



FORGING AHEAD

**Practical Solutions
in Quantity Surveying**

23 October 2021

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Message from Guest-of-Honour



Ms HO Wing Yin, Winnie, JP
Director of Architectural Services
Architectural Services Department, HKSARG

My sincerest congratulations to the Hong Kong Institute of Surveyors (HKIS) Quantity Surveying Division (QSD) for hosting the QSD Conference 2021!

The theme of the conference – “Forging Ahead – Practical Solutions in Quantity Surveying” – echoes the direction of the Architectural Services Department (ArchSD). Amidst the era of digitalization and artificial intelligence (AI), our colleagues are encouraged to be dynamic and agile in applying innovation and technology to meet the challenges in their works. New innovation and technology are the wisdoms and treasures readily surrounding us. The crux is whether the working environment and culture provide the opportunities, trusts and guts to the teams to explore the innovative solutions for a brighter and unprecedented future. The remarkable effort of our quantity surveying branch in the development of e-tendering, digitalization of schedule of rates, smart contract advisory system, e-project cost analysis platform, AI cost estimation, etc. are tangible manifestations of our determination in nurturing innovative quantity surveying to tackle practical problems. I call upon every party in the industry to seize the opportunities in innovation and rise to the challenges ahead.

We are grateful to have HKIS as a resilient partner in the surveying professionals leading to the industry continuously excelling towards the well-being of the community.

Message from President



Sr Edwin TANG
President
The Hong Kong Institute of Surveyors

On behalf of the Hong Kong Institute of Surveyors, I am beyond honored to welcome you all to the HKIS Quantity Surveying Division Conference 2021. It is our greatest privilege to have our special guests, precious friends and members joining us to share their thought-provoking insights and valuable experience in the surveying industry. We are also delighted to welcome our Keynote Speaker today, Ms HO Wing-yin Winnie, JP, Director of the Architectural Services Department, HKSAR Government.

Since 1984, the Hong Kong Institute of Surveyors (HKIS) has been striving for greatness in the surveying industry through establishing professional standards, setting codes of ethics, and acting as a platform for our fellow surveyors to improve their skills and knowledge continuously. Among all of our endeavors, we recognize the importance of continued professional development. Therefore, the HKIS QSD Conference 2021 aims to provide one of the most valuable opportunities for the guests and members across the globe to exchange their perspectives and experiences.

The theme for this year conference is **Forging Ahead: Practical Solutions in Quantity Surveying**. The goal is to gather worldwide professionals and experts to share their profound knowledge and experience in the recent issues, challenges, and the future of quantity surveying. In light of the constant changes in the industry, the responsibility of being alerted of the latest development in all related areas so as to deal with issues relevant to surveying in the pursuit of professionalism falls onto the surveyors. Through the joint hands of our fellow surveyors, we believe the surveying industry in Hong Kong can continue to thrive.

I truly appreciate the organizing committee for their devotion to this conference. Again, thank you all for attending the HKIS QSD Conference 2021 today. I wish the Conference immense success.

Message from QSD Chairman



Sr Amelia FOK
Chairman, Quantity Surveying Division
The Hong Kong Institute of Surveyors

It is my great honour as the Chairman of the Quantity Surveying Division of the Hong Kong Institute of Surveyors, to welcome you all to the HKIS QSD Conference 2021.

With the theme **Forging Ahead: Practical Solutions in Quantity Surveying**, this conference will discuss some updated issues in Quantity Surveying. The topics include construction claims due to COVID-19, Security of Payment, the 3rd edition of the International Cost Management Standard, challenges in the application of technologies like the Building Information Modelling and Modular Integrated Construction, and lastly, the development and career opportunities of quantity surveying outside Hong Kong. Today, we are honoured to have ten guest speakers, experienced practitioners, scholars and rising talents from Hong Kong, Singapore and United Kingdom who will share their experiences and insight with us.

Forging ahead means “moving forward in a strong steady way”. With the wide-ranging topics mentioned, we hope all the participants will find this an inspiring and fruitful event to help them “Forge Ahead” in the industry while gaining further knowledge and experience on those quantity surveying related topics shared by our honourable speakers.

It is great to see that there are over 300 participants in this conference including our young talents – scholarship holders and new qualified members. Through this Conference, we hope to promote the quantity surveying profession and encourage more new talents to join our QS family.

In today’s conference, it is our honour to have Ms. Winnie Ho, JP, Director of Architectural Services Department of HKSARG as our Guest of Honour to deliver the opening keynote speech.

Finally, I would like to take this opportunity to extend our sincere gratitude to Ms. Winnie Ho and all our honourable guests, speakers, moderators, sponsors and supporting organisations. My heartfelt thanks also go to the conference organising committee lead by Sr Paul Wong. Last but not the least, I thank all the participants of this conference for their support, without which this Conference could not be a successful event.

Message from QSD Conference 2021 OC Chairman



Sr Paul WONG
Organising Committee Chairman
QSD Conference 2021

On behalf of the Organising Committee, I would like to take this opportunity to thank all of you for joining today's HKIS Quantity Surveying Division Conference 2021 either in person or online.

