REGISTRATION FORM: TWO DAYS COURSE ON "DESIGN CONCEPTS OF PLUMBING & SWV SYSTEMS"

| Name(s) | Membership No. / Grade | Fees (RM) |
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| Sub Total: | | |
| 6% GST Added: | | |
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| PAYMENT D | ETAILS | |
| Cash RM | | |
| Cheque no. | for the amount of RM | |
| (non-refundable) and made payable to "Ti | HE INSTITUTION OF ENGINEERS | , MALAYSIA" |

Terms & Conditions:

and crossed 'A/C Payee Only".

- 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



TWO DAY COURSE ON "DESIGN CONCEPTS OF PLUMBING & SWV SYSTEMS"

Speaker: Ir. GARY LIM ENG HWA

| Date | : | 13 ^{тн} & 14 ^{тн} July 2015 |
|-------|----|---|
| Time | •• | 9.00a.m - 5.00p.m |
| Venue | : | C& S and TUS Lecture Room, 2 nd Floor, Wisma IEM , Petaling Jaya, Selangor. |

Organized by:

The Institution of Engineers, Malaysia

Building Services Technical Division

REGISTRATION FEES (GST NOT INCLUDED)

| 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 |

*Closing Date: 9th July 2015
*Limited to 35 participants only

BEM Approved CPD/PDP Hours: 13 Ref. No.: IEM15/HQ/194/C

6% GST WILL BE IMPLEMENTED EFFECTIVE 1ST APRIL

LEARNING KEY OUTCOME

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

- 1. Understand the basis to determine the cold water storage demand and size the transfer pump accordingly
- 2. Select the suitable type of pumping system to meet the water usage requirements namely direct, variable speed drive, 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. Observant of poorly installed plumbing and SWV systems which are preventable. Solutions to overcome smelly toilets.

Note: Participants are required to bring along a scientific calculator to work on the case studies and the SPAN Uniform Technical Guidelines (draft) deliberated.

| Time | July 13th 2015 | July 14 th 2015 |
|---------|---|---|
| 8.45am | Registration | Registration |
| 9.00am | Fundamental of Fluid Dynamics | Joining methods of plastic pipe |
| 9.30am | To apply the formula on pipe sizing | Practical session to join ABS pipe and PERT mechanical joints |
| 10.15am | Pump sizing and case studies | Water hammers and preventive measures |
| 10.45am | Tea Break | Tea Break |
| 11.00am | Cold water demand and storage tanks. SPAN draft UTG. | BS6700 calculate pipe size, case study |
| 11.45am | System design, direct VSD & pneumatic | |
| 12.30pm | Lunch | Lunch |
| 1.30pm | Sizing of pneumatic tanks | SWV stack design MS1402, BS5572. Overcome smelly toilets |
| 2.45pm | Choice of plastic pipes and friction loss | Installation pitfalls – piping & SWV |
| 3.30pm | Tea Break | Tea Break |
| 3.45pm | Hot water pipe design for expansion | Commissioning of Plumbing & SWV |
| 5.00pm | End of session | End of session |

SPEAKER

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, 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.

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). He spoke in many public seminars both for the insurance industry, Malaysia Fire Protection Association and the Institution of Engineers, Malaysia.

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.

FOR FURTHER DETAILS, PLEASE CONTACT:

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