

**REGISTRATION FORM: TWO DAYS COURSE ON “PLUMBING –PROFESSIONAL COMPETENCY EXAMINATION (PCE) ON THE SYLLABUS OF HYDRAULICS - DESIGN CONSIDERATIONS”**



Name(s)	Membership No. / Grade	Fees (RM)
Sub Total:		
6% GST Added:		
Total Amount Payable:		

**TWO DAYS COURSE ON “PLUMBING – PROFESSIONAL COMPETENCY EXAMINATION (PCE) ON THE SYLLABUS OF HYDRAULICS - DESIGN CONSIDERATIONS”**

**Speaker:**  
**Ir. GARY LIM ENG HWA**

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Mobile: \_\_\_\_\_ Tel(O): \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

(Please write clearly as the “Information Update will be sent via email)

Contact Person: \_\_\_\_\_ Designation: \_\_\_\_\_

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**PAYMENT DETAILS**

Cash RM \_\_\_\_\_

Cheque no. \_\_\_\_\_ for the amount of RM \_\_\_\_\_ (non-refundable) and made payable to “THE INSTITUTION OF ENGINEERS, MALAYSIA” and crossed ‘A/C Payee Only’.

**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
- **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 lecture notes, refreshment.
- 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

<b>Date</b>	<b>:</b>	<b>23<sup>rd</sup> &amp; 24<sup>th</sup> March 2017 (Thu &amp; Fri)</b>
<b>Time</b>	<b>:</b>	<b>8.45 a.m. – 5.15 p.m.</b>
<b>Venue</b>	<b>:</b>	<b>C&amp;S and TUS Lecture Room, 2<sup>nd</sup> Floor, Wisma IEM , Petaling Jaya, Selangor Darul Ehsan</b>

**Organized by:**  
Building Services Technical Division  
**The Institution of Engineers, Malaysia**

**REGISTRATION FEES (SUBJECT TO 6% GST)**

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

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

**\*Closing Date: 20<sup>TH</sup> MARCH 2017**

**\* Limited to 35 participants only**

**BEM Approved CPD/PDP Hours: 14 Hours**  
**Ref. No.: IEM17/HQ/019/C**

**Cancellation Policy**

IEM reserves the right to postpone, reschedule, allocate or cancel the course. Full refund less 30% if cancellation is received in writing more than 7 days before start date of the event. No cancellation will be accepted prior to the date of the event. However, replacement or substitute maybe made at any time with prior notification and substitute will be charged according to membership status.

**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.

## **LEARNING KEY OUTCOME**

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

1. Proceed to the Professional Competency Examinations (PCE) Part B - Mechanical Engineering Syllabus 3.0 Hydraulics on the followings:
  - a. SPAN Uniform Technical Guidelines (UTG)
  - b. BS 6700 withdrawn replaced by BS8558:2011 & BS EN806
  - c. Design Considerations on Cold Water, Hot Water, Pressures, Pump Controls
2. Cold Water & Hot Water - Select the piping material amongst the many choices of plastic and metal
3. Pressures and Pump Controls - Calculate the piping sizes
4. Take preventive measures to minimize the impact of water hammer to the pipe lines by way of design and selection of the right equipment.
5. Case Studies to illustrate the design considerations

**Note: Participants are required to bring along a scientific calculator to work on the case studies and the SPAN Uniform Technical Guidelines referred.**

Time	Day 1	Day 2
8.30am	<b>Registration</b>	<b>Registration</b>
8.45am	SPAN – Uniform Technical Guidelines (UTG)	Case Study – Multi stage pumping systems in a high rise building Concept of Rainwater Harvesting for Toilet flushing
10.15am	Fundamental of Fluid Dynamics To apply the formula on pipe sizing	Water hammers and preventive measures
10.45am	<b>Tea Break</b>	<b>Tea Break</b>
11.00am	Pump sizing and case studies Cold water demand and storage tanks.	Joining methods of plastic pipe Practical sessions to join PPR pipe, ABS pipe and mechanical joints
12.30pm	<b>Lunch</b>	<b>Lunch</b>
1.30pm	System design, direct VSD & pneumatic Sizing of pneumatic tanks	Hot Water generation and storage - Concepts
2.45pm	Choice of plastic pipes and friction loss	Hot water pipe design for expansion
3.30pm	<b>Tea Break</b>	<b>Tea Break</b>
3.45pm	Using Tables from BS6700 calculate pipe size, case study	Installation and Commissioning of Plumbing systems
5.15pm	Q & A - End of session	Q & A - End of session

## **ABOUT THE SPEAKER :**

**Ir. GARY LIM ENG HWA**

**BE(Mech.) NZ, Mgt Dip. FIEM, P.Eng, Asean Eng. AT 31000**

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). In the dairy industry involved in the design of Clean-In-Place (CIP) system of the process pipings.

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. In 2016, he obtained the Approved ISO31000 Lead Trainer status from the Global Risk Management Institute Standards -G31000

Gary had conducted numerous risk management surveys of various industries from wafer plant to power plants. Currently, a council member and 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 Institute of Management. He is a Professional Engineer registered with the Board of Engineers, Malaysia and a Fellow of the Institution of Engineers, Malaysia (IEM). Currently, he conducts courses regularly on the concepts and design in the area of Fire Engineering and Plumbing Engineering at all the IEM branches in Malaysia. He also conducts courses with Malaysia Institute of Insurance on these topics: The Art of Property Underwriting Profitability and Essence of Survey Report; Applying Fire Engineering Knowledge in Property Survey and Loss Control; Enterprise Risk Management & Business Continuity Management.

He is an active member in number of SIRIM Work Group in drawing up Malaysian Standards on plastic pipes.

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

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