



# IEM MECHANICAL & ELECTRICAL FORUM

**KL CONVENTION CENTER  
23 - 25 MAY 2016**

The mechanical and electrical (M&E) engineering fields are ever evolving. There are many changes in the legislation, practices and contracts that has change how the engineer approaches the design and specifications. And in today' s world of multi-tasking and being technology savvy, M&E engineers are expected to have broad knowledge in the area of safety and risk management. To be a leading-edge engineer, engineers would need to know how a sub-system builds into an infrastructure and be beneficial to the community.

**Day 1 – 23 May**

**Day 2 – 24 May**

**Day 3 – 25 May**

## STREAM 1

### Green Energy & Sustainable

- ❖ Conservation of Water - Apply Basic Engineering Principles Green Tech
- ❖ Why Green Energy & Sustainability
- ❖ Hydrocarbon as greener and more efficient refrigerants
- ❖ Renewable Energy in the Context of Sustainable Development
- ❖ Energy Efficiency : Catalyst for Green?

### Power

- ❖ Renewable Energy Policy & latest development of RE in Malaysia
- ❖ Overview of MS ISO 50001 Energy Management System
- ❖ Latest electrical installations requirement
- ❖ Electrical Safety Legislation Update
- ❖ Why Earn a Professional Certification in Project Management?

### REVAC

- ❖ Commissioning Process for Smoke Control System
- ❖ Healthcare Ventilation System Requirements and Challenges Emphasising
- ❖ Controls In Green Buildings (Air-conditioning Systems)
- ❖ IOT of REVAC Systems

## STREAM 2

### Development in Code and Standards

- ❖ OSC 3.0
- ❖ M&E concern with Strata or mixed development
- ❖ New UBBL
- ❖ IEM M&E form of contract
- ❖ Earthquake Restraints for Mechanical Systems

### M&E Infrastructure

- ❖ Railway control centre ergonomic M&E
- ❖ Greenfield Power Plant Project
- ❖ Regulatory Compliance to Water Services Industry Act 2006 (WSIA) for Water and Sewage Works
- ❖ Water Use Reduction in Green Buildings
- ❖ PM of Major Infra Works

### Safety and Risk Control

- ❖ Combustible Dust Explosion Risk Management
- ❖ Lift & Escalator Code in Malaysia
- ❖ Very Early Aspirating Smoke Detection Technology and Solutions & New approach to Gas Detection
- ❖ CLASS and GHS for M&E

