# **REGISTRATION FORM: COURSE ON: "DESIGN CONCEPTS OF PLUMBING & SOIL WASTE VENT SYSTEMS"**

Name(s)	Membership No. / Grade	Fees (RM)	
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Sub Total:			
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(Please write clearly as the "Information Update will be	sent via email)		Time
Contact Person:	Designation:		Venue
Signature:	Date:		
PAYMENT	DETAILS		
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(non-refundable) and made payable to:			KE015
THE INSTITUTION OF E	NGINEERS, MALAYSIA		IEM M
ACC. NO. 55310455	58067 (MAYBANK)		Non IE
Terms & Conditions			*Clos
<ul> <li>Payment via CASH / CHEQUE / BANK-IN TRANSMIS</li> <li>FULL PAYMENT must be settled before commencer</li> </ul>	SION /WALK -IN will be ACCEPTED ment of the course, otherwise participan	ts will not be allowed to	* Lim
full. If the participant failed to attend the course,	articipants fail to attend the course, the f the fee paid is non refundable. Regist	ee is to be settled in ration fee includes lectu	1re
<ul> <li>The Organising Committee reserves the right t</li> </ul>	to cancel, alter, or change the progr	am due to unforeseen	
places available, intending participants are advised disappointment.	to send their registrations as early as	possible so as to avoid	1



THE INSTITUTION OF ENGINEERS, MALAYSIA (KELANTAN BRANCH)

C/O MZAH PERUNDING ,PT 532, TINGKAT 1&2.LEMBAH SIREH, Jalan Sultanah Zainab,15050 Kota Bharu, Kelantan Darul Naim Tel: 609-746 2028 Fax: 609-746 2028 E-mail: iemkelantanbranch@gmail.com

## 2 DAY COURSE ON: "DESIGN CONCEPTS OF PLUMBING & SOIL WASTE VENT SYSTEMS"

## Speaker: Ir. GARY LIM ENG HWA

Date	:	10 <sup>th</sup> & 11 <sup>th</sup> Oct 2017 (Tue till Wed)
Time	:	9.00a.m – 5.30p.m
Venue	:	OPEN UNIVERSITY MALAYSIA (OUM)

## Organized by: The Institution of Engineers, Malaysia KELANTAN BRANCH

#### **REGISTRATION FEES**

	Fee
IEM Member	RM 400.00
Non IEM Member	RM 500.00

\*Closing Date: 28/9/2017 (THURSDAY)

\* Limited to 30 participants only (First Come- First -Served Basis)

## BEM Approved CPD/PDP Hours: 13 CIDB Approved CCD Hours : 20

#### LEARNING KEY OUTCOME

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

- 1. Understand the basis to determine the cold water storage demand and size the transfer pump accordingly. This is in accordance to the latest SPAN Uniform Technical Guidelines.
- 2. Select the suitable type of pumping system to meet the water usage requirements namely direct, variable speed drive, and pneumatic tank.
- 3. Select the piping material amongst the many choices of plastic and metal.
- 4. Calculate the piping size for cold water in accordance to the BS6700 standard methodology of Loading Units.
- 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. Determine the stack size of Soil, Waste, Vent (SWV) using Discharge Unit methodology and understand the constraints impose on branch discharge pipe in particular on the gradient to minimize blockage.
- 7. Understand the factors which contribute to smelly toilets and the solutions
- 8. Observe poorly installed plumbing and SWV systems which are preventable

#### Note: To bring along a scientific calculator to work on the case studies.

#### FOR FURTHER DETAILS, PLEASE CONTACT:

Nur Aina Mardhiyah Yamin (012-9675181) c/o The Institution of Engineers, Malaysia (Kelantan Branch) PT 532, Tingkat 1, Lembah Sireh, Jln Sultanah Zainab, Kota Bharu, 15050 Kelantan Tel: 609-746 2028 Fax: 609-746 2028 E-mail: iemkelantanbranch@gmail.com

### <u>SPEAKER</u> Ir. GARY LIM ENG HWA

#### BE(Mech.) NZ, Mgt Dip. FIEM, P.Eng, Asean Eng, APEC Eng, Int PE(My)

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).

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.

Gary had conducted numerous risk management surveys of various industries from wafer plant to power plants.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).

Day 1		
08:30 am	Registration & Introduction	
09:00 am	Fundamental of Fluid Dynamics	
	To apply the formula on pipe sizing	
	Pump sizing and case studies	
10:45 am	Tea-Break	
11:00 am	Case studies presentation	
	Cold water demand and storage tanks – SPAN Uniform Technica Guidelines	
12:30 pm	Lunch& Break	
02:00 pm	System design, direct VSD & pneumatic	
	Choice of plastic pipes and friction loss	
03:30 pm	Tea-Break	
03:45 pm	Hot water pipe design for expansion	
	Joining methods of plastic pipe	
	Plastic pipes joining method-tips to control at worksite	
	Water hammers and preventive measures	
05:30 pm	End of Session	

Day 2		
08:30 am	Registration	
09:00 am	BS6700 calculate pipe size, case study	
10:45 am	Tea-Break	
11:00 am	MS1402 Code of Practice for Sanitary Systems	
	MS2015 Public Toilet Part 1: Minimum Design Criteria	
	MS1799 Urinals-Specification	
	MS1522 Vitreous China Water Closet Pans Specification & BS5572	
12:30 pm	Lunch& Break	
02:00 pm	Installation of Sanitary Pipe. Areas of blockages of the pipes	
	Testing and Commissioning of Sanitary Systems	
03:30 pm	Tea-Break	
03:45 pm	Case study – Determine the Discharge stack size, vent pipe size and	
	discharge pipe routing to Stack	
05:30 pm	End of Session	