The theme of this year's conference is **Forging Ahead: Practical Solutions in Quantity Surveying**. We are honored and delighted to have invited the Director of Architectural Services Department, Ms Winnie Ho, JP, as our Guest of Honor, to deliver the Opening Keynote Speech. It is also our pleasure to invite local and overseas professionals from diverse backgrounds to share their insights regarding the future, potential challenges of quantity surveying as well as the possible solutions with us. The conference have covered topics such as claims for the pandemic from different standard forms of contract, Security of Payment Act in Singapore, development and QS career paths outside Hong Kong, BIM, MiC and International Cost Management Standard. Through the exciting program, I strongly believe that our participants have acquired illuminating insights and foresight.

As the chairman of the HKIS QSD Conference 2021 Organising Committee, I understand that the Conference would not be a success without your collective efforts in the planning and participation. Therefore, I would like to take the opportunity to thank our Guest of Honour, speakers, moderators, sponsors, guests, organising committee members and all our audiences for making the Conference a huge success.

Thank you all for joining us today, I hope you have a fruitful day at this conference.

Conference Program – Morning Session

Time	Programme/Topics	Speakers
09:00 – 09:05	Welcome Speech	Sr Edwin TANG President The Hong Kong Institute of Surveyors
09:05 – 09:10	Welcome Speech	Sr Amelia FOK Chairman Quantity Surveying Division The Hong Kong Institute of Surveyors
09:10 – 09:40	Opening Keynote Speech	Ms HO Wing Yin, Winnie, JP Director of Architectural Services Architectural Services Department HKSARG
09:40 – 09:45	Group Photo and Souvenir Presentation to Guest of Honour	
09:40 – 09:50	Souvenir Presentation to Sponsors	
Claims for COVID-19 from different standard forms of contract		
09:50 – 10:15	Topic: Claims due to COVID-19 under different standard forms of contract	Sr Gilbert KWOK Partner Cocking & Co LLP
10:15 – 10:20	Q & A	Moderator Sr Raymond Kam Past Chairman (2016-18) Quantity Surveying Division The Hong Kong Institute of Surveyors
Impact of SOPL		
10:20 – 10:45	Topic: Security of Payment Act in Singapore – a QS practice perspective	Mr KHOO Sze Boon Immediate Past President (QS Division) Singapore Institute of Surveyors & Valuers Managing Director, Singapore, Vietnam & Philippines Turner & Townsend
10:45 – 10:50	Q & A	Moderator Sr Raymond Kam Past Chairman (2016-18) Quantity Surveying Division The Hong Kong Institute of Surveyors
10:50 – 10:55	Souvenir Presentation to Speakers and Moderators	
10:55 – 11:05	Break	
Development and QS career path outside Hong Kong		
11:05 – 11:25	Topic: Opportunities and Challenges in Greater Bay Area	Sr YK CHAN Director WT Partnership
11:25 – 11:45	Topic: Journey to the Lion City	Sr Melody LEUNG Kwan Ngan Executive M&E Quantity Surveyor AECOM Cost Consulting and Project Management (Singapore) Pte. Ltd.
11:45 – 12:05	Topic: International Quantity Surveying: what others are doing around the world?	Sr T T CHEUNG, JP Past World Chairman International Cost Engineering Council
12:05 – 12:20	Q & A	Moderator Sr Steven TANG Executive Director Arcadis Hong Kong Ltd.
12:20 – 12:25	Souvenir Presentation to Speakers and Moderator	
12:25 – 14:00	Lunch Break	

Conference Program – Afternoon Session



BIM: Are you moving fast?		
14:00 – 14:20	Topic: BIM: Expectations, Shortfalls, Issues and Solutions.	Sr K C TANG Director K.C. Tang Consultants Limited
14:20 – 14:40	Topic: Young QS development under BIM Era	Sr Jason CHAN Tak Chuen A Young Qualified QS with BIM experience
14:40 – 14:50	Q & A	Moderator Sr Steven TANG Executive Director Arcadis Hong Kong Ltd.
14:50 – 14:55	Souvenir Presentation to Speakers and Moderator	
14:55 – 15:00	Break	
MiC: The input by QS		
15:00 – 15:20	Topic: Costing of Modular Integrated Construction (MiC) in Hong Kong – Main Contractor's Perspective	Sr Rita NG Group Commercial Director Paul Y. Engineering Group
15:20 – 15:40	Topic: MiC: Challenges to QS	Sr Mandy NG Director Beria Consultants Limited
15:40 – 15:50	Q & A	Moderator Sr Sandy TANG Council Member Quantity Surveying Division The Hong Kong Institute of Surveyors
ICMS		
15:50 – 16:15 (UKT: 8:50am)	Topic: International Cost Management Standard (ICMS) – Global Consistency in Presenting Construction Life Cycle Costs and Carbon Emissions 3rd Edition	Prof. Malcolm HORNER Professor University of Dundee
16:15 – 16:20	Q & A	Moderator Sr Sandy TANG Council Member Quantity Surveying Division The Hong Kong Institute of Surveyors
16:20 – 16:25	Souvenir Presentation to Speakers and Moderators	
16:25 – 16:30	Closing Remarks	Sr Paul WONG Organising Committee Chairman QSD Conference 2021
16:30 – 16:35	MC Round-up & End of Conference	

Speaker Information and Abstract



Speakers Information



Sr Gilbert KWOK
Partner
Cocking & Co LLP

BIOGRAPHY

Gilbert is a partner of Cocking & Co LLP, a specialist construction law firm. He is experienced in drafting and advising on construction contracts, consultancy agreements and supply contracts relating to a wide range of construction projects in a number of cities such as Hong Kong, Beijing, Shanghai, Macau, Angola, Israel and the UK.

