

# Energy Efficiency Management For Air-Conditioning And Mechanical Ventilation (ACMV) Training Course

ORGANISED BY :



SUPPORTED BY :



**HRDF Claimable**  
**12 BEM CPD Point Approved**  
**REEM Approved CPD Points**

**DATES** : 1<sup>ST</sup> & 2<sup>ND</sup> December 2021

**TIME** : 8.30 am - 5.30 pm

**VENUE** : MASHRAE Secretariat

Unit 518 Block A, Kelana Business  
Center, No 97 Jalan SS7/2, 47301  
Petaling Jaya, Selangor Darul Ehsan.

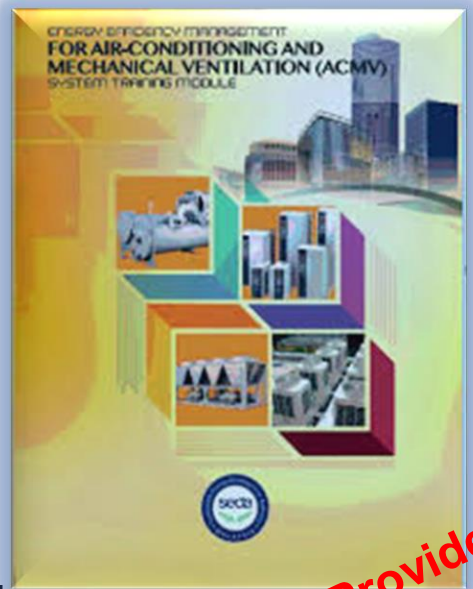
**REGISTRATION FEE :**

Member MASHRAE	: RM800
Non Member	: RM900

**CONTACT PERSON** : 1) 011-15744931 (Nur)  
2) 012-3008893 (Keith Leow)

**Terms & Condition:**

- Registration is based on first-come-first-served basis together with full payment.
- Course is subject to postponement due to unforeseen circumstance.
- **Comply to latest MKN SOP**



# Energy Efficiency Management For Air-Conditioning And Mechanical Ventilation (ACMV) Training Course

## Biodata of Speaker



### IR. NG YONG KONG

- Ir. Ng Yong Kong was ASHRAE Director Regional Chair (DRC) for Region XIII and is a Professional Engineer registered with the Board of Engineers, Malaysia. (BEM). He is also the Council Member for the Institution of Engineers, Malaysia (IEM) 2019 – 2022 and Malaysia Green Building Council 2019 – 2020.
- He has a B.Eng. (Hons in Mechanical Engineering) 1985 from University of Malaya, Kuala Lumpur and an MBA (Hull, UK) 1998. He has more than 35 years experience in the HVAC industry having worked as a System and Application Engineer in two major chiller manufacturers, air diffusion and a control companies.
- He is also a member of the ASHRAE Indoor Air Quality Steering Committee 2010, Panel of Judges for ASHRAE Technology Award 2011-2013 and is currently the Malaysia Green Building Index Facilitator (GBIF), trainer and examiner.
- Ir. Ng is the Director of NYK Engineering & Trading S/B and BEZAIRE Sdn Bhd. He was also the Past President for Malaysia Air-Conditioning and Refrigeration Association (MACRA) 2001-2003. He is also a qualified Trainer under the HRDF since 2014.



### IR. CHEN THIAM LEONG

- Ir. Chen Thiam Leong is a Past President of the Association of Consulting Engineers Malaysia (ACEM), the Institution of Fire Engineers Malaysia (IFEM) and the Malaysian Chapter of ASHRAE. He is also Advisor to the Malaysian Air-Conditioning & Refrigeration Association (MACRA) and the Building Automation System Association of Malaysia (BASAM).
- Chen is a practising Consulting Engineer and is the Managing Director of Primetech Engineers Sdn Bhd based in Kuala Lumpur. Notable projects include the New Securities Commission HQ which was Malaysia's first winner of the ASEAN Energy Award (where he introduced the concept of totally ductless and uninsulated floor plenum for comfort air-conditioning exceeding 600 sq.m. per zone) Energy Commission HQ, winner of the ASEAN Energy Award 2012, EMERSON CUP 2012 and ASHRAE Technology Award 2013 (2nd Place).
- Chen holds a 1st Class Hons Mechanical Engineering degree from the University of Leeds and has been involved in Energy Efficiency designs since the early 80s. He regularly lectures in the international circuit on the subjects of Sustainability and Energy Efficiency under the ASHRAE Distinguished Lecturer program and is Malaysia's first ASHRAE DL. Chen also specialises in Energy and Fire & Life Safety audits. He is involved in the development of numerous Malaysian Standards including MS1525 on EE and has authored/co-authored technical articles/papers which are regularly featured in technical publications.
- In recognition of his contribution to the engineering fraternity, he was honoured with the ACEM Gold Medal Award in 2010.

