



Global Smart Cities Summit cum
The 4th International Conference on Urban Informatics

GSCS & ICUI 2025 Guidebook

5 - 8
August 2025

Hong Kong

ORGANISERS



The International Society for
Urban Informatics



The Hong Kong
Polytechnic University



Otto Poon Charitable Foundation
smart cities Research Institute

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WELCOME FROM THE CONFERENCE CHAIR

Welcome to the Global Smart Cities Summit cum The 4th International Conference on Urban Informatics (GSCS & ICUI 2025), with the theme: AI for Future Cities.

GSCS & ICUI 2025 will feature keynote speeches by internationally leading scientists, government forums, and technology innovation exhibitions from smart city practitioners, government officials, and industry-related organizations, providing an excellent platform for exchanging state-of-the-art technologies and innovations in smart cities and urban informatics.



Urban Informatics is an emerging transdiscipline encompassing urban science, urban sensing, urban big data infrastructure, urban computing, and urban system and applications. I hope that by promoting the exchange of people from various fields related to smart-city development, this conference will push forward the progress of urban informatics and demonstrate its fundamental role on our way to building smarter cities.

During the conference, we will also announce the winners of Outstanding Achievement in Urban Informatics Award, Best Paper Award, Smart City Technology Innovation Award and Best Presentation Award. Full paper submissions are also considered for potential publication in Urban Informatics, the first international journal dedicated to this transdiscipline.

I would like to express our thanks to the supporting exhibitors and many other academic, professional, and industrial bodies who have supported the conference greatly.

I wish the conference a great success and look forward to meeting you this August.

A handwritten signature in black ink, appearing to read 'John Shi'.

Prof. John, W.Z. SHI
Chairman of Organizing Committee, GSCS & ICUI 2025
Director, Otto Poon C.F. Smart Cities Research Institute, PolyU
President, International Society for Urban Informatics

ORGANISERS



The International Society for
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Smart City Research Institute of Shenzhen University
Key Laboratory of Geographical Environment Monitoring
of the Greater Bay Area, Ministry of Natural Resources



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Smart City Consortium

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PROGRAMME



Latest Conference Programme

Pre-Conference Activities

5 August 2025 (Tuesday)

2/F, Block Z, PolyU

14:00 - 18:00 **Onsite Registration**

16:00 - 17:30 **Icebreaking Reception**

GSCS & ICUI 2025 Opening Ceremony & Plenary Session

6 August 2025 (Wednesday)

Jockey Club Auditorium, PolyU

08:15 - 09:00 **Onsite Registration**

Welcome Speech

09:00 - 09:10
Professor Jin-Guang TENG
President, The Hong Kong Polytechnic University

Opening Address

09:10 - 09:20
Dr Stephen Wong
Head, Chief Executive's Policy Unit, The Government of the HKSAR

09:20 - 09:30 **Opening Ceremony & Group Photo**

GSCS & ICUI 2025 Introduction & Announcement of ISUI Smart City Index 2025

09:30 - 09:55
Professor Wen-zhong SHI
Chair of GSCS & ICUI 2025 Organizing Committee
Director, Otto Poon Charitable Foundation Smart Cities Research Institute, The Hong Kong Polytechnic University
President, The International Society of Urban Informatics

09:55 - 10:15 **Coffee Break**

Plenary Session

Session Chair:

Professor Liqiu MENG (Technische Universität München)

GeoAI in Urban Informatics

10:15 - 10:40
Professor Michael GOODCHILD
Member of the US National Academy of Sciences
Professor Emeritus of Geography, University of California, Santa Barbara

Machine Self-Learning for Smart Cities

10:40 - 11:05
Professor Anthony YEH
Academician of the Chinese Academy of Sciences
Chair Professor, Department of Urban Planning and Design, The University of Hong Kong

PROGRAMME



Latest Conference Programme

GSCS & ICUI 2025 Opening Ceremony & Plenary Session

6 August 2025 (Wednesday)
Jockey Club Auditorium, PolyU

Geospatial Information Technology (GIT) Empowering Smart Cities

11:05 - 11:30 Professor Renzhong GUO
Academician of the Chinese Academy of Engineering
Dean of Research Institute for Smart Cities, Shenzhen University

Priorities of International Collaboration on Emerging Disaster Risk

11:30 - 11:55 Professor Peng CUI
Academician of the Chinese Academy of Sciences
Scientist in Institute of Geographic Sciences and Natural Resources Research,
Chinese Academy of Sciences

Improving Transportation Using Big Vehicle Trajectory Data

11:55 - 12:20 Professor Christian S. JENSEN
Member of the Academia Europaea, the Royal Danish Academy of Sciences and Letters
Professor of Computer Science, Aalborg University

12:20 - 14:00 **Lunch Break**

Session Chair:

Professor Yong LI (Tsinghua University)
Professor Qingming ZHAN (Wuhan University)

AI Urban Planning

14:00 - 14:25 Professor Zhiqiang WU
Academician of the Chinese Academy of Engineering
Professor, Tongji University

Research on Urban Remote Sensing Big Data

14:25 - 14:50 Professor ZHOU
Academician of the Chinese Academy of Sciences
Professor, Institute of Geographic Sciences and Natural Resources, Chinese Academy of Sciences

