



# **TWO DAY COURSE ON “HEALTHCARE VENTILATION SYSTEM”**

**SPEAKER ;**

**Ir. AL-KHAIRI MOHD DAUD**

**Date : 20<sup>TH</sup> & 21<sup>ST</sup> MARCH 2019 (Wed & Thu)**

**Venue : C&S and TUS Lecture Room  
Wisma IEM, Petaling Jaya, Selangor**

**Time : 9.00 a.m. – 5.00 p.m.**

**BEM Approved CPD/PDP Hours: 13.0  
Ref. No.: IEM19/HQ/036/C**

***\*Closing Date: 18<sup>th</sup> March 2019***

**NO online registration will be allowed after the Closing Date**

**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.

### **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.

## **DESCRIPTION & OUTLINE**

### **Introduction / Overview of the Course**

This 2-day course plan to impart greater understanding of healthcare ventilation system based on the new HTM-03 – Specialised Ventilation System for Healthcare Premised. The standard has been adopted as regulatory requirements in the United Kingdom. Though Malaysia has not mandated the standards, it is good the healthcare engineers managing air condition and ventilation system in Malaysia to be well versed with the requirements to improve the indoor air quality and healthcare facilities occupants' comfort.

A good understanding of ventilation system will have improved communication between maintenance engineers & managers and reduce conflicts with clinical practitioners.

## **OBJECTIVES / BENEFITS**

### **Course Objectives/Benefits to Participant**

The objectives of the course are to train the participants to :

- Understand the requirements of healthcare ventilation system
- Develop the standard for inspection & maintenance procedures incorporated as recommended by the Standard
- Better documentation, communication and enforcement of appropriate working procedures

## **TRAINING METHOD**

This course is based on interactive learning via group discussion and exercise, real case studies. The course is delivered using our in-house adaptation of HTM-03-01.

There is an emphasis on hands on experience wherever this is possible as the training is not healthcare facilities.

## **RECOMMENDED ATTENDEES**

Hospital Engineers, Designers, Managers, Executive / Supervisors who aspires to become healthcare ventilation system competent person.

## **COURSE PROGRAMME**

1. Understand healthcare ventilation system standard design and validation requirements (HTM Part A).
2. Air Handling unit design and specification guidance.
3. Understand the standards of installation & maintenance of ventilation systems LEVs, Split Systems Air Handling units, Critical Systems, (HTM Part 'B'), principal components and correct maintenance requirements.
4. Understanding of the principal Health & Safety issues associated with ventilation systems of all types installed in hospital premises.
5. Understanding of the Roles and Responsibilities of Appointed persons.
6. Understanding of the basic principles of air conditioning system controls & the common problems associated with them. The necessary skills associated with system fault-finding and correction.
7. Carry out Air Handling Unit annual inspection audits and identify construction and maintenance issues.
8. Verify critical system airflow and pressures use appropriate instruments and calculations using criteria for determining the appropriate ventilation rates.
9. Complete Validation checklist reports for Critical Ventilation Systems.

## **SPEAKER**

### ***Ir. AL-KHAIRI BIN MOHD DAUD***

Ir. Al-Khairi has 20 years of experience in research, cement, oil and gas, petrochemical, oleo chemicals industries and health care facilities. He has gained various experiences in design, construction, testing and commissioning, operate and maintain facilities and plants from various multinational companies both abroad and locally. He has served in various roles as engineers and manager to the plant and facilities.

With such a diverse industrial background, Ir. Al-Khairi has formed Faqeh Management, an asset and reliability company to improve the equipment reliability and maintenance standard in the industry. The main function of the company is to provide training and consultancy work for the industry. Among the industry that he has provided services are hospital and health care, airports, facilities management organization, printing and palm oil mills.