Gilbert also has extensive experience in handling construction, commercial and other type of disputes and has handled numerous arbitration, litigation and mediation cases for the last 30 years since 1991.

In addition, Gilbert is a Fellow of The Hong Kong Institute of Surveyors (HKIS) and Past Chairman of the Quantity Surveying Division of HKIS. He is also the honorary legal advisor of a few construction professional organisations in the region.

On community services, he was the president of the Rotary Club of Peninsula from July 2017 to June 2019.

ABSTRACT

Claims due to COVID-19 under different standard forms of contract

A. Introduction

- General trends – e.g. findings from the Census and Statistics Department indicate that total gross value of construction works performed by main contractors in 2020 decreased by 4.2% in nominal terms compared with 2019 to HK\$226.4 billion

B. Force Majeure Claims under Standard Forms of Contract

- What is a force majeure clause?
- What kind of force majeure relief is provided for under the standard forms of construction contract in Hong Kong?
 - (i) HKSAR Government – General Conditions of Contract for Building Works (1999 Edition)
 - (ii) Agreement & Schedule of Conditions of Building Contract for use in HKSAR (Standard Form of Building Contract Private Edition – With Quantities) (2005 Edition)
 - (iii) NEC3: Engineering and Construction Contract
- What are the possible force majeure claims in the context of COVID-19?

C. Doctrine of Frustration

- What is the doctrine of frustration? How is it different to the protection by a force majeure clause?
- Does the doctrine of frustration apply in the context of COVID-19?

D. Other Relevant Provisions under Standard Forms of Contract in the Context of COVID-19

- Provisions may cover the following issues: suspension ordered by employer, change in law (new law or regulation in relation to coronavirus), instruction by the engineer to take special work arrangements, delay in delivery of materials, variation, delay as a result of the engineer's flexible working arrangements, special circumstances etc.

E. Key Takeaways/Conclusion

- Recommendations to employers and contractors in light of COVID-19

Speakers Information



Mr KHOO Sze Boon
Immediate Past President (QS Division)
Singapore Institute of Surveyors & Valuers
Managing Director, Singapore, Vietnam & Philippines
Turner & Townsend

BIOGRAPHY

Sze Boon is currently the Managing Director of Turner & Townsend who oversees Singapore, Vietnam and Philippines operations. He has more than 20 years of professional experience and has undertaken senior leadership positions in international consultancy practice.

Sze Boon was the immediate Past President and Past Chairman of (Central Management Committee) of the Singapore Institute of Surveyors & Valuers (SISV). In his SISV role, he has been instrumental in championing the Industry Transformation Map Action Plan for QS.

He has been leading and managing project teams, delivering professional quantity surveying and cost consultancy services in various sectors. Some of his notable project experience includes Changi Airport Terminal 4, Guoco Tower Mixed Development (tallest building in Singapore), Clement Canopy (one of the world highest PPVC project) and Gardens by the Bay.

Sze Boon is actively representing the QS fraternity in various industry committees in the Singapore Built Environment Industry such as – Construction Industry Joint Committee, BCA BIM Steering Committee, BCA Rebranding Implementation Workgroup, BCA BuildSG Tripartite Committee, BCA Collaborative Contracting Working Committee and BCA's Buildability & Quality Advisory Committee.

He also sits on University Programme Advisory Committee (PAC) with Singapore University of Social Science (SUSS) and currently chairs the RMIT-SIM PAC. He is also a member of the Department Consultative Committee of National University of Singapore (NUS) – Department of Built Environment.

Sze Boon was awarded the RICS Construction Professional of the Year in 2020 and was conferred the Pacific Association of Quantity Surveyors (PAQS) Medal in 2019.

ABSTRACT

Security of Payment Act in Singapore - a QS practice perspective

The Singapore Building & Construction Industry Security of Payment Act (SOP Act) was enacted in 2004 and came into operation on 1 April 2005. The objective is to improve cashflow by upholding rights of parties to seek progress payment for work done. It also provides a quick and low-cost resolution of payment disputes through the adjudication framework.

The amendments to SOP Act came into operation in Dec 2019 which aimed at improving the administration of the Act and proceedings under the Act. Amongst of amendments, the Act includes expansion of the Act to include contracts relating to prefabrication of components overseas for projects in Singapore. This seems to respond to the push for Design for Manufacturing Assembly (DfMA) projects by the Singapore Government where key components are commonly undertaken outside Singapore.

The presentation will cover the key features of the SOP Act, an overview of the payment and adjudication regime and some of the pros and cons of the Act.

