









International QS BIM Conference 2017 Hong Kong

Date: 18 November 2017 (Sat)

Time: 9am - 5pm

Venue: Regal Ballroom, Regal Hongkong Hotel,

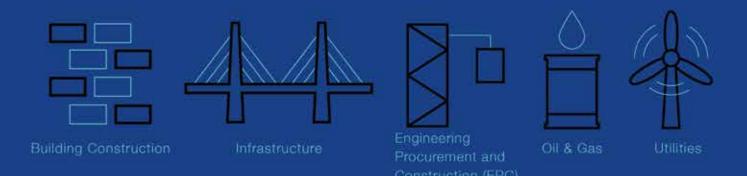
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### PROGRAMME RUNDOWN

Time	Programme	Presenter
08:30 - 09:00	Registro	ation
09:00 - 09:05	Welcoming Speech	HKIS QSD Chairman Sr Raymond KAM
09:05 – 09:30	Appreciation Certificate Presentation to All Sponsors and Co-organisers	HKIS QSD Chairman Sr Raymond KAM
	Souvenir Presentation to All Speakers, OC and MC	HKIS President Sr Thomas HO Kwok Kwan
	Group Photos	Speakers, Sponsors and Co-organisers
09:30 – 10:00	Building a Collaborative Future:     BIM in Hong Kong	Keynote Speaker Ms. Ada FUNG Yin Suen, BBS, JP Deputy Director of Housing (Development & Construction), Hong Kong Housing Authority, Hong Kong Chairperson, Committee on BIM, Construction Industry Council
10:00 – 10:30	2. Proposed BIM Contract Conditions	HKIS Representative Sr Dr. Paul HO Principal Lecturer and Former Division Head (2007 - 2012), City University of Hong Kong Chairman of the SMM Committee, HKIS Past QSD Chairman (2005 - 2006), HKIS
10:30 – 11:00	3. Singapore BIM Roadmap	Invited Speaker Mr. CHENG Tai Fatt Deputy Managing Director, BCA Academy and BERII, Building & Construction Authority, Singapore
11:00 – 11:30	Coffee B	reak
11:30 - 12:00	Nomitech's ICMS Web-based Technology for Improving Early Phase Project Decisions and Historical Analysis, Infrastructure Estimating Automation and BIM Based Estimating Techniques from Concept up to the Bidding Phase	Gold Sponsor's Speaker Mr. Tolis CHATZISYMEON CEO & Co-Founder of Nomitech Ltd
12:00 – 12:30	5. Update of BIM Software Development	Invited Speaker Dr. Robert YUAN Zheng Gang President, Glodon Company Limited, China
12:30 – 13:00	6. Embracing the Paradime \$hift: What's Next for the QS Industry in the Digital Age?	AIQS Representative Mr. Andrew BRADY Managing Director of GRC Quantity Surveyors AIQS Board Member
13:00 – 14:00	Lunch B	reak
14:00 – 14:30	7. Smart Transformation: From Micro to Macro Level of Full Life Cycle Management	Invited Speaker Ms. Rosana WONG Executive Director, Yau Lee Holdings Limited, Hong Kong
14:30 - 15:00	Getting the Right Footing for 5D BIM – the Malaysian Experience	RISM Representative Ms. KWONG Chin Wei BIM Technical Committee of QS Div, RISM, Malaysia
15:00 - 15:30	Coffee Break & Collection of CPD Certificates	
15:30 – 16:00	9. Why Are We Still Building the Great Wall of China the Same Way?	Gold Sponsor's Speakers Ms. Winnie WONG Kin Yan Director of Arcadis Mr. Stephen AJ WRIGHT Associate Director of Arcadis
16:00 – 16:30	10.Can the Industry Cope with 5D BIM?	AIQS Representative Mr. Nathan TREVASKIS Director, Bimfire Pty Ltd.
16:30 - 17:00	11. QS and BIM; Blue Ocean or Red Sea?	SISV Representative Mr. Eugene SEAH Hsiu Min Senior Director (Special Projects), GCEO's Office, Surbana Jurong Consultants Pte Ltd
17:00	End of E	ivent

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# Co-organisers and Supporting Organisations

#### **Co-organisers:**



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#### **Supporting Organisations:**





































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### Message from President of the HKIS

#### **Sr Thomas HO Kwok Kwan**

President, The Hong Kong Institute of Surveyors

On behalf of the Hong Kong Institute of Surveyors, it is my greatest pleasure to welcome you all to the International QS BIM Conference 2017 Hong Kong. We are excited to have our special guests, precious friends and members joining us to share the profound knowledge and experience in the surveying industry.

