



Structural Concrete Works in Building and Civil Engineering Projects And Common WSH Hazards & Risk Management 2.0 at Construction Sites

15th run

By Er. Yang Kin Seng & Er. Winson Lee

Date: 5 & 6 October 2023, Thursday & Friday

Time: 5 October 2023: Virtual via Zoom from 3.00pm to 6.15pm

6 October 2023: Physical course from 9.00am to 5.45pm at Orchard Hotel Singapore

Address of Orchard Hotel Singapore (6 October 2023): 442 Orchard Road, Singapore 238879

CPD Programme: 2 STU(Safety) & 6 STU(Structural) & 5 SDU- All Confirmed
10 PDU(PE & CEng) - Confirmed

Fees: \$378.00 (IES Member) \$432.00 (Non-Member)

- *Actual venue (hotel) will be stated in the confirmation email which will be sent to paid participant 2 weeks prior to event date*
- *Please note that attendance for both the courses are compulsory, Certificate of Attendance will be issued to participants with 100% attendance for both courses*
- **This is a blended course comprising 3 hours of zoom session and 7 hours of physical course at hotel.**
- **This course is UTAP Supported**
- **This course is SFC Funded** [TGS-2021005993](#)

- 2 Coffee Breaks (Halal)
- 1 Buffet Lunch at Orchard Cafe (subject to Government's regulation at time of event)
- Food at Orchard Cafe is NO Pork NO Lard, Halal Food can be arranged with prior notice.
- \$10nett for Full day Parking (Per Day Per Exit)

Structural Concrete Works in Building and Civil Engineering Projects

Duration: 6 hours

Objective

Concrete is one of the most widely used construction materials. Concrete structures are generally expected to provide adequate performance for the entirety of their service life with little maintenance. Starting from concrete design, advantages of concrete structures can be realised when good practices are adopted throughout the project life. This course is organised to prepare civil, structural and construction engineering practitioners, developers, builders and specialist builders, Site Supervisors, Resident Engineers and Resident Technical Officers on the understanding of structural concrete works in building and civil engineering projects in Singapore.

- 1. Concrete and Concreting Works**
 - Standards, Codes and Regulations
 - Concrete Specifications
 - Concreting Works
- 2. Special Concrete**
 - Sprayed Concrete
 - Reinforced Concrete

3. Concrete Structures

- Reinforcing Concrete
- Precast and Prestressed Concrete
- Water-resistance

4. Concrete Repairs

Target Audiences

This course will benefit civil, structural and construction engineering practitioners, builders and specialist builders, Site Supervisors, Resident Engineers and Resident Technical Officers appointed to undertake structural concreting design, construction and maintenance works in building and civil engineering projects.

Profile of Speaker

Er. Yang Kin Seng was a former Director with the Building and Construction Authority, regulating and overseeing the safety of buildings and geotechnical building works under construction in Singapore, and headed the Singapore Geological Office. Er. Yang has also served with the now-defunct Public Works Department as Assistant Chief Civil Engineer, Head (Roads, Planning and Design) and Head of Geotechnical Engineering, Site Investigation, Instrumentation and Laboratories. His involvement in civil, building and infrastructural projects ranges from roads, flyovers, bridges and expressways, including Changi Airport development, construction of schools and CTE tunnels, to parks and government buildings, as well as overseas projects in China and Brunei. He was the Chief Project Manager (Singapore) for the Singapore-Malaysia Second Crossing. He has published more than 40 papers in International conferences and seminars, and peer-reviewed journals. Er. Yang was awarded Public Administration Medal (Silver) in 1998.

Er. Yang was a Colombo Plan Scholar, and graduated with BEng (First Class Hons) in Civil Engineering from University of Melbourne and a recipient of Trinity College Scholarship, CWN Sexton Scholarship, AJ Francis Prize and an Exhibition Prize. Er. Yang was also a Commonwealth Scholar, and obtained MSc (Distinction) in Soil Mechanics and Engineering Seismology and awarded the Soil Mechanics Prize from Imperial College London. He also obtained MSc (Civil Eng) from NUS, and LLB (Hons) from University of London.

Er. Yang co-chaired the SPRING (Singapore) Eurocodes Review Advisory Committee, and the Technical Committee on Civil and Geotechnical Works. He is a Professional Engineer and a Specialist Professional Engineer registered with the Professional Engineers' Board, and a Specialist Accredited Checker whilst in Building and Construction Authority. Er. Yang has been conducting many courses for industry practitioners at the BCA Academy since 2007, as well as for IES, ACES and corporates.