As Quantity Surveyors and Cost Managers, we play an important role in the progress payment process for construction projects. It is therefore essential to have a good understanding of the payment regime and procedures under the SOP Act.

With this knowledge, we can then streamline the payment claim and certification processes to align with the Act and provide value add when exercising our duties. The presentation will cover some of the practice matters relating to SOP Act from a QS perspective.

Speakers Information



Sr YK CHAN
Director
WT Partnership

BIOGRAPHY

Mr Y K Chan has 30 years of working experience in quantity surveying practice. Since joining WT Partnership in 1991, he has been involved in a wide variety of projects providing professional quantity surveying and cost management services in Hong Kong and Mainland China.

Y K started to participate projects in Mainland China in 1993. With over 20 years of industry experience in Mainland China, he is well versed in local quantity surveying and cost management practice through involvement in various project sectors including large scale mixed use, super high-rise, corporate head quarter and data center projects with different developers across different regions.

Y K has been playing a key role in WT Partnership for the business expansion in Mainland China since the last decade. Currently, Y K is the director of WT Partnership managing the offices in Shenzhen and Guangzhou and responsible for the business operation in Southern China. In addition, Y K also serves as Finance Director of WT Partnership's Asia Group looking after the financial aspects of the Company.

Y K holds a Bachelor of Quantity Surveying Degree from the University of Reading. He is a member of HKIS and RICS, and also a RPS (QS) and a China Registered Cost Engineer.

ABSTRACT

Opportunities and Challenges in Greater Bay Area

The Greater Bay Area ("GBA") has been a hot topic in Hong Kong since it was initiated by the State Council in 2015. The Outline Development Plan for the Guangdong-Hong Kong-Macao Greater Bay Area was subsequently issued in February 2019 and it set down the aim of developing the GBA into a world-class economic hub so as to create a platform for deepening the cooperation among the Mainland, Hong Kong and Macao. It is also a step forward for the implementation of the practice of "One Country, Two Systems".

The GBA consists of nine cities in Guangdong, the Hong Kong SAR and Macao SAR. Each city plays a different role in the GBA. With the effect of the GBA initiative, it is truly that it will stimulate massive construction activities in various sectors in the region, in particular the major cities of Guangdong. For Hong Kong professional surveyors, it is no doubt that it will create a platform to facilitate further extension of our footprint through participation in the development of the GBA.

To assist the Hong Kong professional surveyors to step into the market of GBA, the Central Government has implemented a series of preferential policies to attract the Hong Kong professional surveying companies to establish their base in the region. Those policies include rebate of individual income tax ("IIT"), office rental subsidies, exemption on employment permit for Hong Kong residents in Qianhai, the recent cancellation of license qualification for cost engineering company, etc.

Nonetheless, there are many challenges that will have to encounter when providing services in the region. Apart from the difference in cost level from business perspective, the Hong Kong surveyors need to adapt ourselves to suit the custom of the local industry and the ever changing professional practice in the Mainland.

Speakers Information



Sr Melody LEUNG Kwan Ngan
Executive M&E Quantity Surveyor
AECOM Cost Consulting and Project Management (Singapore) Pte. Ltd.

BIOGRAPHY

Born and raised in Hong Kong, Melody Leung moved to Singapore in 2014 and is now a consultant M&E quantity surveyor. She is a member of the Hong Kong Institute of Surveyors (HKIS) and Singapore Institute of Surveyors and Valuers (SISV).

ABSTRACT

Journey to the Lion City

Staying 2,600km away from Hong Kong, Melody will give a presentation on her journey in Singapore. She will share with us not only the opportunities, but also the challenges she came across as a consultant quantity surveyor. Besides, she will talk about her observations in her working life in Singapore.

Speakers Information



Sr T T CHEUNG, JP
Past World Chairman
International Cost Engineering Council

BIOGRAPHY

BSc(QS)(Hons), MSc, JD, FHKIS, FRICS, FCIInstCES, FCCEA, RPS(QS), Registered Cost Engineer (China), Accredited Mediator & DRAd

Sr Cheung is the past president of the Hong Kong Institute of Surveyors (HKIS), past Chairman of the Surveyors Registration Board (SRB), past chairman of the Pacific Association of Quantity Surveyors (PAQS), past world chairman of the International Cost Engineering Council (ICEC) & past chairman of HKIS QSD. Sr Cheung has been an Adjunct Professor at the Department of Real Estate and Construction, University of Hong Kong for 15 years from 2005 – 2020. He is a visiting lecturer at both the University of Hong Kong and the Hong Kong Polytechnic University on dispute resolution.

Sr Cheung is a director at Aria & Associates Ltd. and has been practicing as expert witness for over 20 years. He has been a council member of the China Cost Engineering Association for over 20 years. He is an invited member of the panel of mediators and panel of expert witness of the CCEA.

ABSTRACT

International Quantity Surveying : what others are doing around the world?

