

# WORKING SAFELY AT HEIGHT (Virtual Classroom)

**\*\* Supported by UTAP\*\***

## Introduction

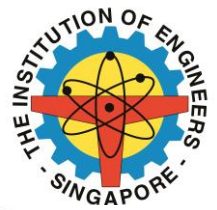
Falls from height have been the biggest hazard and resulted in the maximum number of injuries and fatalities in hazardous industries, particularly in construction, manufacturing and shipyards. Considerable research and development have taken place in recent years to address the hazards and come up with controls at the workplace to eliminate or at least to mitigate the adverse consequences of falling from height. However, fall accidents continue to happen leading to major injuries and fatalities. One of the reasons is failure on the part of stakeholders in the hazardous industries to fully understand and implement the safety guidelines given in the Regulations and Code of Practice for working at height. It is also found that often the safety controls are not applied in the proper hierarchical sequence that is recommended, and in fact mandatory for safely working at height. In particular, many misinterpret and also inadequately apply the controls required or recommended in the Code of Practice.

## Objectives

The objective of the present course is to review the background of practitioners and safety personnel whose work involves their and their workers planning for and working at height, in such a manner that the aims of the guidelines are clearly understood. Emphasis will be laid on developing a better understanding of the logic behind the various code recommendations, and on the procedures for implementation of the different controls in the proper hierarchy.

## 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 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



IES Academy Virtual Classroom

### Details

Date : 19 JULY 2022  
Time : 9AM – 1.15PM  
Duration: 4 Hrs  
Delivery Mode: Zoom Webinar  
CPD : 2 STU(Safety) / 4PDU -  
(To be confirmed)  
Course Fee (Include GST):  
IES Member: \$115.60  
Non-member: \$134.80

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

### Target Audience

- RE & RTO
- Engineers
- Builders
- Contractors
- Site Supervisors
- Occupational Health & Safety professionals

IES Academy@Jurong East  
80 Jurong East Street 21, #04-10  
Devan Nair Institute for Employment and Employability  
Singapore 609607

Contact Person: Verline Chiam  
DID: 64604241 | Main Line: 6463 9211  
E-mail: verline.chiam@iesnet.org.sg

## **Course Outline**

The course will be useful to site supervisors (REs & RTOs), engineers, contractors, and other occupational health and safety professionals who wish to learn or review the safety considerations of working at heights, with particular relevance to construction, manufacturing, and ship-building and repair industries. It will be useful to fresh engineering graduates as an introduction to the real world of safety in the workplace.

Management cadre may also do well to understand the far-reaching implications of working at heights, because it may help in reducing the consequent costs to the company and improve the safety culture in their organizations. It will help clarify and explain many of the new concepts and methodologies introduced in the Code of Practice for Working Safely at Heights.

Participants completing the course will have a clear understanding of:

- Basic hazards of working from height,
- Risks and consequences arising from them,
- Logical ways of addressing these problems in a pro-active fashion,
- How to decide between fall prevention or fall protection, and,
- How to develop a fall protection plan to conform to code hierarchy.

*{The course is not open to participants who have already taken the one-day IES course on Working Safely at Height.}*

<b><i>Time</i></b>	<b><i>Topic</i></b>	<b>Duration</b>
9.00 – 10.00 am	Working at height characteristics, common hazards	1 hour
	Risks arising from working at height and consequences of falls	
	Overview of Regulations and Code of Practice	
10.00 – 11.00 am	Fall prevention versus fall protection (after the fall)	1 hour
	Collective control versus individual control	
	Hierarchy of fall controls	
<b><i>11.00 – 11.15 am</i></b>	<b><i>Tea Break</i></b>	<b><i>15 Mins.</i></b>
11.15 am – 12.15 pm	Collective prevention by edge protection	1 hour
	Individual prevention by work or travel restraint	
	Collective protection by soft landing	
12.15 pm – 1.15 pm	Individual protection by safety harness	1 hour
	Co-requisites for use of safety harness	
	Case studies of falls and good practice	

