

# 16th International Conference on Computers in Urban Planning and Urban Management

July 08-12 Wuhan, China



## Brochure

# CUPUM 2019



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# 1 PREFACE







## Preface

The past thirty years since the first CUPUM conference witnessed tremendous progress in the applications of computing technologies in both urban development and urban life itself. Thirty years after, advances in computing, information, communication and web-based technologies have reached into every facet of daily life, reshaping urban life as we know it. Massive and pervasive data generation with the universal adoption of networked computing technologies, on the other hand, offers unparalleled solutions for planning and managing urban futures.

It is under these unprecedented circumstances that after fifteen successful conferences around the globe we are brought here back in China, where e-commerce, social network services, wireless communication techniques, intelligent image processing and other emerging technologies have immensely changed retails, transportation, logistics, etc., impacting industries and academia alike. And here in Wuhan University, we enjoy not only the magnificence in landscape and culture, but also a quarter-century history of exploring digital and intelligent planning with combined efforts of remote sensing, land surveying and geoinformatics.

We sincerely welcome you to this grand event, and wish you a wonderful stay here in Wuhan.

CUPUM2019 Local Organizing Committee

# 2 INVITED SPEAKERS



## **Keynote Speakers**

### **Michael Batty**

FBA, FAcSS, FRS, Professor, University College London, UK

### **Deren Li**

Member of CAS, Professor, Wuhan University, China

### **Anthony G. O. Yeh**

Member of CAS, Professor, The University of Hong Kong, China

### **Jianya Gong**

Member of CAS, Professor, Wuhan University, China

### **Zhiqiang Wu**

Member of CAE, Professor, Vice-president, Tongji University, China

### **Zhenjiang Shen**

Member of Japanese Academy of Engineering

Professor, Kanazawa University, Japan

### **Qingquan Li**

Member of International Eurasian Academy of Sciences

Professor, President, Shenzhen University, China

### **Xia Li**

Member of International Eurasian Academy of Sciences,

Professor, East China Normal University, China

### **Xinchang Zhang**

Member of International Eurasian Academy of Sciences,

Professor, Guangzhou University, China

### **Stan Geertman**

Professor, Utrecht University, The Netherlands

### **Joseph Ferreira**

Professor, Massachusetts Institute of Technology, USA



## Invited Speakers

### **Andrew Allen**

Professor, University of South Australia, Australia

### **Anrong Dang**

Professor, Tsinghua University, China

### **Qingyun Du**

Professor, Dean, Wuhan University, China

### **Bo Huang**

Professor, Chinese University of Hong Kong, China

### **Zhengdong Huang**

Professor, Shenzhen University, China

### **Yan Liu**

Professor, The University of Queensland, Australia

### **Ying Long**

Distinguished researcher, Tsinghua University, China

### **Qisheng Pan**

Professor, Texas Southern University, USA

### **Christopher Pettit**

Professor, University of New South Wales (Australia)

### **John Wenzhong Shi**

Professor, The Hong Kong Polytechnic University, China

### **Nelson Rodrigues da Silva**

Professor, University of Sao Paulo, Brazil

### **Paul Waddell**

Professor, University of California, Berkeley, USA

### **De Wang**

Professor, Tongji University, China



**Donggen Wang**

Professor, Hongkong Baptist University, China

**Huayi Wu**

Professor, Wuhan University, China

**Ray Wyatt**

Professor, University of Melbourne, Australia

**Perry Pei-Ju Yang**

Professor, Georgia Institute of Technology, USA

**Xiaobai Yao**

Professor, The University of Georgia, USA

**Ming Zhang**

Professor, University of Texas at Austin, USA

**Feng Zhen**

Professor, Nanjing University, China

**Suhong Zhou**

Professor, Sun Yat-Sen University, China



# 3 CONFERENCE PROGRAM





## Tentative Conference Schedule

Date	Time	Session	
8 July, Monday	09:00-20:00	<b>Registration</b> @ Lobby of Nanyuan Building	
		<b>CUPUM Future Cities Masterclass (Presentations – part I)</b> @ Meeting Room No.4 of Nanyuan Building (4 <sup>th</sup> floor)	<b>Speaker</b>
	09:30-10:00	Analytics for Future Cities	Micheal Batty
	10:00-10:30	City Analytics and Smart Cities	Chris Pettit
	10:30-11:00	Foresighting Future Cities	Hoon Han
	11:00-11:30	Panel 1 Future Cities – Challenges and Opportunities	Micheal Batty, Chris Pettit, Hoon Han
		<b>CUPUM Future Cities Masterclass (Presentations – part II)</b> @ Meeting Room No.4 of Nanyuan Building (4 <sup>th</sup> floor)	<b>Speaker</b>
	13:30-14:00	Urban accessibility and urban growth	Duncan Smith
	14:00-14:30	Big data analytics in London	Chen Zhong
	14:30-15:00	From transport data to transport design	Oliver Lock
	15:00-15:30	Panel 2 – Big Data, Analytics and Data Infrastructures	Duncan Smith, Chen Zhong, Oliver Lock
	19:00-20:00	<b>Reception</b> @ Garden Hall of Nanyuan Building (2 <sup>nd</sup> floor)	

9 July, Tuesday	Opening Ceremony @ Conference Center of Nanyuan Building (4 <sup>th</sup> floor)		Moderator
	09:00-09:10	President's Welcome Address <i>President or Vice-president of Wuhan University</i>	Prof. Zhigang Li
	09:10-09:20	Address <i>Prof. Stan Geertman, Chair of CUPUM Board</i>	
	09:20-09:30	Address <i>Prof. Qingming Zhan, Chair of CUPUM-2019 Organizing Committee</i>	
	09:30-09:45	Group Photo @ Entrance stair of Nanyuan Building (1 <sup>st</sup> floor)	Prof. Qingming Zhan
	Keynote Session @ Conference Center of Nanyuan Building (4 <sup>th</sup> floor)		Prof. Anthony G.O. Yeh
	09:45-10:15	Problems and solutions for megacities <i>Prof. Deren Li, Wuhan University</i>	
	10:15-10:45	Big Data Supported Urban Planning for Intelligent City <i>Prof. Zhiqiang Wu, Tongji University</i>	
	10:45-11:00	Coffee Break & Poster Sessions	
	11:00-11:30	Planning as Conflict Resolution: Opinion Pooling Across Networks to Generate Physical Plan Design <i>Prof. Michael Batty, UCL</i>	
	11:30-12:00	Some Thoughts on Undergraduate Education & Research in Urban Informatics <i>Prof. Qingquan Li, Shenzhen University</i>	
	12:00-14:00	Buffet Lunch & Poster Sessions @ Garden Hall of Nanyuan Building (2 <sup>nd</sup> floor)	
	14:00-17:30	Parallel Sessions @ Meeting Room No.1-5 of Nanyuan Building (4 <sup>th</sup> floor)	



10 July, Wednes- day	<b>Keynote Speeches</b> @ Conference Center of Nanyuan Building (4 <sup>th</sup> floor)		<b>Moderator</b>
	09:00-09:30	<b>Past, Present and Future of Computers in Urban Planning and Urban Management: From ICT to Super Smart Cities</b> <i>Prof. Anthony G.O. Yeh, The University of Hong Kong</i>	Prof. Michael Batty
	09:30-10:00	<b>Planning Support Science: Past, Present, Future</b> <i>Prof. Stan Geertman, Utrecht University</i>	
	10:00-10:30	<b>Towards Urban Informatics</b> <i>Prof. John, Wenzhong Shi, The Hong Kong Polytechnic University</i>	
	10:30-10:45	<b>Coffee Break &amp; Poster Sessions</b>	
	10:45-11:15	<b>Smart Steps: behavioral ensemble as foundation of spatial planning</b> <i>Zhoutian Tao Vice President, CTO, Smart Steps Digital Technology Co., Ltd.</i>	
	11:15-11:45	<b>Spatiotemporal data analytics for evidence-based spatial planning</b> <i>Prof. Bo Huang, Chinese University of Hong Kong</i>	
	11:45-12:15	<b>Decoding Spatial Scaling Structure of Cities</b> <i>Prof. Xiaobai Yao, The University of Georgia</i>	
	12:15-14:00	<b>Buffet Lunch &amp; Poster Sessions</b> @ Garden Hall of Nanyuan Building (2 <sup>nd</sup> floor)	
	14:00-18:00	<b>Parallel Sessions</b> @ Meeting Room No.1-5 of Nanyuan Building (4 <sup>th</sup> floor)	
	19:00-21:00	<b>Conference Banquet</b> @ Yang Chun Tang of Yingbin Building (4 <sup>th</sup> floor)	

11 July, Thursday	09:00-12:00	<b>Parallel Sessions</b> @ Meeting Room No.1-5 of Nanyuan Building (4 <sup>th</sup> floor)	
	12:00-14:00	<b>Buffet Lunch &amp; Poster Sessions</b> @ Garden Hall of Nanyuan Building (2 <sup>nd</sup> floor)	
	14:00-18:00	<b>Parallel Sessions</b> @ Meeting Room No.1-5 of Nanyuan Building (4 <sup>th</sup> floor)	
12 July, Friday	<b>Keynote Session</b> @ Conference Center of Nanyuan Building (4 <sup>th</sup> floor)		<b>Moderator</b>
	09:00-09:30	<b>Developing smart cities: from urban management to social governance</b> <i>Prof. Jianya Gong, Wuhan University</i>	<i>Prof. Stan Geertman</i>
	09:30-10:00	<b>Connecting Big Data and Urban Science to Planning Support Systems</b> <i>Prof. Joseph Ferreira, MIT</i>	
	10:00-10:30	<b>Urban diagnosis: the planning issue of evacuation accommodation areas in Kanazawa urban area</b> <i>Prof. Zhenjiang Shen, Kanazawa University</i>	
	10:30-10:45	<b>Coffee Break &amp; Poster Sessions</b>	
	10:45-11:15	<b>Global projection of future urban land expansion and its consequence under shared socioeconomic pathways</b> <i>Prof. Xia Li, East China Normal University</i>	
	11:15-11:45	<b>Research and application of data integration and cascade updating of basic map in spatial planning of natural resources</b> <i>Prof. Xinchang Zhang, Guangzhou University</i>	
	<b>Closing Ceremony</b> @ Conference Center of Nanyuan Building (4 <sup>th</sup> floor)		<i>Prof. Qingming Zhan</i>
	11:45-11:55	<b>Best Poster Awards</b>	
	11:55-12:05	<b>Selection of CUPUM-2021 Hoster</b>	
	12:05-12:15	<b>Closing Remark</b>	
	12:15-13:30	<b>Buffet Lunch</b> @ Garden Hall of Nanyuan Building (2 <sup>nd</sup> floor)	
	13:30-17:30	<b>Technical Visits</b> (1) The State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS) (2) Wuhan Urban Planning Exhibition Hall (WUPEH) (3) Wuhan Land Use and Urban Spatial Planning Research Center (WLSP) (4) Wuhan Planning and Design Institute (WPDI)	

## Schedule of Parallel Sessions

### Parallel sessions on the first conference day (Afternoon, 9 July)

Parallel Session 1: Smart City		
2019-07-09	14:00-18:00	Location: Meeting Room No.1 at fourth floor of Nanyuan Building
Chair: Prof. Zhixiang Fang, Co-Chair: Prof. Andrew Allan		
14:00-14:30 (25+5)	<b>Title: A Two-stage Process for Emergency Evacuation Planning: Shelter Assignment and Routing</b> Invited Speaker: <b>Prof. Andrew Allan, University of South Australia</b> Authors: Andrew Allan, Ali Soltani, Mohammad Heydari	
14:30-15:00 (25+5)	<b>Title: Urban Cellular Automata Modelling: Where Do We Go from Here?</b> Invited Speaker: <b>Prof. Yan Liu, The University of Queensland</b>	
15:00-15:20 (15+5)	<b>Title: A study on Waiting Behavior in a Public Square by Using a Virtual Space Experimental System</b> Authors: <b>Tomohiko Kino</b> , Satoshi Ohasi, Toshiyuki Kaneda	
15:20-15:40 (15+5)	<b>Title: Social Media-based Analysis in Spatial Distribution of Gay Men and Its Relationship with Built Environment</b> Author: <b>Zhenyu Zhang</b>	
15:40-16:10	Coffee Break & Poster Exhibition	
16:10-16:30 (15+5)	<b>Title: Comprehensive regional accessibility model based on actual routes-of-travel: a proposal with multiple online data</b> Authors: <b>Yuli Fan</b> , Qingming Zhan, Huizi Zhang, Jiaqi Wu	
16:30-16:50 (15+5)	<b>Title: The Impacts of Transport Network Companies on Urban Mobility</b> Author: <b>Mi Diao</b>	
16:50-17:10 (15+5)	<b>Title: Influence of on-street parking on urban heat island and human thermal comfort in typical Seoul residential neighborhood during summer</b> Authors: Na Li, <b>Steven Jige Quan</b>	
17:10-17:30 (15+5)	<b>Title: Analysing the dynamics of urban development using state space</b> Author: <b>Joel Dearden</b>	
17:30-18:00	Poster Exhibition	