# Energy Efficiency Management For Air-Conditioning And Mechanical Ventilation (ACMV) Training Course

## Day 1 Program

Time	Topic	Duration
8.30-8.50am	Participation Registration	20 Min
8.50-9.00am	Opening Speech	10Min
9.00-10.30am	Chapter 1: Introduction to Air Conditioning & Mechanical Ventilation <ul style="list-style-type: none"> <li>- Principle of Refrigeration</li> <li>- Psychometrics</li> <li>- Cooling Load Estimation &amp; Software</li> <li>- Refrigerant Issue</li> <li>- Type of Air Conditioning system (Introductory)</li> <li>- Type of Mechanical Ventilation System (Introductory)</li> </ul>	1Hr 30Min
10.30-10.45am	Morning Tea Beak	15Min
10.45 – 12.30pm	Chapter 1: Continued	1Hr 45Min
12.30-1.00pm	Chapter 2: Factors Affecting Air Conditioning Design <ul style="list-style-type: none"> <li>- Human Comfort</li> <li>- Indoor Design Conditions</li> <li>- Outdoor Design Conditions</li> <li>- Ventilation Requirement</li> <li>- Heat Source (Radiation, Convection &amp; Conduction)</li> </ul>	30Min
1.00-2.00pm	Lunch Break	1Hr
2.00-2.30pm	Chapter 2: Continued	30Min
2.30-3.30pm	Chapter 3: Types of ACMV System – Design & Selection <ul style="list-style-type: none"> <li>- Design and Selection of ACMV</li> <li>- ACMV System</li> </ul>	1Hr
3.30-3.45pm	Afternoon Tea Break	15Min
3.45-5.15pm	Chapter 4: Understanding Cooling Load & Load Profile <ul style="list-style-type: none"> <li>- Peak Cooling Loads</li> <li>- Diversity Factors</li> <li>- Base Cooling Loads</li> <li>- Phantom Loads</li> <li>- Full Load and Part Load Operation</li> <li>- Chillers Configuration</li> <li>- Peak Load Shaving</li> </ul>	1Hr 30Min
5.15-5.30pm	Question & Answer	15Min
5.30pm	End Of Day 1	

# Energy Efficiency Management For Air-Conditioning And Mechanical Ventilation (ACMV) Training Course

## Day 2 Program

Time	Topic	Duration
8.30-8.45am	Participation Registration	15 Min
8.45-10.00am	Chapter 5: Water and Air Distribution System -Piping , Valves, Pumps, Cooling Towers, PAHUs, AHUs,FCUs and Fans.	1Hr 15Min
10.00-10.30am	Chapter 6: Energy Efficient Equipment Components - Variable Speed Drives(VSD) - Heat Recovery Wheel	30Min
10.30-10.45am	Morning Tea Break	15Min
10.45-11.30am	Chapter 6: Continued	45Min
11.30-1.00pm	Chapter 7: Testing& Commissioning and Sustainable Maintanance -Testing & Commissioning Sustainable Maintenance	1Hr 30Min
1.00-2.00pm	Lunch Break	1Hr
2.00-3.45pm	Chapter 8: Save Chiller Program Case Studies - Introduction - Case Study 1-Office Building - Case Study 2-Hotel - Case Study 3- Retail Mall	1Hr 45Min
3.45-4.00pm	Afternoon Tea Break	15Min
4.00-5.15pm	Chapter 8: Continued	1Hr 15 Min
5.15-5.30pm	Question & Answer	15Min
5.30pm	End of Day 2	

# REGISTRATION FORM FOR TWO-DAY ACMV Training Course

Persatuan Jurutera Pemanasan dan Penyejukan dan Penyamanan Udara Amerika ,Seksi Malaysia (ASHRAE Malaysia Chapter)

REGISTRATION FEE	RM800 (MASHRAE Member); RM900 (Non Member);		
NAME	ORGANISATION/POSITION/CONTACT/EMAIL	MASHRAE NO.	FEE
		GRAND TOTAL	
		TOTAL PAYABLE	

We are pleased to enclose herewith our \_\_\_\_\_ cheque/money order amount RM \_\_\_\_\_ issued in favour of " MALAYSIAN CHAPTER OF ASHRAE " and crossed "A/C Payee Only" or make Telegraphic Transfer to MASHRAE Account "Malayan Banking Berhad, Acc. No. : 014123414366".

I/We understand that the fee is not refundable if I/We withdraw after my/our registration is accepted by the Committee but substitution of participants will be allowed. If I/We fail to attend the Seminar the fee paid would not be refunded.

NAME OF COMPANY : \_\_\_\_\_  
CONTACT PERSON : \_\_\_\_\_  
TEL : \_\_\_\_\_  
MOBILE : \_\_\_\_\_  
EMAIL : \_\_\_\_\_

Phone /Fax : Cik Nur +6011-1574 4931

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