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### REGISTRATION FORM

Two-Day Course On “Integrating Operational Perspective For  
 Cohesive Design Of Plant And Building Facilities”  
 25 October 2017 & 26 October 2017 | Wisma IEM

**Closing Date: 22 October 2017 (Sunday)**

No	Name	M'ship No.	Grade	Fee (RM)
<b>SUB TOTAL</b>				
<b>ADD 6% GST</b>				
<b>TOTAL PAYABLE</b>				

Enclosed herewith a crossed 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 application is accepted by the Organising Committee as stated in the **cancellation term**. If I/We fail to attend the seminar, the paid registration fee will not be refunded.

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

Name of Organization: \_\_\_\_\_

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

Telephone No.: \_\_\_\_\_ (O) \_\_\_\_\_ (Fax)

\_\_\_\_\_ (H) \_\_\_\_\_ (HP)

Email: \_\_\_\_\_

Signature & Stamp

Date

Photocopies are acceptable



Engineering Malaysia



## TWO-DAY COURSE ON “INTEGRATING OPERATIONAL PERSPECTIVE FOR COHESIVE DESIGN OF PLANT AND BUILDING FACILITIES”

Organised by

Oil, Gas and Mining Technical Division, The Institution of Engineers, Malaysia and in collaboration with Institute of Mechanical Engineers Malaysia Branch (IMEchE)

Date : 25 October 2017 & 26 October 2017  
 (Wednesday & Thursday)

Venue : Tan Sri Prof. Chin Fung Kee Auditorium , 3<sup>rd</sup> Floor,  
 Wisma IEM, Petaling Jaya, Selangor

Time : 9.00 am - 5.00 pm

Speaker : Ir. Danaraj Chandrasegaran & Ir. Al-Khairi Mohd Daud

BEM Approved CPD/PDP: 12 hours Ref No.: IEM17/HQ/065/C

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

	ONLINE	NORMAL (Offline)
IEM Student Member	RM 150.00	RM 200.00
IEM Graduate Member	RM 600.00	RM 650.00
IEM Corporate Member / IMEchE Member	RM 700.00	RM 750.00
Non IEM Member	RM 1400.00	RM1500.00

**GST will be implemented with effect from 1 April 2015**

### IMPORTANT NOTES

- Closing Date : **22 October 2017 (Sunday)**
- For ONLINE REGISTRATION, payment MUST BE MADE VIA ONLINE PAYMENT [via RHB Now and Maybank2u -Personal Saving & Personal Current; Any Credit Card - Visa/Master]. If payment is not received within the stipulated time, the registration fee will automatically be reverted to the normal fee.
- Payment via **CASH/CHEQUE/BANK-IN TRANSMISSION/BANK DRAFT/MONEY ORDER/ POSTAL ORDER/LOU/LOG/WALK-IN** will be considered as **NORMAL REGISTRATION**
- **FULL PAYMENT must be settled before commencement of the event**, 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. IEM reserve the right to reject any LOU/LOG not in accordance with these instructions.
- The Organising Committee reserves the right to alter or change the programme due to unforeseen circumstances.

## **SYNOPSIS**

Plant and building facilities have diverse operational requirements due to the difference in user populations and the design intent of the facilities. Most facilities design is focused on the process requirements rather than the operations of the facilities. This course focuses on the operational perspective in the design of plant and building facilities. The term operational perspective covers all handling of materials, human machine interfaces and managing people in plant and building facilities.

General operational concerns are touched upon. The operational needs such as handling provisions, human factors and regulatory compliance for the facilities are summarized based on the current practices. Also, recent development and engineering practices in the plant and building facilities operation are elaborated. Usage of human factors tools and others operational studies in design development activities are discussed as well.

There is a common aim from operational and process that is to produce a reliable and safe facilities design. Any apparent gap between the operational requirements and current facilities design products may result in low efficiency, higher risks exposure and lost time injuries. And these would be faced by the operator through the facilities life. In addition, there is a growing demand in the industry that stresses lower manning in the facilities, focused on operational needs and safety culture. Therefore, a cohesive approach during early design phase is required in addressing these gaps.