The traditional quantity surveyors' role in Hong Kong has been established more than 100 years. It is basically modeled from the British practice, from measurement of quantities to tendering, procurement and contract administration. Many other parts of the world are doing similar things but they do not call themselves QS. In North & South America, China and India, they call themselves Cost Engineers. In most countries of Central Europe, they call themselves Project Managers/Cost Management or Cost Economist. In the talk, Sr Cheung will share with the audience what are the core focuses of the QS counterparts around the world, the international tie between HKIS and other QS organizations and the career prospects of young QS outside Hong Kong.

Speakers Information



Sr K C TANG
Director
K.C. Tang Consultants Limited

BIOGRAPHY

Sr. K C TANG, Director of K C Tang Consultants Ltd, is a FHKIS, RPS(QS), FHKIVM, FCCEA, PAQS-Medal-Awardee, ICEC-Distinguished-International-Fellow, and CIC-Certified-BIM-Manager.

Sr. TANG is a qualified quantity surveyor with over 45 years' professional quantity surveying experience.

He has been a member of the BIM Sub-Committee of the QSD since 2012.

ABSTRACT

BIM: Expectations, Shortfalls, Issues and Solutions.

BIM has been a hot topic in Hong Kong for around 10 years now. The Construction Innovation and Technology Fund was established by the Development Bureau in October 2018 to encourage wider adoption of innovative constructive methods and new technologies including BIM. However, the uptake of BIM is still slow, particularly for quantity surveyors. Sr. Tang will share his views on the great expectations, shortfalls, issues and proposed solutions.

Speakers Information



Sr Jason CHAN Tak Chuen
A Young Qualified QS with BIM experience

BIOGRAPHY

Jason is currently working as an Assistant Manager under CEO Office in a Hong Kong leading contractor group. His responsibilities include assisting senior management to make major corporate decisions, integrating the strategic direction of the company, acting as the communicator between the board of directors and different corporate divisions.

Jason is a Chartered Quantity Surveyor in Hong Kong, Chartered Member of Royal Institution of Chartered Surveyors (MRICS), Member of Chartered Institution of Civil Engineering Surveyors (MCInstCES), Member of Chartered Institute of Arbitrators (MCIArb), Professional Member of the Hong Kong Institute of Building Information Modelling (MHKIBIM) and CIC Certified BIM Manager (CCBM) with extensive experience across different types of projects and aspects.

His focus is mainly in commercial & contract management, 5D BIM development, automation of digital construction and innovation.

Prior to CEO Office, Jason participated in the first Hong Kong Modular Integrated Construction (MiC) Demo Project as a QS leader and was the division leader in BIM for QS duties in a leading contractor company.

ABSTRACT

Young QS development under BIM Era

Hong Kong is rapidly developing Building Information Modeling (BIM), since 2018 the government has been prompting BIM as one of mandatory components in the construction projects. The contractor& consultant engaged for capital works projects with estimates more than \$30 million and with tenders to be invited on or after 1 January 2021 shall establish a Building Information Modelling (BIM) team led by a BIM Team Leader.

Different institutions strive ensure their future as key players in the BIM world and Quantity Surveyor (QS) would be one of the appropriate parties to lead the BIM Team with professional knowledge on construction costs and contracts.

There are three major factors that form a successful project – Time, Cost and Quality. BIM involves more than just 3D modelling coordination and is also more commonly apply in 4D (time) and 5D (cost) aspects. Well use of BIM will be one of successful factors to win the project.

5D BIM is in big demand from the government and the release of standards like ISO 19650 are creating the systems and common language. QS should embrace the digital transformation to become key players in the BIM environment – the ‘5D Project Cost Manager’. In the presentation, Jason will share his experience how QS is involved in the project using BIM and how QS can become a key player in the BIM environment

Speakers Information



Sr Rita NG
Group Commercial Director
Paul Y. Engineering Group

BIOGRAPHY

Ng Chui Sheung, Rita, is currently working in Paul Y Engineering Group as Group Commercial Director. She has over 27 years' experience in the construction industry gained in consultant firms, developers and contracting organizations. She is a Chartered Member of the Royal Institution of Chartered Surveyors, Member of The Hong Kong Institute of Surveyors and a Registered Cost Engineer in the People's Republic of China.

ABSTRACT

BIM: Costing of Modular Integrated Construction (MiC) in Hong Kong - Main Contractor's Perspective

1. Only a few suppliers are in the pre-accepted supplier list of Buildings Department.
2. Does payment terms requested by factory in line with Employer's payment terms in Main Contract (both in public and private sector)
3. How could Main Contractor increase their competitiveness in tendering projects with MiC?

Speakers Information



Sr Mandy NG
Director
Beria Consultants Limited

BIOGRAPHY

Since 2017 the Hong Kong Government has set up the MiC policy, I have chance to work for one of the three pioneer MiC projects. With the project exposure, I have conducted a lot of site visits and factory visits, experience sharing meetings and tender briefings with the MiC specialists so as to understand the MiC specialty and requirements so as to prepare the budget and also the tender to cater for the same. During these few years of exploring about the MiC products and its requirements, with different MiC projects exposure and experience sharing with other parties adopting MiC, it helps to build up my experience of MiC development from “nothing” to “something” in our quantity surveying aspects.

