorithm by Mrs. Xin WANG, Wuhan University, China	Z208
	4.1) Urban Spatial Structure I 13:30 – 13:50: Measuring Walking Accessibility to Public Open Space in a Multi-level Urban Environment by Prof. Bo-sin TANG, The University of Hong Kong, HK 13:50 – 14:10: Discovering City Functional Region and Human Mobility Patterns Using Mobile Phone Data by Prof. Yuanyuan QIAO, Beijing University of Posts and Telecommunications, China 14:10 – 14:30: An Empirical Study on 3D Space Syntax Using Wi-Fi Big Data by Dr. Xintao LIU, The Hong Kong Polytechnic University, HK 14:30 – 14:50: Modelling Spatial Non-Stationary Relationships in Housing Market with Incorporating Night-Time Light Data: A Case Study in Wuhan by Ms. Jiayi XIE, Wuhan University, China 14:50 – 15:10: A Study about Urban Space Vitality Characteristics in Shenzhen Based on Public Transportation Data by Mr. Guangzhou WU, The Smart City Research Institution of China Electronic Technology Group Corporation, China 15:10 – 15:30: The Influence of Spatial Evolution of Road Network Nodes on Urban Consumption Centers by Ms. Yan HUANG, Wuhan University, China	Z204

Session Chair





16:00 - 16:15	Coffee Break	·
	5.1) Smart Cities and Urban Science I Session Chairs: Dr. Gerhard SCHROTTER & Prof. John 16:15 – 16:35: Moving from Smart to Responsive Cities: The Case of Zurich and Geneva by Dr. Gerhard SCHROTTER, City of Zurich/Public Administration, Switzerland	SHI
	16:35 – 16:55: Polycentric Urban Development and Urban Amenities by Dr. Mingshu WANG, University of Twente, Netherlands	Z207
	16:55 – 17:15: Exploring Urban Metro Stations as Cognitive Places Using Points of Interest by Dr. Kang LIU, Shenzhen Institutes of Advanced Technology, China	Z 201
	17:15 – 17:35: The New Core of the City: The Community in the Context of Decentralization and Ideal Future Community Space Model Design by Mr. Jian XU, The Smart City Research Institution of China Electronic Technology Group Corporation, China	
	2.2) Transport Systems II Session Chairs: Prof. Yan Tao LI & Dr. Lilian Pun	
	16:15 – 16:35: Comparative Study of Grid Type Model and Less Transfer Model in Public Transport Network <i>by <u>Prof. Yan Tao LI</u>, Beijing Union University, China</i>	
	16:35 – 16:55: Measuring Neighborhood Walkability Under Streetscape of Central Shanghai Using Deep Learning: A Human-scale Approach by Mr. Qinglai ZHANG, Tongji University, China	Z206
	16:55 – 17:15: The Impact of Rail Transit System Expansion on Spatial Distribution of Land Use and Employment: Evidence from Shanghai, China by Ms. Mengqi ZHONG, Tongji University, China	
24 Jun (Mon)	17:15 – 17:35: Traffic Accident Analysis based on Eigenvector Spatial Filtering Poisson Regression by Ms. FengLan LUO, Wuhan University, China	
	6) Ambient Sensing and Urban Positioning Session Chairs: Prof. Yunjia WANG & Dr. Charles W.	ONG
16:15 - 18:00	16:15 – 16:35: Progress and Prospect of the Research for Height Measurement Indoor by <u>Prof. Yunjia WANG</u> , China University of Mining and Technology, China	O/VO
(Parallel Sessions)	16:35 – 16:55: IoT-Based Tree Monitoring Approach Towards Extensive Urban Tree Management in The Smart City by <u>Dr. Man Sing, Charles WONG</u> , The Hong Kong Polytechnic University, HK	7000
	16:55 – 17:15: GNSS Shadow Matching for Smartphone Applications by Dr. Li-Ta HSU, The Hong Kong Polytechnic University, HK	Z208