Interdisciplinary Methods for Empowering Sustainable Regional Development

14:50 - 15:15 Professor Qingquan LI
Academician of the Chinese Academy of Engineering
Secretary of the Party Committee, Shenzhen University

Visual Thinking of Multi-scaled and Scale-free Urban Information

15:15 - 15:40 Professor Liqiu MENG
Member of the German National Academy of Sciences
Professor, Technische Universität München

15:40 - 15:55 **Coffee Break**

15:55 - 16:10 **MOU Signing Ceremony**

PROGRAMME



Latest Conference Programme

GSCS & ICUI 2025 Opening Ceremony & Plenary Session

6 August 2025 (Wednesday)
Jockey Club Auditorium, PolyU

Session Chair:

Professor Haoying HAN (City University of Macau)
Professor Zhengdong HUANG (Shenzhen University)

Application and Exploration of Digital Twin City Development

16:10 - 16:35 Mr Xiaochun ZHANG
National Master of Engineering Design and Geotechnique Investigation
Chairman of Shenzhen Smart City Technology Development Group Company Limited

Evolution in the Distribution of Young Adults among Mega-City Regions: Lessons from the UK

16:35 - 17:00 Professor Ying JIN
Professor of Architecture and Urbanism
Director of the Martin Centre for Architectural and Urban Studies, University of Cambridge

Lean BIM & Smart CIM: How Glodon Enable Smart City Implementation

17:00 - 17:25 Mr Qian LIU
Board Director and Senior Vice President
Glodon Company Limited

The Evolution of Generative AI in Urban Planning

17:25 - 17:50 Professor Michael BATTY
Fellow of the British Academy and the Royal Society
Chairman of the Centre for Advanced Spatial Analysis
Emeritus Professor of Planning, University College London

Panel Discussion: AI for Future Cities

17:50 - 18:20 Panel Chair: Professor Wen-zhong SHI (The Hong Kong Polytechnic University)
Panellist: Professor Michael GOODCHILD (University of California, Santa Barbara),
Professor Haoying HAN (City University of Macau), Professor Zhengdong HUANG
(Shenzhen University), Professor Ying JIN (University of Cambridge), Professor Yong LI
(Tsinghua University), Professor Hongxia YANG (The Hong Kong Polytechnic University),
Professor Qingming ZHAN (Wuhan University)

Closing Remarks

18:20 - 18:25

PROGRAMME



Latest Conference Programme &
Parallel Session Detailed Rundown

GSCS & ICUI 2025 Parallel Session

7 August 2025 (Thursday)

2/F & 4/F, Block Z, PolyU

08:30 - 12:00		09:00 - 12:30	12:30 - 14:00	14:00 - 17:30
		Coffee Break (10:30 - 10:45)		Coffee Break (15:30 - 15:45)
Room Z205	On-site Registration	SS8 - Urban Navigation and Sensing for Next-Generation Smart Cities	Lunch Break	SS10 - Edge AI for Smart Cities
Room Z207		SS5 - LLM Powered Urban Informatics		SS4 - Spatiotemporal Prediction and Early Warning of Respiratory Virus
Room Z209		Smart City Government Forum		Dialogue with International Journal Editors
Room Z211		SS6 - TRS Symposia - Healthy and Resilient Cities with Pervasive LoCHs		SS6 - TRS Symposia - Healthy and Resilient Cities with Pervasive LoCHs
Room Z406		RS3 - Urban Big Data Infrastructure (I)		RS6 - Emerging Topics in Smart City Development
Room Z407		Smart City Technology Innovation Awards		Smart City Technology Innovation Awards
Room Z409		RS4 - Urban Computing and Data Analytics (I)		RS4 - Urban Computing and Data Analytics (II)
Room Z414		SS7 - Spatial Intelligence in the Wild		SS11 - Low-altitude Economy

PROGRAMME



Latest Conference Programme &
Parallel Session Detailed Rundown

GSCS & ICUI 2025 Parallel Session & Closing Ceremony

8 August 2025 (Friday)
2/F & 4/F, Block Z, PolyU

09:00 - 12:30 Coffee Break (10:30 - 10:45)		12:30 - 14:00	14:00 - 16:00	16:00 - 17:30
Room Z205	SS9 - Smart Urban Mobility	Lunch Break	SS1 - Geospatial Technologies for Dynamic City Digital Twins	
Room Z207	SS3 - Mobile Urban Sensing and AI-Driven Urban Informatics		SS3 - Mobile Urban Sensing and AI-Driven Urban Informatics	
Room Z209	SS2 - Urban Analytics for Climate Resilient Smart Cities		Technology Innovation Forum	Closing Ceremony & Award Presentation
Room Z211	SS6 - TRS Symposia - Healthy and Resilient Cities with Pervasive LoCHs		SS6 - TRS Symposia - Healthy and Resilient Cities with Pervasive LoCHs	
Room Z406	RS1 - Urban Science and Systems (I)		RS1 - Urban Science and Systems (II)	
Room Z407	RS2 - Urban Sensing (I)		RS2 - Urban Sensing (II)	
Room Z409	RS4 - Urban Computing and Data Analytics (III)		RS3 - Urban Big Data Infrastructure (II)	
Room Z414	RS5 - Smart Cities Solutions (I)		RS5 - Smart Cities Solutions (II)	

