



5-DAY COURSE FOR APPOINTED PERSON – LIFTING OPERATIONS

Introduction

As the Singapore Government pushes for higher productivity in various sectors, more and more cranes will be deployed at various work places. Use of cranes at site involves many people from various organisations, such as the crane manufacturer, site occupier, crane contractor, and various sub-contractors that use the cranes. According to the latest Singapore Standard on Safe Use of Tower Cranes SS 559:2010, it is crucial that one person be appointed to have overall control of the cranes. This appointed person shall be notified formally in writing of their appointment. This course is aimed at anyone who is required to plan safe systems of work, using lifting equipment and intends to take up this position as an appointed person. It is recommended that prior to attending this course, individuals should have some experience of working with lifting equipment, especially mobile cranes and tower cranes.

Objectives

The objective of this course is to equip candidate with an in-depth understanding of the roles and responsibility of the Appointed Person. Successful completion of the course will enable the candidate to prepare and implement safety system of work for lifting operation.

Target Audience

Managers, engineers and safety officers involve in site planning of safe systems of work, crane selection, project management, installation, commissioning, specification and consultancy of cranes at various jobsite, such as construction, shipyard, ship repairing, A&A, oil & gas etc.

Entry Requirements

1. An engineering degree **OR**
2. At least an engineering diploma holder with 3 years of relevant experience.
3. Assumed knowledge of rigging, signaling and lifting experience

Supported by:



PROGRAMME DETAILS

Date	: 31 October 2014, 1, 6, 7, 13 (half day) & 14 (half day) November 2014 (all dates inclusive)
Duration	: 5 Days
Time	: 9.00am – 5.00pm
Venue	: Singapore Institution of Safety Officers (to be confirmed)
CPD Programme	: ? PDUs (To Be Confirmed)
Fees	: \$2 600.00 (IES Members) \$2 800.00 (Non-Members)
Organizer	: IES Academy

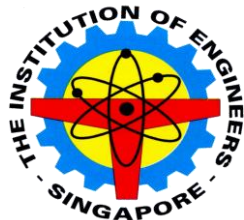
* Fees inclusive of 7% GST & course materials.

* Certificate of Completion will be issued to participants with passed on both Practical and Written tests.



Program Schedule

Time	Activity
<u>Day 1</u>	
0830 – 0900	Registration
0900 – 1015	WSH Act (General Provisions) Regulations 2006
1015 – 1030	Tea Break
1030 – 1145	WSH (Operation of Cranes) Regulation 2011
1145 – 1230	SS 343 Part 1 2001: Wire Rope Slings
1230 – 1315	Lunch Break
1315 – 1430	SS 536 Safe Use of Mobile Cranes
1430 – 1515	WSH (Construction) Regulation 2007
1515 – 1530	Tea Break
1530 – 1605	SS 63 – The Lifting of Persons in Work Platforms Suspended from Cranes
1605 – 1650	Code of Practice of Safe Lifting Operations in the Workplace
<u>Day 2</u>	
0830 – 0900	Registration
0900 – 1030	Quick Introduction to WSH Act 2006 Introduction to Rigging Terminology Wire Sling Rope Calculation Centre of Gravity
1030 – 1045	Tea Break
1045 – 1200	Estimating load weight Stability of load Choosing lifting equipment: Slings, Shackles, Lifting beam/spreader beam Summary
1200 – 1245	Lunch Break
1245 – 1545	An Overview of SS 559:2010 Code of Practice for Safe Use of Tower Cranes Regulatory framework for tower cranes Basic crane physics
1545 – 1600	Tea Break
1600 – 1800	Different type of crane: mobile cranes, crawler cranes, all terrain cranes, truck cranes, gantry cranes, etc. Load chart – understanding in detail Machine selection Planning of crane operation, mob, actual lift and demob Basic types of outrigger mats Tandem lifting Role of appointed person