<b>Parallel Session 2: International Review for Spatial Planning and Sustainable Development</b>		
<b>2019-07-09</b>	<b>14:00-18:00</b>	<b>Location: Meeting Room No.2 at fourth floor of Nanyuan Building</b>
<b>Chair: Prof. Yan Ma, Co-Chair: Prof. Ray Wyatt</b>		
14:00-14:30 (25+5)	<b>Title: Generational differences in attitudes towards car, car ownership and car use in Beijing</b> Invited Speaker: <b>Prof. Donggen Wang, Hong Kong Baptist University</b>	
14:30-15:00 (15+5)	<b>Title: How are the air pollutants distributed? – a case study of Beijing</b> Authors: <b>Xiaobai Yao, Liding Chen, Ye Tian</b>	
15:00-15:20 (15+5)	<b>Title: The network analysis of urban streets of China cities</b> Authors: <b>Lobsang Tashi, Feng Zhen, Shanqi Zhang</b>	
15:20-15:40 (15+5)	<b>Title: Research on Spatial Expansion of Urban Agglomeration of Wuhan, Ezhou, Huanggang and Huangshi Based on DMSP_OLS Night Light Data</b> Authors: <b>Meiqi Shao, Yifan Zhu</b>	
15:40-16:10	Coffee Break & Poster Exhibition	
16:10-16:30 (15+5)	<b>Title: Cellular Automata Model Optimization and Its Application in Urban Planning</b> Authors: <b>Jinying Du, Jiangang Xu</b>	
16:30-16:50 (15+5)	<b>Title: Dubai Expo 2020: The Investigation and Planning of Route 2020 of Dubai Metro to Facilitate Smart Urbanism</b> Authors: <b>Bashar Taha, Andrew Allan</b>	
16:50-17:10 (15+5)	<b>Title: Correlating Household Travel Carbon Emissions, Travel Behavior and Land Use: Case Study of Wuhan, China</b> Authors: <b>Jingnan Huang, Ningrui Du, Ming Zhang</b>	
17:10-17:30 (15+5)	<b>Title: An immersive 3D virtual environment to support collaborative learning and teaching.</b> Authors: <b>Aida Afrooz, Christopher Pettit, Lan Ding</b>	
17:30-18:00	Poster Exhibition	

Parallel Session 3: Geo-Spatial Information Science		
2019-07-09	14:00-18:00	Location: Meeting Room No.3 at fourth floor of Nanyuan Building
Chair: Prof. Huayi Wu, Co-Chair: Prof. Nelson Rodrigues da Silva		
14:00-14:30 (25+5)	<b>Title: Commuting Models in Shanghai Based on Cellular Signaling Data: Methods and Application</b> Invited Speaker: <b>Prof. De Wang, Tongji University</b> Authors: De Wang, Jiahuan Gu	
14:30-15:00 (25+5)	<b>Title: Temporal and Spatial Evolution Characteristics of Rail Transit and Land Use and Their Relationship: A Case Study of Shenzhen, China</b> Invited Speaker: <b>Prof. Zhengdong Huang, Shenzhen University</b> Author: Xinlei Tang, Zhengdong Huang, Mu Lin	
15:00-15:20 (15+5)	<b>Title: Localized Spatiotemporal Relationship Between Industrial Electricity Consumption and Economic Growth: A Case Study of China</b> Authors: <b>Wencong Cui</b> , Jianyi Li, Wangtu Xu, Burak Güneralp	
15:20-15:40 (15+5)	<b>Title: Two-dimensional simulation of urban flood based on geographic information system and HEC-RAS model</b> Authors: Yan Zhou, Lei Fang, <b>Yang Yu</b>	
15:40-16:10	Coffee Break & Poster Exhibition	
16:10-16:30 (15+5)	<b>Title: Uncover Spatiotemporal Dynamics of Cycling Activities From A Dockless Bike-Sharing System</b> Author: <b>Yang Xu</b>	
16:30-16:50 (15+5)	<b>Title: An analysis of Factors Influencing Disaster Mobility using Location Data From smartphones: Case study of Western Japan Flooding</b> Authors: <b>Joo Soohyun</b> , Kashiya. T, Sekimoto, Y, Seto, T, Na Gao	
16:50-17:10 (15+5)	<b>Title: A Preliminary Study on Micro-Scale Planning Support System</b> Authors: <b>Daosheng Sun</b> , Xiaochun Huang, Lianna He, Tengyun Hu, Yilong Rong	
17:10-17:30 (15+5)	<b>Title: Exploring Shared-Bike Travel Patterns Using Big Data: Evidences in Chicago and Budapest</b> Authors: Ali Soltani, <b>Tamas Matrai</b> , R. Camporeale	
17:30-17:50 (15+5)	<b>Title: Research on dynamic Information recording and Art Activation of Industrial Heritage based on tilting Photography</b> Author: <b>Ming Zhang</b>	
17:50-18:00	Poster Exhibition	

Parallel Session 4: Cities		
2019-07-09	14:00-18:00	Location: Meeting Room No.4 at fourth floor of Nanyuan Building
Chair: Prof. Joe Ferreira, Co-Chair: Prof. Ming Zhang		
14:00-14:30 (25+5)	<b>Title: Smart Planning</b> Invited Speaker: <b>Prof. Feng Zhen, Nanjing University</b>	
14:30-15:00 (25+5)	<b>Title: A cloud-service based Planning Support System for small towns in remote mountainous regions</b> Invited Speaker: <b>Prof. Ming Zhang, University of Texas at Austin</b>	
15:00-15:20 (15+5)	<b>Title: Cluster Analysis and Characteristic Analysis of Shanghai Metro Stations Based on Metro Card and Land Use Data</b> Authors: <b>Ping Shen</b> , Linxin Ouyang, Chong Wang, Yin Shi, Yiheng Su	
15:20-15:40 (15+5)	<b>Title: An Index-to-Form Generation Tool Applied in Performance-Oriented Urban Design Optimization</b> Authors: Chengyu Sun, <b>Jian Rao</b> , David Liang	
15:40-16:10	Coffee Break & Poster Exhibition	
16:10-16:30 (15+5)	<b>Title: Explore the Relationship between Diversity and Density of Urban Activities by POI-based Measurements: Case Studies of Three Typical Chinese Cities</b> Authors: <b>Haochen Shi</b> , Yufeng Yue	
16:30-16:50 (15+5)	<b>Title: An agent-based model simulation of human mobility based on mobile phone data: how commuting relates to congestion</b> Authors: <b>Hao Wu</b> , Lingbo Liu, Yang Yu, Zhenghong Peng, Hongzan Jiao, Qiang Niu	
16:50-17:10 (15+5)	<b>Title: Taxi Behavior Simulation and Improvement with Agent-Based Modeling</b> Authors: <b>Saurav Ranjit</b> , Apichon Witayangkurn, Masahiko Nagai, Ryosuke Shibasaki	
17:10-17:30 (15+5)	<b>Title: Toward a better understanding of urban sprawl: linking spatial metrics and landscape networks dynamics</b> Authors: <b>Tengyun Hu</b> , Xiaochun Huang, Xuecao Liu, Lu Liang, Xue Fei	
17:30-17:50 (15+5)	<b>Title: The Relationship between Employment Polycentric Spatial Structure and Jobs-housing Matching and Its Influencing Mechanism——A Case Study of Hangzhou City Based on Cellphone Signaling Data</b> Authors: <b>Juan Zhu</b> , Xinyi Niu	
17:50-18:00	Poster Exhibition	



Parallel Session 5: Smart and Intelligent City		
2019-07-09	14:00-18:00	Location: Meeting Room No.5 at fourth floor of Nanyuan Building
Chair: Prof. Qingming Zhan, Co-Chair: Prof. Christopher Pettit		
14:00-14:30 (25+5)	<b>Title: Geodesign - A Tale of 3 Cities</b> Invited Speaker: <b>Prof. Christopher Pettit, University of New South Wales</b> Authors: Christopher Pettit, Scott Hawken, Carmela Ticzon, Hitomi Nakanishi	
14:30-15:00 (25+5)	<b>Title: Progress and Trends of Smart City Development in China</b> Invited Speaker: <b>Anrong Dang, Tsinghua University</b>	
15:00-15:20 (15+5)	<b>Title: Mobile Phone Signaling Data Based Development Model of Jobs-Housing Space Characteristics of Guangzhou</b> Authors: <b>Lang Yang</b> , Lina Zhou	
15:20-15:40 (15+5)	<b>Title: Making and evaluating scenarios of future population distribution based on multiple evaluation in the city with population decreasing</b> Authors: <b>Shota Tamura</b> , Takahiro Tanaka	
15:40-16:10	Coffee Break & Poster Exhibition	
16:10-16:30 (15+5)	<b>Title: Research and Practice on Dimensional Ascension and Descension of Spatiotemporal Data in Spatial Planning</b> Authors: Qing Lu, <b>Huihui Nan</b> , Qian Zhao, Zhiheng Zhang, Caixia Kang	
16:30-16:50 (15+5)	<b>Title: Sustainable Development Mode of Spatial Structure of Urban Center in Guiyang, China: A Dynamic “Multi-Center” Development Structure</b> Authors: <b>Zijiang Yang</b> , Xiong He, Kun Zhang, Xin Shan	
16:50-17:10 (15+5)	<b>Title: Uncovering Characteristics of Intercity Commuting between Shanghai and its Surrounding Cities with Mobile Phone data</b> Author: <b>Jiawei Liu</b>	
17:10-17:30 (15+5)	<b>Title: Urban Land Use Layout Agent-based Model Research Based on Baidu POI Data</b> Authors: Wenhan Feng, <b>Bayi Li</b> , Lingda Kong	
17:30-18:00	Poster Exhibition	

## Parallel sessions on the second conference day (Afternoon, 10 July)

Parallel Session 1: Smart City	
2019-07-10 14:00-18:00	Location: Meeting Room No.1 at fourth floor of Nanyuan Building
Chair: Prof. Zhixiang Fang, Co-Chair: Prof. Joseph Ferreira	
14:00-14:30 (25+5)	<b>Title: Spatio-temporal Geographic Environmental Exposure and Healthy City Planning</b> Invited Speaker: Prof. Suhong Zhou, Sun Yat-sen University
14:30-15:00 (25+5)	<b>Title: Data Augmented Design: Embracing New Data for Urban Sustainable Design and Planning</b> Invited Speaker: Dr. Ying Long, Tsinghua University
15:00-15:20 (15+5)	<b>Title: Efficient Regional Travel for Rescue and Relief Activities in a Disaster</b> Authors: Toshihiro Osaragi, Masashi Kimura, Takuya Oki
15:20-15:40 (15+5)	<b>Title: Proposal of the Method to Evaluate the Location of Aged Care Facilities in Urban Areas Using Median Share Ratio</b> Authors: Koya Tsukahara, Kayoko Yamamoto
15:40-16:10	Coffee Break & Poster Exhibition
16:10-16:30 (15+5)	<b>Title: Meida People and Cities: Social Sensing for Urban Planning Based on Semantic Computing</b> Authors: Wencheng Yu, Qizhi Mao, Yilong Rong, Songmao Zhang, Na Gao
16:30-16:50 (15+5)	<b>Title: Spatiotemporal Information System Using Mixed Reality for Area-Based Learning and Sightseeing</b> Authors: Ryuhei Makino, Kayoko Yamamoto
16:50-17:10 (15+5)	<b>Title: A Simulation Platform for Transportation Land Use and Mobile Source Emissions</b> Authors: Liyuan Zhao, ZhongRen Peng
17:10-17:30 (15+5)	<b>Title: The comparison between two different algorithms of spatio-temporal forecasting for traffic flow prediction</b> Authors: Haochen Shi, Yufeng Yue, Yunqi Zhou
17:30-18:00	Poster Exhibition