PLENARY SPEAKER

Prof. Michael BATTY

Fellow of the British Academy (FBA) and the Royal Society (FRS)
Chairman of the Centre for Advanced Spatial Analysis, Emeritus
Professor of Planning, University College London, UK



Biography

Professor Michael Batty CBE FRS FBA is Bartlett Professor of Planning at University College London. He is Chair of the Centre for Advanced Spatial Analysis (CASA) and also a Turing Fellow in the Alan Turing Institute. He has worked on computer models of cities and their visualisation since the 1970s and his recent publications *Cities and Complexity* (2005), *The New Science of Cities* (2013), and *Inventing Future Cities* (2018), are all published by The MIT Press. The last two of these books have been translated into Chinese. The edited book *Urban Informatics* (Springer 2021) reflects his focus on the applications of digital technologies to urban planning. In the 1980s, he was Professor of City Planning and Dean of the School of Environmental Design at the University of Wales at Cardiff, and prior to that a Lecturer and Reader in Geography at the University of Reading. From 1990-1995, he was Director of the National Center for Geographic Information and Analysis at the State University of New York at Buffalo. His first degree BA was in planning from the University of Manchester in 1966 and his doctorate was architecture from the University of Wales, 1984. He has published many papers and he is highly cited with an H index of 115. He is a Fellow of the British Academy (FBA) and the Royal Society (FRS). He was awarded the CBE in the Queen's Birthday Honours List in 2004. He received the Gold Medal of the Royal Geographical Society (2015) and the Gold Medal of the Royal Town Planning Institute (2016). He has been the editor of *Environment and Planning B* since 1971.

Topic

The Evolution of Generative AI in Urban Planning

Abstract

Artificial Intelligence (AI) is entirely coincident with the emergence of the digital computer. From the start, it was assumed the computer had more than the required power to simulate human intelligence. We sketch its evolution, note phases in its history, define distinctions between strong and weak AI, and emphasise differences between generative and discriminative processes. There will never be a complete template of applications in planning but current methods follow deductive and inductive simulation with a focus on machine learning. We introduce the earliest neural net – the perceptron – and show its applications to spatial simulation and generative plan-making.

PLENARY SPEAKER

Prof. Peng CUI

Academician of the Chinese Academy of Sciences
Scientist in Institute of Geographic Sciences and Natural Resources
Research, Chinese Academy of Sciences



Biography

Prof. Peng Cui is a distinguished scientist at the Institute of Geographic Sciences and Natural Resources Research, Chinese Academy of Sciences (CAS), and a member of the Chinese Academy of Sciences. He holds several prominent positions, including Co-Chair of the Alliance of International Science Organizations on Disaster Risk Reduction (ANSO-DRR) under the Belt and Road Initiative, Executive Deputy Director and Chief Scientist of the China-Pakistan Joint Research Center on Earth Sciences, and Editor-in-Chief of the Journal of Mountain Science.

A leading expert in physical geography and soil and water conservation, Prof. Cui has dedicated his career to geo-hazard research, specializing in debris flows, landslides, dammed lakes, and soil and water conservation. His groundbreaking work has advanced the understanding of disaster formation mechanisms, movement patterns, risk analysis, monitoring, early warning systems, and integrated prevention and control strategies. His research has been instrumental in addressing major disasters, such as the Wenchuan earthquake, Zhouqu debris flow, Venezuela debris flow, Pakistan dammed lake, and Nepal earthquake, significantly contributing to risk control and mitigation efforts. These achievements have garnered international recognition and praise from both academic peers and governments.

Prof. Cui's exceptional contributions have earned him numerous prestigious awards, including the Sergey Soloviev Medal from the European Geosciences Union (2023), the CAS Outstanding Science and Technology Achievement Award (2021), the National Innovation Pioneer Award (2020), the National Science and Technology Progress Award (2009), and the Distinguished Researcher Award from the World Association of Soil and Water Conservation (WASWC) (2010). His work continues to shape the field of disaster risk reduction and environmental conservation on a global scale.

Topic

Priorities of International Collaboration on Emerging Disaster Risk

Abstract

In an era marked by intensifying climate extremes and escalating geophysical instability, disaster risks are evolving faster than our current understanding, monitoring capabilities, and design standards can accommodate. This keynote addresses the growing complexity of emerging disaster risks driven by compounding factors—climate change, urbanization, and socio-economic pressures. From cascading hazards such as the 2021 Chamoli disaster to record-breaking floods in Europe, Pakistan, and Libya, recent events emphasize the limitations of traditional disaster risk reduction (DRR) approaches. This presentation highlights four strategic priorities through which international collaboration can address emerging risks: advancing scientific understanding of risk perception, enhancing early warning systems, promoting resilient infrastructure, and scaling disaster education. It also emphasizes the need for globally integrated, science-driven solutions supported by data, technology, regulations, and cooperation. With an urgent call to revisit outdated risk paradigms and embrace cross-sectoral innovation—including AI and nature-based solutions—this talk aims to promote resilience and preparedness in vulnerable communities, bridge knowledge gaps, and foster unified action against risks that increasingly transcend national and disciplinary boundaries. The session serves as both a diagnosis of the challenges and a roadmap for collaborative transformation in disaster risk governance.