As per my experience, I have the following findings:-

- a. the requirements of MiC works from statutory approval is much clearer than before that the Contractors and the MiC specialists are well-aware of the statutory requirement in this type of construction method; and
- b. the Contractors become aware of the procedure, production, storage, logistic and installation requirements, etc.

All the above makes MiC techniques become more mature in the industry and thus the construction contractual requirements and cost for the MiC works become more rationalized and competitive.

ABSTRACT

MiC: Challenges to QS

The usual questions that the Client ask about MiC are mainly the followings:-

- a. MiC is cheaper or traditional in-situ construction is cheaper;
- b. Steel MiC is cheaper or reinforced concrete MiC is cheaper.

To answer the above questions, we need to consider the limitation of MiC:-

- a. If the module size requirements can meet the production, logistic and installation limitation of MiC;
- b. If the module of MiC has enough repetitiveness;
- c. If the number of modules fulfill the production line requirements, i.e. fulfilling the economical of scale consideration;
- d. If the location and the temporary storage availability of the Site is beneficial for MiC works;
- e. If the efficiency of the usable area is critical in consideration of the layout as the thickness of the structural members various amongst these schemes; and
- f. MiC works is a tailor-made proprietary product similar to curtain wall which highly depends on the design requirements.

During the preliminary estimate stage, QS only have the rough average figure of the works for doing the cost comparison to let the Client to have an idea on the magnitude of the different schemes for consideration. However, for MiC works if the above limitation of MiC cannot be fulfilled, the returned tender price of MiC will become un-expectably high. Furthermore, the payment terms and also the off site inspection criterion will also cause the MiC works being competitive in pricing or not.

Speakers Information



Prof. Malcolm HORNER
Professor
University of Dundee

BIOGRAPHY

Professor Malcolm Horner is a Fellow of the Royal Society of Edinburgh and the Institution of Civil Engineers, and an Honorary Fellow of the Royal Incorporation of Architects in Scotland. He is a civil engineer specialising in construction management whose career has embraced both academia and industry. A former Vice Principal of the University of Dundee, he has held numerous private and public sector appointments at director level, and chairs his own company, Whole Life Consultants Ltd which he founded in 2004.

He was Vice Chair of RICS's working group on the Global Professional Statement on Cost Prediction, and is currently Vice Chair of the ICMS Standards Setting Committee and Chair of the Analytical Consortium of the Transport and Infrastructure Efficiency Strategy's Living Lab Project which seeks to demonstrate how benchmarking can drive improved performance.

Professor Horner has published over 125 papers, notably in the areas of labour productivity, cost Modeling and control, benchmarking, whole life costing, asset management and sustainability assessment.

ABSTRACT

BIM: International Cost Management Standard (ICMS) - Global Consistency in Presenting Construction Life Cycle Costs and Carbon Emissions 3rd Edition

How much will my project cost? Is the outturn cost reasonable in the light of other similar projects?

Why are my project's carbon emissions greater than in other similar projects? How can I reduce whole life carbon emissions at minimum whole life cost? These are just some of the questions that the International Construction Management Standard (ICMS) seeks to address.

At the heart of the answers to these questions is the imperative to compare like with like. ICMS achieves this firstly by mandating that a project's characteristics, (called attributes in ICMS), should be specified in considerable detail, and secondly, by creating a consistent and well-defined work breakdown structure that has four hierarchical levels. The highest three are mandatory, whilst the lowest level of granularity is discretionary.

The First Edition of the International Cost Measurement Standards (ICMS 1) was published in July 2017. Its purpose was to facilitate global consistency in presenting construction costs. ICMS 1 covered 12 project types including both buildings and infrastructure, but focused solely on initial or capital costs. The second edition (ICMS 2) extended ICMS 1 to include Life Cycle Costs. It also extended the range of project types it covered. The third edition, due to be published in November 2021, has been designed to allow the reporting of carbon emissions, hence the change in title. It has also further extended the scope to cover 19 project types.

This presentation will trace the history of and the rationale for the development of ICMS. It will describe the purpose and structure of the third edition, the project types that it covers, the attributes that are required, the work breakdown structure and the way in which costs and carbon emissions are treated.

Moderators Information



Moderators Information



Sr Raymond KAM
Past HKIS QSD Chairman 2016-18

BIOGRAPHY

Sr Raymond Kam is the past HKIS QSD Chairman in 2016 to 2018. He is also Convener of the HKIS Task Force in SOPL and the HKIS nominated representative in the CIC BIM Certification and Accreditation Board.

Sr Kam is a qualified quantity surveyor with over 33 years of professional practice and is well versant with the quantity surveying practice in consultancy, contracting and sub-contracting firms.

Moderators Information



Sr Steven TANG
Executive Director
Arcadis Hong Kong Ltd.

