23 October 2018 9am - 5pm www.seas.org.sg

Demand Ventilation Controls in Laboratory

Course Summary

The main aims of this workshop are to provide an understanding of:

- Laboratory Airflow design criteria
- Fumehood requirement and VAV system
- Demand Ventilation Control
- Critical Airflow Management

SCEM PDU points to be awarded

Learning Outcomes

- Understanding the design criteria for laboratory
- Integrate DCV into energy management system
- Understand of demand ventilation control
- Set up (or develop) energy policy, energy planning, procedure for evaluating performance of energy systems and energy performance review, documentation and communication processes
- Integrate energy management system into business
 practice
- Understanding critical environment safety before implementation of energy saving management and technology
- Evaluate financial attractiveness of energy retrofit projects
- Understand the various energy savings performance models



23 October 2018

9am - 5pm Singapore Sustainability Academy 180 Kitchener Road Level 6 Sky Park, #06-10 City Square Mall Singapore 208539

Demand Ventilation Controls in Laboratory

Program Outline

Session 1: Laboratory and Fumehood

- Types of laboratory and fumehoods
- Laboratory HVAC components
- Airflow control

Session 2: Demand ventilation control in critical environment

Introduction to low energy lab design

- Importance and impact of lab ventilation on first costs & energy usage
- Typical lab energy costs & metrics
- A holistic summary of the technologies and strategies used in low energy lab design

Session 3: Lab tools Exercise

- Lab Analysis ROI Tools
- Summary and review of major conclusions Rates

Normal

SEAS Member: 3 participants and above \$400.00

Group

Non-Member:

\$450.00

\$380.00

Fees are inclusive of GST

efforts to notify delegates at least 5 working days in advance. In these circumstances, delegates will be offered an alternative date, an alternative location or a full refund of course fees paid. SEAS is not responsible for airline or member of ASHRAE Standard 170 on Healthcare accommodation costs incurred by delegate in the event a course is cancelled or re-scheduled.

Substitutions (name changes) are accepted at any time prior to the event without penalty, subject to the replacement delegate satisfying any necessary course pre-requisites.

Mr Gordon Sharp



Speaker's Profile

Mr. Gordon Sharp is the Chairman of Aircuity and has over 25 years of experience and over 25 patents in energy efficiency, indoor environmental guality and laboratory controls.

As the founder and former CEO of Phoenix Controls, he led his world leader n laboratory airflow controls that was acquired by Honeywell in 1998. In 2000, Gordon founded Aircuity out of Honeywell and is a smart airside energy efficiency company.

Gordon is an MIT graduate, an ASHRAE Distinguished Lecturer, the Executive Vice president and a member SEAS may cancel or reschedule a course at its discretion and will use reasonable of the Board of Directors of I2SL, the International Institute of Sustainable Laboratories. He is also a Ventilation and the ANSI/AIHA/ASSE Standard Z9.5 on Laboratory Ventilation

Call us at +65 6338 8578 to enquire Email: training@seas.org.sg Registration Form Yes! I would like to register for this programme I am unable to attend but please put me on your mailing list Participant's Details Name (Dr/Mr/Ms/Mrs) Designation Hp Email NRIC Participant's Details Name (Dr/Mr/Ms/Mrs) Designation Hp Email NRIC Billing Information Contact Name Company Name Company Address Email Tel