PLENARY SPEAKER

Prof. Michael GOODCHILD

Member of the US National Academy of Sciences, Fellow of the Royal Society

Professor Emeritus of Geography at the University of California, Santa Barbara, USA



Biography

Michael F. Goodchild is Professor Emeritus of Geography at the University of California, Santa Barbara. He received his BA degree from Cambridge University in Physics in 1965 and his PhD in Geography from McMaster University in 1969. His research and teaching interests focus on geographic information science, including uncertainty in geographic information, discrete global grids, and volunteered geographic information. He was elected member of the US National Academy of Sciences in 2002, and Foreign Member of the Royal Society and Corresponding Fellow of the British Academy in 2010. He has published over 600 books and articles.

Topic

GeoAI in Urban Informatics

Abstract

GeoAI encompasses a wide range of techniques, from deep learning to the generation of images, and there are many ways in which GeoAI can be useful to urban informatics. I review some of the applications and address the broader contextual issues of ethics, bias, repurposing, fitness for use, uncertainty quantification, access, and ownership. While there are doubts about the value of GeoAI in scientific discovery, there are many ways in which GeoAI is useful in the process of scientific research and in the planning and administration of cities.

PLENARY SPEAKER

Prof. Renzhong GUO

Academician of Chinese Academy of Engineering
Dean of Research Institute for Smart Cities, Shenzhen University,
China



Biography

Prof. Renzhong GUO was born in Jiangsu, China. He is member of the Chinese Academy of Engineering. He received the B.S. and M.S. degrees from Wuhan University, Wuhan, China, in 1984, and the Ph.D. degree in Geography from University of Franche-Comté, Besançon, France, in 1990. He is currently a professor and the dean of the Research Institute for Smart Cities, School of Architecture and Urban Planning, Shenzhen University, Shenzhen, China. He has been engaged in research and development of Cartography, GIS, and Construction Strategy of Digital City for a long time. Great achievements are also be made in theories and methods of Geographical Information System, Information Engineering of Land Resource Management.

Topic

Geospatial Information Technology (GIT) Empowering Smart Cities

PLENARY SPEAKER

Prof. Christian S. JENSEN

Member of the Academia Europaea, the Royal Danish Academy of Sciences and Letters, and the Danish Academy of Technical Sciences, ACM and IEEE Fellow

Professor of Computer Science, Aalborg University, Denmark



Biography

Christian S. Jensen is a Professor of Computer Science at Aalborg University, Denmark. He was a Professor at Aarhus University for a 3-year period from 2010 to 2013, and he was previously at Aalborg University for two decades. He spent a 1-year sabbatical at Google Inc., Mountain View from 2008 to 2009. His research concerns data analytics and management with focus on temporal and spatio-temporal data management. Christian is an ACM and an IEEE fellow, and he is a member of the Academia Europaea, the Royal Danish Academy of Sciences and Letters, and the Danish Academy of Technical Sciences. He has received several national and international awards for his research, most recently the 2019 IEEE TCDE Impact Award and the 2022 ACM SIGMOD Contributions Award. He was Editor-in-Chief of ACM TODS from 2014 to 2020 and an Editor-in-Chief of The VLDB Journal from 2008 to 2014.

Topic

Improving Transportation Using Big Vehicle Trajectory Data

Abstract

The ongoing, sweeping digitalization of societal processes yields massive volumes of data that capture underlying processes at an unprecedented level of detail, in turn enabling us to better understand and improve those processes. Put differently, if harnessed properly, data holds the potential to enable value creation throughout society.

Considering primarily vehicle trajectory data, this talk puts focus on the important process of transportation: While we all depend on it for mobility, transportation has adverse effects on our productivity due to lack of predictability and congestion, on the climate due to greenhouse gas emissions, and our health and safety due to air and noise pollution and accidents. In sum, it makes sense to invent techniques capable of leveraging trajectory data for the improvement of transportation.

This talk will describe how the availability of massive trajectory data renders the traditional routing paradigm, where a road network is modeled as an edge-weighted graph, inadequate. Instead, new paradigms that thrive on massive trajectory data are called for. The talk will cover several such paradigms. As even massive volumes of trajectory data are sparse in these settings, the talk will also cover means of making good use of available data.

PLENARY SPEAKER

Prof. Ying JIN

Professor of Architecture and Urbanism
Director of the Martin Centre for Architectural and Urban Studies
University of Cambridge



Biography

Ying Jin is Professor of Architecture and Urbanism at Department of Architecture, University of Cambridge. He is Leader of the Cities and Infrastructure Research Group, where he leads in the modelling of symbiotic relationships among the economy, land use, transport, urban design and the environment. He has led large modelling teams to work on complex policy and infrastructure projects, including the first land use and urban economic modelling study of the Elizabeth Line (formerly known as CrossRail) in the UK and the World Bank's regional impact assessment of China's High Speed Rail programme. He is a Fellow of Robinson College, Cambridge.