Parallel Session 2: International Review for Spatial Planning and Sustainable Development		
2019-07-10	14:00-18:00	Location: Meeting Room No.2 at fourth floor of Nanyuan Building
Chair: Prof. Miaoyi Li, Co-Chair: Prof. Qingming Zhan		
14:00-14:20 (15+5)	<b>Title: A new approach for detecting urban centers and their spatial structure with nighttime light remote sensing</b> Authors: <b>Zuoqi Chen</b> , Bailang Yu, Kaifang Shi, Jianping Wu, Wei Song, Hongxing Liu, Qiusheng Wu	
14:20-14:40 (15+5)	<b>Title: Analysis of PM2.5 Spatial Distribution Pattern at Urban Scale Based on Multi-source Data: A Case Study of Wuhan</b> Authors: <b>Zhiyu Fan</b> , Qingming Zhan, Wei Xue, Jiaqi Wu, Xuan Zhao, Muhammad Bilal	
14:40-15:00 (15+5)	<b>Title: Method for Simulating a MATSim Multi-Agent Activity-Based Transport Model in Developing Countries</b> Authors: <b>Daniele F. Miranda</b> , F. S. de Arruda	
15:00-15:20 (15+5)	<b>Title: An approach to urban natural ventilation potential analysis with GIS hydrological simulation</b> Authors: Ziyu Tong, <b>Yu Luo</b> , Tan Wang, Juelun Zhou	
15:20-15:50	Coffee Break & Poster Exhibition	
15:50-16:10 (15+5)	<b>Title: A multi-index approach for classification of urban land use intensity based on remote sensing</b> Authors: <b>Chenghan Xie</b> , Angela Lausch	
16:10-16:30 (15+5)	<b>Title: A Parametric Computer Experiment on Urban Form, Microclimate and Human Comfort in Downtown Atlanta</b> Author: <b>Steven Jige Quan</b>	
16:30-16:50 (15+5)	<b>Title: Data Protection Law and City Planning: Role of open data in climate resilience and governance of National Capital Territory of Delhi, India</b> Author: <b>Mahak Agrawal</b>	
16:50-17:10 (15+5)	<b>Title: Functional Recognition and Structural Optimization of Residential Areas Based on the Mobile Phone Traffic Big Data</b> Authors: <b>Yang Cao</b> , Feng Zhen	
17:10-18:00	Poster Exhibition	



<b>Parallel Session 3: Geo-Spatial Information Science</b>	
<b>2019-07-10 14:00-18:00</b>	<b>Location: Meeting Room No.3 at fourth floor of Nanyuan Building</b>
<b>Chair: Prof. Huayi Wu, Co-Chair: Prof. Weifeng Li</b>	
14:00-14:30 (25+5)	<b>Title: Extracting News Location of Best Spatial Scale based on Toponymic Tree</b> Invited Speaker: <b>Prof. Huayi Wu, Wuhan University</b> <b>Authors:</b> Huayi Wu, Shili Shu, Rui Li
14:30-14:50 (15+5)	<b>Title: Bridging the information and physical space: Measuring flow from geo-located social media data on the street network</b> <b>Authors:</b> Alireza Karduni, E. Sauda
14:50-15:10 (15+5)	<b>Title: Comparing Smart Governance Projects in China: A Contextual Approach</b> <b>Authors:</b> Huaxiong Jiang, Stan Geertman, Patrick Witte
15:10-15:30 (15+5)	<b>Title: Analysis of Shopping Behavior Characteristics in the Keihanshin Metropolitan Area in Japan Based on a Person Trip Survey</b> <b>Authors:</b> Takashi Yamada, Takumi Hayashida
15:30-16:00	Coffee Break & Poster Exhibition
16:00-16:20 (15+5)	<b>Title: Can social media play a role in urban planning? A literature review</b> <b>Authors:</b> Yanliu Lin, Stan Geertman
16:20-16:40 (15+5)	<b>Title: Identifying changes in critical locations for transportation networks using centrality</b> <b>Authors:</b> Nazli Yonca Aydin, Ylenia Casali, H. Sebnem Duzgun, Hans R. Heinimann
16:40-17:00 (15+5)	<b>Title: A New Approach to Spatial Analysis with the Social Phenomenon – Co-location, from Social Media Data</b> <b>Authors:</b> Yao Shen, <b>Shi Zeng</b> , Chen Zhong
17:00-17:20 (15+5)	<b>Title: Road Network Structure and Ride-sharing Accessibility</b> <b>Authors:</b> Mingshu Wang, Zheyang Chen
17:20-18:00	Poster Exhibition

Parallel Session 4: Cities	
2019-07-10 14:00-18:00	Location: Meeting Room No.4 at fourth floor of Nanyuan Building
Chair: Prof. Christopher Pettit, Co-Chair: Prof. Andrew Allan	
14:00-14:20 (15+5)	<b>Title: Data for Informal Cities: Land Use Classification Using Twitter Data in Nairobi</b> Authors: <b>Chen Zhong</b> , Faith Taylor, Wei Tu, Yao Shen
14:20-14:40 (15+5)	<b>Title: Online Transportation Data Based Clustering Analysis of Chinese Cities for Transportation-Economy Coordination</b> Authors: <b>Huizi Zhang</b> , Qingming Zhan, Yuli Fan, Yao Si
14:40-15:00 (15+5)	<b>Title: Research on Risk Management and Control of Incidents in Xicheng District of Beijing Based on Big Data</b> Authors: <b>Wei Huo</b> , Yunnan Chen
15:00-15:20 (15+5)	<b>Title: Social Insurance Data-Based Research on Jobs-Housing Spatial Relationships and Commuting Features in Wuhan</b> Authors: <b>Wen Liu</b> , Qingming Zhan, Zhengdong Huang, Jun Zhou, Haiyan Zhou, Quanyi Liu
15:20-15:50	Coffee Break & Poster Exhibition
15:50-16:10 (15+5)	<b>Title: The Spatial Distribution Characteristics and Influencing Factors of Convenience Stores in Wuhan Based on POI data</b> Authors: <b>Kaiyuan Sun</b> , Jin Zhang, Lian Chen, Lin Zhou, Zi Wang
16:10-16:30 (15+5)	<b>Title: Evaluating the Walkability of Urban Sprawl Areas in the Future Using Scenario Planning: Smart Decline for Ibaraki City in the Northern Osaka Metropolitan Area</b> Authors: <b>Haruka Kato</b> , Kiyoko Kanki
16:30-16:50 (15+5)	<b>Title: Development of Variables for Mode Choice Behavior Using Multinomial Logit Model; A Case Study in Lahore, Pakistan</b> Authors: <b>Asna Ahmed</b> , Yoshihide Sekimoto
16:50-17:10 (15+5)	<b>Title: Evaluating Locational Preference of Activities with the Time/Mode-Dependent Accessibility Using Integrated Spatial Economic Models</b> Authors: <b>Asif Raza</b> , Ming Zhong
17:10-18:00	Poster Exhibition

<b>Parallel Session 5: Smart and Intelligent City</b>	
<b>2019-07-10 14:00-18:00</b>	<b>Location: Meeting Room No.5 at fourth floor of Nanyuan Building</b>
<b>Chair: Prof. Qingyun Du, Co-Chair: Prof. Ray Wyatt</b>	
14:00-14:30 (25+5)	<b>Title: Re-Construction of Spatial Computing Framework for Double Assessments</b> Invited Speaker: <b>Prof. Qingyun Du, Wuhan University</b>
14:30-14:50 (15+5)	<b>Title: Pentagon Sustainability Model: Framing of a holistic sustainability dimension model for assessment of Neighbourhood level Urban Communities (NLUCs) using a semi-automated systematic literature review</b> Authors: Sudeshna Kumar, Anirban Santara, <b>Haimanti Banerji</b>
14:50-15:10 (15+5)	<b>Title: A Planning Support Toolkit</b> Authors: <b>Richard Klosterman</b> , Kerry Brooks
15:10-15:30 (15+5)	<b>Title: A Novel Urban Road Management System Based On Data Mining</b> Author: <b>Guanlin Chen</b>
15:30-16:00	Coffee Break & Poster Exhibition
16:00-16:20 (15+5)	<b>Title: Carbon Emission Intensities of Each Building Typology: Towards a Standardized Framework</b> Authors: Takahiro Yoshida, Tobey Michael, Soowon Chang, Yoshiki Yamagata
16:20-16:40 (15+5)	<b>Title: Deep learning Model for Urban Land Use Classification using Call Detail Records</b> Authors: <b>Hongzan Jiao</b> , Zhihao Sun
16:40-17:00 (15+5)	<b>Title: Measuring and validating walkable environments using Google Street View and computer vision</b> Authors: <b>Subhrajit Guhathakurta</b> , Bonwoo Koo, Nisha Botchwey
17:00-17:20 (15+5)	<b>Title: Using multi-agent simulation to predict natural crossing points for pedestrians and choose locations for mid-block crossings</b> Authors: <b>Sergei Kudinov</b> , Egor Smirnov, Sergei Dunaenko
17:20-18:00	Poster Exhibition

## Parallel sessions on the third conference day (Forenoon, 11 July)

Parallel Session 1: Smart City	
<b>2019-07-11 09:00-12:10</b>	<b>Location: Meeting Room No.1 at fourth floor of Nanyuan Building</b>
<b>Chair: Prof. Zhixiang Fang, Co-Chair: Prof. Nelson Rodrigues da Silva</b>	
09:00-09:20 (15+5)	<b>Title: Construction and Application of Diagnosis Index of Urban Grid Signs Based on Multi-source Data</b> Authors: Yanwei Chai, Yibo Duanmu
09:20-09:40 (15+5)	<b>Title: Utilisation of knee replacement in NSW, Australia: a population-based study</b> Authors: Yingyu Feng, David John Hunter
09:40-10:00 (15+5)	<b>Title: Urban systems design applicability case study: Applying Urban Systems Design Framework to North Sumida Ward Tokyo</b> Authors: Michael B. Tobey, Robert B. Binder, Takahiro Yoshida, Yoshiki Yamagata
10:00-10:20 (15+5)	<b>Title: Quality of Service Prediction Model for Signalized Intersections Based on Deep Learning</b> Authors: Xinqi Yu, Inhi Kim
10:20-10:50	Coffee Break & Poster Exhibition
10:50-11:10 (15+5)	<b>Title: Urban Systems Design Conceptual Framework: Modeling, Design, and Emergent Iterative Smart Communities</b> Authors: Michael B. Tobey, Robert B. Binder, Soowon Chang, Takahiro Yoshida, Yoshiki Yamagata, Perry Yang
11:10-11:30 (15+5)	<b>Title: A study on Spatial and Temporal Patterns of Travel Behavior of Urban Population in Wuhan City based on LBS and POI Data</b> Authors: Yinghui Xiao, Peipei Shi, Qingming Zhan
11:30-11:50 (15+5)	<b>Title: Conflict-Detecting and Early-Warning System for Multi-Plan Integration in Small Cities and Towns Based on Cloud Platform</b> Author: Ningrui Du
11:50-12:10 (15+5)	<b>Title: How Artificial Intelligence Makes Home Smart: Review on the Application of Artificial Intelligence in Smart Home</b> Authors: Xiao Guo, Zhenjiang Shen, Yajing Zhang, Teng Wu
12:10-14:00	Lunch Break & Poster Exhibition



Parallel Session 2: International Review for Spatial Planning and Sustainable Development		
2019-07-11	09:00-11:50	Location: Meeting Room No.2 at fourth floor of Nanyuan Building
Chair: Prof. Yan Ma, Co-Chair: Prof. Andrew Allan		
09:00-09:30 (25+5)	<b>Title: Equity issues and the PeCUS index: an indirect analysis of community severance</b> Invited Speaker: <b>Prof. Néilson Rodrigues da Silva, University of Sao Paulo</b> Authors: Daniela Vanessa Rodriguez Lara, Antônio Néilson Rodrigues da Silva	
09:30-10:00 (15+5)	<b>Title: Megaregion Truck Flow Estimation Model</b> Invited Speaker: <b>Prof. Qisheng Pan, Texas Southern University</b> Authors: Qisheng Pan, Bumseok Chun, Zhonghua Jin	
10:00-10:20 (15+5)	<b>Title: Public Bicycle Trips Differences among Land Use</b> Authors: <b>Qiang Liu</b> , Riken Homma, Kazuhisa Iki	
10:20-10:50	Coffee Break & Poster Exhibition	
10:50-11:10 (15+5)	<b>Title: Deep Learning Architect</b> Authors: <b>Yuji Yoshimura</b> , Bill Cai, Zhoutong Wang, Carolo Ratti	
11:10-11:30 (15+5)	<b>Title: Identification and Mapping of Urban Spatial Structure of Wuhan Yangtze River Main Axis Based on Spatial Coupling between Nighttime Light Data and POI</b> Authors: <b>Tongxi Gao</b> , Chi Gao	
11:30-11:50 (15+5)	<b>Title: Quantitative Space Development Choice Strategies: A Case Study of the PECAS Wuhan Demonstration Model</b> Authors: Ming Zhong, <b>Luoheng Zheng</b>	
11:50-14:00	Lunch Break & Poster Exhibition	