	17:15 – 17:35: Citythings: An Integration of the Dynamic Sensor Data to the 3D City Model by Mr. Thunyathep SANTHANAVANICH, University of Applied Sciences, Stuttgart, Germany	
	17:35 – 17:55: Indoor Positioning Based-On Image Aided by Artificial Neural Networks by Ms. Chih-Yu CHANG, National Cheng Kung University, Taiwan	
	4.2) Urban Spatial Structure II Session Chairs: Dr. Meihan JIN & Dr. Xintao LIU	
	16:15 – 16:35: Spatial Agglomeration of the Non-Registered Migrants in Shenzhen: A Source Region Perspective by <u>Dr. Meihan JIN</u> , Harbin Institute of Technology (Shenzhen), China	
	16:35 – 16:55: Adaptive Detection of Multi-level Co-location Patterns Based on Natural Neighborhood by Dr. Qiliang LIU, Central South University, China	
	16:55 – 17:15: Accesses to Functional Mix: An Access Based Approach to Land Use Diversity Within the Context of Urban Spatial Resilience <i>by Mr. Darren NEL, The Hong Kong Polytechnic University, HK</i>	Z204
	17:15 – 17:35: Spatial Structure Recognition and Characteristic Analysis of Zhenjiang Central City Based on POI Data by Mr. Pengcheng LIU, Jiangsu Institute of Urban & Rural Planning and Design, China	
	17:35 – 17:55: Exploring Spatial Hierarchy from Semantic Space of POI with VGI Data by Ms. Xiaolin ZHOU, The Hong Kong Polytechnic University, HK	
18:30 - 21:00	Conference Banquet @ King Yat Hin, Level 8, Harbour Plaza Metropolis Hotel,7 Metropolis Hung Hom	Drive,





	25 June 2019 (Tue) AM	
9:00 - 9:30	Keynote Speech 5 : Enhancing Urban Mobility Session Chair: Prof. John SHI Prof. Michael GOODCHILD, University of California, Santa Barbara, US	
9:30 - 10:00	Keynote Speech 6: Transport GIS for Future Smart Cities Prof. Anthony YEH, The University of Hong Kong, Hong Kong	Z207
10:00 - 10:30	Keynote Speech 7: Smart Cities and New Urban Science	
	Prof. Renzhong GUO, Academician of Chinese Academy of Engineering; Dean of Research Institute for Smart Cities, Shenzhen University, China	
10:30 - 10:45	Coffee Break 5.2) Smart Cities and Urban Science II Session Chairs: Prof. Lixin WU & Prof. ZL LI	
	10:45 – 11:05: Follow The Law of Nature: Understanding Smart City by <u>Prof. Lixin WU</u> , Central South University, China	
	11:05 – 11:25: Let's Talk About Digital Twins and Future Cities by Dr. Gerhard SCHROTTER, City of Zurich/ Public Administration, Switzerland	Z207
	11:25 – 11:45: Take a Look Around: Geographic Knowledge Discovery for the Case Study of London Streetviews by Dr. Stephen LAW, The Alan Turing Institute and University College, UK	
	7) Smart Mobility Session Chairs: Prof. Tao PEI & Dr. Yang XU	
	10:45 – 11:05: Flow Patterns Indoor and Their Reasons both for Group and for Individual: Inferences from Positioning Data by <u>Prof. Tao PEI</u> , Institute of Geographic Sciences and Natural Resources Research, China	
	11:05 – 11:25: Unravel the Landscape and Pulses of Cycling Activities from a Dockless Bikesharing System <i>by <u>Dr. Yang XU</u>, The Hong Kong Polytechnic University, HK</i>	Z206
	11:25 – 11:45: A Novel Map Matching Algorithm for Low Sampling Rate Trajectory Data with the Hidden Markov Model <i>by Mr. Yigong HU, Wuhan University, China</i>	
10:45 - 12:00 (Parallel	11:45 – 12:05: A Review of the Application of Data-Driven Human Mobility Research in Smart City Development <i>by Dr. Anqi WANG, The Hong Kong Polytechnic University, HK</i>	
Sessions)	8) Housing Session Chairs: Prof. Lingkui MENG (WHU) & Dr. Tony ZHUGE	