Topic

Evolution in the Distribution of Young Adults among Mega-City Regions: Lessons from the UK

Abstract

This talk continues the investigation on trends in urban growth and decline through the presence of young adults over time, particularly those aged 25-34 who are at their most mobile.

The mapping and analysis are illustrated using Census data from the UK – this is a good quality dataset that can be used to trace the presence of young adult residents and workers over the decades among all the constituent city regions. The results are contextualised with a story of economic polarization, with a concentration of economic growth towards London and its hinterlands and persistent declines in the rest of the country.

The UK government has always been very conscious of the concentration of economic activity towards London and the north/south divide ever since the onset of industrial and mining declines in the 1920s, having published reams of government reports and white papers on the topic. The stark contrast between the continuous policy efforts and the harsh reality of worsening polarisation highlights the need to fundamentally re-understand and explain what has been missing in the past and existing policy narratives. This talk put forward a new perspective whilst demonstrating the power of urban informatics, and the lessons learnt from the story may be cogent for many countries that experience polarisation of their regional economies.

PLENARY SPEAKER

Prof. Qingquan Li

Academician of the Chinese Academy of Engineering
Party Secretary of Shenzhen University, Shenzhen University, China



Biography

Prof. Qingquan Li is an academician at the Chinese Academy of Engineering and serves as the Party Committee Secretary at Shenzhen University. He was executive vice president of Wuhan University and president of Shenzhen. His research spans from innovative work in spatiotemporal data mining to dynamic precision engineering surveying. He has led a series of national and international research projects, such as the National 973/863 Program, Key Programs of the National Natural Science Foundation of China, and Sino-European international cooperation initiatives. His contributions have earned him several accolades, including the National Teaching Achievement Award, the Ho Leung Ho Lee Prize, the National Technology Invention Award, and the National Science and Technology Progress Award, among others.

Topic

Interdisciplinary Methods for Empowering Sustainable Regional Development

Abstract

Global environmental change and human development demands require innovative approaches to regional sustainability. At the heart of this challenge lies the need to harmonize natural systems with socioeconomic activities through integrated, interdisciplinary solutions. This talk will present some science-to-action cases that use cutting-edge technologies and cross-domain knowledge to address sustainability challenges, such as tracking of human expansion, assessing ecological environmental effects, and monitoring carbon sources and sinks. We demonstrate how AI and geospatial analytics enable precise monitoring of human-environment interactions, while integrated modeling approaches reveal hidden feedback between ecological processes and developmental patterns. The discussion will highlight emerging opportunities where convergence research can accelerate progress toward sustainable development goals, with particular emphasis on scalable technological solutions for regions in transition.

PLENARY SPEAKER

Prof. Liqiu MENG

Member of the German National Academy of Sciences
Professor, Technische Universität München, Germany



Biography

Professor Liqiu Meng is a Chair Professor of Cartography at the Technical University of Munich (TUM) since 1998. She holds a Ph.D. in Geodetic Engineering from the University of Hannover in Germany and a Habilitation in Geoinformatics from the Royal Institute of Technology in Stockholm, Sweden. Her current research interests include visual analytics of AI ethical incidents, knowledge graph and spatial cognition, climate event mapping and spatial data comics. She is a member of the German National Academy of Sciences. She has served as Senior Vice President at TUM; Senator of the Helmholtz Association of German Research Centers; member of the International Advisory Board, Alexander von Humboldt Foundation; Senator of the German Aerospace Center (DLR), Vice President of the International Cartographic Association (ICA). She is currently series editor for Springer Lecture Notes "Cartography and Geoinformation", board member of the Hans-Rudolf Foundation, and advisory board member of Georg Nemetchek Institute – AI for the Built World.

Topic

Visual Thinking of Multi-scaled and Scale-free Urban Information

Abstract

The relentless development of computer vision and computer graphics has provided a solid foundation for us to explore digital urban systems at our fingertips. Visualized city models at different levels of detail serve as an intuitive user interface and are supported by a wide range of personalized GIS tools that enable queries and reasoning about what, where, when, how and why various events occur.

Decades of experience with interactive geospatial services has fostered and reinforced our habit of layered thinking. We try to gain a holistic understanding of our living spaces by exploring the urban patterns and their spatial, temporal and semantic relationships from different perspectives. We are undoubtedly more informed than ever. But at the same time, smart cities, equipped with extreme engineering and AI, seem to have become capable of seeing through us, understanding our every move, and predicting our next move.

Smart cities know more about us than we know about them. This is surprising and frightening at the same time. Obviously, it is not the ultimate state of development that humanity seeks. For too long, we have viewed urban spaces as mechanical assemblages of geospatial objects rather than complex systems that evolve either naturally or by design. It is therefore necessary for us to think outside the box. The speaker advocates a visual analytics that combines the layered thinking with linked thinking in order to explore multi-scaled and scale-free urban information.

PLENARY SPEAKER

Prof. Zhiqiang WU

Academician of the Chinese Academy of Engineering
Professor, Tongji University, China

Biography

Prof. WU Zhiqiang is Member of Chinese Academy of Engineering, Member of German Academy of Science and Engineering (acatech), Member of Royal Swedish Academy of Engineering Science and Honorary Fellow of American Institute of Architects (Hon. FAIA).