Time	Activity
Day 3	
0830 – 0900	Registration
0900 – 0945	Introduction Identify WSH legislation and legal requirements related to crane operation: <ol style="list-style-type: none"> 1. What is WSHA? 2. Three guiding principles 3. Responsibilities of the stakeholders 4. Liabilities and penalties
0945 – 1000	Tea Break
1000 – 1200	Quick review of WSH Regulation and Code of Practice for Cranes
1200 – 1300	Lunch Break
1300 – 1500	Conduct risk assessment and implement preventive measures related to crane operation <ol style="list-style-type: none"> 1. Hazardous and unsafe conditions relating to crane operation 2. Risk management for crane operation
1500 – 1515	Tea Break
1515 – 1800	<ol style="list-style-type: none"> 3. Risk assessment of crane operation 4. Conducting and carry out of risk assessment 5. Roles and responsibilities of related personnel to crane operation, including Appointed Person, Lifting Supervisor, Rigger and Signaller, Crane Operators, Project Managers, Project Engineers, General Workers, etc.
Day 4	
0830 – 0900	Registration
0900 – 1015	Development and implementation of Lifting Plan <ol style="list-style-type: none"> 1. Pre-lift meeting 2. Types of information required such as shape, size, weight of load, lifting points, ground conditions etc 3. Lifting organization chart
1015 – 1030	Tea Break
1030 – 1200	<ol style="list-style-type: none"> 4. Particulars and appointment of key lifting team 5. Types of lifting gears, equipment or appliance required. 6. Authorised examiner and PE calculation, endorsement, inspection on cranes, lifting gears, loads, ground pressure etc
1200 – 1300	Lunch Break
1300 – 1545	Organising, planning and executing lifting operation according to lifting plan
1545 – 1600	Tea Break
1600 – 1800	Trainer conducts one-to-one interview with individual trainees to ensure trainees had obtained knowledge, skills and competency



Time	Activity
Day 5 (Half day)	
1330 – 1400	Registration
1400 – 1500	Develop method statement inclusive of lifting plan, risk assessment, safe work procedure, role play & crane inspection (20 participants)
1500 – 1515	Tea Break
1515 – 1715	<ol style="list-style-type: none"> 1. Yard training. Gather relevant information relating to lifting operation (Mobile Crane; Truck mounted) 2. Conduct site assessment. Determine the weight of the load, etc. 3. Develop method statement, lifting plan, risk assessment etc. (20 participants)
Day 6 (Half day)	Practical Sessions
	Group 1 – AM session (10 participants)
0830 – 0845	Registration
0845 – 1000	<ol style="list-style-type: none"> 1. Role Play: Lifting Supervisor, signaller & Rigger. 2. Participants need to play different roles such as lifting supervisor, signaller and rigger during practical assessment. Estimated 15 minutes per participant. 3. Perform briefing, hand signal and rigging
1000 – 1015	Tea Break
1015 – 1200	Continue role play
1200 – 1230	Course de-brief and evaluation
	Group 2 – PM session (10 participants)
1330 – 1345	Registration
1345 – 1500	<ol style="list-style-type: none"> 1. Role Play: Lifting Supervisor, signaller & Rigger 2. Participants need to play different roles such as lifting supervisor, signaller and rigger during practical assessment. Estimated 15 minutes per participant. 3. Perform briefing, hand signal and rigging
1500 – 1515	Tea Break
1515 – 1700	Continue role play
1700 – 1730	Course de-brief and evaluation
Day 7	
0830 – 0900	Registration
0900 – 1100	Final Assessment (Written)