## Trainers' Profile



**Professor N. Krishnamurthy**

*B.Sc., B.E.(Civil), M.S.(CE), Ph.D.*

*F.ASCE, F.SSSS, F.IE(India)*

*M.ASSE, M.ASEE, M.SRA, M.IE(Singapore), M.MES*

Professor Krishnamurthy is currently Safety Consultant and Trainer in Singapore. He was an Accredited Trainer and Consultant of the Singapore Ministry of Manpower to teach certain modules of workplace safety and risk management, and served as Chief Facilitator for safety-related workshops conducted by MOM and Singapore Contractors Association Limited (SCAL). He has also consulted for MOM, WSHC and WSHI, and has taught safety-related subjects at local universities and academies.

He has more than six decades of teaching, research, and consultancy experience, including teaching short courses for practicing engineers, in U.S.A., Singapore, India, and Hong Kong.

In U.S.A. he held civil engineering professorial positions in three American universities, in the last of which he was Department Chairman. He has also held senior positions in the National University of Singapore, and the Mysore University in India.

His research interests have been in structural engineering and computer applications to civil engineering. He has written five books including the latest, *"Introduction to Enterprise Risk Management"*, and *"Essays on Forensic Engineering"*, co-authored a resource book on structural welding and other publications, and published over a hundred papers.

Over the last many years in Singapore Professor Krishnamurthy has been focussing on safety, design, and erection of temporary structures such as scaffolding, formwork and falsework, construction productivity and working safely at height. He is deeply involved in workplace safety and risk management, as well as investigations of temporary structure failures and workplace accidents.

Relevant credentials for Prof Krishna to teach this course will be the following:

- Has been teaching 'Working Safely at Heights', 'Formwork Design & Safety', 'Scaffold Design & Safety', etc. at IES;
- Was involved in investigation of formwork and scaffold failures and accidents, and serving as expert witness for these accidents.
- Conducted a research project on working safely at height for the Workplace Safety and Health Institute, Singapore.

# WORKING SAFELY AT HEIGHT 7<sup>TH</sup> RUN

(Virtual Classroom) **\*\* Supported by UTAP ONLY\*\***

**Date: 19 JULY 2022**

**Time: 9AM – 1.15PM**

**Delivery Mode: Zoom Webinar**

**Fee (include GST): IES Member: \$115.60 Non-member: \$134.80**

Please register online/email the completed form by **8 JULY 2022 before 3PM** to:

Contact Person: Verline Chiam, [verline.chiam@iesnet.org.sg](mailto:verline.chiam@iesnet.org.sg)

**IES Academy@Jurong East**

**80 Jurong East Street 21, #04-10**

**Devan Nair Institute for Employment and Employability**

**Singapore 609607 Tel: 64604241**

## Participant Details

\*Name : \_\_\_\_\_ \*NRIC : \_\_\_\_\_  
(Please written in BLOCK Letter)

Company : \_\_\_\_\_ \*Designation \_\_\_\_\_

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

\*Postal Code : \_\_\_\_\_ Sex : \_\_\_\_\_ Male / Female \_\_\_\_\_

\*Handphone No.: \_\_\_\_\_

\*Your Email : \_\_\_\_\_  
(For sending of confirmation email, preferable personal unless company sponsored)

Please indicate:  IES members IES M'ship No.: \_\_\_\_\_

Non-members

RE/RTO/PE No.: \_\_\_\_\_

Sponsored by company (Please indicate the Contact person detail)

## Contact Person Details (HR or Finance if sponsored by company or if applicable)

#Name : \_\_\_\_\_ #Designation : \_\_\_\_\_

#Contact No. : \_\_\_\_\_

#Email : \_\_\_\_\_

## Payment Details

Bank / Cheque No : \_\_\_\_\_

Amount (\$): \_\_\_\_\_

~ All Fees are inclusive of 7 % 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 : \_\_\_\_\_

**\*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 Engineers Singapore 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](http://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.