<b>Parallel Session 3: Geo-Spatial Information Science</b>	
<b>2019-07-11 09:00-12:10</b>	<b>Location: Meeting Room No.3 at fourth floor of Nanyuan Building</b>
<b>Chair: Prof. Huayi Wu, Co-Chair: Prof. Weifeng Li</b>	
09:00-09:20 (15+5)	<b>Title: Quantitative Measurement, Analysis of Land Use Change through Spatio-Temporal Pattern and Modelling</b> Authors: <b>Chandan Gisnitk</b> , Bharath Haridas Aithal
09:20-09:40 (15+5)	<b>Title: Quantification of the openness of urban external space through urban section</b> Authors: <b>Huawu Yang</b> , Liu Chen, Tingting Xu
09:40-10:00 (15+5)	<b>Title: Research on Spatial Coupling Mechanism of Urban Road Traffic and Land Use Based on BP Neural Network</b> Authors: <b>Yu Wang</b> , Jiangang Xu, Fei Shi
10:00-10:20 (15+5)	<b>Title: A Preliminary Study on Visual Features of Urban Street Vitality Using a Convolutional Neural Network</b> Authors: <b>Yi Qi</b> , Suonanquzhenzhuoma, Xiang Zhang, Jing Liang, Haibing Jiang, Jiangang Xu, Tianhua Ni
10:20-10:50	Coffee Break & Poster Exhibition
10:50-11:10 (15+5)	<b>Title: UHIADSS: An application framework of urban heat island analysis and decision support system</b> Authors: <b>Wei Wang</b> , Di Wang
11:10-11:30 (15+5)	<b>Title: Geo-Spatiality of Urban Museums: Social, Cultural and Political Implications</b> Authors: <b>Jing Ying</b> , Yaolin Liu
11:30-11:50 (15+5)	<b>Title: Analyzing the Spatial and Temporal Variation of the Potential Hotspots in Wuhan from a Local Scale</b> Authors: <b>Chen Yang</b> , Qingming Zhan, Huimin Liu
11:50-12:10 (15+5)	<b>Title: Monitoring and analyzing impervious surfaces based on geographical conditions: a case study in Wuhan, China</b> Authors: Minghai Luo, Jiangping Chen, <b>Bo Tan</b> , Qi Cheng, Minghua Fu
12:10-14:00	Lunch Break & Poster Exhibition

<b>Parallel Session 4: Cities</b>	
<b>2019-07-11 09:00-12:10</b>	<b>Location: Meeting Room No.4 at fourth floor of Nanyuan Building</b>
<b>Chair: Prof. Zhengdong Huang, Co-Chair: Prof. Ray Wyatt</b>	
09:00-09:20 (15+5)	<b>Title: Sejong Smart City: on the Road to be a City of the Future</b> Author: <b>Hoon Han</b>
09:20-09:40 (15+5)	<b>Title: Impact of the mosque on the urban space</b> Author: <b>Mohamed El Boujjoufi</b>
09:40-10:00 (15+5)	<b>Title: How Location Affects Innovation: Incubators, Accelerators, and Co-working Spaces' Spatial Distribution in San Francisco</b> Authors: <b>Zhuangyuan Fan</b> , Yonghui Chen, Tianyu Su
10:00-10:20 (15+5)	<b>Title: Evaluation of Mobile-based Public Participation in China's Urban Planning – A Case Study of PinStreet Program</b> Authors: Xuan Wang, Xiaoyi Yao, <b>Yulin Chen</b> , Zhiyuan Han, Peiqin Gu
10:20-10:50	Coffee Break & Poster Exhibition
10:50-11:10 (15+5)	<b>Title: Research and Implementation of Data-driven Planning and Quantitative Analysis Platform Framework</b> Authors: Xiao Wu, <b>Lei Wang</b> , Bo Zhou, Mei Tang, Zhigao Chen, Jinbang Liu
11:10-11:30 (15+5)	<b>Title: An Open-source Tool for School Catchment Planning</b> Authors: <b>Yiqun Chen</b> , Soheil Sabri, Abbas Rajabifard, Julian Szafraniec
11:30-11:50 (15+5)	<b>Title: Evaluating personal spatial exposure of greenness based using wearable camera</b> Authors: <b>Zhaoxi Zhang</b> , Ying Long
11:50-12:10 (15+5)	<b>Title: Using LuoJia Nighttime Image and DiDi Data to Identify the Structure of Polycentric Urban Regions in China</b> Authors: <b>Kang Wu</b> , Xiaonan Wang
12:10-14:00	Lunch Break & Poster Exhibition



Parallel Session 5: Environment and Planning B	
2019-07-11 09:00-12:00	Location: Meeting Room No.5 at fourth floor of Nanyuan Building
Chair: Prof. Stan Geertman, Co-Chair: Prof. Brian Deal	
09:00-09:30 (25+5)	<b>Title: Data-driven Campus Design Support System</b> Invited Speaker: <b>Prof. Perry Pei-Ju Yang, Georgia Institute of Technology</b> Authors: Perry Pei-Ju Yang, Helen W. Chen, Soowon Chang, Nirvik Saha
09:30-10:00 (15+5)	<b>Title: Adapting open-source technology for use in local planning: A case study in Stockholm County, Sweden</b> Author: <b>Jessica Page</b>
10:00-10:20 (15+5)	<b>Title: Urban analytics in the era of shared mobility and big data: experience from Seattle's new mobility service experiment</b> Authors: <b>Yiyuan Wang</b> , Qing Shen, Feiyang Sun, Jan Whittington, Casey Gifford
10:20-10:40 (15+5)	Coffee Break & Poster Exhibition
10:40-11:00 (15+5)	<b>Title: Urban Modelling focusing on streets: Opportunities and Progresses</b> Authors: Ying Long, <b>Guowei Lyu</b>
11:00-11:20 (15+5)	<b>Title: Revisiting Kevin Lynch: Analysis of urban perception by deep convolutional neural network</b> Authors: <b>Yuji Yoshimura</b> , Ian Seiferling, Ruixian Ma, Fabio Duarte, Carlo Ratti, Zhoutong Wang, Gary Hack
11:20-11:40 (15+5)	<b>Title: Understanding commuting changes as a science of planning: A collaborative use of mobile phone data and planning-support model</b> Authors: <b>Tianren Yang</b> , Ying Jin, Zhenxuan Yin, De Wang
11:40-12:00 (15+5)	<b>Title: Does the PSS Discourse Have Something to Offer to the Smart Governance Debate?</b> Authors: <b>Huaxiong Jiang</b> , Stan Geertman, Patrick Witte
12:00-14:00	Lunch Break & Poster Exhibition

## Parallel sessions on the third conference day (Afternoon, 11 July)

Parallel Session 1: Smart City	
<b>2019-07-11 14:00-18:00</b>	<b>Location: Meeting Room No.1 at fourth floor of Nanyuan Building</b>
<b>Chair: Prof. Zhixiang Fang, Co-Chair: Prof. Ray Wyatt</b>	
14:00-14:20 (15+5)	<b>Title: A framework for the design and evaluation of effective participatory urban data platforms - twelve key components</b> Authors: <b>Oliver Lock</b> , Simone Leao, Tomasz Bednarz, Chris Pettit
14:20-14:40 (15+5)	<b>Title: West Lake Tourist: Spatio-Temporal Visualization and Visual Analysis Based on Taxi Data</b> Authors: Yunliang Jiang, <b>Junjie Cao</b> , Yong Liu, Jing Fan
14:40-15:00 (15+5)	<b>Title: Opportunities and Challenges for the Construction of a Digital City Geospatial Framework in a Small Urban Area in Central China</b> Authors: <b>Huini Wang</b> , Ming Zhang, Ming Zhong
15:00-15:30	Coffee Break & Poster Exhibition
15:30-15:50 (15+5)	<b>Title: Integration of microclimate into the multi-agent system simulation in urban open space</b> Authors: <b>Tingting Xu</b> , Ziyu Tong, Yu Luo, Huawu Yang
15:50-16:10 (15+5)	<b>Title: Application of Deep Learning to Transport Predicting: A Systematic Literature Review</b> Authors: <b>Xinqi Yu</b> , Inhi Kim
16:10-16:30 (15+5)	<b>Title: Population Spatio-temporal Aggregation Pattern of Small City: A Case Study on Shehong County Based on Baidu Heat Map</b> Authors: <b>Deyi Feng</b> , Lingli Tu, Zhongwei Sun
16:30-16:50 (15+5)	<b>Title: Understanding the Modifiable Areal Unit Problem on Employment Self-containment and Jobs-housing Balance Using Big Data</b> Authors: <b>Xingang Zhou</b> , Anthony G. O. Yeh
16:50-17:10 (15+5)	<b>Title: Design of Remote Expert Evaluation System in Remote Mountainous Area Based on Cloud Service Platform</b> Authors: Zhuo Yu, <b>Wenjuan Cheng</b> , Li Lin
17:10-18:00	Poster Exhibition

<b>Parallel Session 2: International Review for Spatial Planning and Sustainable Development</b>		
<b>2019-07-11</b>	<b>14:00-18:00</b>	<b>Location: Meeting Room No.2 at fourth floor of Nanyuan Building</b>
<b>Chair: Prof. Miaoyi Li, Co-Chair: Prof. Yan Ma</b>		
14:00-14:20 (15+5)	<b>Title: Planning for safer road facilities for bicycle users at junctions</b> Authors: <b>Li Meng</b> , Li Luo, Yanchi Chen, Branko Stazic	
14:20-14:40 (15+5)	<b>Title: Unpacking a Geospatial Model for Rurban Planning: Inputs from Computer Science</b> Authors: <b>Arpita Banerjee</b> , Aayan Kumar, Mahavir, Kusum Lata	
14:40-15:00 (15+5)	<b>Title: Uncovering Social Class from Building Footprints: A Case Study of Residential Areas in Massachusetts using Computer Vision</b> Authors: <b>Zhoutong Wang</b> , Qianhui Liang	
15:00-15:20 (15+5)	<b>Title: Visual Communication and the Mediatized City: From Street Billboards to Offices of Urban Planning in Cairo</b> Author: <b>Mennatullah Hendawy</b>	
15:20-15:50	Coffee Break & Poster Exhibition	
15:50-16:10 (15+5)	<b>Title: Mapping Urban Farming in Chinese Cities: Depicting a social phenomenon via on-line news</b> Author: <b>Longfeng Wu</b>	
16:10-16:30 (15+5)	<b>Title: Quantitative Research on Urban Space Publicity with Urban Network Analysis --Take Nanjing As A Case</b> Authors: <b>Chen Liu</b> , Ziyu Tong, Chuanjia Gong, Huawu Yang	
16:30-16:50 (15+5)	<b>Title: How do pedestrian choose their routes? Predict the pedestrian route choice pattern round Redline Central Station, Cambridge, MA</b> Authors: <b>Longfeng Wu</b> , Yonghui Chen, Seung Kyum Kim, Jung Hyun Woo	
16:50-17:10 (15+5)	<b>Title: Summary of the Construction and Application of Qingdao Multi-Plan Integration and Spatial Planning Information Platform</b> Authors: <b>Zhongyuan Sun</b> , Qing Han, Chengmiao Sun, Yang Li, Huiling Lu	
17:10-17:30 (15+5)	<b>Title: An Approach to Individual Public Transport Passenger Trip Destination Estimation Using Smart Card Data</b> Authors: Mona Mosallanejad, Sekhar Somenahalli, David Mills Speaker: <b>Li Meng</b>	
17:30-17:50 (15+5)	<b>Title: Quantitative Analysis of the Interactions between Urban Spatial Structure and Air Quality</b> Authors: <b>Liyuan Zhao</b> , Fatang Liu, Zhongren Peng	
17:50-18:00	Poster Exhibition	

<b>Parallel Session 3: Geo-Spatial Information Science</b>	
<b>2019-07-11 14:00-18:00</b>	<b>Location: Meeting Room No.3 at fourth floor of Nanyuan Building</b>
<b>Chair: Prof. Weifeng Li, Co-Chair: Prof. Andrew Allan</b>	
14:00-14:30 (25+5)	<b>Title: Commuting Modal Shift and Its Potential for Sustainable Transport: The Case Study of Adelaide</b> Invited Speaker: <b>Prof. Andrew Allan, University of South Australia</b> Authors: Ali Soltani, Andrew Allan, H.A. Nguyen
14:30-14:50 (15+5)	<b>Title: Spatial Analysis of Real Estate Registration in A Big Data Perspective</b> Authors: <b>Tao Nie</b> , Xin Huang, Shiwei Shao, Hui Liu
14:50-15:10 (15+5)	<b>Title: How to Make Dockless Bikeshare Good for Cities: Curbing Oversupplied Bikes</b> Authors: <b>Yuanjie Tu</b> , Peng Chen, Jiawen Yang
15:10-15:30 (15+5)	<b>Title: Construction and Application of "3S" Model for Demarcation of Urban Development Boundary</b> Authors: <b>Ying Zheng</b> , Xiang Zhang, Jiangang Xu
15:30-16:00	Coffee Break & Poster Exhibition
16:00-16:20 (15+5)	<b>Title: A Grid-Based Method to Understand the Influence of Spatial Factors on Pedestrian Fatalities: A Case Study of Curitiba, Brazil</b> Authors: <b>Cassiano Bastos Moroz</b> , Jorge Tiago Bastos
16:20-16:40 (15+5)	<b>Title: Virtual activity and physical mobility: an exploratory investigation</b> Authors: <b>Licaiqi Zhu</b> , Longxu Yan, De Wang
16:40-17:00 (15+5)	<b>Title: The Spherical Panorama Epipolar Geometry Used in 3D modelling</b> Authors: <b>Shuai Liu</b> , Lingli Zhao, Xiang Wei
17:00-17:20 (15+5)	<b>Title: Delineation of Melbourne Global City Region's Boundary and the Implications to Wuhan City Circle Development</b> Authors: <b>Haijuan Zhao</b> , Sunsheng Han, Liang Hu
17:20-17:40 (15+5)	<b>Title: Research on Evolution and Characteristics of Commercial Facilities in Wuhan Based on Big Data</b> Authors: <b>Yilin Chen</b> , Xuanxuan Xu, Jiahuan Qian
17:40-18:00	Poster Exhibition



