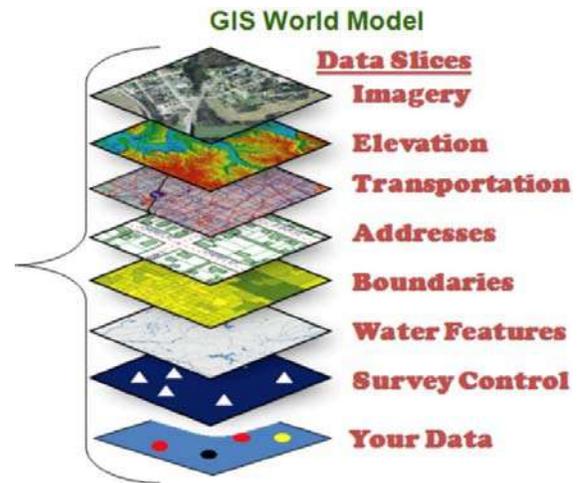
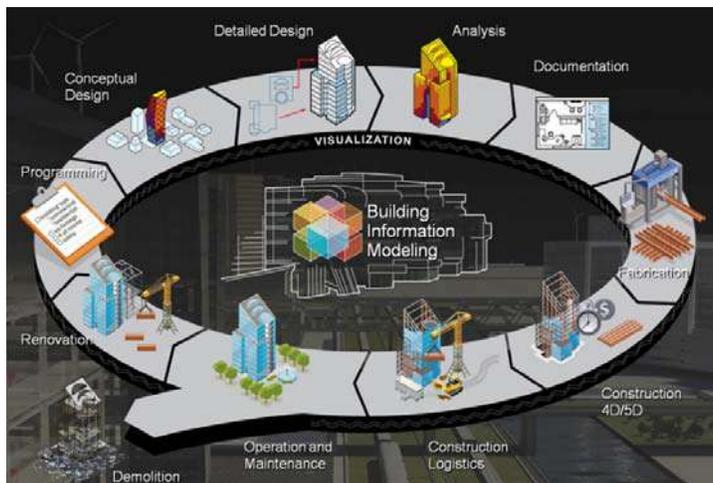


## ONE-DAY SYMPOSIUM

# BIM and GIS: New Opportunities and Challenges for Civil Engineers



Organised by

**American Society of Civil Engineers (ASCE) HK Section  
and  
Construction Industry Council**

**Date:** 9 June 2017 (Friday)  
**Time:** 9:00 – 17:30 (Registration starts at 8:30 am)  
**Venue:** ST111, The Hong Kong Polytechnic University  
**Language:** English

Building information modeling (BIM) has been widely investigated and utilized in the architecture, engineering and construction (AEC) industry because it enhances design visualization and communication, supports parametric modeling and engineering analyses, facilitates construction planning and project control, and enables management of rich object-based information across stakeholders over project lifecycle. On the other hand, geographical information system/science (GIS) has great capability of visualization and analysis of multi-layered geospatial data on a regional level to support applications such as road alignment and water system management. Both BIM and GIS can help digitally capture and manage information of the built environment, from the microscopic and macroscopic perspectives, respectively. Therefore, integration of BIM and GIS is important to the AEC industry, particularly for civil engineering applications. Yet, a few challenges such as differences in modeling approaches and lack of interoperability still need to be solved before benefits of BIM-GIS integration can be realized. In this symposium, speakers of various backgrounds will share their studies, viewpoints, and experience in BIM and/or GIS for civil engineering applications.



CONSTRUCTION  
INDUSTRY COUNCIL  
建造業議會



THE HONG KONG  
POLYTECHNIC UNIVERSITY  
香港理工大學



香港科技大學  
THE HONG KONG UNIVERSITY OF  
SCIENCE AND TECHNOLOGY

## SUPPORTING ORGANISATIONS



The Hong Kong Institute of  
Building Information Modelling  
香港建築信息模擬學會



Geotechnical Division  
岩土分部



香港工程測量師學會



ice | hong kong

## Guests of Honor

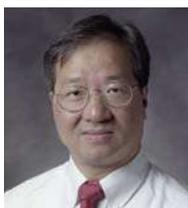


**Prof. Norma Mattei**  
(President of American Society of Civil Engineers; Professor, University of New Orleans, USA)



**Ms. Ada Fung**  
(Chairlady, BIM Committee, Construction Industry Council, Hong Kong; Deputy Director of Housing, Hong Kong Housing Authority)

## Keynote Speakers



**Prof. Kincho H. Law**  
(Professor, Stanford University, Dist.M.ASCE)  
*"Information Modeling and Computational Infrastructure for Civil Infrastructure Monitoring"*