The Hong Kong Institute of Surveyors (HKIS) strives to provide professionalism with code of ethics in the surveying industry by setting professional requirements, which has a significant impact on the future surveying development. The HKIS also provides many opportunities for members to develop skills and knowledge. The International QS BIM Conference 2017 Hong Kong is beyond doubt one of the most valuable opportunities for the guests and members worldwide to share their knowledge and precious experience.

The International QS BIM Conference 2017 Hong Kong provides a platform for the professionals and experts all over the world to share knowledge and experience in using BIM for cost management and budget planning. BIM is one of the most powerful tools to give architecture, engineering and construction professionals the insight to plan, design and manage the infrastructure. It is essential for the surveyors to make use of this strong tool for more efficient work. The sharing of the conference on BIM helps the surveyors to equip for the new challenges in the future.

In the hope of making Hong Kong a better off city, surveyors should be aware of the latest development in all related areas so as to resolve issues related to surveying. The contribution made on surveying is also beneficial to the development in other areas such as socio-cultural development and economic growth. I wish every surveyor can strive for professionalism with unique insight and positive attitude in the future.

May I take this opportunity to express my sincere gratitude towards the Organising Committee for organising this conference. And thank you all again for coming to the International QS BIM Conference 2017 Hong Kong. I wish you all a fruitful day!

### Message from Chairman of the HKIS QSD



#### **Sr Raymond KAM**

Chairman of the Quantity Surveying Division, The Hong Kong Institute of Surveyors

It gives me great honour, as the Chairman of the Quantity Surveying Division of the Hong Kong Institute of Surveyors, to welcome you all to the International QS BIM Conference 2017 Hong Kong.

It is also our privilege to have the following old friends and partners to jointly organise the event. They are the Construction Industry Council of Hong Kong (CIC), the Australian Institute of Quantity Surveyors (AIQS), the Royal Institution of Surveyors Malaysia (RISM), and the Singapore Institute of Surveyors and Valuers (SISV). The theme of this conference is "Quantity Take-off (QTO), Cost Management and the Way Forward of BIM for Quantity Surveyors".

BIM has gained a lot of attention in the recent years across the full spectrum of stakeholders and key players in the construction market. Various studies and researches have been conducted in the subject and there were already some breakthroughs like the 5D BIM since our first BIM Conference back in 2013.

This conference aims to discuss the BIM development and the challenges and opportunities ahead for the quantity surveyors, not only in Hong Kong but in the Pacific Region as well. We have renowned speakers from Australia, China, Malaysia, Singapore as well as the elites in Hong Kong. Ms. Ada Fung, the Chairperson of the Committee on BIM of the Construction Industry Council is our keynote speaker. Over the years, she as the Chair of the Taskforce on BIM which is now upgraded to Committee on BIM, has supported and contributed a lot to the various industry stakeholders on the development of BIM. Her topic today "Building a Collaborative Future: BIM in Hong Kong" will give us the update and aspirations on the way forward for the advancement of BIM in Hong Kong.

Finally, I would like to take this opportunity to thank all our guests, speakers, sponsors and supporting organisations. My most heartful thanks also go to the conference organising committee headed by Sr K C Tang. Last but not least, I thank all the participants of this conference for their support and making this conference a wonderful and successful event.

### Message from OC Chairman



#### Sr TANG Ki Cheung

**Organising Committee Chairman** 

On behalf of the Organisation Committee, I would like to express our sincere gratitude to the supports of over 360 audience, 12 Speakers, 23 Sponsors, 17 Supporting Organisations, 5 Co-organisers and the Conference Secretariat to make the Conference a reality.

The Conference is hosted by the QS Division of the HKIS and co-organised by CIC, AIQS, RISM and SISV. This is also deemed to be an HKIS QSD Annual Conference.

The following is extracted from my message as the OC Chairman of the International QS BIM Conference 2013 Hong Kong:

- Wishes [Use BIM: BIM can do a lot for us, but if we just always watch and do not start using it, we would not gain the benefits. | Push and pull BIM applications: The present off-the-shelf BIM applications cannot yet serve everybody's need. The applications' development can only move faster and provide more suitable functions if there are more users using them and making strong market demand. | Start from small: BIM is being used by affordable clients on big projects by big contractors, at least in Hong Kong. Coming with BIM are issues like standardization, coding, collaboration, integration, responsibilities, liabilities, tendering and contractual arrangements, etc. which may appear to be intimidating to those yet hesitating to use BIM. The benefits of BIM can in fact be gained on small projects also. The knowledge can be accumulated and issues resolved as one moves to bigger and bigger projects. | Fund BIM: BIM applications off-the-shelf or self-developed are by no means cheap. This poses a high threshold to entry into the BIM world. The Government should consider Singapore's example of providing government funding to help step over the threshold.]
- Imagination [Perhaps, like the virtual reality movies, we may not use mouse any more but use our hand directly to shape and move the virtual building blocks each loaded with information to build the virtual model on a computer or in a physical space.]

