

Guide to Structural Steel, Stainless Steel & Aluminium for Construction Projects (15th Run) (Virtual Classroom)



INTRODUCTION

Structural steel is still in demand for their high quality and productivity while stainless steel and aluminium has appealing qualities leading to an increasing use in the Construction Industry. Construction stakeholders (Owners, Architects, Engineers, and Resident Technical Officers) are handling more demanding and complex projects in current development projects involving working with stainless steel & aluminium elements and protection of structural steel. This programme aims to provide information on the specification, manufacturing and maintenance of stainless steel & aluminium to participants to allow them to better execute their projects. It also shares concepts to corrosion protection for steel structures.

OBJECTIVES

Structural Steel:

Participants will have a better understanding on various corrosion methods on structural steel like hot dip galvanising, anti-corrosion paint & coating. Issues related to inspection, maintenance and repair of steel structures will also be discussed.

Stainless Steel:

Participants will have a better understand the production & fabrication process and the available types of finishes offered by stainless steel. They will also know the typical types of connections details as well as basic maintenance and cleaning of stainless steel elements.

Aluminium:

Participants will be introduced to the history and manufacture of aluminium and its alloys. The physical characteristics and common aluminium products and fabrication will also be discussed. Basic design concepts for structural use of aluminium including heat affected zone and fatigue will be shared with participants. The final portion of the programme explains the types of corrosion for such structures and the preventive measures.

Pre-requisites

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 1week prior to the commencement.

Receive an email with a link and password for you to join the webinar session after your registration is successful.

DETAILS

Date : 15 November 2021 (Monday)

Time : 1:00PM – 7:00PM

Duration: 6 hours (1 day training)

Delivery Mode: ZOOM Meeting

CPD : 6 STU (Structural) /
5 PDU /
5 CEng (PDU)
(All To Be Confirmed)

Fee (include GST):

IES Member: \$196.90

Non-member: \$231.10

- E-certificate of Attendance will be awarded to participants who have completed the course survey and assessment

IES Academy@Jurong East

80 Jurong East Street 21, #04-10

Devan Nair Institute for Employment and Employability
Singapore 609607

Contact Person: Spencer Soh (Mr)

DID: 6460 4247 | Main Line: 6463 9211

E-mail: spencer.soh@iesnet.org.sg

COURSE OUTLINES

The following topics will be discussed:

Structural Steel

- ❖ Corrosion protection methods
- ❖ Hot Dip Galvanising
- ❖ Anti-Corrosion Painting & Coating
- ❖ Selection of Corrosion Protection System
- ❖ Inspection, Maintenance & Repair
- ❖ Detailing to Minimize Corrosion

Stainless Steel

- ❖ Introduction to Stainless Steel
- ❖ Corrosion of Stainless Steel
- ❖ Economics & Environmental Considerations
- ❖ Production & Fabrication
- ❖ Stainless Steel Finishing
- ❖ Welding & Mechanical Bonded Joints
- ❖ Maintenance & Cleaning

Aluminium

- ❖ History & Manufacture of Aluminum
- ❖ Aluminium & Its Alloys
- ❖ Aluminium Products & Fabrication
- ❖ Connections
- ❖ Basic Design Concepts
- ❖ Fatigue
- ❖ Corrosion & Corrosion Prevent

TRAINER'S PROFILE

Er. Teo Ee Huat graduated from Nanyang Technological University with a B.ENG (Civil) degree in 1996 and has since completed a MSc in Civil Engineering (NUS) and MSc in International Construction Management (NTU). He is actively involved in education and has completed a M.Ed with University of Western Australia in 2010. He is a Singapore registered Professional Engineer and Qualified Erosion Control Professional. He is currently serving as the Co-Chairman of Qualified Erosion Control Professional Panel, IES and has trained Professional Engineers as Qualified Erosion Control Professionals and also trained construction site supervisors in implementation, inspection and maintenance of Earth Control Measures. He has written papers in International journals on issues related to Construction Management and other issues.

Program Outline

TIME	DESCRIPTION
1.00pm	Registration & Introduction
1.30pm	Stainless steel
3.00pm	Structural steel
5.00pm	Break
5.15pm	Aluminium
7.00pm	End of Programme

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Fee (include GST): IES Member: \$196.90

Non-member: \$231.10

Please register online/email the completed form by **04/11/2021 before 3pm** to:

Contact Person: Spencer Soh (Mr)

IES Academy@Jurong East

80 Jurong East Street 21, #04-10

Devan Nair Institute for Employment and Employability

Singapore 609607

Tel: 6463 9211

Participant Details

*Name : _____ *NRIC : _____
(Please written in BLOCK Letter)

Company : _____ *Designation: _____

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

*Postal Code : _____ Sex : _____ Male / Female _____

*Contact No. : _____ Fax : _____

*Your Email : _____

(For sending of confirmation email, preferable personal unless company sponsored)

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

☐ Non-members Affiliated member: _____

☐ Sponsored by company (Please indicate the Contact person detail)

Contact Person Details (if different from participant)

#Name : _____ #Designation : _____

#Contact No. : _____ Fax : _____

#Email : _____

Payment Details

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

~ All Fees are inclusive of 7 % GST.

~ Cheque make 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 : _____

***Mandatory entry**

#Compulsory Entry for participant who choose to be INVOICE to your company

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 IES Academy Pte Ltd unless otherwise invoice to company.

All registrations must be submitted with duly completed registration form.

Closing Date

The closing date of the event will be 1 week prior to event commencement date or earlier.

Confirmation of Registration

Confirmation of registration will be given at least 1 week 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 1 week 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.

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.

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

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.

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.