<b>Parallel Session 4: Cities</b>	
<b>2019-07-11 14:00-18:00</b>	<b>Location: Meeting Room No.4 at fourth floor of Nanyuan Building</b>
<b>Chair: Prof. Nelson Rodrigues da Silva, Co-Chair: Prof. Qingming Zhan</b>	
14:00-14:20 (15+5)	<b>Title: Design for Social Capital: Improve Community Welfare for Left-behind Children in Rural China</b> Authors: <b>Siqing Chen</b> , Yang Li
14:20-14:40 (15+5)	<b>Title: Quantifying the Pedestrian Distribution of Special Events based on Pedestrian Count Data</b> Authors: <b>Sunyong Eom</b> , Yasuhide Nishihori
14:40-15:00 (15+5)	<b>Title: Discerning spatial-temporal differentiation of daily activities among different social groups by combining cell phone data and survey data</b> Authors: <b>Junwen Lu</b> , Suhong Zhou
15:00-15:30	Coffee Break & Poster Exhibition
15:30-15:50 (15+5)	<b>Title: Spatial arrangement of the quantity and diversity of basic urban public facilities—a case study of Wuhan by using POI data</b> Authors: Helin Liu, <b>Tianming Zheng</b> , Jun Wang
15:50-16:10 (15+5)	<b>Title: Research on the Accessibility of Educational Facilities in the Central Urban Area of Laibin Based on the New Standard of Urban Residential District Planning and Design – A Perspective of Big Data and Network Analysis</b> Authors: <b>Xiaoting Yang</b> , Jiao Liu, Wenjun Wei, Jinping Zhang
16:10-16:30 (15+5)	<b>Title: Evaluation of Leisure and Sports Facilities Service Level in Suzhou City Based on Transportation Network</b> Author: <b>Jun Zhang</b>
16:30-16:50 (15+5)	<b>Title: Optimizing and rebalancing heat-related utility assistance provider-client system of the Salvation Army in Phoenix, Arizona</b> Authors: Qunshan Zhao, Chelsea Dickson, Jowan Thornton, <b>Chuyuan Wang</b> , Patricia Solis, Elizabeth Wentz
16:50-17:10 (15+5)	<b>Title: Computational urban transport performance monitoring - visualisation of high-volume, longitudinal transport sensor data with rapid 3D web graphics libraries</b> Authors: <b>Oliver Lock</b> , Tomasz Bednarz, Chris Pettit
17:10-18:00	Poster Exhibition

<b>Parallel Session 5: Environment and Planning B</b>	
<b>2019-07-11 14:00-18:20</b>	<b>Location: Meeting Room No.5 at Fourth Floor of Nanyuan Building</b>
<b>Chair: Prof. Stan Geertman, Co-Chair: Prof. Haozhi Pan</b>	
14:00-14:30 (25+5)	<b>Title: Predicting plans' popularity to facilitate sensitive management of the rural-urban fringe</b> Invited Speaker: <b>Prof. Ray Wyatt, University of Melbourne</b>
14:30-15:00 (25+5)	<b>Title: A Rapid Analytics Scenario Planning Tool</b> Invited Speaker: <b>Prof. Christopher Pettit, University of New South Wales</b> Authors: Christopher Pettit, Vivien Shi, Markus Rittenbruch, Marcus Foth, Hoon Han, Scott Lieske, Ryan van de Nouwelant, Carmela Ticzon, Peta Mitchell, Aida Afrooz, Simone Zarpelon Leao, Bryce Christensen, Murad Jamal
15:00-15:30 (25+5)	<b>Title: A Comparison of Statistical and Machine Learning Algorithms for Predicting Rents in the San Francisco Bay Area</b> Invited Speaker: <b>Prof. Paul Waddell, University of California Bekerley</b>
15:30-15:50 (15+5)	<b>Title: A microsimulation framework to evaluate the impact of car-lite policies on household vehicle availability</b> Authors: <b>Rounaq Basu</b> , Joseph Ferreira
15:50-16:10 (15+5)	<b>Title: Spatial Dynamic Modeling for Urban Planning of Nanjing, China</b> Authors: <b>Zipan Cai</b> , Vladimir Cvetkovic
16:10-16:40	Coffee Break & Poster Exhibition
16:40-17:00 (15+5)	<b>Title: Social Media as Planning Supports for Collaborative Planning</b> Authors: <b>Yanliu Lin</b>
17:00-17:20 (15+5)	<b>Title: An Agent-based Model for Allocations of Renewable Energy Sources in Urban Area</b> Authors: <b>Qi Han</b> , B. de Vries, B. Glumac
17:20-17:40 (15+5)	<b>Title: Assessment of landscape changes under different urban dynamics based on a multiple-scenario modeling approach</b> Authors: Chao Xu, Dagmar Haase, Meirong Su, <b>Yutao Wang</b> , Stephan Pauleit
17:40-18:00 (15+5)	<b>Title: An Urban Informatics Approach to Understanding Residential Mobility in Metro Chicago</b> Authors: <b>Haozhi Pan</b> , Yizhao Gao, Si Chen, Brian Deal
18:00-18:20 (15+5)	<b>Title: A multi-objective optimization model of urban design for facilitating air pollution removal and thermal comfort</b> Authors: <b>Yihan Wu</b> , Qingming Zhan

## Schedule of Poster Exhibitions

### Poster exhibition on first conference day (9 July)

No.	ID	Title	Author
1	799353	Geographical generalisation of convolutional neural networks	Stephen Law, Shen Yao
2	799249	A Compact City for the Wealthy? Gentrification and Employment Accessibility Inequalities in the London Metropolitan Region	Duncan Smith
3	799143	Suburbanisation controls: Case Study of Wallonia, Belgium	Ahmed Mustafa, Jacques Teller
4	799133	Spatial differences of residents' tourism perceptions in World Heritage site based on SEM—— a case study of Kulangsu, China	Yuan Li, Xiaohan Gao
5	799119	Indicator Framework for the Assessment of Multifunctional Green Infrastructure (AMGI) Exemplified in an European City	Jingxia Wang
6	799113	The Urbanization of Abu Dhabi City through time Towards a Smart City	Rim Meziani, Wided Batita
7	799103	Use of Common Areas and Their Association with the Physical Environment in a High-Rise Housing	Soumi Muhuri, Sanghamitra Basu
8	799091	Quantifying natural hazards' perturbation on human mobility for returners and explorers: A case study of Typhoon Mangkhut	Ruoxi Wang, Yan Wang, Nan Li, Jing Li
9	799083	Urban network externalities and economic growth	Yin Huang
10	799075	A Pedestrian Network Analysis Considering Crosswalk Delay: A Case Study for Elementary School Commute in Songpa-gu, Seoul	Wonjun No, David Lee

11	799071	Temporal and spatial variation of ecosystem capacity spatial pattern in rural region under township scale	Yue Sun, Tianyu Zhao
12	799059	Quantification of sunshine duration in street space based on street view	Chuanjia Gong, Ziyu Tong, Chen Liu
13	799049	Research on spatial position accuracy of mobile phone signaling data	Qiaoyang Zhang, Wei Zhu, Jiazhi Yang
14	799021	Dimensions of Child Health-oriented Community Design: Dongcheng District of Beijing as an Example	Yu Pei, Anrong Dang
15	799019	Methodological Exploration of Urban Intelligence Planning	Boshu Cui, Teng Wang, Mingrui Mao
16	799013	Influencing Factors of Pedestrians' Travel Mode Around Metro Station: A Case Study of Yingkoudao Metro Station in Tianjin	Yucheng Zhang, Yu Wang, Yannan Liu, Jie He
17	799011	Optimum Locational Patterns of Regional Hubs by Minimizing Travel Time with Public Transport Usage	Ryo Shimauro, Eiji Satoh, Tatsuya Suzuki, Yasuhiro Nohara
18	799003	Analysis on Spatiotemporal Characteristics of Hourly PM2.5 Observations in Xiangyang, China	Wei Xue, Qingming Zhan, Jiaqi Wu, Zhonghua Wu
19	798997	Flood management method for underground facilities using construction information modeling	Eizo Hideshima
20	798987	Analyzing the Cooling Effect of Cold Air Drainage from the Mountains on the Urban Area in Summer Night: For Making Urban Planning With Local Climate	Kaoru Matsuo, Osaka Prefecture University
21	798982	The spatiotemporal non-stationarity of the relationship between land cover and surface temperature of urban heat island in multiple time series	Sihang Gao, Qingming Zhan, Huimin Liu, Chen Yang
22	798979	A comparison of statistical and machine	Paul Waddell, Arezoo



		learning algorithms for predicting rents in the San Francisco Bay Area	Besharati-zadeh
<b>23</b>	798967	Housing stock transition model for urban microsimulation	Yusuke Murata, Nao Sugiki, Kojiro Matsu
<b>24</b>	798951	A Spatial Equilibrium Model for Home-work Separation in Megacity: A Case Study in Beijing	Zijun Xu, Yuhao Kang, Teng Fei
<b>25</b>	798947	Study on the Spatial Distribution Fairness of Parks in Guangzhou City	Ye Wang, Dailin Zhou, Siqi Dai
<b>26</b>	798945	Evaluation of sustainability for regeneration of old housing complex with household based urban micro-simulation model	Atsushi Suzuki, Suguru Hiranuma
<b>27</b>	798931	Revealing the uncertainty of road usage from perspective of vehicle velocity	Jianwei Huang, Pengxiang Zhao, Junwei Zhang
<b>28</b>	798923	City planning and Web-based Technologies: Misalignments, Convergences and Potential Future Directions	Lucia Lupi, Alessio Antonini
<b>29</b>	798919	A Study on Farmland Change with Flood Disaster Mitigation	Kojiro Watanabe
<b>30</b>	798917	Evolution Analysis of Historic Urban Landscape Elements Based on Genetic Algorithms: A Case Study of Changting, Fujian Province	Jiangang Xu, Chenkun Zheng, Min Yin, Jiweng Tang
<b>31</b>	798907	Assessing urban landscape using Sentinel-2A images and Baidu street View	Ye Wang, Dailin Zhou
<b>32</b>	798903	Pedestrian Walkway Evaluation by VR Tool in Bangkok	Varameth Vichiensan, Sathita Malaitham, Kazuki Nakamura, Kazuaki Miyamoto
<b>33</b>	798901	The Characteristics of Main Built-up Areas in Small and Medium-sized Cities in Shaanxi Province	Haizhao Hao, Xiaojuan Chen
<b>34</b>	798895	Optimization of Regulation Zones in	Yasmin Bhattacharya,

		Tsunami-prone Areas with Consideration of Short- and Long-term Impacts	Chaitanya Gadagamma, Takaaki Kato
<b>35</b>	798893	The Impact of Autonomous Vehicles on Cities: Analysis Based on The Development Vision of Sharing Mode	Peng Wang, Mengyi Sun, Cheng Lei
<b>36</b>	798889	Detecting, Modelling and Predicting Vertical Urban Growth: A Systematic Review	Yuanyuan Huang, Yan Liu, Scott Lieske
<b>37</b>	798875	The relationship between visual enclosure for neighborhood street walkability and elders' mental health in China: Using street view images	Ye Liu, Ruoyu Wang, Yi Lu, Penghua Liu, Yao Yao
<b>38</b>	798871	Do different mobility datasets reveal a similar city structure?	Shanqi Zhang, Feng Zhen, Yu Yang
<b>39</b>	797947	City Diagnosis with the City Intelligence Quotient (CITY Q) Evaluation System	Xingang Zhou
<b>40</b>	798857	A Study on Types of Settlements from the Viewpoint of Population Dynamics	Nozomi Kuzuhara, Eiji Satoh
<b>41</b>	798841	Quantitative assessment and improvement of water security in World Heritage sites——Case Study of Kulangsu, China	Yuan Li, Zeyang Wang, Jun Yang
<b>42</b>	798837	Evaluation and Analysis of Resources and Environment Carrying Capacity Based on Remote Sensing Technology: A Case Study of Xiamen	Yuan Li, Zexing Yan
<b>43</b>	798831	Residential Satisfaction in Relation to Walkability for QOL Outcomes	Shuhei Oya, Kazuki Nakamura
<b>44</b>	798815	Exploring Association between Urban Form and Cycling from the Perspective of Space Syntax: An Empirical Research of Yangpu District of Shanghai	Lan Wang, Kaichen Zhou