After 5 years, the awareness of BIM is very high, and the use of BIM has increased but BIM is still not yet our daily routine tool. The Wishes expressed above are still very pertinent and the Imagination will not be realised too soon.

The topics covered by the Conference are wide ranging. The Speakers will offer much insights and foresights to the audience. However, listening to good songs over a thousand times would not make you a good singer. Watching kung fu movies over a thousand times would not make you a good kung fu fighter. Practise BIM to gain the real benefits!

# Organising Committee and Masters of Ceremony

#### **Organising Committee**



Sr Dr. Peter NG Yau Yee Beria Consultants Limited AIQS and HKIS

Sr TANG Ki Cheung K C Tang Consultants Limited HKIS

Sr Sunny CHOI Shing Lam Hong Kong Housing Authority HKIS Sr Kenneth LO Kin Fat Rider Levett Bucknall Limited HKIS

#### **Conference Secretariat**

**Red Asia Communications Limited** 

#### **Masters of Ceremony**



Sr Colin WONG Chi Ho Rider Levett Bucknall Limited HKIS

Sr Tim WONG Kwai Yiu Rider Levett Bucknall Limited HKIS

### **Relevant Conferences**

#### Past conferences

9 November 2012: SISV Conference - BIM & the QS in Singapore hosted by SISV

9 November 2013: International QS BIM Conference 2013 Hong Kong hosted by HKIS

20 February 2014: International Workshop for QS BIM Education & Training Content Development

in Kuala Lumpur hosted by RISM

10 June 2014: Half-day BIM Session in The 18th Pacific Association of Quantity Surveyors

Congress 2014 in Hong Kong hosted by HKIS

22 & 23 January 2015: BIM Seminar, Workshop & Vendor Forum Kuala Lumpur hosted by RISM

#### **Coming conference**

November 2018: ICEC-PAQS-BIM conference in Sydney hosted by AIQS



ICEC-PAQS 2018 CONFERENCE Sunday 18 – Tuesday 20 November 2018 International Convention Centre, Sydney









#### **Building a Collaborative Future: BIM in Hong Kong**

#### Ms. Ada FUNG Yin Suen, BBS, JP

Deputy Director of Housing (Development & Construction), Hong Kong Housing Authority, Hong Kong Chairperson, Committee on BIM, Construction Industry Council Keynote Speaker



#### BIO

Ms. Ada Fung is an Architect by profession. She is an active member in the Architectural field as well as in the construction industry in Hong Kong. In her career as Deputy Director of Housing, she supervises the Development & Construction Division of the Housing Department, overseeing all facets of public housing development work in Hong Kong covering project management, planning, design and contract management, as well as establishing operational policies on procurement, design, construction, quality, performance assessment, dispute resolution, research and development, safety and the environment. She also promotes partnering, value management, risk management, ethical integrity, site safety, corporate social responsibility, sustainable development, community engagement, green building and Building Information Modeling and product certification in the industry. She is the Chairperson of the Hong Kong Construction Industry Council's (CIC) Committee on Construction Safety and CIC's Committee on Building Information Modeling. She is one of the Directors of the Hong Kong Green Building Council. She is also the Past President of the Hong Kong Institute of Architects (2013 - 2014), Past Chairperson of the APEC Architect Monitoring Committee of Hong Kong (2012/13 - 2015/16), and Past Chairperson of the Architects Registration Board (2010/11 - 2011/12).

#### **Proposed BIM Contract Conditions**

#### Sr Dr. Paul HO

Principal Lecturer and Former Division Head (2007 - 2012), City University of Hong Kong Chairman of the SMM Committee, HKIS
Past QSD Chairman (2005 - 2006), HKIS
HKIS Representative

#### BIO

Dr. Ho is the Principal Lecturer and former Head (2007 - 2012) of the Division of Building Science and Technology, City University of Hong Kong. He is a professional quantity surveyor by profession. Before joining the City University, he has worked as a project manager with leading property developers for many years.

He is an active researcher and has published a number of research papers. His current research interests include real estate development, project management, construction economics, building information modelling and sustainability. He was awarded the Academic Award 2007 conferred by the Pacific Association of Quantity Surveyors (PAQS). He has served as a member of PAQS's scientific/technical committees and editorial boards of various international conferences and academic journals. He is also a reviewer of a number of international refereed journals.

He has enthusiastically contributed to the relevant professional institutions and the community. In particular, he has served as the Chairman, Quantity Surveying Division, the Hong Kong Institute of Surveyors (HKIS) in 2005 - 2006. He has also served on several government committees relating to the harbourfront, construction workers registration, building appeal tribunal and revitalisation of historic buildings. Currently, he is serving as the Chairman of the Professional Green Building Council and HKIS's SMM Committee.