	10:45 – 11:05: The Spatio-Temporal Accessibility of Comprehensive Service Facilities of Residential Areas Based on Internet Map <i>by Dr. Xinxin ZHOU, Nanjing Normal University, China</i>	
	11:05 – 11:25: Developing Multi-Detail Residential Building Typologies. A Case Study in Ningbo <i>by Ms. Polina TROFIMOVA, University of Nottingham (Ningbo), China</i>	Z208
	11:25 – 11:45: Impact of The Hong Kong-Zhuhai-Macao Bridge on Second-hand Housing Prices in Zhuhai <i>by Mr. Nianhua LIU, Sun Yat-Sen University, China</i>	
	11:45 – 12:05: Development of Land Valuation Model for Mass Appraisal: A Case Study in Baybay City, Philippines <i>by Mrs. Jannet BENCURE, Asian Institute of Technology, Thailand</i>	
	9.1) Spatial Data Infrastructure (SDI) I Session Chairs: Prof. Jing Wang & Dr. Matthew Pang	
	10:45 – 11:05: Large Scale Underground Utility Mapping Using Mobile Ground Penetrating Radar: A Case Study in Singapore <i>by Dr Siow Wei JAW, Singapore-ETH Centre, Singapore</i>	
	11:05 – 11:25: Development of Spatial Big Data Analysis Platform for Smart City in Korea by Dr. Soohyun KIM, Yonsei University, Republic of Korea	Z204
	11:25 – 11:45: Research on 3D Scene Modeling Method of Residential Area Based on Construction Drawing <i>by Mr. Pengxiang WANG, Nanjing Normal University, China</i>	
12:15 - 14:00	Lunch @ Chinese Restaurant, 4/F, Communal Building	



The 2nd International Conference on Urban Informatics (24-26 June 2019)

	25 June 2019 (Tue) PM	
	10.1) Urban Remote Sensing I Session Chairs: Prof. Jianjun ZHU & Dr. Xu Wenbin	
	14:00 – 14:20: Sub-Canopy Topography Estimation from Polinsar Data with Complex Adjustment Method <i>by <u>Prof. Jianjun ZHU</u></i> , <i>Central South University, China</i>	
	14:20 – 14:40: Remotely Sensed Imagery Classification Using a Spatially Constrained Fuzzy C-means Clustering Algorithm <i>by Prof. Hua Zhang, China University of Mining and Technology, China</i>	
	14:40 – 15:10: Potentiality of Using Luojia 1-01 Nighttime Light Imagery to Estimate Urban Community Housing Price by Dr. Chang LI, Central China Normal University, China	Z207
	15:10 – 15:30: Elevation Data Generation from Earth Observations for Urban Morphology Classification by Dr. Lei ZHANG, The Hong Kong Polytechnic Univserity, HK	
	15:30 – 15:50: Fast Topographical Mapping at 1:500 Scale in Mountain Cities Using UAV-Based Oblique Photogrammetry and Laser Point Cloud <i>by Mr. Yuqi HE, Chongqing Survey Institute, China</i>	
	11) A.I. & Urban Model I Session Chairs: Ms. Ruijun LIU & Dr. Xintao LIU	
	14:00 – 14:20: Apply Computer Vision and Machine Learning to Measures Human Perception of Street Design Quality by <u>Ms. Ruijun LIU</u> , Harvard University, US	
	14:20 – 14:40: A New Landslide Detection Approach Based on Deep Convolutional Neural Network by Dr. Min ZHANG, The Hong Kong Polytechnic University, HK	
	14:40 – 15:10: UrbanAI - Developing Machine Learning Approaches and Interfaces to Support the Planning and Delivery of Transport and Housing in Sydney <i>by Mr. Oliver LOCK, UNSW Sydney, Australia</i>	Z206
14:00 - 15:50 (Parallel	15:10 – 15:30: Multi-Scenarios Simulation of Urban Land-use Change in Shanghai Based on Random Forest and CA-Markov Model <i>by Ms. Xuewei DANG, Lanzhou Jiaotong University, China</i>	
Sessions)	15:30 – 15:50: Prognosis for Location for Affordable Housing for Pune Using Artificial Neural Network by Mr. Harshil Panka MUTHA, Pandit Deendayal Petroleum University, China	
	13) Transport and Urban Ecology Session Chairs: Prof. Wujiao Dai & Dr. George LIU	