BIOGRAPHY

- Graduated from Hong Kong Polytechnic University in 1990, Quantity Surveying. Joined legacy Langdon & Seah Hong Kong Ltd. as an Assistant Quantity Surveyor in 1990, now an Executive Director in Arcadis Hong Kong Ltd.
- Qualified HKIS in 1995, become a Fellow in 2021
- Specialize in project cost management, taking a lead role in digital transformation in Arcadis
- A Council Member of Quantity Surveying Division and Member of Board of Education, with focus on educational activities e.g. examination setting for Assessment of Professional Competence, academic programme accreditation, visits, seminars etc.
- Member of Appeal Tribunal (Buildings)

Moderators Information



Sr Sandy TANG
Council Member

Quantity Surveying Division, The Hong Kong Institute of Surveyors

BIOGRAPHY

Sr Dr Sandy TANG is the Scheme Leader of the BSc (Hons) Scheme in Surveying and Built Environment overseeing all the undergraduate programmes in the construction and real estate sector at the School of Professional Education and Executive Development (SPEED), The Hong Kong Polytechnic University. Sr Dr TANG is an expert in the development of professional education, in particular, the design of undergraduate programmes and training courses for executives and professionals in the construction and real estate sector. She was appointed as the Head of the Office of General University Requirements (GUR) steering the Academic Advising services and coordinating the GUR education in PolyU before moving to SPEED.

Sandy has profound experience in project management and quantity surveying practice in Hong Kong and Mainland China before joining the University. Her research and consultancy interest cover the areas of e-learning, digital project management, competitive bidding, innovative procurement, cost management and forecasting, construction contracts and dispute resolution.

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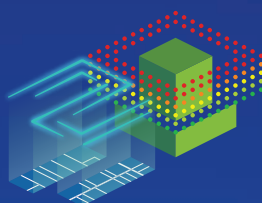
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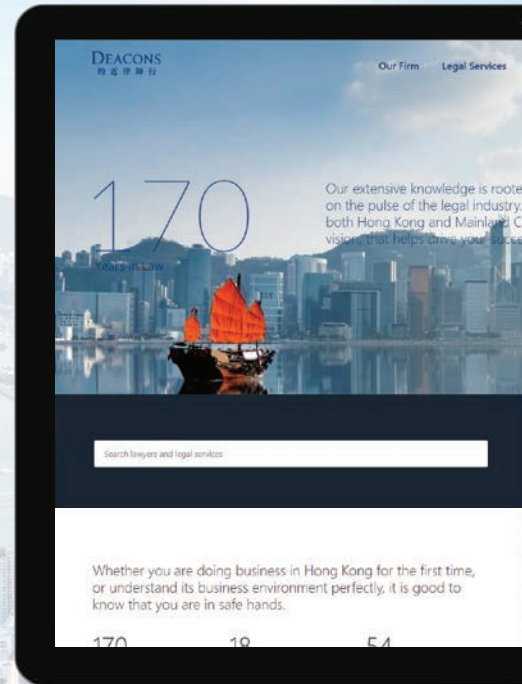


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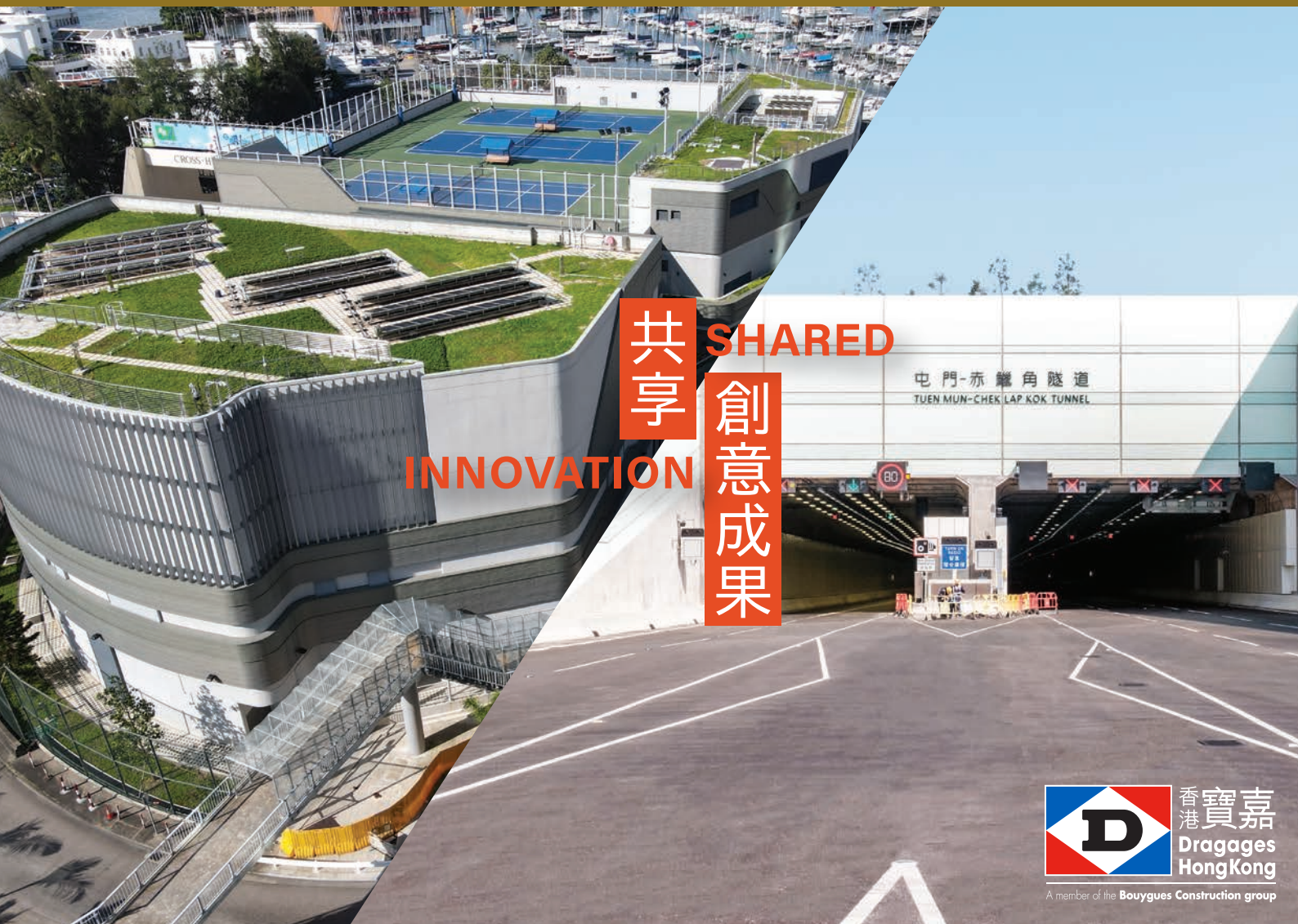
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榮康順企業有限公司是香港其中一間主要的混凝土預制構件供應商。我們自 2007 年成立以來參與多項大型樓宇項目工程，包括近期落成香港房屋署及香港房屋協會的公共屋邨、居者有其屋及綠置居項目，市建局的重建項目，建築署的紀律部隊宿舍，以及多間私人發展商的住宅項目等。於 2020 年，我們成為其中一間屋宇處預先認可「組裝合成」建築法（混凝土）的供應商，並於近期參與多項「組裝合成」建築法的工程及樣板制作。榮康順企業有限公司致力提供優質的服務，一切以客戶為先。憑藉豐富的經驗及資源，為客戶提供創新及可持續的預制構件建築方案。