## Poster exhibition on second conference day (10 July)

No.	ID	Title	Author
1	798813	Initial household micro-data estimation system using mesh-based open-data	Nao Sugiki, Shogo Nagao, Kojiro Matsuo
2	798801	A Quantitative Method of Urban Form: Spatial Frequency Analysis	Yi Zhang, Pei Zhang, Xiaoli Yang
3	798799	Construction and Exploration of Public Planning Platform -- "Zhonggui Wuhan"	Zhou Bo, Wei Xiong, Yao Zhang
4	798773	Assessment of Solar Road Capacity to Power Electronic Vehicles – A New Method to Calculate Road Solar Radiation with Street View	Ziyu Liu, Anqi Yang, Mengyao Gao, Hong Jiang, Yuhao Kang, Teng Fei
5	798771	The Relationship between Commercial Agglomeration and Road Structure Based on Space Syntax	Qing Zhai
6	798767	Study on the geographical factors of building damages caused by the heavy rain event of July 2018. -Case study of Kure, Hiroshima prefecture-	Taikioryoji, Hisanoriyagi, Shotatamura, Takahirotanaka
7	798737	Hierarchical Structural Analysis of Urban Population in Hinterland Areas of Chinese Cities	Yuemeng Zhang, Qingming Zhan, Yuli Fan
8	798731	Spatial-temporal patterns of urban vitality: Analysis from mobile phone data	Zhong Zheng, Suhong Zhou, Xingdong Peng, Huiming Huang
9	798711	Research on urban spatial structure optimization analysis system based on nonlinear Lowry model	Binxue Zhou, Jinshe Liang, Teqi Dai, Hua Zhang
10	798699	A study of childcare service combination of provincial cities where the number of children is decreasing	Yuki Nakai, Nozomi Kuzuhara, Eiji Satoh
11	798671	Walkability Evaluation with VR for International Street Boundary-Space Design	Kenji Morita, Kazuki Nakamura, Varameth Vichiensan
12	798651	Research on the development situation of Day Service after School in provincial city	Rina Suzuki, Eiji Satoh, Mayumi Hsegawa, Masayoshi Koga, SatokoShiraishi, Fumiko Sakamoto

13	798649	A study on the trend of setting the facility with nursing and medical in Japan according to the provision of medical and nursing care services	Misaki Sato, Eiji Satoh
14	798647	Evaluation of Urban Public Space Vitality Based on Big Data: A Case Study of Shanghai Waterfront public space	Siqi Lai, Song Liu
15	798641	Spatial explicit management for the water sustainability	Xiyin Zhou
16	798639	Rethink on the Development of Guangzhou-Foshan Metropolitan Area from the Perspective of Guangdong-Hong Kong-Macao Greater Bay Area Based on GIS & Big Data Analysis	Jiixin Gu, Xiaoxuan Cen, Yijie Huang, Chengfang Wang, Yun Zhuang
17	798631	The division of jobs-housing connection units in central of Wuhan based on Community Detection Algorithm	Qiang Niu, Xuerui Niu, Yongxiong Zhang, Lixian Huang, Jindian Yang, Anyi Li
18	798629	Research On The Spatial Characteristics Of Wuhan Metropolitan Area Based On Urban Connectivity	Qingming Zhan, Yushan Wang
19	798627	Designing Support of Island-type Tourism Resort Center Based on Artificial Intelligence Technology	Yifei Lin, Miaoyi Li, Zhenjiang Shen
20	798615	A Study of Freight Connectivity, Impedance and Distribution Pattern of Inland Water Transport along Yangtze River Economic Belt using Ship Visa and AIS Big Data	Guihua Deng, Ming Zhong, John Douglas Hunt, Yiming Zhang
21	798609	Urban Spatial Structure and Population Flow analysis in Hubei Province: based on position data and online traffic data	Zihao Mi, Qingming Zhan, Yuliu Fan, Kun Xiao
22	798539	Understanding geodesign through past practice: 50 years of urban and landscape design in Noosa, Queensland, Australia	Scott Lieske, Jeffrey Hamerlinck
23	798531	Simulation on Urban Form and Land Use Change Using WUDAPT-CA Method - A Case Study of Dongguan City	Feihao Chen
24	798515	Big Data Analysis of Sports Behavior and Built Environment ——An Empirical study in Beijing	Xie Pan
25	798483	Refined Feasibility Prediction on Urban	Huiyan Chen, Yuheng Cai,



		Land Development: A Case Study on Liangjiang New Area	Nawei Wu, Qiao Chu, Yuqing Liu, Jiayi Liu, Xie Pan, Rongjun Zeng
26	798481	Refined Feasibility Prediction on Urban Land Development: A Case Study on Liangjiang New Area	Yuheng Cai, Huiyan Chen, Nawei Wu, Qiao Chu, Yuqing Liu, Jiayi Liu, Pan Xie, Rongjun Zeng
27	798473	Pedestrian Choice Simulation of Commercial Square Based on Big Data of Consumers' feedback	Haitao Lian, Yujiao Huo, Zhenbao Wang
28	798469	The Impact of Autonomous Driving on City: A Literature Review	Lingli Tu, Zhongwei Sun, Deyi Feng
29	798443	Exploring city-informative scenes and objects using street view images	Fan Zhang, Wenzhe Peng, Carlo Ratti
30	798377	Daily Activity-Pattern Recognition Model: A Case Study of Wuhan, China	Yunes Almansoub
31	798333	Improvement of Students' Small-Scale Spatial Cognition by Microsoft Hololens	Ningjun Tang, Zhenjiang Shen, Yan Ma
32	798317	Analysis for a Relationship between Risk of Burglary and Urban Space Composition: Case Study Focusing on 23 Wards and Urban Area of Tokyo	Tomoki Ishii, Tatsuya Kishimoto
33	798303	The Optimization of Geographic Recognition Method of High - Definition Remote Sensing Image Based on Deep Learning	Fang Xu
34	798293	Estimation of Pedestrian Density and Speed on Street Network Using Smartphone Spatio-Temporal Data	Koki Shimizu, Hiroaki Nishi, Tatsuya Kishimoto
35	798287	The study of the Wind Environment in the Old City Reconstruction, In the case of Pozi Street in Changsha	Junpeng Wu, Fang Zou
36	798263	Impacts of Three-Dimensional Urban Spatial Patterns on Urban Thermal Environment in Hangzhou, China	Weiwei Sun, Fei Li, Huimin Lu, Gang Yang
37	798255	Urban Form Study for Wind Potential Evaluation in Beijing	Biao Wang, Shuai Sun, Sandrine Geoffroy
38	798249	Functional visibility graph analysis with spatial network and social media data	Yao Shen, Stephen Law

39	798247	Measuring traveling exposure with a flow-based spatial interaction model	Yao Shen, Shi Zeng, Chen Zhong
40	798237	Boundary Identification Method for Core Area of Changsha-Zhuzhou-Xiangtan Urban Agglomeration Based on Spatial Syntax theory	Chaokui Li, Kaihua Wu
41	798235	Walkability condition for pedestrians' route choice: a study based on the questionnaire survey of choice behaviors and preferences to transit station	Wataru Kosako, Tatsuya Kishimoto
42	798227	Modelling pedestrian preferences of crossing facilities from face-to-face interview	Monalisa Patra, Perumal Vedagiri, K. V. Krishna Rao
43	798217	Long-term Management System for Multiple Bridges Considering Road User Cost	Hidetoshi Tanida, Masashi Okushima
44	798225	Spatial Configuration and Density: How Building Density Affects Spatial Arrangement of Different Neighborhoods?	Sahar Soltani, Ning Gu, Jorge Ochoa, Alpana Sivam, Tim McGinley, Xuyang Sun

## Poster exhibition on third conference day (11 July)

No.	ID	Title	Author
1	798199	An empirical study on travel demand spatiotemporal patterns of dynamic internet-based ride-hailing	Kai Liu, Zhiju Chen, Xinchao Peng
2	798191	Multi-source Data Based TOD Monitoring and Evaluation System Research	Jian Zhai
3	798189	Research on Quantitative Assessment Method of Urban Community Vitality	Jian Zhai
4	798187	Research on Vulnerability Assessment of Urban Agglomeration Development from the Perspective of Complex System: A Case Study of the Urban Agglomeration in Central Yunnan	Junkai Fan, Jiangang Xu, Yihuan Zhou
5	798185	Data Driven Exploration of Detailed-	Jian Zhai

oriented Evaluation Method			
6	798179	ResConstruction Suitability Evaluation of Sponge City Based on Its Comprehensive Bene-fits: A Case of Changting, China	Junkai Fan, Hong Hu, Jiangang Xu
7	798167	Research on Distributed Computing Model and Technology Implementation of Watershed Outlet Runoff in Sponge City Planning	Han Xu, Jingjiao Chen, Xiang Zhang, Jiangang Xu
8	798161	The Inter-generational Effects of Job-housing Relationship Optimization based on Excess Commuting: A Case Study of Beijing and Shanghai	Xuemei Liang, Wei Zhu, Zhao Gui, Yongheng Feng, Jia Yan, Yan Zhang, Nan Zhang
9	798157	Construction and Application of 3S Model for Demarcation of Urban Development Boundary	Ying Zheng, Xiang Zhang, Jiangang Xu
10	798147	The Factors influencing School Children's Physical Activities: A Multi-Stage Decision Interpretation	Baoxin Zhai, Wei Zhu
11	798131	New Technology of Culture Heritage Conservation Planning Based on UAV Tilted Photogrammetry Technology	Xue Wang, Zhiqing Zhao, Weiguang Li, Yao Wang
12	798095	Understanding the Usage of Bike Sharing and Its Determinants in China: A Case Study of Nanjing	Xiao Qin, Feng Zhen
13	798061	Research on Land Use Evaluation of Villages and Towns Based on Matter Element Model: Taking Yongchuan District of Chongqing as an example	Shuhong Zhou
14	797973	Study on the impact of road pricing policy on traffic emissions based on microsimulation	Haixiao Pan, Yi Cui
15	797965	Technology contributions to a conceptual framework for modelling cyclists' stress	Inaian Pignatti Teixeira, AntônioNelson Rodrigues da

			Silva,
16	797963	Construction and Exploration of " Public planning Wuhan" Platform	Bo Zhou, Wei Xiong, Yao Zhang
17	797961	Research on a Watermarking Algorithm for Remote Sensing Images Resist Screen Capture Attacks in Urban Planning Information Management	Xiao Wang, Jiangang Xu, Yiming Yin
18	798869	How Regional Accessibility Influences Tourist Attraction – Case Study of Huangshan, China	Zhou Sun, Yinghui Xiao, Qingming Zhan, Yuli Fan
19	797943	Construction and Application Research of Economic Evaluation System Model in Urban Renewal Project——Taking Zhuhai City Urban Renewal Application as an Example	Jidong Liu
20	797941	Evaluation method for rationality of public toilet layout based on big data	Jidong Liu
21	797903	The Smart Urban Land & Property Index (SULPi) as a Planning Support Systems to foster Local Economic Development in South Africa	Eric Nyembezi Makoni, Baleseng TlholoheloMokoena, Thembani Moyo, Rebone Tshesane
22	797891	Mapping urban network through inter-firm investment relationship—a case study of Yangtze River Delta	Zherui Li
23	797865	Research on Web Celebrity Urban Development Based on Weibo Data -- A Case Study of Xi 'An	Xiang Jin
24	797843	A Study on Restructuring Method of Traffic based on Traffic Estimation in Provincial Cities: a case of Sakura city in Tochigi, Japan	Yohei Toyama, Eiji Satoh
25	797817	Investigating the impacts of Three-Dimensional Urban Spatial Patterns on	Weiwei Sun, Fei Li, Huimin Lu, GangYang



Urban Thermal Environment in Hangzhou, China			
26	797777	Identification and extraction of “ghost town” in urban area	Shuai Liu, Jiansi Yang, Mingsheng Liao, Yandong Wang
27	797775	The Research on Distribution of Urban Residential Space Value in Kunming under the Mode of EOD —— Based on the Big Data of Housing Price	Haiyun Jian, Junxia Shen, Yingbin Li
28	797735	The Impact Analysis of China's PPP Project Expenditure on Local Financial Affordability	Xiaolu Dou, Lin Sen, Pengkun Huang
29	797703	A Responsive Landscape Design Process	Chris Landau, Nick Mitchell, Zhuangyuan Fan
30	797665	Analysis of Urban Network Structure of the Economic Zone on the West Coast of the Taiwan Straits——A study through the lens of functional contact network and innovation cooperation network	Yan Ma, Feng Xue
31	797645	Research on Conservation Planning of Traditional Settlement in Dali Zhonghe Village	Ming Zhang
32	797639	Research on Visualization of Urban Construction based on tilt Photography Technology	Zhangchun Ming
33	797575	UP-DSS: A decision support system for landscape plant selection and community configuration based on the sunshine adaptability	Heyi Wei, Zhengdong Huang, Xuejun Liu
34	797487	A systematic evaluation of accessibility measures by the two-step floating catchment area (2SFCA) methods	Pengfei Jia
35	797279	Performance Evaluation of High Speed	Meng Li, Xinyi Niu