#### **ABSTRACT**

Building Information Modelling (BIM) has come to the particular attention of quantity surveyors (QS) in Hong Kong for over five years. Although there are not many full swing BIM projects, QSs actively explore the best practices in adopting BIM in various quantity surveying services such as quantity takeoff, cost planning and estimating and value management. Continuous interactions with clients and other professional disciplines are still in progress to identify the best way to collaborate in order to maximize the benefit brought by BIM. The Standard Approach of Modelling as well as Levels of Development will give a clear guideline on the information to be provided by BIM models. However, the Hong Kong construction industry still lacks the "thread and needle" to integrate various BIM standards and requirements together for an effective implementation.

The Quantity Surveying Division of HKIS has taken the initiative to create the "thread and needle", i.e. the Proposed BIM Contract Conditions, to lay down the obligations and liabilities of contracting parties in a construction contract using BIM. This will cover topics such as general principles, priority of contract documents, obligations of the project participants, digital data and BIM management, BIM execution plan, risk allocation, intellectual property rights, indemnity and insurance, and termination, rescission or expiry of the agreement.

#### Singapore BIM Roadmap

#### Mr. CHENG Tai Fatt

Deputy Managing Director, BCA Academy and BERII, Building & Construction Authority, Singapore Invited Speaker

#### BIO

Mr. Cheng Tai Fatt is currently a Deputy Managing Director of two groups in Building and Construction Authority, namely BCA Academy and Built Environment Research & Innovation Institute. In BCA Academy, he oversees the various built environment training programmes from tradesman to post-graduate. In the Built Environment Research and Innovation Institute, he is responsible for driving BIM/VDC adoption in the Singapore. He helped to formulate the BIM roadmap and is tasked to drive the wide adoption of BIM across the industry to improve construction productivity. He was directly involved in the development and implementation of CORENET e-Submission system in Singapore. He is also an active member of BuildingSMART Singapore Chapter and recently elected as a Fellow to the BuildingSMART International.

#### **ABSTRACT**

Mr. Cheng will share on Singapore BIM journey to change the way they build through adoption of BIM (Building Information Modelling) and VDC (Virtual Design and Construction).

He will also share on the challenges in the journey and the efforts put in place to address them. He will also cover aspects of R&D for digital engineering.

Nomitech's ICMS Web-based Technology for Improving Early Phase Project Decisions and Historical Analysis, Infrastructure Estimating Automation and BIM Based Estimating Techniques from Concept up to the Bidding Phase

#### Mr. Tolis CHATZISYMEON

CEO & Co-Founder of Nomitech Ltd Gold Sponsor's Speaker



#### BIO

Focused on creating a state of the art cost estimating solution and advancing the quantity surveyor's profession into the future, and thinking out of the box with high interest on innovative approaches and international methodologies of cost estimating, Mr. Tolis Chatzisymeon co-founded Nomitech in 2006 as a spin-off company of the General Contractor Company that he was running and to undertake the estimates of two highway megaprojects for the JV of Ferrovial-Dragados-Terna. Nomitech today is a multi-national company that has customers in 75 countries, local partners in 50 countries and several multi-billion projects are being estimated in the CostOS Estimating platform globally.

#### **ABSTRACT**

During this presentation, Mr. Tolis Chatzisymeon, Nomitech's CEO, will be presenting a quick application of the new International Construction Measurement Standards (ICMS) on Nomitech's just released Web Based Cost Modeller System (COS.MO.S) to predict multiple type project costs and analyse project history.

In addition he will provide a practical example of the CostOS Estimating Software in Conjunction with Arup's commercial Infrastructure Knowledgebase to optimise the Cost of Rail and Highway projects, as applied on European Megaprojects.

BIM requires different types of techniques for different levels of detail when it comes to pricing the model. CostOS Estimating can use the provided information in the model, combine it with parametric models and produce quantified and traceable estimates at various stages. If the BIM model is "mature" CostOS can intelligently identify and price all BIM elements. Three quick practical examples will be provided to showcase this approach.

#### **Update of QS BIM Software's Development**

#### Dr. Robert YUAN Zheng Gang

President, Glodon Company Limited, China Invited Speaker



#### BIO

For a long time, Robert Yuan has engaged in studying technologies and products in the fields of Computer Graphics, CAD and BIM. And he owns 2 technology patents in U.S. (Primitive quadric surface extraction from unorganized point cloud data; Pipe reconstruction from unorganized point cloud data).