Systematic approaches are elaborated in this course during early design phase to create better solutions and reducing modification works throughout the facilities life. This two-day course is designed to help you develop skills that will enhance your engineering delivery to your project and improving the human part of it.

As a great deal of class time will be spent in a variety of interactive formats, active participation is essential

## **BIODATA**

**Ir. Danaraj Chandrasegaran P.Eng MIEM CEng MIMechE.** He is a Chartered Engineer and has honours degree in Mechanical Engineering from University of Technology Malaysia. He also holds a MEng degree in Mechanical Engineering from University of Malaya. He also presently a committee member with The Institution of Engineers Malaysia and Institution of Mechanical Engineers (UK) Malaysia Chapter.

Since starting his career as a Mechanical Engineer, Ir. Danaraj has had a varied service; both in front line project execution as well as in technical, training, and management functions. His career has a diverse outlook on project execution ranging from building construction, marine, mining and energy industry; as a mechanical engineer. He has worked on several large-scale projects worldwide such as Shell Malikai TLP and Barzan Offshore Project. In addition, had delivered many projects successfully collaborating with vendors and subcontractors alike.

**Ir. Al-Khairi Mohd Daud P.Eng, PEM, C Eng, CPSI, MIEM, MMEPA, MMSQH, REEM** has nearly 25 years of engineering experience in both project and maintenance of various plants and facilities such as Liquefied Natural Gas (LNG) plants, petrochemical and oleo chemical plants, manufacturing, high end R&D and medical centre facilities. Amongst his accomplishment was the development, testing & commissioning and operation of InventQjaya Sdn Bhd, an advance research facilities in Cyberjaya and Prince Court Medical Centre Sdn Bhd (PCMC) a 300-bed hospital owned by PETRONAS. Due to this experience, Ir Al-Khairi has been appointed as certified surveyor and trainer with Malaysian Society for Quality in Health (MSQH). He has contributed to the drafting of MSQH standard 5<sup>th</sup> Edition 2016. He is also being appointed to Medical Device Authority (MDA) competencies expert panels, authorized engineer and trainer on Medical Gas Piping System (MGPS). In energy efficiency, Ir Al-Khairi is the country expert for ASEAN Energy Management Accreditation Scheme (AEMAS) where he is the chief assessor and trainer for the program. He is also a Certified Playground Safety Inspector (CPSI) with NRPA, USA.

Ir Al-Khairi is a member with Institute of Asset Management, UK. He is the past Chairman for Oil, Gas & Mining Technical Division and a member of Building Services Technical Division for the Institution of Engineers Malaysia (IEM). He is the Chief Consultant for Faqeh Management, a company that he formed to provide asset, facilities and energy management. He has conducted various facilities and energy audit for airports, offices buildings, healthcare facilities, manufacturing, process plants. He is also involved as data center planner and assessors.

## **LEARNING OUTCOMES**

At the end of the course participants will:

- Acquire essential human factors in operation know-how
- Able to lead successful early engineering phase – integrating end-user requirements
- Learn tools that will help you manage design engineers and end-user needs
- Managing relationship dynamics between your client/ end-user and organization
- Developing framework for better design usability

## **TENTATIVE COURSE SCHEDULE & OUTLINE**

TIME / DAY	DAY 1	DAY 2
08:30 – 09:00	Registration	Registration
09:00 – 09:30	Introduction	Challenges facing Engineers and Designers
09:30 – 10:30	Business Case for Cohesive Design	
10:30– 10:45	Tea Break	Tea Break
10:45– 12:15	Operational & Maintenance Expertise Critical to Building & Facilities	Systematic Approach & Tools for Engineers in Developing Cohesive Design
12:15 – 13:00	Work group 1	Work group 4
13:00– 14:15	Lunch	Lunch
14:15– 15:45	Intro. to Human Factors Engineering Concepts	Workgroup 5
15:45– 16:00	Tea Break	Tea Break
16:00– 16:45	Workgroup 2	Q&A/ Feedback/ Summary

### **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.