PHYSICAL TWO DAY COURSE ON

"PLUMBING – PROFESSIONAL COMPETENCY EXAMINATION (PCE) ON THE SYLLABUS OF HYDRAULICS - DESIGN CONSIDERATIONS"

SPEAKER

Ir. GARY LIM ENG HWA

25th – 26TH JUNE 2023

(Tuesday & Wednesday)

9.00 a.m. – 5.30 p.m.

C&S + TUS Lecturer Room, Wisma IEM, P.Jaya

BEM Approved CPD/PDP Hours: 14
Ref. No. : IEM23/HQ/174 (C)

Organized & Hosted by:
Building Services Technical Division (BSTD), IEM

Cancellation Policy
No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with 7 days prior notification and substitute will be charged according to membership status.

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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, diary 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 diary 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 Profitabily 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.

SYNOPSIS

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, Pressures, Pump Controls
2. Understand the OSHCIM Requirements to ADDRESS RISKS at the design stage -
3. Cold Water & Hot Water - Select the piping material amongst the many choices of plastic and metal
4. Pressures and Pump Controls - Calculate the piping sizes
5. Take preventive measures to minimize the impact of water hammer to the pipe lines by way of design and selection of the right equipment.
6. 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

PROGRAMME OUTLINED

Time	Day 1	Day 2
8.30am	Registration & Welcome Coffee	Registration & Welcome Coffee
8.45am	SPAN – Uniform Technical Guidelines (UTG) OSHCIM Requirements – Address the risks at the design stage	Case Study – Multi stage pumping systems in a high rise building
10.15am	Fundamental of Fluid Dynamics To apply the formula on pipe sizing	Joining methods of plastic pipe Practical sessions to join PPR pipe, HDPE pipe and mechanical joints
10.45am	Morning Tea Break	Morning Tea Break
11.00am	Pump sizing and case studies Cold water demand and storage tanks.	Water hammers and preventive measures
12.30pm	Lunch	Lunch
1.30pm	System design, direct VSD & pneumatic Sizing of pneumatic tanks	Concept of Rainwater Harvesting for Toilet flushing
2.45pm	Choice of plastic pipes and friction loss	
3.30pm	Afternoon Tea Break	Afternoon Tea Break
3.45pm	Using Tables from BS6700 calculate pipe size, case study	Installation and Commissioning of Plumbing systems
5.15pm – 5.30 pm	Q & A - End of session	Q & A - End of session

*** IEM reserves the right to postpone, reschedule, allocate or cancel the course.**

For further details, kindly contact:

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Bangunan Ingenieur, Lots 60/62, Jalan 52/4, P.O. Box 223 (Jalan Sultan),
46720 Petaling Jaya, Selangor

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Email : **shahrul@iem.org.my / amira@iem.org.my**

REGISTRATION FORM

HALF DAY WEBINAR ON
"ECONOMICS OF INSFRASTRUCTURE AND REGIONAL DEVELOPMENT"
17TH DECEMBER 2022 (Saturday)
Email: shahrul@iem.org.my, parimala@iem.org.my, suriani@iem.org.my

	ONLINE FEES	NORMAL FEE (Via Email)
IEM Student Member	RM 250.00	RM 300.00
IEM Graduate Member	RM 500.00	RM 600.00
IEM Corporate Member	RM 800.00	RM 900.00
Non-IEM Member	RM 1600.00	RM 1700.00

No	Name(s)	Membership No.	Grade	Fee (RM)*
			SUB TOTAL	
			+ 6% SST	
			TOTAL PAYABLE	

PAYMENT DETAILS :

☐ Cash RM _____

☐ Cheque no._____for the amount of RM_____(non refundable) and made payable to

(SHOULD PAYMENT IS MADE, KINDLY EMAIL THE 'BANK-IN-SLIP' TO IEM FOR VERIFICATION BEFORE THE EVENT FOR EASY REGISTRATION)

FULL PAYMENT must be settled before commencement of the seminar, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participant fails 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. The Registration Fee includes lecture notes, refreshment and lunch (which ever available).

For **ONLINE REGISTRATIONS**, please note that payment **MUST** be made **BEFORE the closing date**. If payment is not received within the stipulated time, the registration fee will be reverted to the normal registration fee.

Contact Person : _____ Designation : _____

Name of Organization : _____

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Telephone No. : _____ (O) Fax No : _____ (O)

Handphone : _____ (HP) Email: _____

_____ _____

Signature & Stamp 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
- The Organising 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.