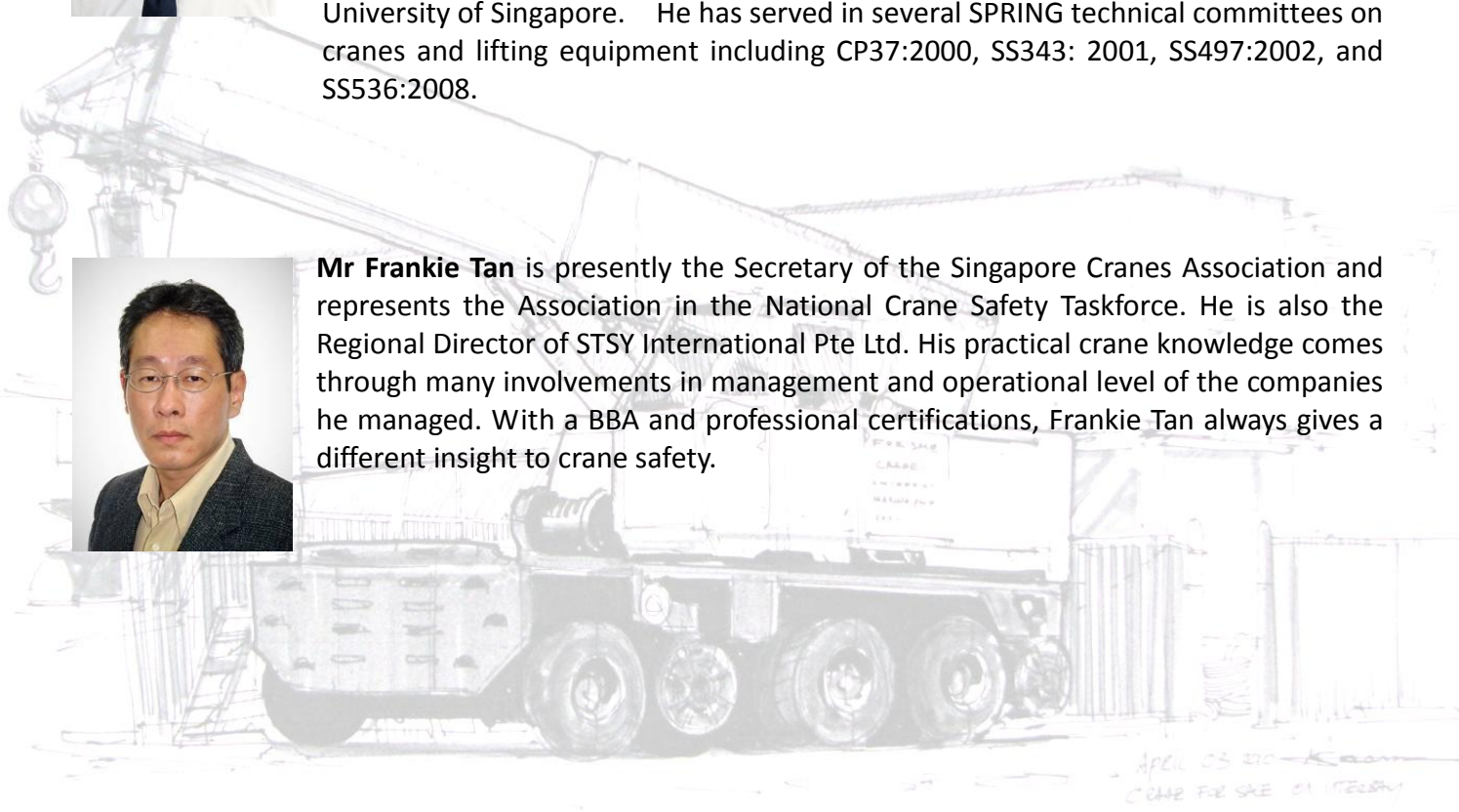
Trainers' Profile



Mr Leslie Tay is a member of the National Crane Safety Taskforce and a senior member of the Singapore Institution of Engineers. He is a registered professional engineer and has been a MOM authorised examiner for cranes and lifting equipment since 1986. Leslie Tay is the principal consultant of Leslie Tay & Associates and graduated with a first class honours degree in mechanical engineering from Auckland University, New Zealand and an MBA from the National University of Singapore. He has served in several SPRING technical committees on cranes and lifting equipment including CP37:2000, SS343: 2001, SS497:2002, and SS536:2008.



Mr Frankie Tan is presently the Secretary of the Singapore Cranes Association and represents the Association in the National Crane Safety Taskforce. He is also the Regional Director of STSY International Pte Ltd. His practical crane knowledge comes through many involvements in management and operational level of the companies he managed. With a BBA and professional certifications, Frankie Tan always gives a different insight to crane safety.