Part 2 Common WSH Hazards & Risk Management 2.0 at Construction Sites

Objective

The characteristics of the construction sector present multi-fold and unique WSH challenges. While the construction sector continues to be an important sector of the Singapore economy, it is also one of the more hazardous and riskier workplaces. More vigilance is needed and the objective of this module is to inculcate and raise awareness in stakeholders (including qualified persons such as Professional Engineers, and Registered Architects) on the common hazards that are prevalent in construction sites. This will enable them to understand the control measures that are implemented onsite to manage and mitigate such common hazards. The course will cover common hazards such as working at heights, falling objects, machinery and electrical hazards.

Participants' perspectives will be enhanced through the sharing of case studies of previous incidents/accidents. Relevant legal and other requirements as well as statutory duties of relevant stakeholders such as occupier, employer, self-employed persons will be covered. References will be made to the Workplace Safety & Health (WSH) Act and relevant guidelines. Since its inception in 2006, Risk management (RM) is an important tool in identifying hazards, assessing the risk, and implementing measures to control or minimise the risk. Every workplace should put in place an effective RM to ensure that all employees are working in a safe and healthy environment. To help companies better assess risks and hazards at work, the Ministry of Manpower and the Workplace Safety and Health (WSH) Council have enhanced the risk management framework. The key principals under the Risk Management 2.0, or RM 2.0 will be covered.

Course Outline/Outcomes

This module will equip stakeholders with the necessary WSH knowledge (including legal and other requirements) for their course of work.

1. Common workplace safety and health hazards that are prevalent in construction sites. Common

- hazards such as working at heights, falling objects, machinery and electrical will be covered.
2. Control measures for common hazards which includes best practices which can be and are implemented onsite to reduce risks to as low as possible.
 3. Statistics of workplace accidents and injuries in the construction industry.
 4. Sharing of case studies of fatal accidents in the construction industry.
 5. Coverage of relevant legal and other requirements. Statutory duties of relevant stakeholders such as occupier, employer, self-employed persons under the Workplace Safety and Health Act will be covered
 6. Introduction to risk management and risk assessment. Enhancements to the risk management framework, the approved code of practice for Risk Management as well as key principles to Risk Management 2.0 will be covered.
 7. Factors influencing and driving risk controls and management within an organisation.
 8. Driving risk controls upstream that considers proximity between hazardous work activities, compatibility of work activities, non-routine work activities and environmental conditions.

Target Audience

This course will inculcate and raise awareness in stakeholders (including qualified persons such as Professional Engineers, Registered Architects) on the common hazards that are prevalent in construction sites. This will enable them to understand the control measures that are implemented onsite to manage and mitigate

Profile of Speaker

Winson Lee is currently in his own private engineering practice. He was a Deputy Director with the Electrical and Mechanical Engineering Department of the Building and Construction Authority. He graduated with a Bachelor's degree in Mechanical Engineering from the National University of Singapore in 2005. After graduation, he joined the Occupational Safety and Health Division, Ministry of Manpower (MOM) where he subsequently obtained a Master's degree in Safety, Health and Environmental Technology from his alma mater in 2009.

Er. Lee has more than 12 years of regulatory public sector experience and had served the Ministry of Manpower from 2006 where he led inspectors in conducting workplace safety and health inspections and audits, conducting investigations into serious and fatal industrial accidents including fall from heights accidents. He has investigated a number of fall from heights accidents, prosecuting culpable parties under the WSH Act and its Regulations. Having joined the Building and Construction Authority in 2012 after serving a brief stint as a Senior Workplace Safety and Health (WSH) Manager in the private sector, he assumes regulatory role by enforcing the Amusement Rides Safety Act.

Er. Lee is a qualified Train the Trainer for working at heights and has audited and drafted fall prevention height plans and emergency response procedures on working at heights for various companies. Er. Lee's interest lies in WSH risk management. In his current practice, he has been advising companies including rope access companies on matters pertaining to work at heights and adequacy of anchorage/lifelines as well as temporary edge protection

Pre-requisites for Zoom session on 5 October 2023 from 3.00pm to 6.15pm

Prior to attending this course, you should:

- Have a PC / laptop / tablet / smart phone with built-in or external webcam.
- Installed the Zoom client.
- Have Wi-Fi / high speed internet connection available.
- Receive an email with a link for you to submit a registration for webinar 1 week prior to the commencement.
- Receive an email with a link and password for you to join the webinar session after your registration is successful.
- ***It is recommended that participants join the course on a 12-inch or larger screen in order to view clearly the text and photos in the presentation materials.***
- ***ALL PARTICIPANTS ARE REQUIRED TO KEEP WEBCAM OR CAMERA TURNED ON DURING 3-hours of zoom, FAILING OF WHICH THE E-CERTIFICATE OF ATTENDANCE WILL NOT BE ISSUED***

Target Audience

Consultant engineers & supervisors; Developers; Resident Engineer & Resident Technical Officer; Contractor PM, CM, site engineers & supervisors.