He is the Chief Scientist of China Intelligent Urban Planning Co-creation Center for Yangtze River Delta Agglomeration (CIUC), Councilor of Shanghai Government, Member of Shanghai Artificial Intelligence Development Experts' Committee, Vice President of Urban Planning Society of China, Vice President of China Association of Building Energy Efficiency, Vice President of China Green Building Council, and Standing Vice Chair of Shanghai Overseas Returned Scholars Association. Prof. WU is also the Chief Editor of the journals Urban Planning Forum and the Frontier of Urban & Rural Planning (FRUP).

Prof. WU had served as the Vice President of Tongji University from 2011 to 2021, and is currently the Member of the Academic Degrees Committee of the State Council, Chairman of the Sub-Committee of Urban and Rural Planning Professional under the Ministry of Education and Chair of World Urban Planning Education Network (WUPEN).

Prof. WU is the Chief Planner of Shanghai World EXPO 2010, Chief Planner of Beijing Sub-Center Urban Design Comprehensive Plan, and the Chief Planner of more than 150 urban planning projects.

Topic

AI Urban Planning

Abstract

From the temple-led city-states of ancient Mesopotamia to today's resilience-driven agendas, the long arc of urban civilisation shows a steady amplification of religious, aesthetic and—above all—technological imperatives that now converge in the smart-city paradigm. Expo 2010 Shanghai marked a definitive turning point: real-time simulations of 73 million visitor movements demonstrated that metropolitan layouts can be evaluated and optimised through massive data streams, inaugurating large-scale, evidence-based urban governance. Building on this legacy, The report proposes an iterative four-generation framework that chronicles early ideal-city concepts, technology-led urban disease mitigation, sustainability-centred experimentation, and the current resilience-oriented phase. Finally, The report presents AI4 Planning, a comprehensive methodology grounded in a four-ring, twelve-module planning process and powered by four specialized agents—Strategic for system visioning, Precision for spatial implementation, Ecology for sustainable efficiency, and Execution for real-time monitoring and iteration—to translate strategic insight into adaptive, human-centred urban designs.



PLENARY SPEAKER

Prof. Anthony YEH

Academician of the Chinese Academy of Sciences
Chair Professor, Department of Urban Planning and Design, The
University of Hong Kong, Hong Kong SAR

Biography

Prof. Anthony G.O. Yeh is a Member of the Chinese Academy of Sciences and Hong Kong Academy of Sciences and Fellow of TWAS (The World Academy of Sciences) and Academy of Social Sciences UK. He is Chan To-Hann Professor in Urban Planning and Design and Chair Professor of Department of Urban Planning and Design and Director of the Centre of Urban Studies and Urban Planning and former Dean of Graduate School, Director of GIS Research Centre, Institute of Transport Studies at the University of Hong Kong. His main areas of specialisation are in urban development and planning in Hong Kong, China, and South East Asia and the applications of geographic information systems (GIS) as planning support system. He received the UN-HABITAT Lecture Award in 2008 for his outstanding and sustained contribution to research, thinking and practice in the human settlements field. His projects have won a gold medal in the 2018 and 2024 Geneva International Exhibition of Inventions and gold award in the 2022 Hong Kong ICT Smart Logistics Award.



He has published over 30 books and monographs and over 180 international journal papers and book chapters. He also serves as editorial board members in major international journals and honorary professors and external examiners of a number of universities and research institutes in China and S.E. Asia. He has been President of Asia GIS Association, Founding Secretary-General of the Asian Planning Schools Association and Asia GIS Association, Founding President of the Hong Kong GIS Association, Vice-President of the Commonwealth Association of Planners, Vice-President of the Hong Kong Institute of Planners, and Chairman of the Geographic Information Science Commission of the International Geographic Union (IGU).

Topic

Machine Self-Learning for Smart Cities

Abstract

How smart is a smart city? Recent advancements in the use of digital twins in smart cities provide a continuous real time exchange of data, analysis, and feedback between the real world physical space (the city) and the cyberspace (the digital model). Through the interaction of the collection of real time spatial-temporal data from the sensors in the real world physical space and the digital model in the cyberspace, digital twin can help to make real time decision in the real world much faster and more accurate. Furthermore, the availability of spatial-temporal data series in the digital twin will enable the use of machine self-learning to make the model in the digital twin to be more adapted to the changing urban environment that will help in making better decision when the urban environment has changed. Self-learning is how human beings progress. Similarly, machine self-learning will make smart cities smarter.

PLENARY SPEAKER

Mr Xiaochun ZHANG

National master of Engineering Design and Geotechnique investigation
Chairman of Shenzhen Smart City Technology Development Group,
China



Biography

Zhang Xiaochun, male, currently serves as the Chairman and Party Secretary of Shenzhen Smart City Technology Development Group. He holds a Doctor of Engineering degree, is a professor-level senior engineer, a national master of Engineering Design and Geotechnique investigation, a national leading talent in scientific and technological innovation, and an expert enjoying special government allowances from The State Council. Closely focusing on the national digital development strategy, we established the Shenzhen Smart City Technology Development Group, built a modern enterprise management system, led SUTPC to successfully go public, took the lead in acquiring leading enterprises in the industry such as Honor, and vigorously promoted the construction of new infrastructure and platforms such as intelligent computing power, digital twins, and integrated private networks. He has led and carried out major planning consultation, smart city and smart transportation construction projects in several important cities including Shenzhen, organized key technology research and development in digital twin and smart transportation, and won many provincial and ministerial-level science and technology progress awards.