# IEM MECHANICAL & ELECTRICAL FORUM

DATE	TIME	THEME	STREAM 1	THEME	STREAM 2
23 May 2016 (Monday)	10:30 am – 11:30 am	<b>GREEN ENERGY &amp; SUSTAINABLE</b> BEM Approved CPD/PDP Hours: 4 Ref No: IEM16/HQ/184/F	Conservation of Water - Apply Basic Engineering Principles <i>(Ir. Gary Lim)</i>	<b>DEVELOPMENT IN CODE &amp; STANDARDS</b> BEM Approved CPD/PDP Hours: 5 Ref No: IEM16/HQ/185/F	M&E Concern with Strata or Mixed Development <i>(Ir. Lum Youk Lee)</i>
	11:30 am – 12:30 am		Why Green Energy & Sustainability <i>(Mr. James Chua)</i>		OSC 3.0 of Building Permits <i>(Ir. Yim Hon Wa)</i>
	12:30 pm – 2.00 pm		<b>BREAK</b>		<b>BREAK</b>
	2:00 pm – 3:00 pm		Hydrocarbom as Greener and More Efficient Refrigerants <i>(Mr. Ferdinand Ng)</i>		New UBBL <i>(Ir. Thin Choon Chai)</i>
	3:00 pm – 4:00 pm		Green Technology & Sustainable Development <i>(Ir. Dr. Aidil Chee Tahir)</i>		Earthquake restrains for Mechanical Systems <i>(Ir. Tan Yiing Yee)</i>
	4:00 pm – 5:00 pm		Energy Efficiency : Catalyst for Green? <i>(Ir. Kok Yen Kwan)</i>		IEM Form of Contracts for Civil and Mechanical & Electrical Engineering Works <i>(Ir. Oon Chee Kheng)</i>
24 May 2016 (Tuesday)	10:30 am – 11:30 am	<b>POWER</b> BEM Approved CPD/PDP Hours: 5 Ref No: IEM16/HQ/186/F	Renewable Energy Policy & Latest Development of RE in M'sia <i>(Dato' Dr. Ali Askar)</i>	<b>M&amp;E INFRASTRUCTURE</b> BEM Approved CPD/PDP Hours: 5 Ref No: IEM16/HQ/187/F	Railway Control Centre Ergonomic M&E <i>(Ir. Syed Nequib)</i>
	11:30 am – 12:30 pm		Overview of MS ISO 50001 Energy Management System - Requirements with Guidance for Use <i>(Ir. Francis)</i>		Greenfield Power Plant Project <i>(Ir. Fam Yew Hin)</i>
	12:30 am – 2.00 pm		<b>BREAK</b>		<b>BREAK</b>
	2:00 pm – 3:00 pm		Latest Updates on MS1979:2016- Electrical Installations of Buildings – Code of Practice <i>(Ir. Yau Chau Fong)</i>		Regulatory Compliance to Water Services Industry Act 2006 (WSIA) for Water and Sewage Works <i>(Mr. Chow Kin Liung)</i>
	3:00 pm – 4:00 pm		Electrical Safety Legislation Update- Amendment of Electricity Supply Act 1990 with Respect to Improving Safety Practices <i>(Ir. Hj. Nur Ali Bin Omar)</i>		Water Use Reduction in Green Buildings <i>(Mr. Gregers Reimann)</i>
	4:00 pm – 5:00 pm		“Why Earn a Professional Certification in Project Management?” <i>(Ir. Frankie Chong)</i>		PM of Major Infra Works <i>(Ir. Dr. Cheong Thiam Fook)</i>
25 May 2016 Wednesday	10:30 am – 11:30 am	<b>REVAC</b> BEM Approved CPD/PDP Hours: 4 Ref No: IEM16/HQ/188/F	Commissioning Process for Smoke <i>(Ir. Soong Peng Soon)</i>	<b>SAFETY &amp; RISK CONTROL</b> BEM Approved CPD/PDP Hours: 3 Ref No: IEM16/HQ/189/F	Combustible Dust Explosion Risk Management <i>(Mr. Felipe Ong)</i>
	11:30 am – 12:30 am		IOT of REVAC Systems <i>(Ir. Dr. Tan Chee Fai)</i>		Lift & Escalator Code in M'sia <i>(Mr. Raghib, Grad IEM)</i>
	12:30 pm – 1:30 pm		<b>BREAK</b>		<b>BREAK</b>
	1:30 pm – 2:30 pm		Healthcare Ventilation System Requirements & Challenges <i>(Ir. Al-Khairi)</i>		Very Early Aspirating Smoke Detection Technology and Solutions& New approach to Gas Detection <i>(Mr. Derrick Wong)</i>
	2:30 pm – 3:30 pm		Emphasising Controls In Green Buildings (Air-conditioning Systems) <i>(Ir. Daniel Lim Kim Chuan)</i>		CLASS & GHS for M&E Engineers <i>(Ir. Kim Kek Seong)</i>

DATE	TIME	STREAM 2
23 May 2016 (Monday)	12:30 p.m - 1:30 p.m	COPE in Code Assessment and Risk Management <i>(Ir. Loo Chee Kin)</i> BEM Approved CPD/PDP Hours: 2 Ref No: IEM16/HQ/190/T
24 May 2016 (Tuesday)	12:30 p.m - 1:30 p.m	Flood Pumping Stations <i>(Ir. Puvanesan)</i> BEM Approved CPD/PDP Hours: 2 Ref No: IEM16/HQ/191/T

\*Attending on the lunch time forum is complimentary to participants who have signed up for any day or stream