Currently Ir. Al-Khairi is the Advisor of the Oil, Gas and Mining Technical Division and a member of Building Services for the Institution of Engineers Malaysia (IEM). He is a principle interviewer to qualifying engineers for professional interviews as well as a committee member for engineer's log book to ensure mechanical engineers registered with IEM has the correct training to qualify as professional engineers. Ir. Al-Khairi has written articles and delivered numerous talks on maintenance and reliability to IEM fraternity in Maintenance, Healthcare and Green Technology Seminar. Ir. Al-Khairi is also an associate member of Institute of Asset Management UK, Biomedical Engineering Society of Malaysia and Malaysian Society for Quality in Health (MSQH). He is a surveyor for MSQH checking on the facilities design and maintenance as well as safety and environment aspects of hospitals in Malaysia.

Ir. Al-Khairi is a Registered Electrical Energy Manager and has been appointed as the country expert and certified trainer to promote Energy Management Gold Standard under the Asean Energy Management Accreditation Scheme (AEMAS) for the country supporting Greentech Malaysia. To support the energy management practice, Ir Al-Khairi is a member of Malaysian Energy Professional Association (MEPA). He is a part of committee member to develop IEM position paper for alternative energy with all the country experts in the energy production field. Ir. Al-Khairi is keen to impart his knowledge to the regions. He is also passionate on energy efficiency and management practice.

On softer notes, Ir. Al-Khairi is passionate in alternative medicines practices. He is a Reiki Master, Feng Shui trained, Quantum Touch, Silva Mind Method and EFT practitioner. He also practices Qigong and Aikido to ensure a balance wealth and health.

## PROGRAMME

TIME	DAY 1	DAY 2
<b>8.45am</b>	<b>Registration</b>	<b>Registration</b>
9.00am	Issues in Healthcare Ventilation System	Health and Safety Issues In HVAC System
10.15am	Healthcare Ventilation System Standard Design and Validation Requirements (HTM Part A).	Roles of HVAC Appointed Person
<b>10.45am</b>	<b>Tea Break</b>	<b>Tea Break</b>
11.00am	AHU Design and Specification Guidelines	HVAC Control System
<b>12.30pm</b>	<b>Lunch</b>	<b>Lunch</b>
1.30pm	AHU Design and Specification Guidelines	Inspection and Troubleshooting HVAC Issues
2.45pm	Standard Installation and Commissioning Requirement	Critical Ventilation System in Healthcare Facilities
<b>3.30pm</b>	<b>Tea Break</b>	<b>Tea Break</b>
3.45pm	Standard Maintenance Requirement	Validation Checklist Report for Critical Ventilation System
<b>5.00pm</b>	<b>End of Session</b>	<b>End of Session</b>

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

### **For further details, kindly contact:**

The Institution of Engineers, Malaysia  
 Bangunan Ingenieur, Lots 60/62, Jalan 52/4, P.O. Box 223 (Jalan Sultan),  
 46720 Petaling Jaya, Selangor  
**Tel** : 603-7968 4001/2 **Fax** : 603-7957 7678 **Email** : [shahrul@iem.org.my](mailto:shahrul@iem.org.my)

## REGISTRATION FORMS

### TWO DAY COURSE ON "HEALTHCARE VENTILATION SYSTEM"

**20<sup>TH</sup> – 21<sup>ST</sup> MARCH 2019**

Organised By : Building Services Technical Division (BSTD)  
Fax: 03-7957 7678      Email: shahrul@iem.org.my

#### REGISTRATION FEE (SUBJECT TO 6% SST)

	<u>ONLINE FEE (RM)</u>	<u>NORMAL FEE (RM)</u>
IEM Student Members	RM 250.00	RM 280.00
IEM Graduate Members	RM 500.00	RM 600.00
IEM Corporate Members	RM 900.00	RM 1000.00
Non-IEM Members	RM 1200.00	RM 1300.00

No	Name(s)	Membership No.	Grade	Fee (RM)*
SUB TOTAL				
ADD 6% SST				
<i>Total Payable</i>				

**PAYMENT DETAILS :**

Cash RM \_\_\_\_\_

Cheque no. \_\_\_\_\_ for RM \_\_\_\_\_ (non-refundable) and made payable to "THE INSTITUTION OF ENGINEERS, MALAYSIA" and crossed "A/C Payee Only".

**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.

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 : \_\_\_\_\_

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

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
- **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 to avoid disappointment.