He has abundant experiences of business researching, development managing, and international teams leading. He has worked for GLODON for seven years and worked for AUTODESK INC. and MONTREAL UNIVERSITY as Senior Development Manager and Postdoctoral Researcher.

#### **ABSTRACT**

Considering the development needs of the AEC industry and related technologies, QS BIM software companies in China are driving two trends of QS BIM software's development for the future.

Extend its application to the whole life cycle of building projects

Now QS BIM software is used mainly in the bidding phase, because it still cannot meet the requirement in the design and construction phases.

As we can see, some large construction companies have been acquiring design companies, and the integration of design and construction is a probable trend of this industry. So, QS BIM software has to be strengthened, so that it can be applied in all the phases (design, bidding, and construction). This will be quite necessary for improving the effectiveness of construction companies' work.

Combine with Big Data

The Big Data concept is developing rapidly now in all fields. It will also change the QS work of this industry. Combining the Big Data concept and QS BIM software, enormous data of a great number of building projects (price lists, material quantities, BIM models, construction workers' time input, building components and equipment, etc.) will be collected and accumulated into a database. With this, before the QS work on a new project starts, the QS BIM software can first analyze those data. With the analysis results, the subsequent QS work across the whole building life cycle will be rather easy and accurate. This will mean "Smart QS".

Dr Yuan will give a detailed update of the above development.

### Embracing the Paradime \$hift: What's Next for the QS Industry in the Digital Age?

#### Mr. Andrew BRADY

Managing Director of GRC Quantity Surveyors AIQS Board Member AIQS Representative

#### BIO

Andrew is the Managing Director at GRC Quantity Surveyors. He has extensive property construction industry knowledge and specialist expertise in risk management, cost control, dispute resolution, contract advisory and value management services. He is the youngest person appointed to the Australian Institute of Quantity Surveyors (AIQS) National Board and was presented the Future Leader of the Year Award in the AIQS Infinite Value Awards 2013. Andrew is a member of national and international BIM committees and has experience as a Green Star accredited professional.

#### **ABSTRACT**

The property and construction industry is embracing BIM technology and developing new methodologies, processes, standards and guidelines and will continue to do this with or without involvement from the Quantity Surveying profession.

You may view this change pessimistically or see it as an opportunity to embrace the paradigm shift occurring and re-establish the profession as a key role that provides value throughout the project lifecycle. We currently have an unprecedented opportunity to strengthen our role by leveraging off the digital model/BIM, and using the plethora of tools (software platforms) available, to not only enhance our traditional service delivery but to illustrate and prove the true value of a quantity surveyor on any project. Together, with a united voice, we can make a difference.

This presentation will hopefully not only encourage all QSs to become more involved in leveraging off the latest technology available but will also touch on some of the challenges currently faced by QSs as well as outline some of opportunities on how the digital model can be utilised throughout the project lifecycle.

### Smart Transformation: from Micro to Macro Level of Full Life Cycle Management

#### Ms. Rosana WONG

Executive Director, Yau Lee Holdings Limited, Hong Kong Invited Speaker



#### BIO

As the Founder and CEO of Global Virtual Design and Construction Limited ("GVDC"), Ms. Rosana Wong leads a team of experts to implement Micro to Marco Level of OpenBIM IFC Standard Full Lifecycle Management Approach to enhance project's productivity and buildability. She is driven by her passion for combining technology, innovation and science with sustainable ecosystem in Energy & Environmental Systems, Water Sustainability, Nanotechnology, Digital Fabrication, Artificial Intelligence, Augmented Reality, Coding, Networks, Computing Systems, Cyber Security as well as E-health, Wellness, Biotechnology to build a smarter and greener community worldwide. Rosana is also a Director of Hong Kong Cyberport Management Company Limited, Vice President of Smart City Consortium and the Chairperson of its Smart Living Committee, Member of the Environment and Conservation Fund Committee of The Government of the HKSAR, Council Member of The Better Hong Kong Foundation, Member of The Zonta Club of Kowloon, Exponential Advisory Board Member of Singularity University, Board Member of Virtual Builder and Advisory Board Member of Center for Integrated Facility Engineering (CIFE) at Stanford University. Ms. Wong holds a Bachelor Degree in Design from the De Montfort University, a Master Degree in Design from the Royal College of Art in the UK, and Executive Master Degree in Business Administration, Master Degree in Philosophy both awarded by the Chinese University of Hong Kong and an executive programme in technology from the Singularity University in the US.

#### **ABSTRACT**

The world is facing rapid urbanization and this challenge requires us to formulate strategic green building solutions towards a sustainable 21st century. Ms. Rosana Wong has led to make significant strides on transforming the BIM process into a Micro to Marco Level of Full Life Cycle Management Approach. Ms. Wong will be illustrating some live projects to show how multidisciplinary design optimization, 3D construction, 5D project management, GIS-enabled urban planning & environmental analysis (HKBEAM Plus), spatial data infrastructure & augmented reality (AR) solution, manufacturing, as well as facility management greatly innovate a lean construction in particular QTO and cost management to create a smarter, greener and sustainable living to the community.

