

# Course On

# Air Conditioning Load Calculations, The Psychrometric Chart & Energy Conservation In Buildings

- Date : 11 March 2015
- Time : 9.00 am to 5.00 pm
- Venue : Armada Hotel, Petaling Jaya

## **COURSE OVERVIEW**

The 1-Day intensive course focuses on :

• The Theoretical and Practical Aspects of Air Conditioning and Energy Conservation in Buildings.

The course highlights :

- The Cooling Load Calculations
- The Various modes of heat transfer and the method of calculation of air conditioning load in buildings
- The importance of solar heat gains through glass in buildings
- The equivalent temperature difference and shading devices for buildings
- The determination of heat transfer coefficient and U-values
- The applications of the psychrometrics chart
- The cooling and dehumidification processes
- The various energy conservation approaches in reducing the air conditioning loads
- The proper selection of equipment

Work examples & calculations are done to ensure participants would have a better understanding of the operation and application of air conditioning in buildings.

## LEARNING OUTCOME/ BENEFITS OF COURSE

This course will provide the participants with the followings benefits:

- Understanding the various modes of heat transfer and the method of calculation for the design of air conditioning in buildings.
- Knowing the importance of solar heat gains through glass for a proper air conditioning in buildings.
- Understanding the significance of shading devices and building orientations in the evaluation of cooling loads.
- Learning how to apply the psychrometric chart to analyse the performance of cooling and dehumidification processes.
- Understanding the various energy conservation approaches in reducing the air conditioning loads.

Special Discount		
Early Bird Discount	RM100	Register for course and pay before 09 February 2015

# Air Conditioning Load Calculations, The Psychrometric Chart & Energy Conservation In Buildings

#### SPEAKER PROFILE



## Dr. Ling Foon Fatt

**Dr. Ling Foon Fatt** has extensive experience in Education, R & D, Training, Consultancy and Manufacturing, having held various posts and positions with the following organizations:

- 1. Associate Professor, Mechanical Engineering Department, University of Malaya (1981 1994).
- 2. Technical Advisor, OYL Industries Bhd. (1987-1994)
- 3. Chief Executive Officer, TOPAIRE Sdn. Bhd. (1994-1996)
- 4. Senior Group General Manager, Top Group Holdings Bhd.
- 5. Director of a Consulting Engineering Firm.
- 6. Engineering & Training Advisor, UMJ Air-Conditioning Sdn. Bhd.
- 7. Member of International Editorial Advisory Board, Journal of Energy, Heat and Mass Transfer. (1988-1994)

Dr. Ling has been the Principal Interviewer for the Examination of Corporate Membership of the Institution of Engineers, Malaysia (1976 - 1983); Chairman, Sub-Committee in Qualification Assessment, The Institution of Engineers, Malaysia (1981- 1983); and The Council Member of the Institution of Engineers, Malaysia (1981/82 - 1983/84).

He was a member of the Steering Committee on Training and Entrepreneur Development, Federation of Malaysia Manufacturers (1992 - 1996).

Dr. Ling has supervised more than 80 engineering thesis projects, and published over 50 technical papers in International and regional journals.

Dr. Ling has conducted over 300 public courses and has written 20 work books.

Over 3000 engineers, managers, executives, supervisors and technicians have successfully attended the public courses conducted by Dr Ling. The participants are from various industries of Manufacturing, Services, Education, Oil & Gas, Construction and Commerce.

Dr. Ling has conducted in-house training for over 30 companies and organizations.

#### WHO SHOULD ATTEND

This course is designed for:

- Maintenance Engineers/Managers/Executives
- Consulting Engineers
- Service Engineers
- M&E Contractors
- Building/Complex Owners
- Chargemen & Technical Executives
- Technicians who deal with cooling towers and
- New Engineers

# Air Conditioning Load Calculations, The Psychrometric Chart & Energy Conservation In Buildings

#### COURSE SCHEDULE

DAY 1	9.00am - 10.30am	<ul> <li>Session 1: Air Conditioning Load <ul> <li>Heat Units and Enthalpy</li> <li>Specific Heat, Sensible Heat and Latent Heat</li> <li>Conduction and U-Values</li> <li>Equivalent Temperature Difference</li> <li>Solar Heat Gains through Glass</li> <li>Shading Devices</li> </ul> </li> </ul>
	10.30am - 10.50am	MORNING TEA BREAK
	10.50am - 11.30am	Workshop 1 : Air Conditioning Load Calculations
	11.30am - 12.30pm	<ul> <li>Session 2: The Psychrometric Chart</li> <li>Saturation Line, Relative Humidity</li> <li>Specific Volume, Specific Enthalpy</li> <li>Apparatus Dew Point</li> <li>Sensitive Heat Factor</li> <li>Cooling &amp; Dehumidification</li> </ul>
	12.30pm - 2.00pm	LUNCH
	2.00pm - 3.15pm	Workshop 2 : Psychrometric Analysis of the Air-Conditioning System
	3.15pm - 3.30pm	TEA BREAK
	3.30pm - 5.00pm	Session 3 : Energy Conservation Approach U-Value Reduction Solar Heat Gains Reduction Shading Devices Friction Loss Reduction Ventilation Load Equipment Selection Building Orientation COP & EER
		END OF DAY ONF



## COURSE REGISTRATION FORM

## **Course title:**

Air Conditioning Load Calculations, The Psychrometric Chart & Energy Conservation In Buildings

(✓ Please tick)

11 March, 2015

Petaling Jaya, Armada Hotel

#### **Company Information**

Company:	
Address:	
State/ Province:	
Zip/Postal Code:	
Country:	
Contact Person:	
Email:	
Phone:	

## **Attendee Information**

Name (1)		
Job title:		
E-mail:		
Mobile/Tel No:		
Name (2)		
Job title:		
E-mail:		
Mobile/Tel No:		
Name (3)		
Job title:		
E-mail:		
Mobile/Tel No:		

#### **Registration Fee**

	Malaysia
Individual Fee	RM1,100
Group Fee (3 or more delegates)	RM1,000

**Closing date:** 28 February 2015. An early bird discount of RM100 for payment received before 09 February 2015.

#### Payment

Payment is to make payable to:

Applied Technology Group Sdn Bhd Public Bank Berhad (Malaysia) Account no: 3178247302

#### **Payment terms:**

Payment is required before the event. Once received your place is automatically reserved. Registration fee includes lunch, refreshments and full training documentation as specified. Delegates may be refused admission if payment is not received prior to the event. The fee does not include hotel accommodations.

## **Cancellation Policy**

All cancellation of registration must be made in writing. If you are unable to attend:

- a) A substitute delegate is welcomed at no additional charge.
- b) Your registration can be credited to a future event.
- You will receive a full refund less 10% administration charge if cancellation is received in writing more than 14 days before the event.
- d) No cancellations will be accepted within 14 days before the event start date. Full course documentation will however be sent to the delegate.

## **Course Schedule**

Course starts at 9.00am and ends at 5.00pm daily. Please arrive at 8.30am on day one to allow time to register and receive course materials.

#### Please send completed form to:

#### Fax to: +603 5637 9945

or Email to : admin@apptechgroups.net For enquiry, please call: +603 5634 7905 Or refer to our website <u>www.apptechgroups.net</u>

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