**Prof. Nobuyoshi Yabuki**  
(Professor, Osaka University, Japan)  
*"The Role and Outlook of Civil Engineering Informatics in BIM and GIS for Infrastructure"*

## Invited Speakers

- **Dr. Jack Cheng** (Associate Professor, Hong Kong University of Science and Technology) *"Integrating BIM, GIS and IoT for Facility Management"*
- **Dr. Yichuan Deng** (Assistant Professor, South China University of Technology) *"BIM and GIS integration for Bridge Engineering: Practices in Mainland China"*
- **Ir Sammy Cheung** (Chief Geotechnical Engineer, Geotechnical Engineering Office, HKSAR) *"Application of GIS in Slope Safety Management in Hong Kong"*
- **Ir Andy Chan** (Project Manager, Spatial Technology) *"Leverage the potential of BIM with GIS"*
- **Sr Lityin Lam** (General Manager, D-Reality Consultancy Limited) *"Application of Remote Sensing in Project Management"*
- **Mr. Thomson Lai** (Director, Innovative Solutions Department, Hong Kong, AECOM) *"Integration of BIM and 3D Spatial Data"*
- **Mr. Tim Lo** (Assistant GIS Solutions Manager, Esri China (Hong Kong) Limited) *"Increasing Interest in the Fusion of GIS and BIM"*

## Registration Fee

Fee	Eligibility
HK\$ 700	Members of ASCE, supporting organizations and PolyU, HKUST CEE alumni; or Group registration ( $\geq 4$ person)
HK\$ 800	Non-Members
HK\$ 100	ASCE Student Members

\*Fee includes lecture notes, tea/coffee and an attendance certificate, lunch is not provided.

## CERTIFICATE

This Symposium is recommended for one CPD day.

## ENQUIRY

Dr. Songye Zhu

Dr. Jack Cheng

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[cejcheng@ust.hk](mailto:cejcheng@ust.hk)

t: 3400 3964

t: 2358 8186

## PROGRAMME

08:30 - 09:00	<b>Registration</b>
09:00 - 09:05	<b>Welcoming Address</b> <i>Ir Chao Li (Chairman, ASCE Hong Kong Section)</i>
09:05 - 09:10	<b>Opening Speech by Guest of Honour</b> <i>Ms. Ada Fung (Chairlady, BIM Committee, Construction Industry Council, Hong Kong; Deputy Director of Housing, Hong Kong Housing Authority)</i>
09:10 - 09:15	<b>Opening Remarks by Guest of Honour</b> <i>Prof. Norma Mattei (President of American Society of Civil Engineers; Professor, University of New Orleans, USA)</i>
09:15 - 09:25	<b>Group Photo and Souvenir Presentation</b>
09:25 - 10:00	<b>(Keynote Presentation)</b> <b>Information Modeling and Computational Infrastructure for Civil Infrastructure Monitoring</b> <i>Prof. Kincho H. Law (Professor, Stanford University, Dist.M.ASCE)</i>
10:00 - 10:35	<b>Application of GIS in Slope Safety Management in Hong Kong</b> <i>Ir Sammy Cheung (Chief Geotechnical Engineer, Geotechnical Engineering Office, HKSAR)</i>
10:35 - 11:00	<b>Coffee Break</b>
11:00 - 11:35	<b>Integrating BIM, GIS and IoT for Facility Management</b> <i>Dr. Jack Cheng (Associate Professor, Hong Kong University of Science and Technology)</i>
11:35 - 12:10	<b>Leverage the potential of BIM with GIS</b> <i>Ir Andy Chan (Project Manager, Spatial Technology)</i>
12:10 - 12:15	Souvenir Presentation
12:15 - 14:00	<b>Lunch (not included in registration fee)</b>
14:00 - 14:35	<b>(Keynote Presentation)</b> <b>The Role and Outlook of Civil Engineering Informatics in BIM and GIS for Infrastructure</b> <i>Prof. Nobuyoshi Yabuki (Professor, Osaka University, Japan)</i>
15:35 - 15:10	<b>Integration of BIM and 3D Spatial Data</b> <i>Mr. Thomson Lai (Director, Innovative Solutions Department, Hong Kong, AECOM)</i>
15:10 - 15:45	<b>BIM and GIS integration for Bridge Engineering: Practices in Mainland China</b> <i>Dr. Yichuan Deng (Assistant Professor, South China University of Technology)</i>