### Getting the Right Footing for 5D BIM – the Malaysian Experience

#### Ms. KWONG Chin Wei

BIM Technical Committee of QS Div, RISM, Malaysia RISM Representative



#### BIO

Chin Wei has experience in cost planning, cost management and quantity surveying services. She has been involved in projects ranging from mixed development projects (i.e. residential, retail, hotels and offices), infrastructure works, medical centres, special facilities to a wide range of fit-out projects. She has presented a paper titled 'A Preliminary Study on the BIM Competencies Required to the QS Education Programme' at the 18th PAQS Congress in Hong Kong, and have it published in the International Surveying Research Journal. She has also provided a BIM knowledge sharing session to both Undergraduate and Postgraduate students in Herriot-Watt University.

#### **ABSTRACT**

Building Information Modelling (BIM) process is often desired to be incorporated by the project stakeholders. However, majority of the BIM models are produced at a level of development that is only sufficient and fit for design purposes. Information about quantities and costs is often neglected, hence quantity take-offs and generation of Bill of Quantities together with its cost estimates could not be considered as 5D BIM just yet. In Malaysia, the Bills of Quantities still hold a great importance in the pre- and post-contract phases. Hence in order to generate quantities out of the BIM model, a comprehensive thought process prior to the design stage is important to ensure a BIM process that could be described as integrated and automated. This paper includes a case study on the processes involved in order to adopt 5D BIM.

### Why Are We Still Building the Great Wall of China the Same Way?



Ms. Winnie WONG Kin Yan
Director of Arcadis
Gold Sponsor's Speaker



Mr. Stephen AJ WRIGHT
Associate Director of Arcadis
Gold Sponsor's Speaker

#### BIO

#### Ms. Winnie, Wong Kin Yan

Director of Arcadis, Chartered Quantity Surveyor. Winnie is an experienced cost manager and trained programme manager who focused on market in Hong Kong, Macau and Mainland China. Her projects covered both commercial developments and infrastructure. She is a member of Arcadis BIM workgroup with the aim for driving 5D BIM in Hong Kong.

#### Mr. Stephen AJ, Wright

Educated and trained in the UK, Stephen is an Associate Director of Arcadis, Chartered Building Surveyor and board member of the International Facilities Management Association (HK Chapter). Now based in Hong Kong, Stephen began his career with Davis Langdon before moving to Malaysia with Arcadis in 2013. Stephen has know-how across the property investment cycle; from development, operation, refurbishment and maintenance, to disposal and acquisition, giving him a unique mix of skills and experience.

#### **ABSTRACT**

Construction is way behind other industries when it comes to the uptake of digital solutions. Design, planning and construction of buildings is in much the same way as we did 2000 years ago to build the Great Wall of China. BIM is our industry's catalyst for change. Fundamentally a technology-driven concept, when combined with issues pertaining to people, processes and organisations, BIM has the potential to drive a digital revolution in our industry. So what is the status of BIM adoption globally, and what can Hong Kong learn from other countries' experiences? The speakers will share with you one of their case studies from the UK, focusing on the impact that BIM is having on their approach to Project Management and Quantity Surveying. Some of their success stories (as well as the challenges) in adopting BIM will be shared, and how the industry in Hong Kong should respond to the challenge will also be discussed.

#### Can the Industry Cope with 5D BIM?

#### Mr. Nathan TREVASKIS

Director, Bimfire Pty Ltd. AIQS Representative



#### BIO

Nathan has 8 years' experience working in the Construction, Mining, Oil & Gas industries, playing a key role on a variety of large scale projects across Australia, Asia, the Americas. Nathan holds a Batchelor of Applied Science; Construction Management, Economics, completed at Curtin University of Technology, Western Australia. He is an active member on a number of State, National and International Building Information Modelling Committees. Nathan Co-authors and provides University of Western Australia students enthusiastic initiatives on BIM implementation, strategy and management for the Masters of Building Information Modelling and Architecture Masters unit – BIM Workflows. He adopts a thorough and detailed approach to all projects and has also developed expertise in Project BIM Management, 3D model quantity generation, project controls, 5D cost estimating, post contract administration services, payment certification, valuations.

Project involvement this year include Project BIM Manager for:

- Port Hedland, Integrated Marine Operations Center
- Warren Heath Service Hospital
- RSL Western Australia ANZAC House

#### **ABSTRACT**

The Quantity Surveying/Cost Planning profession has reason to be particularly enthusiastic about the tangible industry development of Building Information Modelling. You could even say that these members of the industry have reason to be the most enthusiastic of any of the relevant AEC professional disciplines.