Mr Chew Por Eng graduated with Diploma in Mechanical Engineering from Singapore Polytechnic and Specialist Diploma in Workplace Safety and Health from BCA Academy. He has also attended and passed the Appointed Person–Lifting Operations course jointly organised by IES and LEEA (Lifting Equipment Engineers Association, UK).

Por Eng is a certified crane operator and trainer for crane courses at BCA Academy. He has more than ten years of experiences in the training of crane courses.

Prior to his present profession, he was an Engineer for the ST Engineering and the job scope involved project management, planning of site layout and implementing safe work procedures for manufacturing processes and this include of lifting operation as well.



Mr. Jason Heng had graduated with a Bachelor in Occupational Safety and Health from University of Newcastle(Australia) and a Diploma in Building from Singapore Polytechnic. He has over 15 years of professional experience in the field of construction and also workplace safety and health. He is currently practicing as an MOM Approved Trainer at various MOM Approved Training Providers conducting training on various courses such as LSSC, Rigger and Signalman, WAH, CSOC etc. He has also served as a member of the National Crane Safety Taskforce for two terms and also actively contributed to the work of various technical and professional committees such as the Mobile Crane Workgroup, Tower Crane Workgroup and also the Workgroup for CP for Safe Lifting Operations



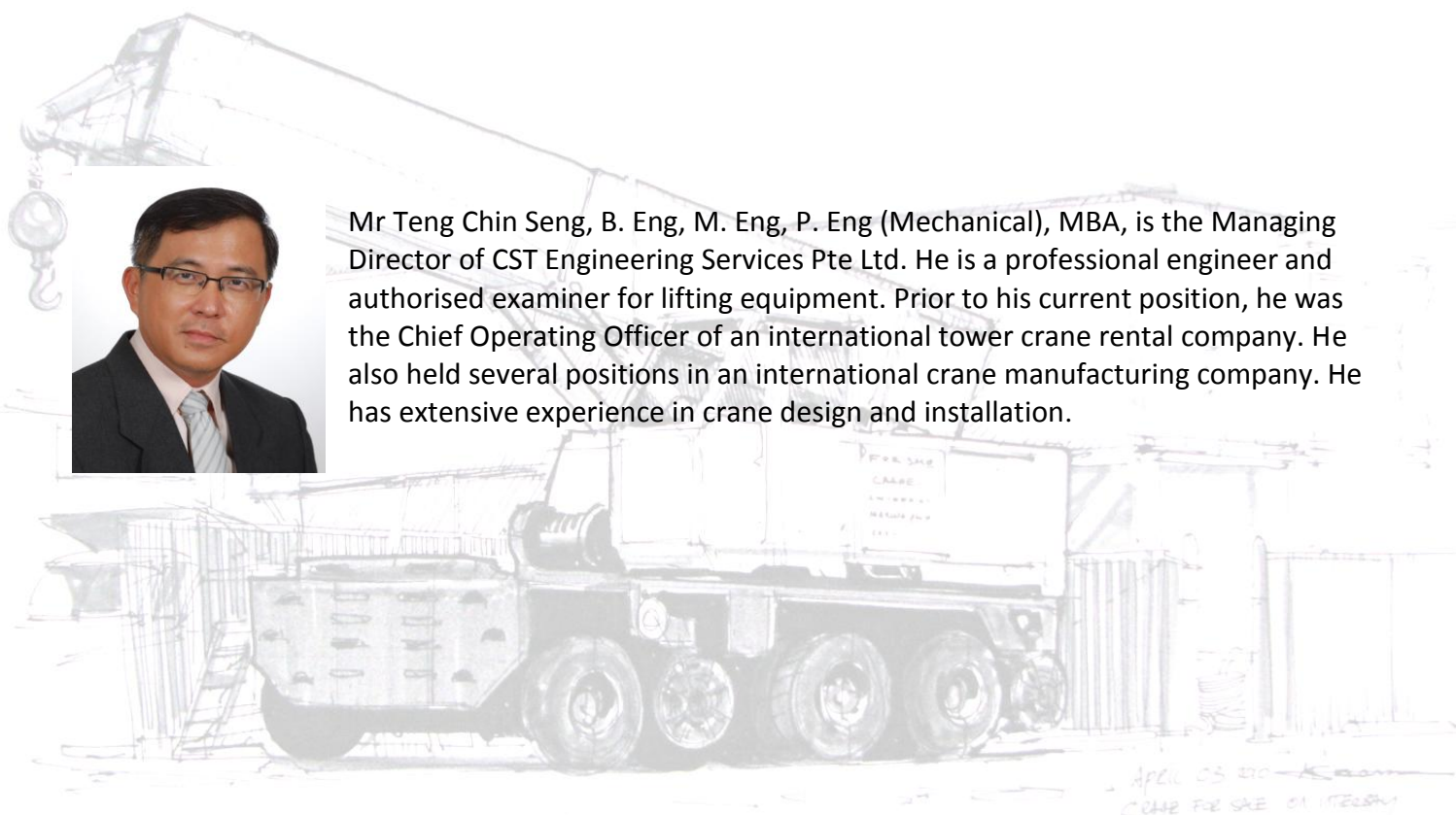
Mr Alan Ong had worked as a heavy lift consultant and was involved in some of the largest projects in Singapore and Asia region. He advised on the construction strategy from the initial design to final construction stage. Alan has experience in planning and engineering complicated lifts using multiple cranes and alternative lifting method like strand jack towers. He is presently working with Faithful+Gould, a project management consultancy. Prior to that, he worked with for a global EPC company and also one of the world's largest heavy lift company.