	14:00 – 14:20: Forecasting Ridership to Plan New Public Transport by Using Smartphone Data by Prof. Tao CHENG, University College London, UK	
	14:20 – 14:40: Zero Emission Mobility Campus by Ms. Rebecca HECKMANN, University of Applied Sciences, Stuttgart, Germany	
	14:40 – 15:10: Understanding The Interplay Patterns Between Bus, Metro and Taxi Before and After the Chinese Spring Festival <i>by Mr. Jianwei HUANG</i> , <i>The Hong Kong Polytechnic University</i> , <i>HK</i>	Z208
	15:10 – 15:30: Unraveling the Disparity of Service Accessibility through Commuter-based Two- step Floating Catchment Area Method Using Cellphone Big Data <i>by Mr. Zifeng CHEN, The</i> <i>University of Hong Kong, HK</i>	
	9.2) Spatial Data Infrastructure (SDI) II Session Chairs: Prof. Qunming WANG & Dr. Tony ZHUG	E
	14:00 – 14:20: Spatial-temporal Evolution and Completeness Analysis of OpenStreetMap Building Data in China from 2012 to 2017 by Dr. Qi ZHOU, China University of Geosciences, China	
	14:20 – 14:40: Temporal and Spatial Pattern Evolution of Nanjing Urban Water System in the Near Hundred Years Under the Framework of Time and Space <i>by Ms. Wanrong JIN, Nanjing Normal University, China</i>	Z204
	14:40 – 15:00: Topological Modelling for Multidimensional Cadastral Objects Based on Ordered Topological Model <i>by Dr. Yuan DING, Hohai University, China</i>	
15:50 - 16:05	Coffee Break	<u> </u>





	10.2) Urban Remote Sensing II Session Chairs: Prof. Bijun LI & Dr. Xu Wenbin	
	16:05 – 16:25: Clustering Based OCC with Auxiliary Social Media to Classify Impervious Surface Area from SAR Data by Dr. Zelang MIAO, Central South University, China	
	16:25 – 16:45:	
	16:45 – 17:05: Classification of Hyperspectral Data from Urban Areas Based on Weighted Logistic Metric Learning by Dr. Yanni DONG, The Hong Kong Polytechnic University, HK	7207
	17:05 – 17:25: Utilization of Remote Sensing and Social Sensing Data for Land Use Classification by Ms. Adillah ALFATINAH, National Cheng Kung University, Taiwan	Z207
	17:25 – 17:45: Super-Resolution Research on Remote Sensing Images in the Megacity Based on Improved SRGAN <i>by Mr. Zhipeng LI, Shanghai Institute of Surveying and Mapping, China</i>	
	17:45 – 18:05: A Semi-Interactive Indoor 3D Reconstruction Method Based on Image Partition by Mr. Niaotao LIU, Nanjing Normal University, China	
	12) A.I. & Urban Model II Session Chairs: Dr. Ding MA & Dr. Xintao LIU	
	16:05 – 16:25: How Similar or Different Are Streets Among Cities? Urban Street Network Analysis Using Graph Convolutional Neural Network <i>by <u>Dr. Ding MA</u></i> , <i>University of Gavle, Sweden</i>	
	16:25 – 16:45: Spatio-Temporal Modeling Between Nighttime Light Intensity and GDP for Wuhan Metropolitan Area <i>by Dr. Chang LI, Central China Normal University, China</i>	Z206
	16:45 – 17:05: Regional Scene Risk Analysis Based on Convolutional Neural Networks and Decision Tree <i>by Mr. Zhipeng XIONG</i> , <i>Wuhan University</i> , <i>China</i>	
25 June (Tue)	17:05 – 17:25: Computing Sequential Experiences of an Urban Street Using Deep Learning Technique by Dr. Perry P J Yang, Georgia Institute of Technology, USA	
	14) Urban Positioning Session Chairs: Prof. Yu LIU & Dr. George LIU	
16:05 - 18:05 (Parallel	16:05 – 16:25: Applications of Low Cost RGB-D Sensor for SLAM by Prof. Wu CHEN, The Hong Kong Polytechnic University, HK	