# IEM MECHANICAL & ELECTRICAL FORUM

10.00 am – 10.30 am

Registration

10.30 am – 11.30 am



Ir. Soong Peng Soon

### Topic : Commissioning Process for Smoke

Commissioning is a quality assurance process that ensure building systems are designed, installed and performing to the Owner's Project Requirements. High performance building often mandates commissioning report from industry experts describing and verifying performance based metrics for conventional building systems such as air-conditioning, electrical services, etc. Commissioning process for smoke control system is a relative new topic, whereby BSI Standards Publication has just added part 8 to the BS 7346 in year 2013 that including code of practice for commissioning. For AHSRAE, Guideline 1.5 was published in year 2012 that describes the Commissioning Process for Smoke Control Systems. Commissioning process cuts across the design, delivery and performance evaluation of smoke control system that requires Owner's commitment and expertise in fire engineering, mechanical & electrical services & any innovative technologies. Performance verification process is more clearly define in the newly established standards and they can be applicable to both old & new systems. The session will present a general discussion on content BS-7346 Part 8 and making some reference to ASHRAE Guideline.

11.30 am – 12.30 pm



Ir. Dr. Tan Chee Fai

### Topic : IOT of REVAC Systems

During the past 15 years, the Internet revolution has redefined business-to-consumer (B2C) industries such as media, retail and financial services. In the next 10 years, the Internet of Things revolution will dramatically alter manufacturing, energy, agriculture, transportation and other industrial sectors of the economy which, together, account for nearly two-thirds of the global gross domestic product (GDP). It will also fundamentally transform how people will work through new interactions between humans and machines. Dubbed the Industrial Internet (of Things), this latest wave of technological change will bring unprecedented opportunities, along with new risks, to business and society. It will combine the global reach of the Internet with a new ability to directly control the physical world, including the machines, factories and infrastructure that define the modern landscape. However, like the Internet was in the late 1990s, the Industrial Internet is currently in its early stages. In this talk, we will focus on the implementation of Industrial Internet of Things to achieve energy saving approach. Is the Industrial Internet of Things is able to reduce the energy use by space cooling, space heating, water heating and refrigeration which represents about 70% of total energy consumption for residential buildings?

12.30 pm – 1.30 pm

Break

1.30 pm – 2.30 pm



Ir. Al- Khairi Mohd Daud

### Topic : Healthcare Ventilation System Requirements and Challenges

Healthcare buildings house many clinical departments and support services that require specialized air conditioning and ventilation system. Many healthcare facilities expanded their services or change the service of the rooms or floor throughout the life of the hospital. Though the space may be suitable for the new services, the original mechanical and electrical system such as ventilation systems may not be able to accommodate the needs of the new services especially when the area has been retrofitted.

In many cases the architects and health planners decides the requirements but overlooked the mechanical and electrical needs that are critical in getting conducive patient care as per the standard. The speaker shall talk about the healthcare air condition and ventilation requirements and the challenges that face the professionals in the industry to design and retrofit the current installation.