Mr Jason Oh graduated with B.Eng (Hons) Civil Engineering from University of Glasgow, UK and MSc (Safety, Health and Environmental Technology) with the National University of Singapore. He is the Deputy General Manager of BCEG International (Singapore) Pte Ltd (www.becgi.com.cn) which provides engineering design and construction solutions. He is involved in many local and overseas projects on cranes and lift gears selection to support different challenging projects base from risk assessment. He has attended and passed the Appointed Person –Lifting Operations course jointly organised by IES and LEEA (Lifting Equipment Engineers Association, UK). He is the Council member of IES and actively involved in SPRING's since 2011.



Mr Teng Chin Seng, B. Eng, M. Eng, P. Eng (Mechanical), MBA, is the Managing Director of CST Engineering Services Pte Ltd. He is a professional engineer and authorised examiner for lifting equipment. Prior to his current position, he was the Chief Operating Officer of an international tower crane rental company. He also held several positions in an international crane manufacturing company. He has extensive experience in crane design and installation.





REGISTRATION FORM

5-Day Course For Appointed Person – Lifting Operations (1st Run)

Date : 31 October, 1, 6, 7 13 (half day) & 14 (half day) November 2014
Time : 9.00am – 5.00pm
CPD Programme : to be advised
Venue : Singapore Institution of Safety Officers (SISO) - to be advised
Fees : \$2 600.00 (IES Members) \$2 800.00 (Non-Members)

Please register online/fax the completed form **by 20 October 2014 before 3pm** to:

Address: Lillian Seow
IES Academy
70 Bukit Tinggi Road
IES Building
Singapore 289758
(Tel) 6463 9211 (Fax) 6463 9468

Participant Details

Name: _____ Nric: _____
Company: _____ Designation: _____
Address 1: _____
(For mailing of invoice and receipt)
Address 2: _____
(For mailing of Certificate)
Postal code: _____ Gender: Male/Female
Mobile No: _____ Fax: _____
Email: _____

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

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: "Institution of Engineers, Singapore" or "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

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) unless otherwise invoice to company.

All registrations must be submitted with duly completed registration form.

Email 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 'Institution of Engineers, Singapore' or 'IES', 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
70 Bukit Tinggi Road
Singapore 289758

Confirmation of Registration

Confirmation of registration will be given 7 days prior to the commencement date 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 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 will not be accepted as a reason for withdrawal from course or refund.

Replacement is allowed but restricted to one-time only. It will be allowed only if written notice is received by us at least 3 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 at least 3 days before the commencement date.

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.

Enquiries

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