Topic

Application and Exploration of Digital Twin City Development

Abstract

In recent years, the continuous evolution and integrated application of new technologies such as digital twin and artificial intelligence have become effective means to improve urban governance and solve urban development problems. Shenzhen took the lead in proposing a technical route for building a digital twin city based on a full-precision model, forming a complete technical system of "perception, integration, calculation and control", and steadily building a fully autonomous and controllable urban self-evolving intelligent agent, aiming to realize intensive utilization of urban space and efficient operation scheduling. This introduction will comprehensively expound the era background and significance of digital twin city construction from the internal needs of urban governance and the external drive of technological development. In accordance with the overall idea of "Efficiency drives application, application drives construction, construction drives innovation", it will systematically introduce the practice and exploration of digital twin city construction from the aspects of platform construction, technical research, and transportation application, in order to provide reference for the construction of smart cities across the country.

PLENARY SPEAKER

Mr Qian LIU

Board Director and Senior Vice President, Glodon Company Limited, China

Biography

Qian Liu is a Board Director and Senior Vice President of Glodon Company Limited.

With nearly 30 years of experience in the construction industry, he brings deep insights into industry development and digital transformation. He has a strong track record in corporate operations and strategic management.

Mr. Liu is widely recognized within the industry and currently serves as the chairman or vice chairman of several industry associations. He is also a member of expert panels focused on employment guidance in the construction and real estate sectors.



Topic

Lean BIM & Smart CIM: How Glodon Enable Smart City Implementation

Abstract

As cities enter a new stage of stock renewal and incremental improvement, enhancing livability, governance efficiency, and resilience is a core priority. CIM provides a systematic solution that connects spaces, facilities, services, and management, but it relies on BIM to deliver high-quality data, valuable scenarios, and reliable algorithms. Glodon showcases this through two BIM products that boost design efficiency and improve urban drainage, together with a city-level CIM case demonstrating its upgraded value and digital impact.

Backed by its proprietary 3D graphics platform, the AECOS business platform, and its construction AI engine, Glodon works with global partners to drive smart urban growth through technological innovation.

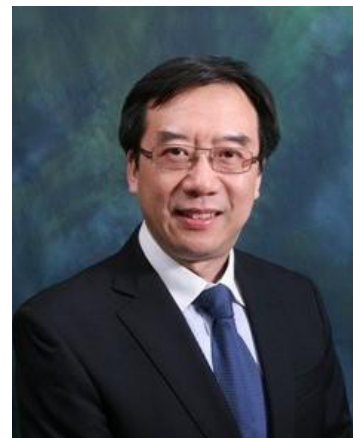
CONFERENCE CHAIR

Prof. Wenzhong SHI

Academician of International Eurasian Academy of Sciences

President of International Society for Urban Informatics

Director of Otto Poon Charitable Foundation Smart Cities Research Institute, The Hong Kong Polytechnic University, Hong Kong SAR, China



Biography

Professor Shi is currently the Director of Otto Poon Charitable Foundation Smart Cities Research Institute, Chair Professor in Geographic Information Science and Remote Sensing, at Hong Kong Polytechnic University. He is Academician of International Eurasian Academy of Sciences and Fellow of Academy of Social Sciences (UK). He earned his doctoral degree from Germany in 1994. Professor Shi also serves as President of International Society for Urban Informatics and Editor-in-Chief of International Journal Urban Informatics.

His research covers urban informatics for smart cities, geographic information science and remote sensing, artificial-intelligence-based object recognition and change detection from satellite imagery, intelligent analytics and quality control for spatial big data, and mobile mapping and 3-D modelling based on LiDAR and remote sensing imagery. He has published over 300 research articles in journals indexed by Web of Science and 20 books. He is among the worldly top 2% (specifically, 0.34%) cited researchers. He has over 50 patents granted.

Professor Shi has won State Natural Science Award, China's highest award for fundamental science, in 2007; Founder's Award by International Spatial Accuracy Research Association in 2020; and Gold Medal in 2021 & 2023 Geneva Invention Expos.

Block Z @ PolyU
 5 Aug 2025 | Reception + On-site Registration
 5 - 8 Aug 2025 | Smart City Technology Innovation Exhibition
 7 - 8 Aug 2025 | Parallel Session + Oral Presentation + Closing Ceremony