Sessions)	16:25 – 16:45: Improved Robust Kalman Filter in GPS/UWB/MEMS-IMU Tightly Coupled Navigation and Indoor Positioning by Prof. Zengke LI, China University of Mining and Technology, China	Z208
	16:45 – 17:05: Optimization Estimation of Indoor Motion Trajectory of RGB-D Camera Based on Depth Calibration <i>by Ms. Xuan LIAO, Wuhan University, China</i>	
	17:05 – 17:25: Sensing Traffic Congestion at the Turn Level from Taxis' GPS Trajectory Data by Ms. Zihan KAN, Wuhan University, China	
	15) Human Health and Well-being Session Chairs: Prof. Huan XIE & Dr. Tony ZHUGE	
	16:05 – 16:25: Identification of Typical Annual and Diurnal Patterns for Clear-Sky Climatology of Surface Urban Heat Island <i>by Dr. Zihan LIU, Nanjing University, China</i>	
	16:25 – 16:45: Spatio-Temporal Pattern Analysis of Ambulance Demand in Tokyo via the Bayesian Approach by Mr. Tianqi XIA, The University of Tokyo, Japan	
	16:45 – 17:05: A New Evaluation Approach to The Impact of Rising Density on the Pattern of Urban Open Space <i>by Ms. Wei SHI, The University of Hong Kong, HK</i>	
	17:05 – 17:25: Analysis of Spatial Disparities in Health Care Accessibility: The Comparison Between the Central Part of Two Typical Cities in China by Ms. Meijie CHEN, Wuhan University, China	Z204
	17:25 – 17:45: Environment and Perceived Restorativeness: A Comparative Study Between Urban Cemeteries and Parks Among Users with Different Mental Conditions in Edinburgh <i>by Ms. Ka Yan LAI, The University of Hong Kong, HK</i>	
	17:45 – 18:05: Mapping of Health Risk as Air Pollution Used by Open Source Software by Ms. Uyanga ANKHBAYAR, Land Administration Department of Capital City, Mongolia	
18:15	The First General Assembly of ISUI	Z208





Seynote Speech 9: Towards Urban Informatics		26 June 2019 (Wed) AM	
Seynote Speech 9: Towards Urban Informatics Prof. John SHI, Director of Laboratory for Smart City and Spatial Big Data Analytics; Head & Chair Professor of LSGI, PolyU	9:00 - 9:30	Informatics Session Chair: Prof. Michael Batty	
16.1) Urban Technologies and Principles 1 Session Chairs: Prof. Min DENG & Dr. Bo WU 10:35 – 10:55: Zero Velocity Interval Detection based on CHMM in Micro Inertial Pedestrian Navigation by Prof. Wei SUN, Liaoning Technical University, China 10:55 – 11:15: Urban Multi-Source POI Data Fusion by Controlling the Uncertainty of Location and Attribute by Dr. Chang Ll. Central China Normal University, China 11:15 – 11:35: Spatiotemporal Visualization Method of Road Waterlogging for Urban Flood Warning by Mr. Kaiyue ZANG, Nanjing Normal University, China 16.2) Urban Technologies and Principles II Chairs: Prof. Roberto Ponce LOPEZ & Dr. Chris HIGGIN. 10:00 – 10:20: A Systematic Tracing of Temporal and Spatial Boundaries of Places with High Concentration of Human Activity to Identify Popular Non-Work Destinations by Prof. Roberto Ponce LOPEZ, Tecnologico de Monterrey, Mexico 10:20 – 10:40: Exploring the Evolution of Urban Road Networks from Fractal Perspectives by Dr. Hong ZHANG, Southwest Jiaotong University, China 10:40 – 11:00: HoloCity - Visual Analytics of Real-Time and Massive Passively-Collected Spatiotemporal Urban Sensor Data in Augmented Reality by Mr. Oliver LOCK, UNSW, Australia 17) Urban Big Data and Cloud Computing Session Chairs: Prof. Qingming ZHAN & Dr. Shuo WANG 10:00 – 10:20: Multi-Source Big Data Based Spatial Analysis on Cultural and Tourist Influence of Wuhan City, China by Prof. Qingming ZHAN, Whan University, China 10:20 – 10:40: SigSThiner: Mining Interesting