

IES Workshop on DESIGN OF PERSONAL FALL ARREST SYSTEMS For Engineers and WSH Professionals 11th Run

OVERVIEW

Falling from heights remains the leading cause of workplace fatalities in Singapore and Personal Fall Arrest Systems (FAS) are widely used as a control measure to protect workers.

Workplace Safety and Health (Work at Heights) Regulations 11(2) stipulates that FAS must be able to absorb energy and “limit the forces applied to the user’s body” and have “enough fall distance available to prevent the user from hitting an object, the ground or other surfaces.” This necessitates calculating the Maximum Arrest Force (MAF) to users and the fall clearance.

However, even though Engineers have been designing fall arrest systems, but a research in 2012 by the IES and NUS has shown that the current designs are focused on anchors and structures without due regard to the users of the fall arrest systems.

Thus, current approaches to design fall arrest systems are inadequate. To ensure that engineering professionals are able to design fall arrest systems to meet the requirements of the regulations, IES is conducting this workshop to introduce the basic concepts in design of fall arrest systems. Participants will be introduced to a range of fall arrest systems and be provided an overview of the calculation methods for design of fall arrest systems.

This workshop will also provide WSH professionals with a more in-depth understanding of the necessary design parameters and limitations of these FAS before they approve permits-to-work and/or safe work procedures for work-at-height.

Note: This workshop is a prelude to a more detailed course to equip engineers with the necessary competency to ensure safe design of fall arrest systems.

PROGRAMME DETAILS	
Date :	12 December 2014, Friday
Time:	9am – 5.15pm
Duration :	1 Day
Venue :	NTU@one-north Executive Centre, 11 Slim Barracks Rise, Singapore 138664
Fees :	\$220 (Includes GST) (IES / IOSH Members) \$260 (Includes GST) (Non-Members)
CPD Programme	6 STUs (Structural) - Confirmed 6 PDU's - To Be Confirmed / 6 SDUs - To Be Confirmed
Organising Committee	Health & Safety Engineering Technical Committee
<p><i>* Fees are inclusive of 7% GST, course materials and Lunch. Certificate of Attendance will be issued to participants with at least 75% attendance</i></p>	

UTAP SUPPORT

NTUC Union Member

Eligible to claim 50% of course fee*

* Terms & Conditions Apply *

FOR WHOM

Safety professionals, Developer & Senior Management from Building and Construction Contractors, Resident Engineers and Resident Technical Officers that aspire to improve and enhance their Safety Management practices.

PROGRAMME OUTLINE

- Overview of WAH legal & other requirements
- Common fall arrest systems in Singapore & how they work
- Design of anchor layout: Swing Fall & Swing Drop Distance
- Design of fall arrest systems:
 - Calculating Fall Clearance
 - Calculating Maximum Arrest Force
- Summary & What's Next?

TRAINERS' PROFILE

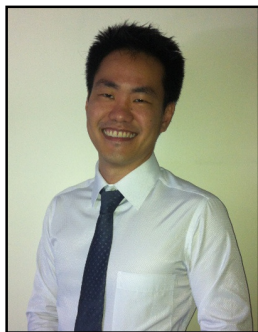
DR. GOH YANG MIANG



DR. GOH Yang Miang, Ph.D. is an Assistant Professor with the Department of Building, National University of Singapore. His area of expertise is in occupational safety and health, incident investigation, and fall protection.

He is an Approved Workplace Safety and Health Auditor, a Qualified Fall Protection Engineer and was a Senior Consultant with Det Norske Veritas. Dr Goh was a Senior Lecturer at Curtin University, Australia and Adjunct Lecturer with the University of Adelaide. He currently holds an Adjunct Associate Professor appointment with Curtin University.

He has a wide range of peer-reviewed papers in high impact scientific journals on Fall Protection, Risk Management, Safety Management, System Dynamics, Artificial Intelligence and accident case studies. Dr Goh is a reviewer and editor of international academic journals. He was also the Assistant Director (Investigations) at the Ministry of Manpower and was involved in the investigation of serious accidents including fall from height accidents.



MR. HOE YEE PIN

HOE Yee Pin has been a trainer, consultant and practitioner in work-at-height for almost 10 years. He was trained in the UK in rope access, rigging at heights, advanced high-angle and confined space rescue. He was a Competent Trainer in Fall Protection certification endorsed by the International Society for Fall Protection (ISFP) and was a licensed training representative for several height safety companies to deliver work-at-height and rescue training in Asia. He is also licensed by several manufacturers to install their fall protection systems such as permanent horizontal and vertical lifelines on buildings and structures.

In addition, he is also a qualified inspector and servicing technician for fall protection equipment. Yee Pin is known for drawing on his years of actual work-at-height experience to deliver realistic, hands-on training. He is adept in applying fall protection concepts on the ground and has provided technical advice for deployment of fall protection solutions.

He is a member of the work groups on Singapore Standards for industrial rope access and design of fall arrest systems.

SUPPORTED BY



REGISTRATION FORM

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Time : 9.00am – 5.15pm

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50% of course fee*

* Terms & Conditions Apply *

Venue : NTU@onenorth Campus, 11 Slim Barracks Rise, Singapore 138664 (*To Be Confirmed*)
Fees * : \$220.00 (IES / IOSH Members) \$260.00 (Non-Members)

Please register online/fax the completed form **by 05 December before 3 pm** to:

Karen Phua
70 Bukit Tinggi Road (289758)
Tel: 6463 9211 Fax: 6463 9468

Participant Details

Name : _____ NRIC : _____

Company : _____ Designation: _____

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

Address2 : _____
(For mailing of Certificate)

Postal Code : _____ Sex : _____ Male / Female

Mobile No. : _____ Fax : _____

Email : _____
(For sending of confirmation email)

Please indicate : ☐ IES members IES M'ship No.: _____ P.E. No.: _____ (if applicable)
☐ Non-members ☐ Sponsored by company ☐ **Vegetarian**

Contact Person Details (if different from participant)

Name : _____ Designation: _____

Tel : _____ Fax: _____

Email : _____

Payment Details

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

* All Fees are inclusive of 7 % GST * Cheque should be made payable to: "IES".

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

Registration can be done either online or by faxing in the registration form.

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 The Institution of Engineers, Singapore (IES).

Email and phone registrations will not be accepted.

Closing Date & Payment

The closing date of the event will be 7 days prior to event commencement date. Cheques should be crossed 'A/C payee only' and made payable to 'IES', with the ***Date of event, Title of The Event and participants' name indicated clearly on the back of the cheque***, and post to:

**IES Academy
70 Bukit Tinggi Road
Singapore 289758**

Confirmation of Registration

Confirmation of registration will be given 7 days prior to the commencement date of event via email. If you do not receive the said confirmation email, you are required to contact IESA general admin immediately at 6463 9211 (office).

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

Withdrawals/Refunds of Fees

Notice of withdrawal must be given in writing to IESA. Policy on refund of course fee is as follows:

- **FULL** refund if we receive your written notice of withdrawal at least 7 days before the commencement of the Event.
- **NO** refund otherwise.

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

Replacement is allowed but restricted to once only. Replacement will be allowed only if written notice is received by us at least 3 working days 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. IESA 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.

Enquiries

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