

# TECHNICAL SEMINAR ON LATEST INDOOR AIR QUALITY REQUIREMENTS AND AIR PURIFICATION TECHNOLOGIES IN HONG KONG (Course code: 88101)

25 November & 2 December 2019, 14:00 – 17:00

BEC Building, 77 Tat Chee Avenue, Kowloon Tong, Hong Kong

Member of ASHRAE / BEC / BSL / BEAM Pro / BEAM Affiliate  
– HK\$600 (HK\$300 for any 1 session)

Member of Supporting Organisations  
– HK\$700 (HK\$350 for any 1 session)

Others  
– HK\$800 (HK\$400 for any 1 session)

Good indoor air quality (“IAQ”) is one of the essential elements of green building. BEAM Plus places emphasis on indoor air quality requirements during building assessments. The HKEPD IAQ Certification Scheme for Offices and Public Place (“IAQ Certification Scheme”) with new IAQ objectives, including a new parameter of mould, was launched on 1 July 2019. After 6-month implementation of new IAQ Certification Scheme, this seminar aims to share the latest IAQ requirements, development and application of air purification technologies.

## Content

### Session 1 (25 November 2019)

- 14:00 – 15:30** **Applications of Plasma Technology for Air and Surface Disinfection**  
**Speaker: Ir Prof Herman Tsui**
- Overview of the fundamentals of low temperature plasma for air and surface disinfection including
    - principles of operation
    - component characteristics
    - performance assessment
  - Applications in different types of building in Hong Kong

- 15:30 – 17:00** **Fundamentals of Ultraviolet Germicidal Irradiation for Air and Surface Disinfection**  
**Speaker: Dr William P. Bahnfleth**
- Overview of the fundamentals of ultraviolet germicidal irradiation (UVGI) for air and surface disinfection including
    - principles of operation
    - component characteristics
    - system types
    - applications, and published evidence of effectiveness

### Session 2 (2 December 2019)

- 14:00 – 15:00** **IAQ Certification Scheme for Offices and Public Places**  
**Speaker: Dr Edward Mui**
- Introduction of IAQ Certification Scheme and the new IAQ Objectives
  - Transition arrangement to the new IAQ Objectives
  - Brief updates, analysis and trends of applications
- 15:00 – 17:00** **Best practices to IAQ and mould management**  
**Speaker: Dr Veronica Chan**
- BEAM Plus related credits requirements
  - IAQ at different types of building in Hong Kong
  - Best practices for IAQ management
  - Prevention and control of mould growth in indoor environment

## Medium of Instruction

- Session 1 – English.
- Session 2 – Cantonese supplemented with English training materials.

## Certificate

- A Certificate of Attendance will be awarded to participants after the course. Each session is eligible for 3 CPD hours.



### Ir Prof Herman Tsui Technical Director, A-oneTech Ltd

Ir Prof Tsui graduated from the University of Manchester with a 1st Class Honours in Nuclear Engineering and obtained his Ph.D. in Applied Physics from UMIST. He worked on nuclear fusion energy research at Culham laboratory, UKAEA and Fusion Research Centre, USA. Since 2003, he has focused his research to industrial application of plasma technology and has successfully applied to indoor air treatment. He is the inventor of a number of patents on plasma technology and received a number of innovation awards. Ir Prof Tsui was the Chairman of the Nuclear Division and the Information Technology Division of Hong Kong, HKIE, and the Chairman of the Energy Institute (Hong Kong Branch). He was a member of the Standing Review Committee for Qualifications Assessment of the Hong Kong Council for Accreditation of Academic and Vocational Qualifications (HKCAAVQ). He also serves the accreditation panels for HKIE and HKCAAVQ.



### William P. Bahnfleth, PhD, PE Professor and Director, Pennsylvania State University (Penn State)

At Penn State, William P. Bahnfleth, PhD, PE teaches undergraduate courses in HVAC fundamentals, system design, and controls and graduate courses in chilled water systems, hot water and steam systems, and indoor air quality. His research interests cover a wide variety of indoor environmental control topics including chilled water pumping systems, stratified thermal energy storage, protection of building occupants from indoor bioaerosol releases, ultraviolet germicidal irradiation systems, and others. He is the author or co-author of more than 170 technical papers and articles and 14 books and book chapters. He consults on the design of chilled water thermal energy storage systems and has been involved in more than 20 projects world-wide. He is a fellow of ASHRAE, ASME and ISIAQ. He is also a member of IBPSA and SBSE.



### Dr Edward Mui Representative of IAQ Information Centre

Dr Mui is the representative of the IAQ Information Centre, HKEPD and a Consultant (Air and Cleaner Production) at Environmental Management Division, Hong Kong Productivity Council. He provides advice on indoor air quality and related occupational hygiene matters, which includes IAQ assessments, inspection and investigation in both commercial and industrial premises in HK and mainland. He is responsible for vetting of applications for joining IAQ Certification Scheme.



### Dr Veronica Chan Specialist – Green Building & IAQ, BEC

Dr Chan has over 14 years of experience in environmental-related research, consultancy, and training at various levels ranging from primary to postgraduate levels. Her expertise and research interests include monitoring and disinfection of the bioaerosols, health risk assessment, investigation and modelling of the IAQ pollutants. She has published 40 papers on peer-reviewed international journals and at conferences, contributed as an international journal reviewer, and participated in more than 100 IAQ-related projects.



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