and Significant Sequential Patterns from Semantic Trajectories by Dr. Anshu ZHANG, The Hong Kong Polytechnic University, HK 10:40 – 11:00: Using Data Mining Methods to Explore the Spatial and Temporal Dynamics of Perceived Service Quality of Metro Systems: Evidence from Shenzhen by Ms. Shuli LUO, The Chinese University of Hong Kong, HK 10:20 – 10:40: Linear Spectral Mixture Analysis (LSMA) for Sub-Pixel Built-up Area (BUA) Fraction Estimation Based on MODIS and DMSP-OLS Data by Ms. Xue WANG, The Chinese University of Hong Kong, HK 10:40 –	9:30 - 10:00	Prof. John SHI, Director of Laboratory for Smart City and Spatial Big Data Analytics; Head &	Z207
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Parallel Sessions 17) Urban Big Data and Cloud Computing Session Chairs: Prof. Qingming ZHAN & Dr. Shuo WANG 10:00 – 10:20: Multi-Source Big Data Based Spatial Analysis on Cultural and Tourist Influence of Wuhan City, China by Prof. Qingming ZHAN, Wuhan University, China 10:20 – 10:40: SigSTMiner: Mining Interesting and Significant Sequential Patterns from Semantic Trajectories by Dr. Anshu ZHANG, The Hong Kong Polytechnic University, HK 10:40 – 11:00: Using Data Mining Methods to Explore the Spatial and Temporal Dynamics of Perceived Service Quality of Metro Systems: Evidence from Shenzhen by Ms. Shuli LUO, The Chinese University of Hong Kong, HK 10:00 – 10:20: Remote Sensing Evaluation of Total Suspended Solids Dynamic under River Chief System of China: A Case Study of Drinking Water Sources Heidi Reservoir in Zhanjiang of Western Guangdong by Prof. Shuisen CHEN, Guangzhou Institute of Geography, China 10:20 – 10:40: Linear Spectral Mixture Analysis (LSMA) for Sub-Pixel Built-up Area (BUA) Fraction Estimation Based on MODIS and DMSP-OLS Data by Ms. Xue WANG, The Chinese University of Hong Kong, HK 10:40 – 11:00: A Method for Extracting Building Area from Photogrammetric DSM by Automatic Selecting Samples Using Historical DLG Data by Dr. Yunsheng ZHANG, Central South University, China		Warning by Mr. Kaiyue ZANG, Nanjing Normal University, China 16.2) Urban Technologies and Principles II Chairs: Prof. Roberto Ponce LOPEZ & Dr. Chris H. 10:00 – 10:20: A Systematic Tracing of Temporal and Spatial Boundaries of Places with High Concentration of Human Activity to Identify Popular Non-Work Destinations by Prof. Roberto Ponce LOPEZ, Tecnologico de Monterrey, Mexico 10:20 – 10:40: Exploring the Evolution of Urban Road Networks from Fractal Perspectives by Dr. Hong ZHANG, Southwest Jiaotong University, China 10:40 – 11:00: HoloCity - Visual Analytics of Real-Time and Massive Passively-Collected	Z208
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Hong Kong Polytechnic University Kung University, HK		10:00 – 10:20: Remote Sensing Evaluation of Total Suspended Solids Dynamic under River Chief System of China: A Case Study of Drinking Water Sources Heidi Reservoir in Zhanjiang of Western Guangdong by <u>Prof. Shuisen CHEN</u> , Guangzhou Institute of Geography, China 10:20 – 10:40: Linear Spectral Mixture Analysis (LSMA) for Sub-Pixel Built-up Area (BUA) Fraction Estimation Based on MODIS and DMSP-OLS Data by Ms. Xue WANG, The Chinese University of Hong Kong, HK 10:40 – 11:00: A Method for Extracting Building Area from Photogrammetric DSM by Automatic Selecting Samples Using Historical DLG Data by Dr. Yunsheng ZHANG, Central South University, China 11:00 – 11:20: Improve Satellite Image Quality to Support Urban Studies by <u>Dr. Xiaolin ZHU</u> , The	Z204





