



<b>Training Methods:</b> (*subject to change or to be confirmed)	<b>ONLINE / ONSITE</b>
<b>Dates:</b>	<b>14-15 September 2022</b>
<b>Time:</b>	<b>9:00am - 5:00pm</b>
<b>BEM CPD Ref No. &amp; Hours:</b>	<b>APPLYING</b>

	<b>IEM/ AER Member</b>	<b>Non-IEM/ AER Member</b>
<b>Online Rate</b>	RM830.00	RM1,060.00
<b>Onsite Rate</b>	RM1,040.00	RM1,272.00

- Thermal energy is a significant part of the efficient management of energy consumption besides the management of electrical energy. Based on the National Energy Balance (NEB) 2018 Malaysia, the final energy consumption by the industrial sector was 19,046 ktoe. About 65% of the final energy consumption was attributed to fuel energy consumption in the industrial sector. Therefore, the potentials of energy savings in thermal energy usage in industrial processes should not be overlooked.
- Recognising the potentials in thermal energy savings, this course will enable participants to understand thermal energy basics, which include types and properties of fuels, heat generation, heat transmission and losses, use of psychrometric charts and other basic thermodynamics. Before the consideration of exploring energy saving potentials, this course will allow participants to understand the essential areas in efficient management of thermal energy by addressing different modules that will cover combustion of solid, liquid and gaseous fuels, steam system, insulation and refractories, and some commonly-used thermal equipment in industries such as boilers, industrial furnaces, waste heat recovery, cogeneration systems and thermal energy in air-conditioning systems.
- The course will cover the not only the topics on thermal energy foundation but the fundamentals of efficient management of thermal energy, energy measurements, energy efficiency indicators, energy audit, and energy efficient and conservation (EEC) techniques and measures will also be addressed. Illustration and examples of evaluation and quantifying energy savings will be presented with exercises to facilitate better understanding of thermal energy applications.

## TARGET PARTICIPANTS



## Ir. Leong Siew Meng

B Eng, PE, FIEM,  
M.ASHRAE, GBIF,  
EnMS Expert (UNIDO)



## TENTATIVE PROGRAMME

### Day 1

8:30 am	Opening remarks and important notes by IEMTA
9:00 am	Overview and introduction of thermal energy
9:30 am	Thermal energy foundation
10:30 am	Short break
11:00 am	Fuel combustion and heat transmission
12:00 am	Insulation and refractories
12:30 am	Questions & Answers
1:00 pm	Lunch break
2:00 pm	Boilers
3:30 pm	Short break
4:00 pm	Industrial furnaces
5:00 pm	End of Day-1 programme

### Day 2

9:00 am	Steam system
10:30 am	Short break
11:00 am	Waste heat recovery
12:00 pm	Thermal energy in air-conditioning systems
1:00 pm	Lunch break
2:00 pm	Cogeneration systems
2:30 pm	Thermal energy management (incl. energy audit)
3:30 pm	Short break
3:50 pm	Energy performance evaluation (incl. exercises)
4:30 pm	Q&A and discussion
5:00 pm	End of Day-2 programme

REGISTERED WITH:



ORGANISE BY:



IEMTA

IEM Training Academy Sdn Bhd

# REGISTRATION FORM

Contact:  
iemta@iem.org.my

**TRAINING COURSE ON THERMAL ENERGY FOUNDATION FOR ENERGY EFFICIENCY  
14-15 SEPTEMBER 2022**

## REGISTRATION FEES

Note: Fee inclusive of SST	IEM/ AER Member	Non-IEM/ AER Member
<b>Online Rate</b>	RM830.00	RM1,060.00
<b>Onsite Rate</b>	RM1,040.00	RM1,272.00

Name(s)	M'ship No. & Grade	Email Address	Mobile Number	Fee (RM)*

You may make payment via **ONLINE TRANSFER** (Please forward soft copy of payment advice):-

Account Name: **IEM TRAINING ACADEMY SDN BHD**  
Account Number: 514169143176  
Bank Name: Malayan Banking Berhad  
Bank Address: Jalan Sultan, 46200 Petaling Jaya, Selangor Darul Ehsan, Malaysia  
Swift Code: MBBEMYKL

### (OR) Payment via CREDIT CARD

**Please charge to my credit card number below the amount of RM .....**

**Card Type:** VISA / MASTERCARD      **Valid Thru: (MM/YY) :** .....

**Card Number:**

**Cardholder's Name:**

**Signature:**

**Date:**

**Contact Person:**

**Designation:**

**Name of  
Organization:**

**Address:**

**Telephone No. -**

**Office:**

**H/Phone**

**Email:**