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Fees*: \$378.00 (IES Members) \$432.00 (Non-Members)

(Please note Res/RTOs are registrars of IES but NOT members of IES)

Please register online/email in the completed form by 20 September 2023 to:

Karen Phua, karen@iesnet.org.sg

IES Academy@Jurong East, 80 Jurong East Street 21 #04-10

Devan Nair Institute For Employment and Employability, Singapore 609607

Participant Details

Name: _____ NRIC: _____

Company: _____ Designation: _____

Address 1: _____
(For mailing of invoice and receipt)

Address 2: _____
(For mailing of Certificate)

Tel: _____

Email: _____

Please indicate: ☐ IES members IES M'ship No.: _____ P.E. No.: _____ (if applicable)

☐ Non-members ☐ Sponsored by company

Contact Person Details *(if different from participant)*

Name: _____ Designation: _____

Tel: _____ Fax: _____

Email: _____

Payment Details

Bank / Cheque No.: _____ Amount(\$): _____

* All Fees are inclusive of 8% GST* Cheque should be made payable to: **IES Academy Pte Ltd**

Acceptance of Terms and Conditions for Registrations of IES Academy's Events

I agree to abide by the Terms and Conditions for Registration of IES Academy's Events.

Name : _____ Signature: _____

TERMS & CONDITIONS COURSE REGISTRATION

Registration

Any registration, whether on-line or fax will be on a ***first-come-first-served basis*** and will only be confirmed upon receipt of full payment by Engineers Singapore Pte Ltd unless otherwise invoice to company.

All registrations must be submitted with duly completed registration form.

Closing Date & Payment

The closing date of the event will be 2 week prior to event commencement date or earlier. Cheques should be crossed 'A/C payee only' and made payable to **'IES Academy Pte Ltd'**, with the ***Title of The Event indicated clearly written on the back of the cheques***, and submitted with the duly completed registration forms to:

IES Academy@Jurong East

Devan Nair Institute for Employment and Employability,

80 Jurong East Street 21, #04-10

Singapore 609607

Confirmation of Registration

Confirmation of registration will be given at least 2 weeks before the commencement date via email. ***If you do not receive the said confirmation email, you are required to contact IESA at 6463 9211 during office hours.***

IESA reserves the right to allow only confirmed registrants to attend the Event.

Withdrawals/Refunds of Fees

Written notice at least 2 weeks in advance before the commencement of the event

Full course fee shall be refunded subjected to 4.5% transaction charge.

➤ **NO** refund otherwise.

No show of participant would not be accepted as a valid reason for withdrawal/refund.

One time replacement is allowed only if written notice is received by us at least 1 week before the commencement of the event. However, when an IES member is replaced by a non-member, the participant has to pay the difference in the relevant fees.

Cancellation/Postponement

Changes in Venue, Dates, Time and Speakers for the Events can occur due to unforeseen circumstances. IES reserves the full rights to cancel or postpone the Event under such circumstances without prior reasons. Every effort, however, will be made to inform the participants or contact person of any cancellation or postponement.

Fees will be refunded in FULL if any Event is cancelled by IESA.

SkillsFuture Credit (SFC)

All Singaporeans aged 25 and above can use their \$500 SkillsFuture Credit from the government to pay for a wide range of approved skills-related courses. Visit the SkillsFuture Credit website (www.skillsfuture.sg/credit) to choose from the courses available on the SkillsFuture Credit course directory.

Please visit [HERE](#) for more information on SFC & UTAP claim

UTAP (Union Training Assistance Programme) is an individual skill upgrading account especially for NTUC members. As a member, you enjoy UTAP funding at 50% of the unfunded course fee capped at \$250 every year.

PERSONAL DATA PROTECTION ACT

I consent to the processing by Institution of Engineers, Singapore of personal data, including sensitive personal data as defined in the Data Protection Act 2014, about me for the proper purposes of Institution of Engineers, Singapore (IES). I undertake to observe the provisions of the Data Protection Act 2014 in relation to any personal data I may myself hold and process as a Members of Institution of Engineers, Singapore, and I agree to indemnify Institution of Engineers, Singapore from liability for any claims or damages that may arise from the processing of this data. For more information kindly refer to [here](#).

Enquiries

For further enquiries, please contact IESA general office at Tel: 6463 9211.