(24 - 26 June 2019)

	16.3) Urban Technologies and Principles III Session Chairs: Prof. Hao WU & Dr. Chris Higgin 11:35 – 11:55: On the Spatial Scale Effect of Modifiable Areal Unit Problem from Topology Perspective by Prof. Haifeng LI, Central South University, China 11:55 – 12:15: Spatial Context-based Local Toponym Extraction and Address Segmentation from Urban Point-of-Interests Data by Dr. Xi KUAI, Shenzhen University, China 12:15 – 12:35: Automatic Localizing and Controlling the Elevator Button Allowing Service Robot Moving Among the Floors by Mr. Shenlu JIANG, The Hong Kong Polytechnic University, HK 12:35 – 12:55: A 4D Spatio-Temporal Approach to Modelling Land Value Uplift from Rapid Transit in High Density and Topographically-Rich Cities by Dr. Christopher Donald HIGGINS, The Hong Kong Polytechnic University, HK	z208
	18) Pollution Session Chairs: Prof. Qingfeng GUAN & Dr. Shuo WANG	
	11:35 – 11:55: Spatio-Temporal Profiling of PM _{2.5} Distribution through the Integration of Observations Collected by Mobile Sensors and Ground-Based Stations by Prof. Yee LEUNG, The Chinese University of Hong Kong, HK 11:55 – 12:15: Under the Dome: a 3D Urban Texture Model and its Relationship with Urban	
26 June(Wed)	Land Surface Temperature by <u>Prof. Qingfeng GUAN</u> , China University of Geoscience, China	
20 June (Wed)	12:15 – 12:35: Solar Capacity of Three-Dimensional Cities by Dr. Rui ZHU, Singapore-MIT Alliance for Research and Technology (SMART), Singapore	Z206
11:35 - 13:35 (Parallel	12:35 – 12:55: A Multi-Scale, Web-Based Interface for Strategic Planning of Low-Carbon City Quarters by Ms. Alexandra MITTELSTAEDT, University of Applied Sciences, Stuttgart, Germany	
Sessions)	12:55 – 13:15: A Machine Learning Approach to Model Spatial Variations of Daily Fine Particulate Matter (PM _{2.5}) and Nitrogen Dioxide (NO ₂) Concentrations in Shanghai, China by Ms Xinyi SONG, Shanghai Jiao Tong University, China	
	13:15 – 13:35: Distribution of Air Pollution Risks from Vehicle Emission Based on High Spatio-Temporal Resolution TCI Shanghai under ANSYS Simulation <i>by Dr. Jiatian BU, Tongji University, China</i>	
	19) Urban Risks and Resilience Session Chairs: Prof. Guangcai FENG & Prof. XL Ding	
	11:35 – 11:55: Surface Deformation Monitoring of the Pearl River Delta Using TM-InSAR by <u>Prof. Guangcai FENG</u> , Central South University, China	
	11:55 – 12:15: An Integration of Seismic Deformation into WebGIS for Real-time Disaster Evaluation and Emergency Response <i>by Mr. Zhao RUI, The Hong Kong Polytechnic University, HK</i>	
	12:15 – 12:35: City's Bearing Capacity of Bottled Gas Supply Station by Ms. Xin TAN, Wuhan University, China	Z204
	12:35 – 12:55: Online Decision-Support Infrastructure for the Integration of Spatial Planning and Flood Risk Management Policies by Dr. Jing RAN, Hunan University, China	
	12:55 – 13:15: Dynamic Estimation of Emergency Supplies Demand For Urban Flood Disaster Using Baidu Heat Map <i>by Ms. Anqi LIN, Central China Normal University, China</i>	
13:35 – 14:00	Light lunch @ 2/F, Block Z	
14:00 – 14:30	Awards Presentation & Closing	Z207
15:00 – 18:30	Social Event to the Peak (register by 14:00, 24 June at registration counter) Gather at 14:45 @ outside Z207	
	Coach returns at 18:30 (Arrived PolyU at around 19:15)	

More information: https://www.polyu.edu.hk/lsgi/icui2019/programme