Rail in Shanghai Metropolitan Area from the Perspective of Urban Integration Base on Internet Map API			
<b>36</b>	797261	Clustering of creative industries and the spatial drivers: An empirical study of Wuhan	Ruoyu Chen, Haiwen Long, Man Yuan
<b>37</b>	797259	A directional transmission method of urban traffic congestion source information by using complex network theory	Sheng Wei, Jiangang Xu
<b>38</b>	797195	A study on the urban time accessibility of railway passenger traffic flows in China	Li Zhang
<b>39</b>	797031	Changes in Jobs-Housing Relationship of Public Transit Commuters: A Case Study of Shenzhen, China	Ligao Qi, Yang Yue, Qingquan Li
<b>40</b>	766017	Daily transport and depression among older adults: examine England's free bus policy	Yong Yang
<b>41</b>	766015	Exploring the relationship between density and completeness of urban building data in OpenStreetMap for quality estimation	Qi Zhou
<b>42</b>	763538	Residential interrelationship, communal competition and spatial distribution: The case study of the Sylheti and Dhaka communities of Whitechapel	Shlomit Flint
<b>43</b>	763476	Data Protection Law and City Planning	Mahak Agrawal
<b>44</b>	763430	Ecological Land-use Variety and Security Pattern Construction: A Case Study From Anqing, China	Jiulin Li, Jiangang Xu



# 4 TECHNICAL VISITS





# Technical Visits

Venue: Zhongnan Garden Hotel Parking Lot

Time: 13:30 on July 12 (Friday)

## No.1 The State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing (LIESMARS)

### 1. LIESMARS at a glance

The State Key Laboratory of Information Engineering in Surveying, Mapping and Remote Sensing, Wuhan University (LIESMARS) is the first state key laboratory in the field of surveying and mapping in China. In evaluations conducted by the Ministry of Science and Technology, LIESMARS was consecutively ranked “Excellent” in 2000, 2005, 2010, and 2015. The director of LIESMARS is Prof. Chen Ruizhi. The chairman of the academic committee of LIESMARS is Prof. Li Deren, who is an academicien of the Chinese Academy of Sciences and Engineering.



Figure 1 LIESMARS

### 2. Arrangements

14:00	Arrival at LIESMARS
14:00-14:10	Group photo at the gate
14:10-14:30	Exploration of LIESMARS



- 
- Scientific achievements exhibition (2nd floor)
  - Laboratory visit (3rd floor)

**14:30- 16:30 Academic communication (4th floor-Leisure Hall, 20mins speech and 10mins discussion for each topic)**

- **14:30-15:00 Topic1: Luojia -1 remote sensing satellite, Prof. Guo Zhang**
- **15:00-15:30 Topic2: Urban land subsidence, Prof. Mingsheng Liao**
- **15:30-16:00 Topic3: Driverless cars, Prof. Bijun Li**
- **16:00-16:30 Topic4: Urban big data, Prof. Xinyan Zhu**



## No.2 Wuhan Urban Planning Exhibition Hall (WUPEH)

### 1. Wuhan Planning Exhibition Hall at a glance

Located to the east of the Wuhan Citizens Home, the Wuhan Urban Planning Exhibition Hall (WUPEH) opened in October 2012. It was built to high standards and arranged at a high starting point according to the “First in China and first-class in the world” standard in order to achieve the all-in-one construction goal of “City Parlor, Service Hall and Exhibition Center” that was set by the Wuhan CPC Municipal Committee and Government. It is serving as a vital platform for the all-around display of Wuhan City’s urban development history, construction achievements and future development blueprints. So far, WUPEH has been rated as a National Class AAAA Tourist Attraction. It has also been officially accredited as a “Wuhan City Field Teaching Base for Cadre Education and Training”, “Patriotic Education Base” and “Popular Science Education Base”, and was honored as a municipal-level “Youth Civilization Unit”.

Today, WUPEH serves as a vital platform for citizens to learn about and participate in urban planning, a brilliant business card for Wuhan to display its city charms, and the preferred window for the promotion of Wuhan’s city image.



Figure 2 Wuhan Urban Planning Exhibition Hall

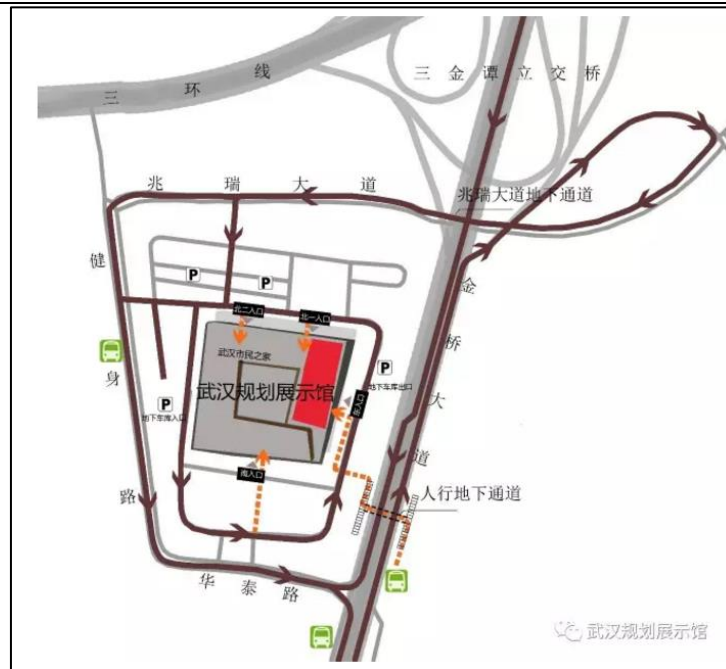


Figure 3 Location of WUPEH

## 2. Arrangements

**14:30            Arrival at WUPEH**

**14:30-15:30   Exploration of WUPEH**

**15:30-16:30   Introduction to Information Systems ( Multiple-Plan Integration and Intelligent Spatio-temporal Information Cloud Platform )**

**16:30-17:00   Symposium and Exchange**

## No.3 Wuhan Land Use and Urban Spatial Planning Research Center (WLSP)

### 1. WLSP at a glance

Wuhan Land Use and Urban Spatial Planning Research Center (WLSP), a public institution subordinated to Wuhan Municipal Land Resources and Planning Bureau, is a research institute specialized in public welfare services honored of dual A-class qualifications for land use planning and urban & rural planning formulations. WLSP mainly undertakes relevant studies on national, provincial and municipal land use, intensive land-use and classification and grading researches, formulation and amendment of urban planning at different levels, land use planning for construction projects and spatial planning demonstration as well as feasibility studies on urban redevelopment projects and policy studies for relevant planning implementations. Moreover, it is also engaged in handling businesses and affairs at municipal land institute.

WLSP is brave in exploration with holding the concepts of “Urban Sustainable Development” and “Integration of Plan and Land”, to construct Five Technology Platforms for the research on land use, plan for execution, general management of land use, demonstration of land use and spatial planning, and policies etc., which has been appreciated highly by public opinion.



Figure 4 Wuhan Land Use and Urban Spatial Planning Research Center

## 2. Arrangements

**14:30- 16:40 Subforum Report (Room 1012, WLSP, 55 Sanyang Road, Jiangnan District)**

- **14:30-14:50 Topic1: Development and Application of Wuhan Land Use and Spatial Planning Information Platform**
- **14:50-15:10 Topic2: Towards a Quantifiable Evaluation of Urban Prosperity**
- **15:10-15:30 Topic3: The Compact Heterogeneity of Urban Spatial Form and Its Environmental Effects**
- **15:30-15:40 Rest between Meetings**
- **15:40-16:00 Topic4: Application of Homotopy Method to Surveying Space Resection**
- **16:00-16:40 Keynote Speech or Discussion**



## No.4 Wuhan Planning and Design Institute (WPDI)

### 1. WPDI at a glance

Founded in 1979, Wuhan Planning and Design Institute (WPDI) is affiliated to the Wuhan Land Resource and Planning Bureau. It is one of the most senior planning institutes with abundant technique potence, as well as the most important planning consultant authorities for urban construction in Wuhan. The institute has the A-grade qualification in urban planning, land planning, architecture construction, and the B-grade qualification in civil public industry (drainage and transportation). There are 363 technological experts and 325 professional employees working in 17 departments. It had worked for many significant projects in the field of urban construction. It had finished many statutory planning projects such as Wuhan municipality master plan, land use master plan and controlling detailed plan etc. Based on those statutory planning projects, WPDI had conducted many planning research and design consultation works during the process of construction of urban major function districts, preservation of historical and cultural districts, renovation of old towns, and development of new towns, and had achieved outstanding reputation within the professional industry.

It also regards the integration between international vision and local experience. In many major governmental implementing projects and prospective innovative field, WPDI has deeply cooperated with many renowned international organizations and universities. Its cooperative partners include approximate 30 international organizations such as Forster & Partners and Arup from UK, Aria from France, ARCDIS from Netherlands, HOK and SOM from USA. The international cooperation enhanced our planning skills and standards.

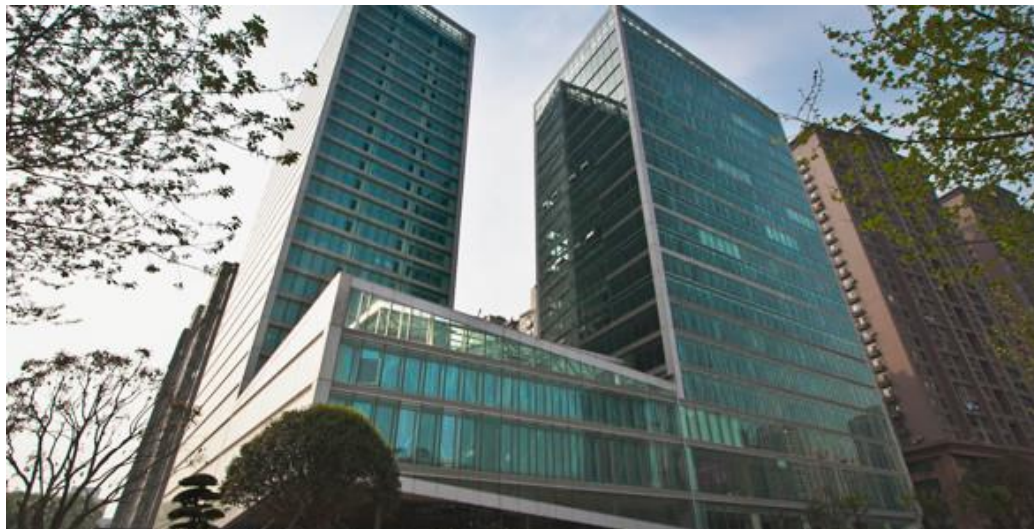




Figure 5 Wuhan Planning and Design Institute

## 2. Arrangements

<b>14:30-14:40</b>	<b>Introduction of WPDl</b>
<b>14:40-15:30</b>	<b>Introduction of Territorial Spatial Planning (Master Planning) of Wuhan</b>
<b>15:30-16:30</b>	<b>The Works of Planning Informatization</b>
<b>16:30-17:30</b>	<b>The Research on Application of Big Data</b>



# 5 ADDITIONAL INFORMATION







## Additional Information

### Instructions for Conference Participants

- Please keep quiet during oral sessions, and keep clear from fellow participants' line-of-sight.
- Try not to be late for oral sessions as session halls are not big enough to tolerate disturbances.
- All oral presenters shall arrive 20 minutes prior to their designated session (8:40/13:40) to copy their PPT to the session computer and comply with the time limit.
- All posters should be submitted to conference staff on July 8, the day of registration. All posters will be displayed by the conference staff according to the schedule of poster exhibitions. (For detailed information regarding poster sessions & poster submission, please contact Dr. Wen Liu 626578894@qq.com)

## Routes

- **Tianhe Airport → Zhongnan Garden Hotel-Nanyuan Building**

Taking metro line 2 from Tianhe Airport Station to Baotong Temple Station, exiting from A.

- **Wuhan Railway Station → Zhongnan Garden Hotel-Nanyuan Building**

Taking metro line 4 from Wuhan Railway Station to Zhongnan Road Station, exiting from C2 or D2.