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About Quantity Surveying Division (QSD) of HKIS

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 14 Sep 2021, the QSD has 5,015 members. Among them, there are 3,317 Corporate Members, including 212 Fellow Members. Besides Corporate Members, the QSD has 3 Honorary Fellow Members, 37 Associate Members, 1,481 Probationers and 177 Student Members. Most of the Quantity Surveyors in Hong Kong are Members of The Hong Kong Institute of Surveyors. Entry qualifications of professional grade members shall require high level of education, extensive practical training and passing an assessment of professional competence.

The quantity surveying practice has a long history in Hong Kong. The oldest professional quantity surveying firm has been around for more than 60 years. It is believed that the government hired its first expatriate quantity surveyor even earlier. In the past six decades, the profession has witnessed a number of significant changes.

- The majority of quantity surveyors are now Hong Kong Chinese.
- The proportion of female quantity surveyors has increased dramatically.
- The number of local graduates now outweigh the number of overseas graduates.
- Measurement units have changed from imperial to metric.
- The measurement practice has evolved from manual to electronic.
- The role and scope of the services offered by quantity surveyors has been enhanced to keep abreast with the development of the society. In the old days, quantity surveyors worked on building projects only. Today, more are working on civil engineering, mechanical and electrical engineering, renovations, fitting out, and maintenance projects.
- Hong Kong has exported its professional quantity surveying services to other geographical locations, such as the Middle East, Southeast Asia, and Mainland China. It should be noted that quantity surveyors have been working on Mainland projects since the 1980s.

Over the past three decades, the QSD has achieved some remarkable feats:

- Signing Reciprocity Agreements with professional institutes overseas, namely the Australian Institute of Quantity Surveyors (AIQS), the Building Surveyors Institute of Japan (BSIJ), the China Engineering Cost Association (CECA), the Chartered Institution of Civil Engineering Surveyors (CICES), the Canadian Institute of Quantity Surveyors (CIQS), the New Zealand Institute of Quantity Surveyors (NZIQS), and the Singapore Institute of Surveyors and Valuers (SISV).
- Joining International quantity surveying and cost engineering organisations, namely the Pacific Association of Quantity Surveyors (PAQS) and the International Cost Engineering Association (ICEC) in 2018, respectively.
- Its membership has grown from 71 founding members in 1984 to a staggering 3,317 fully qualified members as of Sep 2021.
- The International Construction Measurement Standards Coalition (ICMSC) officially launched the International Construction Measurement Standards in Vancouver in July 2017. The ICMSC is also available in Chinese. The HKIS is one of the 45 international professional organizations will strive to promote the ICMSC to the members, the allied professional bodies and relevant private organizations.

As the Institute's largest division, the QSD will strive for excellence to meet the challenges presented by a changing global economy and advancements in information technology. In the old days, it was focused on quantity as a measurement of its progress. Today, quantity surveyors must equip themselves with modern, sometimes innovative, skills in order to continue as highly valued and renowned professionals in the construction industries of Hong Kong and the Asia Pacific Region.

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