

International WSH Conference

SAFETY BY DESIGN – A HOLISTIC APPROACH

6 November 2019 • 9.00am - 5.30pm • BCA Academy
(Registration starts at 8.30am)



In line with National Workplace Safety and Health Strategy WSH 2028, this year's International WSH Conference, organised jointly by BCA Academy and IOSH (Singapore) and supported by Ministry of Manpower, focuses on technology-enabled WSH and Design for Safety (DfS). WSH experts and practitioners from Singapore, UK, Hong Kong and Thailand will present the following topics:

- **Opening Address** by Mr Zaqy Mohamad, Minister of State, Ministry of National Development & Ministry of Manpower
- **Keynote Speech - Use of Digital Engineering to Enhance Health & Safety in Design**
By Mr Stephen Coppin, Associate Technical Director, Arcadis, UK
- **Insights from DfS Inspections**
By Mr Thia Toh Men, Senior Principal Specialist, Ministry of Manpower - OSH Inspectorate
- **Digital Revolution in DfS & DfMA Construction**
By Mr Rob Sanchez, Senior BIM Manager, China Construction (South Pacific) Development Co Pte Ltd
- **Integrating BIM with Safety in Design and Construction**
By Dr Richard Pang, Director, Industry Development Construction Industry Council, Hong Kong
- **How Design for Safety is Applied**
By Mr Stephen Coppin, Associate Technical Director, Arcadis, UK
- **UK CDM, Lessons from a Journey!**
By Mr Malcolm Shiels, Director, Summers-Inman, UK
- **DfS - Don't Miss the Opportunity to Learn Lessons from "Little" Issues**
By Mr Matthew Cusack, Safety Manager, Black & Veatch, Thailand
- **CDM – Implementation and Best Practices in Construction Projects**
By Mr Sam Stevens, Project Director, Scott Brownrigg
- **Transformation Through Leadership**
By Mr Mark Garvey, CEO, Exyte Asia-Pacific Holding Ltd
- **Occupational Health Risks in the Construction Industry**
By Ms Evelyn Koh, Senior Assistant Director (Occupational Hygiene), OSH Specialist Department, Ministry of Manpower

CONFERENCE FEE (incl of GST)

S\$380*/ S\$450

Fee includes conference e-materials, lunch and refreshments.

* Discounted fee of S\$380 is only applicable for:

- Applications received with payment of fees on or before 6 Oct 2019 by 5pm (Early Bird fee)
- Applications received with payment with more than 3 participants (as a group) from same organisation
- IOSH Members
- BCAA Alumni Card Holders

TARGET AUDIENCE

- DfS Professionals
- Developers
- Builders
- Consultant/Engineers
- WSH Personnel
- Architects
- Construction/Project Managers
- Supervisory Personnel

CPD POINTS

PEB: 7 PDU's

BOA-SIA: 4 CPD Points

WSH-CPD (WSH Officer): 7 SDUs

IES-ACES (RE/RTO): Pending



To register, please log into our Online StoreFront (OSF) at <https://eservices.bcaa.edu.sg/registration/#/login> or scan QRcode and search for course code **45021**

TOPICS & SPEAKERS



MR STEPHEN COPPIN

Associate
Technical Director,
Arcadis, UK

KEYNOTE SPEECH

Use of Digital Engineering to Enhance Good Health & Safety in Design

Consideration of health and safety information requirements is critical from the outset of a project. In a world where everyone is striving for effective digital delivery and solutions, it is vital that the integration of BIM requirements and health & safety is considered early so that there is seamless integration and greater efficiency.

This presentation introduces developers (clients) to HSE's guidance on 'Employers Information Requirements (EIR)', a document to define the information that will be required by their own internal teams, designers, builders and operators of the completed project.

The emphasis is on using digital engineering to get the right information to the right people at the right time, and to identify design risks early.

Chartered Fellow of IOSH, Chartered Construction Manager and Fellow of CIOB. Chaired both Fellow & Peer reviews for IOSH. Previously Partner – Head of H&S at various organisations incl. DWP, National EHS Manager for Jobcentre Plus Programme. Served as a Military Engineer / Tutor for the Royal Engineers following an apprentice in Mechanical Engineering.

Stephen has extensive experience in procurement & design risk management on major developments worldwide. He has been proactive with the HSE on best practice initiatives within the construction industry including the CDM 2007 ACoP and BIM4 Working Group. Stephen has spoken at conferences on behalf of IOSH and various other professional bodies on the CDM changes, integrated gateways and worker engagement research reports.

Stephen also authored various articles and OHS case studies & co-wrote a case study published by IOSH for the policy & practice journal and publications. He was also involved in recent initiatives on occupational health dust in line with IOSH's 'No Time to Lose' campaign.



MR THIA TOH MEN

Senior Principal
Specialist, Ministry
of Manpower - OSH
Inspectorate

Insights from DfS Inspections

The Workplace Safety And Health (Design for Safety) Regulations were effected on 1 August 2016. Do Singapore's construction players fully grasp the meaning and purpose of Design for Safety? MOM will be sharing some observations from its enforcement of the Regulations.

