

Jointly Organised by:
Urban Engineering Development Special Interest Group (UEDSIG), IEM
& Micronaire Global Sdn. Bhd.



Physical Half Day Course on Next-Generation Air Handling Units: Engineering for Maximum Efficiency and Lower Carbon Footprint.

Date : 28th August 2026 (Friday)
Time : 09.00 am - 01.30 pm
Venue : Auditorium Malakoff, Wisma IEM
Speakers : Mr. Adrian Tan Thiam Ann
: Mr. Cheng Kai Sean

BEM Approved CPD: Applying
Ref No.: Applying

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Limited slots available!

Free Admission !

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SYNOPSIS

This seminar introduces Next-Generation Air Handling Units (AHUs) engineered to achieve maximum energy efficiency and a lower carbon footprint for modern buildings and industrial facilities. It showcases four innovative technologies that are transforming HVAC system performance: Micro-ESP (MESP) filtration for ultra-low pressure drop and energy savings, Horse-Shoe Heat Pipe technology for passive free pre-cooling and reheat with effective humidity control, high-efficiency EC Fans for enhanced motor performance and reduced power consumption, and the integration of VRF technology into Make-Up Air Units (MAUs), enabling the transition from conventional low-temperature chilled water plants to high-temperature chilled water systems for greater energy efficiency. Participants will gain practical insights into how these next-generation solutions improve indoor air quality, reduce operating costs, enhance HVAC performance, and support sustainable, low-carbon building operations.

EVENT OBJECTIVES

- Understand the latest technologies driving the development of next-generation energy-efficient Air Handling Units (AHUs).
- Explore how Micro-ESP (MESP) filtration systems reduce pressure drop, improve indoor air quality, and lower fan energy consumption.
- Learn the application of Horse-Shoe Heat Pipe technology for humidity control and significant energy savings in HVAC systems.
- Understand the benefits of EC Fan technology in improving motor efficiency, reducing maintenance, and minimizing operating costs.
- Discover how Hybrid VRF and Elevated Chilled Water solutions optimize deep cooling applications while reducing overall carbon emissions.
- Identify practical strategies to improve HVAC system performance, enhance sustainability, and achieve lower lifecycle operating costs in commercial and industrial buildings

TARGET PARTICIPANTS

This seminar is suitable for:

- Mechanical, Building Services, HVAC, Environmental, and Facilities Engineers
- Consulting Engineers and M&E Consultants
- Facility Managers and Building Maintenance Professionals
- Project Managers and Construction Professionals
- Energy Managers and Sustainability Practitioners
- Developers, Building Owners, and Asset Managers
- Government Agencies and Local Authorities involved in building services and energy management
- Contractors, System Integrators, and HVAC Solution Providers
- Academicians, Researchers, and Engineering Students
- IEM Members and industry professionals interested in sustainable HVAC technologies and energy-efficient building solutions.

Speaker Mr. Adrian Tan Thiam Ann



Adrian Tan holds a degree in Mechanical Engineering from Multimedia University, Malaysia. He began his career providing Testing and Commissioning (T&C) services for Building Management Systems (BMS) in Malaysia.

Transitioning into the HVAC sector, Adrian specialized in supplying industrial-grade Air Handling Units (AHUs) throughout the Southeast Asian market. Leveraging his extensive experience in building AHU brand presence, he now spearheads the supply and distribution of MAC (Micronaire) Air Handling Units in Malaysia.

Speaker Mr. Cheng Kai Sean



Sean Cheng holds a Bachelor's Degree in Mechanical Engineering from Universiti Kebangsaan Malaysia (UKM). With more than 15 years of experience in the HVAC industry, he has developed extensive expertise in the design, application, and implementation of HVAC systems across various industrial sectors.

Since 2018, he has specialized in cleanroom air conditioning systems, focusing on high-performance HVAC solutions for pharmaceutical, semiconductor, electronics, and other controlled-environment applications.