2.30 pm – 3.30 pm



Ir. Daniel Lim Kim Chuan

### Topic: Emphasising Controls In Green Buildings (Air-conditioning Systems)

# IEM MECHANICAL & ELECTRICAL FORUM

<b>10. 00 am – 10.30 am</b>	Registration
<b>10. 30 am – 11.30 am</b>    <b>Mr. Felipe Ong</b>	<p><b>Topic : Combustible Dust Explosion Risk Management</b></p> <p>This talk cover very important aspects on creating awareness of such a risks, identifying type of hazardous materials, type of processing equipment at risk, type of Industries which require Dust explosion Risk Management, Hazards evaluation &amp; testing including: Kst - Dust Explosibility Index; Pmax - Max pressure arising of deflagration; identifying all the possible sources of ignition that is present &amp; how to control &amp; mitigate them, and discuss what the available prevention methods: such as inertion; static controls; containment; Sparks &amp; burning embers detection; CO monitoring, etc...etc... Available protection method such as venting, Suppression, Building Vents, Mechanical &amp; Chemical Isolation. International Codes &amp; Standards covering NFPA (USA), ATEX (EU). Some of the recent and significant dust explosion case studies will be shared as well along with valuable lesson learnt!</p>
<b>11.30 am – 12.30 pm</b>    <b>Mr. Raghieb Fasih Azmi,</b> Grad IEM	<p><b>Topic : Lift &amp; Escalator Code in Malaysia</b></p> <p>The Malaysian Lift Regulations which is based on BS2655 was established under the Factory and Machinerics Act 1967. The regulations came into force on 1st February 1970. The Lift Regulations is for Passenger and Goods lifts while Escalators are managed under special provision.</p> <p>Since the establishment of the Lift Regulations, the BS which it is based on has undergone many revisions. However, the Malaysian Lift Regulations has remained the same. Jabatan Keselamatan dan Kesihatan Pekerjaan (JKKP) is the regulatory authority which enforces the Lift Regulations and has issued directives to incorporate some important requirements that are in the latest standards but are not in the Lift Regulations.</p> <p>The Working Group on Lift and Escalator (WGLE) at SIRIM has published some Malaysian Standards by adapting EN in an effort to bring the Malaysian VTS industry up to par with global standars. Currently the WGLE is working on adapting the latest EN.</p>
<b>12.30 pm – 1.30 pm</b>	Break
<b>1.30 pm – 2.30 pm</b>  <b>Mr. Derrick Wong</b>	<p><b>Topic : Very Early Aspirating Smoke Detection Technology and Solutions&amp; New approach to Gas Detection</b></p>
<b>2.30 pm – 3.30 pm</b>    <b>Ir. Kim Kek Seong</b>	<p><b>Topic : CLASS &amp; GHS for M&amp;E Engineers CLASS</b></p>

# IEM MECHANICAL & ELECTRICAL FORUM

	<b>Category 1</b> IEM Member	<b>Category 2</b> For Non-Member
Per Session	RM400.00	RM600.00
Per Stream	RM800.00	RM1200.00
Full Flex	RM900.00	RM1350.00

\*GST not included

## **SPECIAL!!**

1. Student will be entitled to 30% discount (upon authentication of student status)
2. Group discount will be entitled for groups of 3 or more delegates from same company – 10%
3. Early bird registration before 23 April 2016 will be entitled to 10% discount

### **Terms & Conditions:**

- Meals are not provided
- For ONLINE REGISTRATIONS, only ONLINE PAYMENT is applicable [via Credit Card]
- Payment via CASH / CHEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER / LO / WALK -IN will be considered as NORMAL REGISTRATION
- For online registrations, please note that **payment MUST be made on 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 and lunches.
- 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.

## **REGISTRATION**

No	Name	IEM M'ship No	Stream 1*			Stream 2*			Fees (RM)
			23 May	24 May	25 May	23 May	24 May	25 May	
<b>Subtotal</b>									
<b>GST 6%</b>									
<b>Total Payable</b>									

\*Please tick to the appropriate day

Organisation/ Company:		
Address:		
		Postal Code:
Email:		
Tel:	Mobile No:	Fax:
<b>For Further details, please contact and/or fax this REGISTRATION FORM to:</b> The Institution of Engineers, Malaysia Bangunan Ingenieur, Lots 60/62, Jalan 52/4, 46200 Petaling Jaya, Selangor  <b>Tel:</b> 03-7968 4001/2 <b>Fax:</b> 03-79577678 <b>Email:</b> sec@.org.my/ norfarehan@iem.org.my <b>Website:</b> www.myiem.org.my		<b>Who should attend:</b> <ul style="list-style-type: none"> <li>• Mechanical and electrical (M&amp;E) engineers.</li> <li>• Building services engineers and those involved in green technology and renewable energy; power and electrical industries; or refrigeration, ventilation and air-conditioning.</li> <li>• Facility management, engineers, consultants, designers, contract administrators and project managers interested in recent developments in Code and Standards.</li> <li>• Planners, engineers, designers and project consultants involved in planning M&amp;E infrastructure.</li> <li>• Safety engineers and those responsible to implement safety and risk control measures.</li> </ul>

### **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.

### **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 may be made at any time with prior notification and substitute will be charged according to membership status.

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