15:45 - 16:10	<b>Coffee Break</b>
16:10 - 16:45	<b>Application of Remote Sensing in Project Management</b> <i>Sr Lityin Lam (General Manager, D-Reality Consultancy Limited)</i>
16:45 - 17:20	<b>Increasing Interest in the Fusion of GIS and BIM</b> <i>Mr. Tim Lo (Assistant GIS Solutions Manager, Esri China (Hong Kong) Limited)</i>
17:20 - 17:30	<b>Closing Remarks and Souvenir Presentation</b>
17:30	Distribution of CPD Certificates

## BIBLIOGRAPHY OF SPEAKERS

**Prof. Kincho H. Law** is currently Professor of Civil and Environmental Engineering at Stanford University. He obtained his BS in Civil Engineering and BA in Mathematics from University of Hawaii in 1976, and his MS and PhD in Civil Engineering in 1979 and 1981, respectively, from Carnegie Mellon University. Professor Law's research has been focused on the applications of information technology to civil and structural engineering. His work has dealt with various aspects of structural dynamics, structural health monitoring, wireless sensing and control, high performance computing, engineering and legal information management, engineering enterprise integration, and Internet computing. He has authored and co-authored over 400 articles in journals and conference proceedings and has received best research paper awards from ASCE, ASME, IEEE and Digital Government Society. He was the recipient of the ASCE Computing in Civil Engineering Award in 2011. Prof. Law has been elected as a Distinguished Member of the American Society of Civil Engineers in 2017.

**Prof. Nobuyoshi Yabuki** is a Professor and Chair in the Division of Sustainable Energy and Environmental Engineering, Graduate School of Engineering, Osaka University, Japan. He obtained his Ph.D. and M.S. in civil engineering at Stanford University. He obtained his B.E. in civil engineering at the University of Tokyo. His research interests are mainly in applications of advanced Information and Communication Technology (ICT) such as Virtual Reality (VR), Augmented Reality (AR), point cloud, data modeling, sensing and RFID, data mining, Artificial Intelligence (AI), etc. to civil and building engineering. He is Chair of the Committee on CIM Introduction/Promotion, Ministry of Land, Infrastructure, Transport and Tourism (MLIT), immediate past Chair of the Committee on Civil Engineering Informatics of the Japan Society of Civil Engineers (JSCE), President and Founder of Asian Group for Civil Engineering Informatics (AGCEI), a Member of the Board of Directors (BOD) of the International Society of Computing in Civil and Building Engineering (ISCCBE), an external Executive Director of Japan Construction Information Center (JACIC) and Japan Construction Information Technology Center (JCITC), and Vice Chairman of buildingSMART Japan. He has published more than 300 journal and international conference papers, and 9 books.

**Dr. Jack Cheng** is an Associate Professor in the Department of Civil and Environmental Engineering at the Hong Kong University of Science and Technology (HKUST). He obtained his BEng and his MPhil degrees from HKUST, and then obtained his PhD degree from Stanford University. His research interests include BIM, 3D GIS, Internet of Things (IoTs), AR/VR, data mining, construction informatics and management, smart city, green buildings, and sustainable construction. He is currently the Vice-Chair of ASCE Global Center for Excellence in Computing, Chairman of Autodesk Industry Advisory Board (AIAB), Treasurer and Director of ASCE Hong Kong Section, Alternate Director of Hong Kong R&D Center for LSCM, Editor or Editorial Board Member of several international journals, a Professional Member of Hong Kong Institute of Building Information Modeling (HKIBIM), and a Certified Carbon Auditor Professional. He has received the Young BIMer of the Year BIM Excellence Award 2014 from the Hong Kong Construction Industry Council, and a few paper awards in international conferences. He has authored or co-authored over 130 referred journal and conference papers.

**Dr. Yichuan Deng** is currently an Assistant Professor at School of Civil Engineering and Transportation, South China University of Technology. He holds his M.Eng. degree from Tsinghua University (2011), and Ph.D. degree from The Hong Kong University of Science and Technology (2015). Dr. Deng has authored or coauthored more than 20 papers in various refereed scientific periodicals and conference proceedings. He is now a member of the Sub-tropical Building Science State Key Laboratory, and committee member of BIM Section, Chinese Society of Cartography. Dr. Deng has received several awards from international and local conferences, including CONVR, and Chinese BIM Conference.

**Ir. Sammy Cheung** is the Chief Geotechnical Engineer of the Geotechnical Engineering Office (GEO). He has been working in the geotechnical engineering field for 30 years and has a wide range of experience and interests in geotechnical engineering, covering planning, management, research, geotechnical control, design and application of information technology. Ir Cheung has strong passion and belief on the applications of information technology to improve quality of works and organization efficiency. He has been involved in a number of IT projects in GEO, including the GEO Raingauge System, Landslip Warning System, Slope Information System that are important to the management of landslide risks in Hong Kong. He is also responsible for steering the IT developments in GEO and leading an in-house team for implementing IT projects in GEO.