Entire industries find themselves partially or in some cases fully immersed in the reality of BIM and the opportunities it presents. Fear of the unknown has delayed the evolution of uptake of the sophisticated digital procurement method; however even within a traditionally adversarial project delivery structure, the benefits and efficiencies still manage to emerge, providing value to all who are exposed.

For those who pursue excellence in the realms of efficiency, collaboration, transparency, value and integrity, the reality of full BIM implementation from the feasibility, design, shop drawing, construction, commissioning and operation is essential. Traditional procurement simply cannot match a fully enabled BIM procurement model.

So the question laid bare is where do we start the conversion? This presentation will go into specific detail and attempt to provide strong direction on this matter.

#### QS and BIM; Blue Ocean or Red Sea?

#### Mr. Eugene SEAH Hsiu Min

Senior Director (Special Projects), GCEO's Office, Surbana Jurong Consultants Pte Ltd SISV Representative



#### BIO

Eugene joined Surbana Jurong Group on 1 January 2017, as Senior Director, Group CEO's office to spearhead and oversee the Group's special projects, in particular Group initiative on Sustainable, BIM and Productivity. He is also a Director on the Boards of Threesixty Cost Management and Threesixty Contract Advisory for which his extensive knowledge and expertise will help fortify the business thrust of the Group.

Eugene graduated with a Bachelor of Science (BSc) (1st Class Hons) from the University of Reading in 1999 and a BSc in Technology Management and Computing (1st Class Hons) from the University of Portsmouth in 2002. He has also completed an MSc in Construction Law and Arbitration from the joint NUS and Kings College London programme, a Msc in Sustainable Building Design from the University of Nottingham and the Senior Management Development Program from Harvard Business School.

Eugene is highly experienced in Quantity Surveying and often injects sustainability value management and green approaches into his work to achieve to project efficiency. He is a Green Mark professional and is knowledgeable in sustainable buildings. He is also an Accredited Adjudicator under Singapore Mediation Centre and a registered Mediator in the Singapore Institute of Surveyors and Valuers.

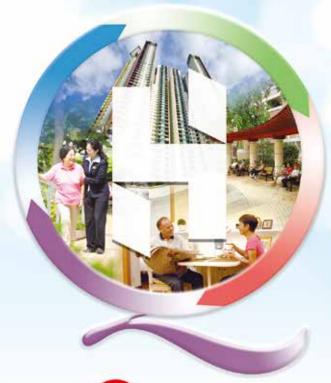
Eugene is now working on enhancing productivity in Design and Construction and researching on Computational BIM, VR/MR and other productivity enhancement topics for the Surbana Jurong Group.

Passionate about teaching, Eugene is also an Adjunct Associate Professor at the Department of Building, School of Design and Environment, National University of Singapore.

#### **ABSTRACT**

The QS and how BIM affects our profession, has been a hot topic for some time. And it still is a hot topic. Talks of the QS losing the measurement skillset to the computer is one of the topics discussed. Well, being in Surbana Jurong that is investing in and leading the BIM and Digital in Construction and Real Estate, there are several learning and touch points on this subject matter. This presentation touches on the pertinent issues on how BIM affects the QS profession and the practices and procedures. The discussion of BIM will include BIM related talking points such as computational, DFMA, behavioural changes and a relook into procurement types.