Jockey Club Auditorium @ PolyU
 6 Aug 2025 | Opening Ceremony + Plenary Session

Ju Yin House

U Garden

Main Entrance

To Ho Choi Seafood Restaurant

MTR Station Hung Hom: A1

Chatham Rd S
Cheong Wan Rd
Salisbury Rd
Princess Margaret Rd
Chatham Rd W

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Hung Hom
紅磡

Chatham Rd S
Cheong Wan Rd
Salisbury Rd
Princess Margaret Rd
Chatham Rd W

PolyU

VENUE

Conference Venue



Block Z



Jockey Club Auditorium

Lunch Venue



U Garden



Ju Yin House

* For invited guests on 6 Aug 2025

Banquet Venue

Ho Choi Seafood Restaurant



Google Map



高德地图 Amap

SUPPORTING EXHIBITORS



北京市测绘设计研究院
Beijing Institute of Surveying and Mapping



* In no particular order

SUPPORTING EXHIBITORS



Shenzhen Smart City Technology Development Group Company Limited

Shenzhen Smart City Technology Development Group Co., Ltd. (hereinafter referred to as "SZSC") is a national high-tech enterprise directly managed by the State-owned Assets Supervision and Administration Commission of the People's Government of Shenzhen Municipal. It was registered in December 2018 and officially launched in August 2019. Currently, SZSC has 3,800 professional and technical personnel, with nearly 40% holding master's or doctoral degrees, 1 controlled listed company Shenzhen Urban Transport Planning Center Co., Ltd. (SUTPC, 301091), and 15 national high-tech enterprises.

Adhering to the core values of "Responsibility, Struggle, Collaboration, and Innovation", SZSC actively plays the roles of the only legally authorized digital base construction and operation unit in Shenzhen, the ecological alliance of integrated construction and operation of the smart city, and the leader of the industrial innovation chain for digital government and smart city. With the overall positioning of "providing high-standard one-stop integrated solutions for smart city and digital government construction", SZSC is based on Shenzhen and is committed to serving the overall development, the reform of state-owned enterprises, society and people's livelihood, and smart city construction.

Since its establishment, in line with the national digital development strategy and in accordance with the work arrangements of the government, SZSC has made every effort to support the construction of smart city and digital government in Shenzhen, strategically deployed emerging industries, and implemented major special tasks. It has promoted the construction of cloud network foundation, spatial foundation, and data foundation, and systematically built a digital twin infrastructure system. It has supported the integrated development of the "Four in one network" (one-network services, management, collaboration and data sharing), and fully guaranteed the construction of digital government and the digitalization of urban governance. SZSC has comprehensively carried out smart services in key fields such as government affairs, transportation, housing and construction, emergency response, medical care, education, human resources and social services, finance, enterprise services, credit reporting, and trade unions, helping to modernize the city's governance system and governance capacity. Focusing on digitalization core capacity building, SZSC has constructed an independent and controllable R&D ecosystem in digital twin, data technology, and IOT perception. In recent years, it has undertaken more than ten national key R&D programs. By coordinating 474 high-quality ecological partners across the country, it has established a 1+N+1 operation model of "state-owned enterprise platform coordination + ecological combination", forming an ecosystem featuring "common construction, sharing, and governance".

SUPPORTING EXHIBITORS



Glodon Company Limited

Glodon Company Limited, a digital building platform service provider, has been dedicated to the digitalization of the construction industry for almost three decades. We offer comprehensive digital building lifecycle solutions, focusing on specialized applications in construction engineering, and providing value-added services like industry big data and supply chain finance. Our solutions cater to various stakeholders, including industry regulators, developers, designers, consultants, contractors, equipment and material manufacturers, and sectors like city operation, finance, and education.

As China's first A-share listed company focusing on information technology in construction engineering, Glodon owns core digital technology intellectual property rights in the construction industry. By 2024, we had set up 8 major R&D centers and over 80 subsidiaries worldwide, with a sales and service network spanning over 100 countries and regions, serving 390,000 corporate clients with professional products and services.

As an enabler of digital transformation, Glodon's mission is to pursue material and spiritual happiness for all employees and leverage technology to create a better living and working environment. With unwavering dedication to the construction industry, we leverage our expertise in systematic digitalization to serve as a collaborative platform. By integrating industry resources, we empower industry stakeholders with comprehensive digital transformation services. Through this synergistic partnership, we foster a mutually beneficial relationship and drive the high-quality development of the construction industry together, making every project a success and helping every practitioner have achievements.

SUPPORTING EXHIBITORS



Research Institute for Smart Cities (RISC), Shenzhen University

The Research Institute for Smart Cities (RISC) of Shenzhen University was established in October 2015. Professor Renzhong Guo, the first locally cultivated academician in Shenzhen, serves as the director of RISC. With over 60 researchers and PhD students, RISC aims to explore theories, innovative methods, and technological development for smart cities. The primary rationale involves leveraging geo-spatial technologies to construct a virtual city within the digital realm, while integrating diverse urban data sources to establish a cohesive big data platform, thereby nurturing a wide array of smart applications. Key technologies on 3D urban scene and spatial data platform have been developed and applied in Shenzhen. During the last three years, RISC has been awarded the First Prize of Guangdong Provincial S&T Progress Awards, the First Prize of Natural Resources S&T Progress Awards, and the Grand Prize of China Association for Geospatial Information Society S&T Progress Awards. RISC operates as a constituent of the broader Geospatial Information Research division at Shenzhen University, which is spearheaded by a trio of esteemed academicians, Professor Renzhong Guo, Professor Ziqin Wei, and Professor Qingquan Li.

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CONTACT INFORMATION

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**THANKS FOR
YOUR SUPPORT**

Looking forward to see you at next ICUI