**Ir. Andy Chan** is the first Autodesk certified road and highway BIM specialist in Hong Kong and is the Project Manager of Spatial Technology Limited, responsible for integrating BIM processes for asset management. In the last 10-years, Andy has successfully implemented BIM on various projects throughout the project development lifecycle, as well as assisting Government departments and design consultants to re-engineer the workflow with pilot projects. Andy holds a Bachelor degree in Land Surveying from Hong Kong Polytechnic University and a Master degree in Information Technology Management from the Chinese University of Hong Kong. He is a professional member of the HKIBIM, as well as the founding member of the Building Smart Hong Kong.

**Sr Lityin Lam** is working as the General Manager of D-Reality Consultancy Limited. He works in the engineering surveying profession for many significant infrastructure projects, including Hong Kong International Airport, West Rail Project, Hong Kong-Shen Zhen Western Corridor, Venetian Orient Cotai Parcel 5&6 (Macao), Express Rail Link (XRL), CEDD Liantang C3 project, MTR Kwun Tong Line Extension (Whampoa Station and overrun tunnel), etc. Sr LAM is the Chairman of The Hong Kong Institution of Engineering Surveyors (HKIES) since 2008, and Council Member of Land Surveying Division of The Hong Kong Institute of Surveyors (HKIS) since 2014. He has a particular interest in emergent surveying technologies and their potential for the construction sector. Sr LAM has been invited by many professional organizations as speaker for relevant issue.

**Mr. Thomson Lai** is a Geospatial veteran with over 18 years of experience in the IT industry and is knowledgeable in a wide variety of BIM/GIS/CAD, AM/FM and RDBMS software including ESRI's products, Intergraph products, Digital imaging products, Bentley's products, Autodesk Geospatial and BIM products, Oracle Spatial and MapInfo. He is a Chartered Land Surveyor and PMP certified Project Manager. Knowledgeable in applying technology and formulate innovative solution for IT projects. Experienced in managing sizable projects and fully understand the challenges and requirements of clients from Government and Commercial sectors. He is a good leader with proven leadership skills and able to manage well in both business development and project implementation. As a Director of AECOM, he is currently leading the Innovative Solutions Department, providing services to customer including BIM, GIS and IT technology to strive for excellent project deliveries.

**Mr. Tim Lo** is the Assistant GIS Solution Manager in Esri China (HK), responsible for proposing GIS solution for Hong Kong and Macau clients. He has 10 years of GIS technology experiences and focuses on Asset Management, Public Safety, GPS Tracking, Transportation, Utilities and integration with other software and hardware platforms. Tim holds a Bachelor Degree of GIS from Ohio University, USA and a Master of Geo-informatics degree of Hong Kong Polytechnic University.

## ONE-DAY SYMPOSIUM

### BIM and GIS: New Opportunities and Challenges for Civil Engineers

9 June 2017, ST111, The Hong Kong Polytechnic University

### Registration Form

Name : \_\_\_\_\_  
(Last Name) (First Name)

Office Tel.: \_\_\_\_\_ Mobile: \_\_\_\_\_

Email: \_\_\_\_\_ Company: \_\_\_\_\_

Membership (if applicable): \_\_\_\_\_ Membership No.: \_\_\_\_\_  
 (ASCE/PolyU/HKIE/HKUST)

Membership grade: Member/ Associate Member/ Affiliate Member/ Student Member

**Group Registration** (please use separate sheets as necessary)

No.	Last Name	First Name	Email	Phone
1	<i>(Contact person*)</i>			
2				
3				
4				
5				
6				
7				
8				

**Payment**

I enclose a crossed cheque no. \_\_\_\_\_ (Bank: \_\_\_\_\_)

for the amount of HK\$ \_\_\_\_\_ x \_\_\_\_\_ person = HK\$ \_\_\_\_\_

**Remarks**

- All payments are non-refundable once booking is confirmed
- Please make a cheque payable to "**American Society of Civil Engineers - Hong Kong Section**" and post to:

Dr Songye ZHU, Department of Civil & Environmental Engineering,  
 Hong Kong Polytechnic University, Hunghom, Kowloon

- Seat will be confirmed when payment is received.
- ASCE Hong Kong reserves the right to cancel or reschedule the conference at its discretion

**Enquiry**    Dr. Songye Zhu    ceszhu@polyu.edu.hk    t: 3400 3964

