

**Chairman**  
**Building Services Technical Division**  
 c/o The Institution of Engineers, Malaysia  
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Organizer:  
 Building Services Technical Division  
 The Institution of Engineers Malaysia

## TWO-DAY COURSE ON DESIGN OF SPRINKLER SYSTEMS REFERENCE TO MS1901 FIXED FIREFIGHTING SYSTEMS- AUTOMATIC SPRINKLER SYSTEMS-DESIGN, INSTALLATION AND MAINTENANCE

**Date:**  
**27<sup>th</sup> & 28<sup>th</sup> July 2016 (Wed & Thu)**  
**9.00am – 5.00pm**

**Venue:**  
**C&S & TUS Lecture Room, 2<sup>nd</sup> Floor, Wisma IEM,**  
**Petaling Jaya, Selangor**  
**Registration Fee (GST not included)**

Grade	Online Fee	Normal Fee
IEM Student Member	RM 250.00	RM 280.00
IEM Graduate Member	RM 500.00	RM 600.00
IEM Corporate Member	RM 900.00	RM 1000.00
Non IEM Member	RM 1200.00	RM 1300.00

**Closing Date: 20<sup>th</sup> July 2016**

**6% GST IS IMPLEMENTED EFFECTIVE 1<sup>ST</sup> APRIL 2015**

**BEM Approved CPD/PDP Hours: 13 hours**  
**Ref. No.: IEM15/HQ/252 (B)/C**

**REGISTRATION FORM**

No	Name (s)	Membership No	Grade	Fees (RM)
Total Payable				

Enclosed herewith a cheque No. : \_\_\_\_\_ for the sum of RM \_\_\_\_\_ issued in favour of *"The Institution of Engineers, Malaysia"* and crossed *'A/C Payee Only'*. I/We understand that the fee is not refundable if I/we withdraw after my/our registration is accepted by the Committee but substitution of participants will be allowed. If I/we fail to attend the course, the fee paid would not be refunded.

Contact Person .....

Designation : .....

Name of Organisation .....

Address .....

.....

Tel (O) : ..... Tel (R) : .....

Fax No. : ..... E-mail : .....

Mobile : .....

.....

*Signature (Photostated copies are acceptable) Date*

**Terms & Conditions:**

- For ONLINE REGISTRATIONS, only ONLINE PAYMENT is applicable [via RHB and Maybank2u –Personal Saving & Personal Current ; Credit Card - Visa/Master.
- Payment via CASH / CHEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER / LO / WALK-IN will be considered as NORMAL REGISTRATION
- For online registrations, please note that **payment MUST be made "ONLINE" before the closing date**. If payment is not received and verified within the stipulated time, the registration fee will be reverted to the normal registration fee.
- **FULL PAYMENT** must be settled before commencement of the course, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participants fail to attend the course, the fee is to be settled in full. If the participant failed to attend the course, the fee paid is non refundable. Registration fee includes notes and lunches.
- The Organizing Committee reserves the right to cancel, alter, or change the program due to unforeseen circumstances. Every effort will be made to inform the registered participants of any changes. In view of the limited places available, intending participants are advised to send their registrations as early as possible so as to avoid disappointment.

## **LEARNING KEY OUTCOME**

At the end of the training course, participants would be able to:

- Understand the history of sprinkler and its development to modern time;
- Understand that a discount of 40% of insurance premium for sprinkler system installation allowed under PIAM guidelines.
- Know the types of sprinkler heads and its application
- Understand the various sprinkler systems available to meet certain situation or application
- Apply the Fundamental of Fluid Dynamics on a case study to determine pipe size and pump capacity
- Able to design Pre-Calculated System for Ordinary Hazard (OH), High Hazard Storage(HHS)/Process(HHP) and In-Rack Sprinkler systems
- Case study for each of the above OH, HHS, HHP and In-Rack Sprinkler Systems

**Note: Participants are required to bring along a scientific calculator.**

**Max 35 participants being a participative course with case studies.**

### **Day 1 – Registration from 8.30am**

<b>Time</b>	<b>Day 1</b>	<b>Day 2</b>
9.00am	History and Development of Sprinklers and Its Systems	MS1910 - Pre-calculated sprinkler design – Ordinary Hazard (OH)
9.30am	PIAM discount of 40% of insurance premium on Sprinkler system	Case studies of 1 Stage and 2 stage installation
10.15am	Compute Effective Sprinkler tank capacity	
10.45am	Tea Break	Tea Break
11.00am	Types of Sprinkler Systems - Applications	MS1910-Pre-calculated sprinkler design – High Hazard (HHS) – Storage
11.45am	Sprinkler System – Components like Heads, Types, Uses	Case Study MS1910-Pre-calculated sprinkler design – High Hazard (HHP) – Process Case Study
12.30pm	Lunch	Lunch
1.30pm	Fundamental of Fluid Dynamics Exercises to apply the formula	Pre-calculated sprinkler design – Ceiling and In-Rack
2.45pm	Identification of Fire Hazards – Commodity Classifications	Case study
3.30pm	Tea Break	
3.45pm	Sprinkler – location, spacing, position rules, blockage by beams	Hydraulic calculation of Ordinary Hazard compared with Pre-Calculated System
5.00pm	End of session	End of session

## **TRAINER PROFILE**

### **IR. GARY LIM ENG HWA**

**BE(Mech.) NZ, Mgt Dip. FIEM, P.Eng, Asean Eng.**

Ir. Gary Lim is an experienced and qualified Professional Engineer with over 20 years of manufacturing experience in these areas; Industrial Engineering (Work Study), Project Management, Maintenance, Production and Factory Management. The 20 years of his work spanned over various industries namely industrial chemicals, dairy products, jam, sauces, chocolates, confectionnaires, industrial gases (liquid nitrogen, oxygen, argon, etc), blow moulding of plastic containers and paint manufacturing (highly fire hazardous).

His last 11 years of his working experience was with a multinational insurance company where he received further training in the area of Fire Engineering from an insurer perspective, started as the Risk Engineer and retired as the Risk Manager of the MNC insurer. He attended a course from HSB Industrial Risk Insurers at Hartford, United States of America on the Implementing The Concepts of Industrial Fire Control in August 1998. He also attended The Insurance School (Non-Life) of Japan Advance Course on Risk Management in year 2008 and was presented a Diploma.

Gary had conducted numerous risk management surveys of various industries from wafer plant to power plants. Currently he is the committee member of the Building Services Technical Division and member of the Fire Advisory Board of the Institution of Engineers, Malaysia. He has a degree in Mechanical Engineering from the University of Canterbury, New Zealand and a Management Diploma from New Zealand. He is a Professional Engineer registered with the Board of Engineers, Malaysia and a Fellow of the Institution of Engineers, Malaysia (IEM).

#### **FOR FURTHER DETAILS, PLEASE CONTACT:**

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#### **PERSONAL DATA PROTECTION ACT**

I have read and understood the IEM's Personal Data Protection Notice published on IEM's website at <http://www.myiem.org.my> and I agree to IEM's use and processing of my personal data as set out in the said notice.