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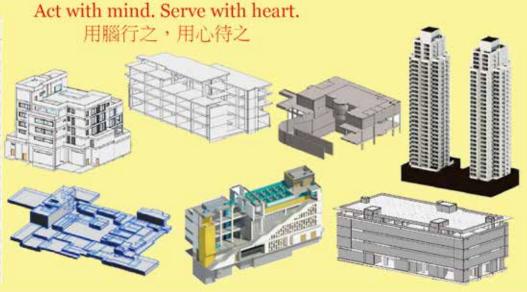
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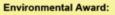
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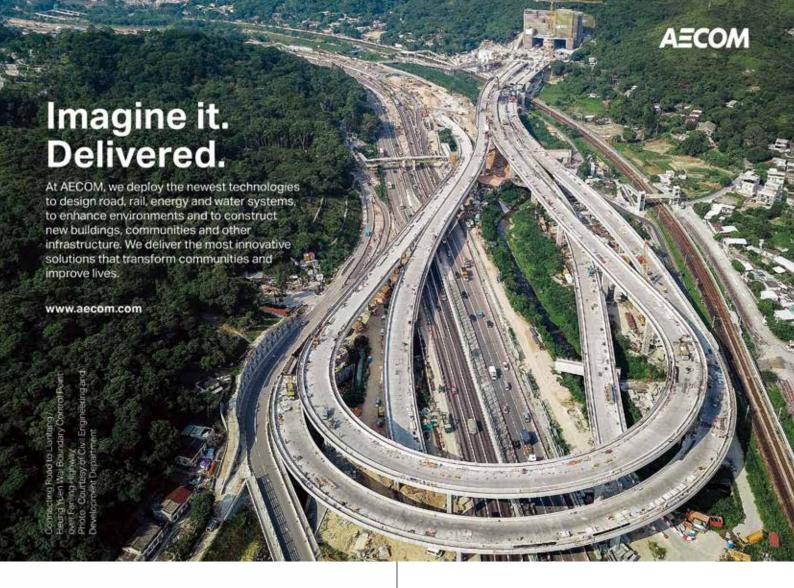
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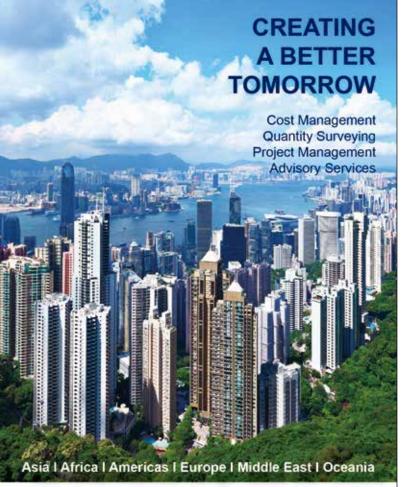
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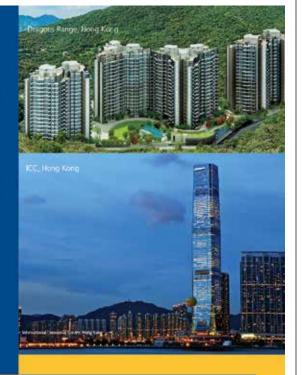


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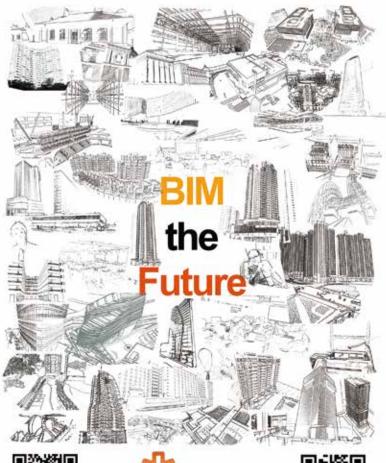
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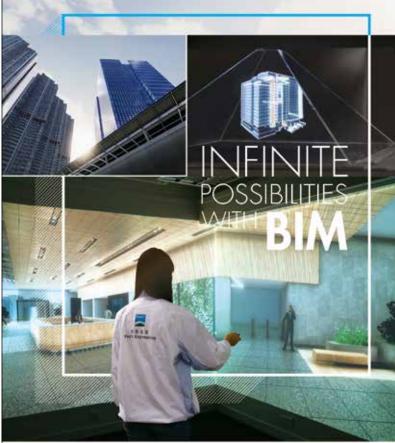
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# The Hong Kong Institute of Surveyors - Quantity Surveying Division

#### The Hong Kong Institute of Surveyors

Established in 1984, The Hong Kong Institute of Surveyors (HKIS) is the only surveying professional body incorporated by ordinance in Hong Kong. As of 13 October 2017, the number of members reached 9726, of which 6399 were corporate members, 78 were associate members and 3249 were probationers and students.

HKIS work includes setting standards for professional services and performance, establishing codes of ethics, determining requirements for admission as professional surveyors, and encouraging members to upgrade skills through continuing professional development.

HKIS has an important consultative role in government policy making and on issues affecting the profession. We have advised the government on issues such as unauthorized building works, building safety campaign, problems of property management, town planning and development strategies, construction quality and housing problems. We are working on amendments to standard forms of building contract and have issued guidance notes on floor area measurement methods.

We have an established presence in the international arenas, have overseas connections, and have entered into reciprocal agreements with professional surveying and valuation institutes in the United Kingdom, Australia and Singapore recognizing the counterpart's member's qualifications. In addition, HKIS is a member of various leading international surveying organisations.

#### **Quantity Surveying Division**

Quantity Surveying Division (QSD) is one of the six divisions of the Hong Kong Institute of Surveyors.

Members of the QSD are professionals who have been trained as construction cost consultants. They possess expert knowledge in costs, values, finance, contractual arrangements and legal matters pertaining to the construction field.

As at 13 October 2017, the QSD has 4,721 members. Among them, there are 2,692 Corporate Members, including 207 Fellow Members.

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