Mr Thia is currently with the Inspectorate Specialist Group of the OSH Inspectorate Department, MOM, focusing on DfS (Design for Safety) enforcement. He is also involved in the OSH enforcement transformation efforts within the Ministry. He has more than 10 years of experience in workplace safety and health. His working experience includes inspection of workplaces in the various industries, investigations into accidents and dangerous occurrences, managing companies in the MOM's Business Under Surveillance (BUS) Programme, safety management systems and auditing.

In the OSH enforcement transformation efforts, he is involved in improving the way inspectors inspect which included exploring the use of technology and competency required.



MR ROB SANCHEZ

Snr BIM Manager
China Construction
Development Co
(CCDC)

Digital Revolution in DfS & DfMA Construction

This presentation showcases China Construction Development Co's (CCDC) digital construction journey to achieve higher productivity & accuracy in building construction, through Design for Manufacturing and Assembly (DfMA) technologies such as Prefabricated Prefinished Volumetric Construction (PPVC), Prefabricated Bathroom Unit (PBU) and Prefabricated Mechanical Electrical and Plumbing (MEP) systems.

Also find out how CCDC leverage on digital technology to conduct Design for Safety at pre-construction, and to better manage building quality during construction.

Rob is a Senior BIM Manager in CCDC. One of their main focus is to further innovate the use of digital technology in their construction & development projects to achieve higher quality and accurate construction with highest forms of safety during implementations.



DR RICHARD PANG

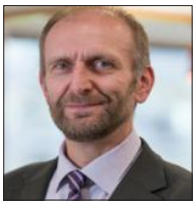
Director, Industry Development
Construction Industry Council,
Hong Kong

Integrating BIM with Safety in Design and Construction

Building Information Modelling (BIM) and construction safety are two topical subjects in Hong Kong's construction industry. With an aim to drive for excellence in the construction industry, the Construction Industry Council (CIC) of Hong Kong is taking a number of initiatives to promote and facilitate advancement and sustainable development in these areas.

In this presentation, the speaker will introduce the current initiatives being carried out by the CIC on BIM and construction safety. He will then present examples of projects carried out which have adopted BIM to facilitate the implementation of the Design for Safety approach.

Richard is a Fellow of the Hong Kong Institution of Engineers. He is a registered professional engineer in the civil, geotechnical and structural disciplines. He has a broad range of experience which includes design and construction of major civil works, geotechnical control of slopes, excavations and tunnel works, setting of standards, management of ground investigation contracts, laboratories, fill resources and quarries, regulatory control of explosives, development of concrete technology and underground space, and management of construction safety, contract advisory, IT and land survey services.



MR STEPHEN COPPIN

Associate
Technical Director,
Arcadis, UK

How Design for Safety is Applied

This presentation aims to provide some practical examples on how to effectively implement Design for Safety processes.

Ownership, Leadership and Partnership are key to the success of Design for Safety. Know who the responsible parties are as well as understand their roles during the pre-construction and construction phases. Find out more about the use of integrated project gateways to ensure at key milestones that significant foreseeable risks are mitigated early. Empower the designers to focus on Design Risk Management. Ensure that training resources are available, to be imparted with the right Skills, Knowledge and Experience. Understand that the identification of health risks are equally as important to eliminate or reduce as are safety risks.



MR MALCOLM SHIELDS

Director,
Summers-Inman,
UK

UK CDM, Lessons from a Journey!

Since 1994 and their inception, the CDM Regulations have gone through two major restructures and developments whilst it has battled to contribute towards an improvement in health and safety standards and behaviours in the UK. What could Singapore learn from this UK CDM journey?

This paper will highlight valuable pointers on positive CDM implementation to assist Singapore on its own DfS journey. The paper will use proactive positive CDM experiences, both on a personal and professional level, that can assist the Singapore construction industry in its journey. Delegates will gain useful knowledge of the collaborative nature and elements of UK CDM values, and be empowered to become leading influencers on health and safety improvements.

A competent, qualified and capable Chartered Fellow of IOSH, and Fellow of the APS. A professional that specialises in health and safety risk management with over 34 years' experience in the construction industry. With the last 17 years in project and construction health and safety risk management, and 14 of those in senior positions.

Malcolm is currently providing expertise and leadership to Summers-Inman on all HSE related matters from internal company compliance to project delivery services to clients. He leads by example and champions sensible, deliverable and efficient construction health and safety risk management. Malcolm is now Chair of the IOSH Construction Group after serving on the committee for two years.

TOPICS & SPEAKERS



MR MATTHEW CUSACK
Safety Manager,
Black & Veatch,
Thailand

Don't Miss the Opportunity to Learn Lessons from "Little" Issues

The earlier the principles of Design for Safety (DfS) can be adopted into a project, the bigger the payoff. That is undoubtedly true but that does not mean to say that DfS can only be effective with major project activities or milestones. Too often, the DfS focus is on major milestones or level 2 or 3 program activities, missing many opportunities that could have significantly reduced risk to the worker, and losing potential schedule opportunities.

