



# ACES-IMI TA Seminar

## Principal of Pressure Maintenance Keys points in Hydronic Design



**Date:** 30 August 2019 (Fri)  
**Duration:** 12.30 pm to 6.00 pm  
**Venue:** 18 Sin Ming Lane  
#06-01 Midview City  
Singapore 573960

ACES Member:	\$30 / pax
RE/RTO (M&E):	\$60 / pax
Non-Member:	\$90 / pax

**CPD:** PDUs / STUs (M&E) – to be confirmed



### SYNOPSIS

#### **PART 1: Principle of Pressure Maintenance & Water Quality**

This seminar provides a comprehensive knowledge of principle of pressure maintenance. Upon completion of this seminar, each participant will understand the importance of correct pressure maintenance in ACMV installations and between pressure maintenance and corrosion issues.

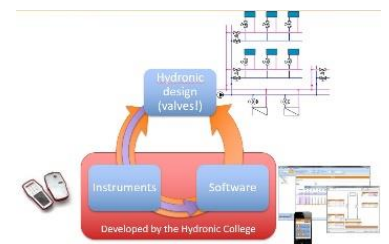
#### **PART 2: Keypoints on Hydronic Design**

Upon completion of this seminar, each participant will understand the Basic Hydronic System Design Principles to achieve indoor comfort with the least energy use.

### OBJECTIVES

#### **PART 1: Principle of Pressure Maintenance & Water Quality**

- Identify the issues with open expansion tank
  - Air ingress from open expansion tank cause corrosion in ACMV installation, Corrosion cause higher friction loss in chillers, pipes, cooling coils, etc.
  - Corrosion and Air cushion in chilled water reduces heat exchange efficiency
- Implementing the correct solutions to stop air ingress
  - The importance of correct pressurization system
  - Calculation of closed expansion vessel



## PART 2: Keypoints on Hydronic Design

- Uncomfortable indoor temperature causes energy wastage
  - Identify the importance and methods of chilled water balancing ensuring minimum energy consumption
  - Authority of control valve that is distorted causing unstable temperature control even with modulating control valve
  - How DP Controller valve improve valve authority and enhance better flow control
- Unstable flow control at part load causes uncomfortable indoor temperature and energy wastage
  - Identify the minimum control valve authority for stable flow control at part load
  - Identify the correct control valve plug design for modulating valve
  - Identify the correct location for DP Sensor for maximum energy savings at part load

With Part 1 and Part 2 taken into consideration as design guidelines, ACMV installation will have a longer life span and low energy consumption without sacrificing the indoor comfort.

## SPEAKER PROFILE



**Alan Tay** is the Technical Director of IMI Hydronic Pte Ltd.

In his role, Alan is responsible for leading the South East Asia providing technical support to customers and IMI Hydronic/Distributors sales team on Hydronic system implementation in commercial buildings and industrial plants.

## PROGRAMME OUTLINE

Time	Topic
12.30 pm	Registration & Networking with lunch provided
1:30 pm	<b>PART 1: Principal of Pressure Maintenance &amp; Water Quality</b>
2:30 pm	<b>PART 2: Keypoints on Hdyronic Design</b>
3.30 pm	Light refreshments
4.00 pm	<b>PART 2: Keypoints on Hdyronic Design (Cont'd) and Q&amp;A</b>
6.00 pm	End of Seminar

# REGISTRATION FORM

For enquiry, please call ACES Secretariat at Tel: 6659 5023

Kindly sign and submit your completed registration form to [secretariat@aces.org.sg](mailto:secretariat@aces.org.sg)

Code	Title	Fee per pax	Schedule	Venue
S30	ACES-IMI TA Seminar Principal of Pressure Maintenance Keys points in Hydronic Design	ACES Member: \$30 RE/RTO (M&E): \$60 Non-member: \$90	30 Aug 2019 (Fri) 12.30 pm to 6.00 pm	18 Sin Ming Lane #06-01 Midview City Singapore 573960

S/N	Full Name	PE No.	ACES M'ship No.	M&E RE / RTO No.	last 3 digits + last alphabet of NRIC (e.g. ...123x)
1.					
2.					
3.					

<b>Company:</b>		
<b>Address:</b>		
<b>Contact Person:</b>	<b>Mobile No.:</b>	<b>Email:</b>

## PAYMENT

Enclosed is a Cheque No: \_\_\_\_\_ (Cheque should be crossed and made payable to “**Association of Consulting Engineers Singapore**” and mailed to “18 Sin Ming Lane #06-01 Midview City, Singapore 573960, Attention: ACES Secretariat”.

*[Note: On the back of the cheque, please indicate participant name & event name]*

<p><b>Terms and Conditions</b></p> <p>By submitting and signing this application form, the company and individual applicant agree to the following:</p> <ol style="list-style-type: none"> <li>a) The company and individual applicant has read and understood the terms of the flyer (if available) and the application form.</li> <li>b) Payment for the course must be made (in form of cheque or cash) <b>two weeks</b> before the course commencement date.</li> <li>c) ACES reserves the right to amend any details relating to the course, revise the course fees without prior notice, cancel or postponed the course.</li> <li>d) Cancellation – In the event that participant is not able to attend, please inform us in writing at least <b>3 working days</b> before the event date. Otherwise <b>full payment</b> is still applicable even if the participant did not turn up for the course.</li> </ol>	<p>To be completed by Company and Individual Applicant</p> <p><b>COMPANY APPLICANT</b></p> <p>Name: _____</p> <p>Signature: _____</p> <p>Date: _____</p> <div style="border: 1px dashed black; width: 100%; height: 80px; margin: 10px 0;"></div> <p style="text-align: center; font-size: small;"><i>Company stamp (for company application)</i></p> <p><b>INDIVIDUAL APPLICANT</b></p> <p>Name: _____</p> <p>Signature: _____</p> <p>Date: _____</p>
---	--