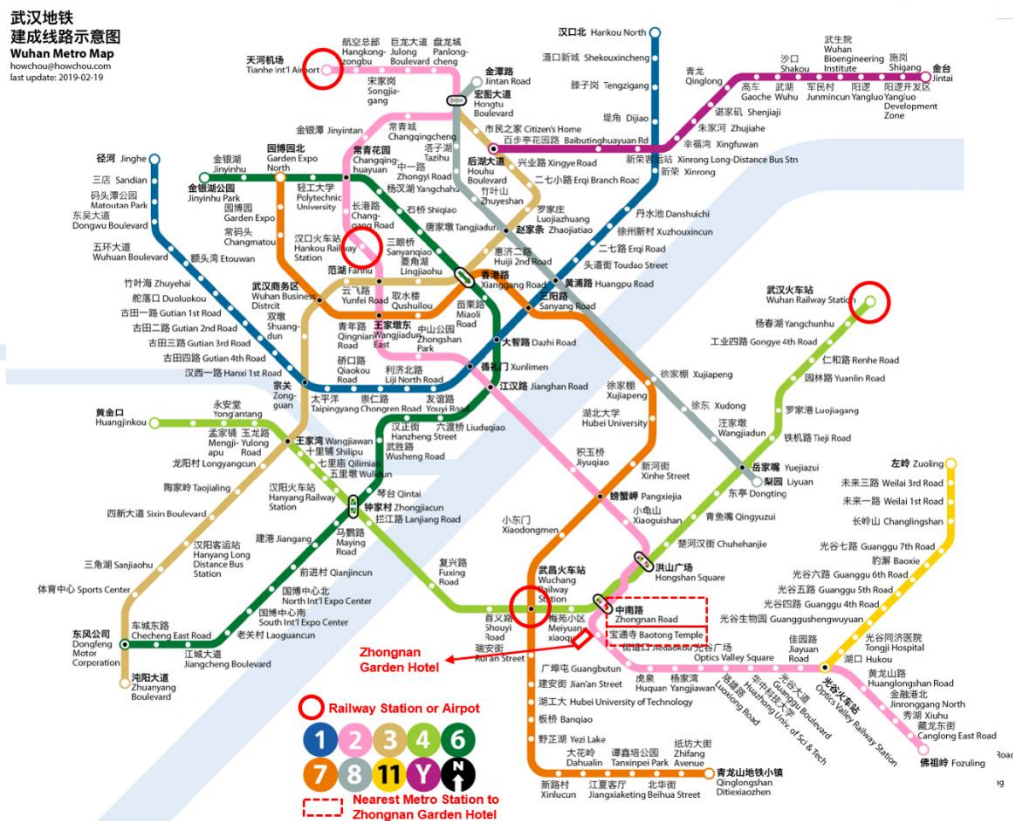
- **Wuchang Railway Station → Zhongnan Garden Hotel-Nanyuan Building**

Taking metro line 4 from Wuchang Railway Station to Zhongnan Road Station, exiting from C2 or D2.

- **Hankou Railway Station → Zhongnan Garden Hotel-Nanyuan Building**

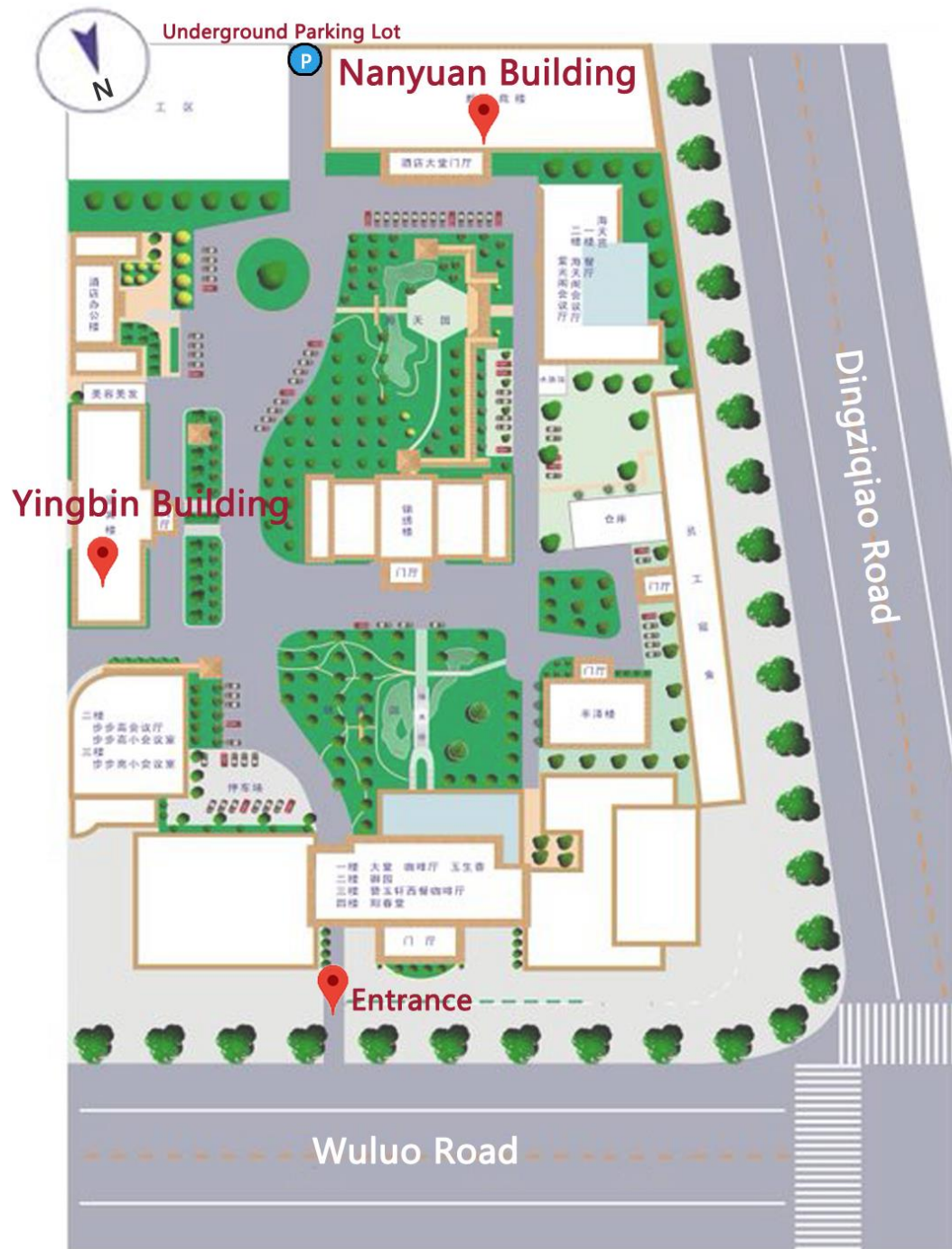
Taking metro line 2 from Tianhe Airport Station to Baotong Temple Station, exiting from A.

## Location of Zhongnan Garden Hotel



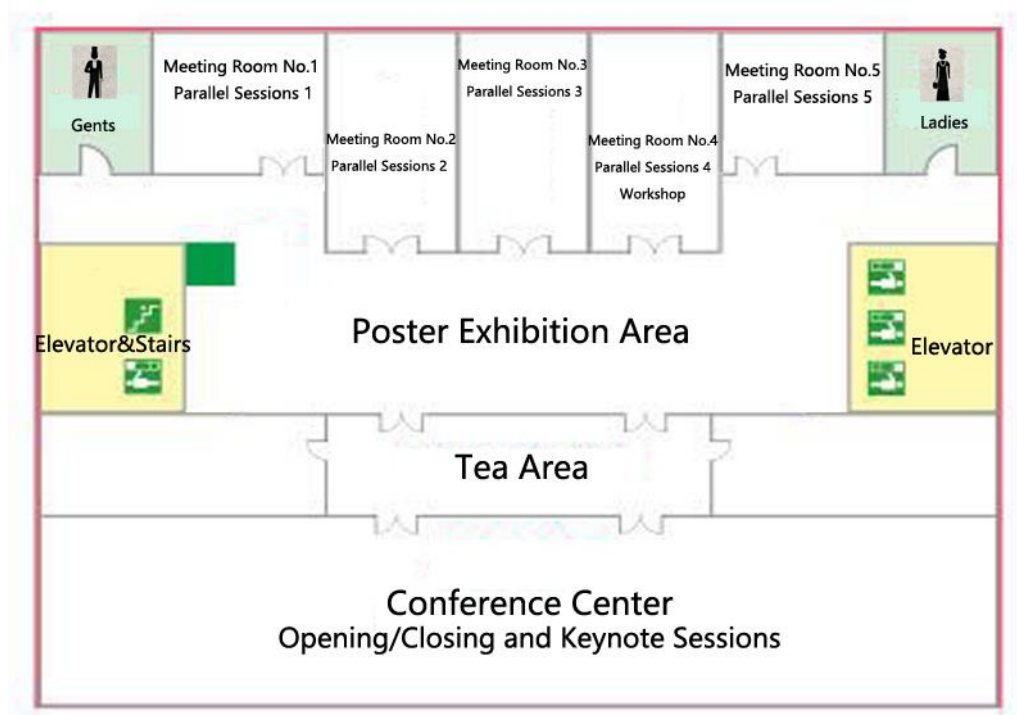






## The Layout of Zhongnan Garden Hotel

## Venue Floors



The 4th Floor, Nanyuan Building, Zhongnan Garden Hotel

'Population +', People-Things- Enterprises connection

Holistic data and intelligent technology service provider

# 聚焦“人口+” 连接人-物-企 全域数据智能科技服务商

以“人口+”数据为核心，构建全域数据资源版图



Smart Steps Digital Technology Co., Ltd. is a professional big data and intelligent technology company controlled by China Unicom, with shares held by JD Digits and Telefónica.

The company focuses on 'Population+' big data, successfully connected People-Things-Enterprises, and is a holistic data intelligent technology service provider based on China Unicom's data resources, Telefónica world-leading Smart Steps mature technology, JD Digits powerful cutting-edge technologies such as big data, artificial intelligence, Internet of Things, and 'Industry X Technology' capabilities.

As for now, the company has built the world's most powerful mobile signaling processing platform and has independently developed 10 major product platforms. The company is the No.1 Population big data service provider in City Planning Industry in China. Its business covers Urban planning, Governments, Finance, Commercial enterprise and other sectors. The company has provided services for hundreds of head customers such as State Ministries, Local provincial/ municipal governments, over 300+city planning, Well-known enterprises and Universities, state-owned and joint-stock banks and large Internet finance companies.

智慧足迹数据科技有限公司是中国联通控股，京东数字科技和西班牙电信参股的专业大数据及智能科技公司。公司依托中国联通卓越的数据资源，全球领先Smart Steps成熟技术，京东数字科技强大的大数据、人工智能、物联网等技术和“产业X科技”能力，聚焦“人口+”大数据，连接人-物-企，成为全域数据智能科技服务商。

截至目前，公司已建成全球最强大的手机信令处理平台，自主研发10大产品平台。公司业务覆盖城市、政府、金融、商企等领域，服务国家多个部委及省市市政府、300+城市规划、知名企业和高校、国有及股份制银行和大型互金等数百家头部客户，是中国城市规划人口大数据第一服务商。





## Local Information

### Wuhan

**Wuhan is one of the largest cities in mainland China and the biggest city in the central part of China. It is also a major transportation hub in central China. Wuhan is the capital city of Hubei province and has a population of 10 Million. The city of Wuhan has over 3500-year-long history and is the birth place of the Chu culture. Wuhan has also played a very important role in the modern history of China as Wuhan people did the first uprising to end the Qing dynasty before the Republic of China.**

**Wuhan is aside by Yangtze River, and it is often called “city of rivers & lakes”. It is divided by Yangtze river and Han river into three main districts: Hanyang (汉阳), Hankou (汉口) and Wuchang (武昌). Hanyang is mainly famous for industry, Hankou is the commercial center and Wuchang is full of universities. It is worthy to mention that Wuhan as a city has greatest number of college students in China.**

**Wuhan is in fast development, and the slogan of Wuhan is “Wuhan, different everyday”, which is proposed by one of the professors from Central China Normal University.**





## Travel Tips



### Airport



### Wi-Fi

In the airport you can connect to Wuhan public Wi-Fi “iWuhan-free”.

After registration with your mobile phone number, you can enjoy the high-quality and safe wireless Internet.



### Money Exchange

You can find money exchange counter on F2 and F4:

- On arrival: F2
- On departure: F4



### Metro

You can buy the tickets with cash, Alipay, Wechat Pay or Wuhan Transportation Card.

You can use 1 Yuan coins, or 5, 10 or 20 Yuan notes for the ticket vending machines. The ticket is a round plastic coin. Use it when you go in and go out of the stations.



### Power Plugs / Sockets in China

There are three types of plugs used in China: three-pronged angled pins, two flat pins (the most common) or two narrow round pins. Electricity is 220 volts, 50 cycles AC.



### Emergency Numbers

Police (Calling)	110
Police (Text Message)	12110
First-aid Ambulance	120
Fire	119
Traffic Accidents	122
SOS in Water	12395

### Contact

Donald Dan, +86-18971599764, Room 80503 of Nanyuan Building (The organizing committee is here to help during the conference)

Website: <https://cupum2019.aconf.org/index.html>





# CUPUM 2019

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