Matthew will drill down into specific examples like how reviewing the design of a holding down bolt could save countless finger injuries. Matt will also explain how a change in a scope document led to a good design being changed to one that required numerous infill pieces with support from below, greatly increasing the working at height risk profile. This presentation will help attendees learn how there are always opportunities to reduce risk and to take advantage of schedule improvements.

A Chartered Member of the Institute with 20 years of international experience and a member of the Black & Veatch (B&V) Safety by Design Committee, Matt has a varied experience from supporting specialist contract work to being the H&S lead on mega construction projects.

Matt has observed many lost opportunities to implement DfS changes that could have reduced risk to the worker or led to a positive effect on the schedule. In contrast, he has also witnessed first-hand that most impressive DfS changes nearly always bear less cost and have a positive schedule impact than the original design. Day to day, Matt combines his site work with collaborating with engineers in the office. Sometimes, Matt's input can be leading a detailed review of how to handle a large pump during a maintenance operation using a 3D simulation or, at other times, amending a design to minimize temporary propping requirements on a concrete slab with a significant fall potential.



MR SAM STEVENS
Project Director,
Scott Brownrigg

CDM Implementation and Best Practices in Construction

CDM Strategy. CDM – Internal Gateway Review. Safety Visually. No matter the scale of projects undertaken at Scott Brownrigg, these are some of the tools used to mitigate risks in fulfilment of their duties under CDM 2015.

What are the learning points for Singapore?

Sam will share good practices in eliminating, mitigating and controlling health and safety issues, and the QA, BIM and visualisation tools that Scott Brownrigg use to satisfy CDM obligations. Sam will also discuss how trends in moving towards offsite construction can mitigate some areas of Health and Safety concerns whilst creating some new risks to consider.

Sam Stevens is Project Director in Scott Brownrigg and is responsible for growing the business in the region within the Education, Transport and Advanced Technology sectors.

Sam has spent the last 10 years working on Education projects, from nurseries and schools to colleges and universities, in the UK and abroad. He now leads teams in the delivery of design proposals from stakeholder engagement and concept design through to practical completion. His experience also covers projects in residential/mixed use, commercial and defence sectors and has had opportunities to understand how some of these may be required to cross-subsidise education projects in the form of enabling development.

Recent projects include the estate rationalisation and development of a College in London, incorporating wide mix of uses, the tallest school design in the UK and work with several international schools.



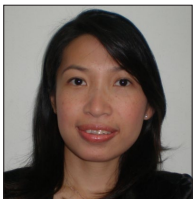
MR MARK GARVEY
CEO,
Exyte Asia-Pacific
Holding Ltd

Transformation Through Leadership

Safety is an imperative driver for the CEOs and company's leaders. Personal Ethics/Character, Leadership and Steward of the Business are important traits a good leader must have. Leaders should believe in an Incident-Free Workplace, as it is the RIGHT thing to do (Ethics), and a SMART thing to do (Business). Mark will share his personal belief of what it takes to lead an Incident-Free Workplace.

Mark Garvey is the President of Exyte Asia Pacific. He joined M+W Group in 2015, bringing more than 30 years of organization leadership in the engineering and construction industry and executive management experience to his role with the company. In August 2018, M+W Group rebranded its core business to Exyte. Since joining Exyte, Garvey has led the APAC region to drive growth through a strategic focus on supporting the design, engineering and construction needs of clients in key industry segments including semiconductors, life sciences and chemicals as well as data centres.

With more than 2,800 employees in China, Singapore, Malaysia, Taiwan and Vietnam, the Asia Pacific region has grown from strength to strength and is today four times its 2014 revenue size. Garvey is passionate about workplace safety and spearheaded the Incident-Free Workplace initiative in 2017 to promote and embed safety as a culture across the organization. Garvey was born in the United States and holds a Bachelor's degree from Drew University, Madison, New Jersey. He spent more than 25 years in Foster Wheeler, where he held various management positions, including long term assignments in Singapore and China.



MS EVELYN KOH
Senior Assistant
Director
(Occupational
Hygiene), OSH
Specialist
Department, Ministry
of Manpower

Occupational Health Risks in the Construction Industry

The WSH 2028 vision places equal importance on Workplace Safety and Workforce Health, with one of the strategic outcomes being minimising hazards that lead to occupational diseases. Construction work is dynamic and encompasses a diverse variety of activities, which poses challenges in the management of health and safety in this sector. Construction workers are at risk of exposure to various health hazards that can result in injury, illness, disability or even death.

This presentation will share the prevention and control of health hazards in construction with a focus on asbestos and silica dusts, regulatory requirements and intervention programmes to effectively manage and control health risks.

Ms Evelyn Koh is a Senior Assistant Director (Occupational Hygiene) in the Specialist Department of the Occupational Safety & Health Division, Ministry of Manpower (MOM). She provides specialist support in the areas of OSH standards, best practices, research and development. Her work involves assessment and control of health hazards at workplaces to safeguard persons at work and advises on engineering control measures of health hazards at workplaces.

Evelyn leads a team to coordinate and conduct occupational hygiene programmes, investigations and enforcement activities. She operationalizes strategies into effective implementation and execution of occupational hygiene programmes so as to prevent and control health risk at work.