



**Technical Seminar on**  
**Ventilation and Building Air Disinfection Strategies Against**  
**Aerosol and Airborne Transmissible Diseases**

**Details**

Date : 02 December 2020 (Wednesday)      Venue : Online Seminar via Zoom  
Time : 6:45pm (Registration)  
7pm - 8:00pm

**Programme Highlight:**

In this seminar, the speaker will elaborate how aerosol and airborne transmissible diseases are closely related to air movement and ventilation. The challenges of risk mitigation and prevention of disease transmission in aerosol and airborne routes will be explained. The speaker will evaluate the effectiveness and feasibility of different ventilation and building air disinfection strategies against aerosol and airborne transmissible diseases. A simple model modified from mass balancing equation to analyze air disinfection effectiveness will be described. Other technical details to be discussed include:

- The transportation and behavior of airborne microorganism/virus aerosols in indoor
- The scenarios where HEPA filter actually makes the situation worse
- The scenarios where increase in air change rate actually makes the situation worse
- Why UV is an ineffective air disinfection measures in ventilation system?
- Why air filter should be able to eliminate virus and microorganism instead of just capturing them from air?

**Speaker:**

**Dr. Roger SZE TO**

Dr. Roger SZE TO is the co-founder and Chief Technology Officer of Aurabeat Technology Limited. He has a Ph.D. in Mechanical Engineering. He has 15+ years of research experience in indoor environmental quality. His areas of expertise include aerodynamics of airborne virus transportation, bioaerosols, airborne transmission risk analysis, air filtration and air disinfection technologies. He was a former Research Assistant Professor in The Hong Kong University of Science and Technology. He found Aurabeat Technology Limited in 2017 and has been its Chief Technology Officer since then. Roger has developed several technologies for Aurabeat. He is the co-inventor of 4 technologies related to air purification and indoor environmental quality. After the start of the COVID-19 pandemic, Roger led his R&D team and successfully developed an antiviral air filtration technology that is third-party tested to be able to eliminate >99.9% of the COVID-19 virus (SARS-CoV-2).

**Medium of instruction:**

Cantonese with English Terminology (Q&A session in English & Chinese)

**CPD Certificate:**

One hour CPD certificate will be given after the seminar



### **Registration & Enquiry:**

The Technical Seminar is free of charge and prior registration is required. For registration, please register ONLINE via the website of HKIE(BSD) -<https://forms.gle/9t8QFNTeXbN23GgT8> . The maximum number of participants is 300. Those successful participants are requested to attend the Seminar by their own. Application will be accepted on a first-come-first-served basis with priority given to the two co-organisers' members. Successful members will be informed by email few days before the event with a link for pre-registration. A zoom meeting link will be received after the pre-registration. Transfer or sharing of the registration is prohibited.

To facilitate the time efficient, registration will be done when entering the Seminar so please click on the zoom meeting link and type in your membership number follow by your name (same as the registration name) when joining the online session on event day.

For enquiry, please contact Ir Sally Leung (HKIE members) at 96368299 / email to BSD at [hkiebsd.seminar@gmail.com](mailto:hkiebsd.seminar@gmail.com) or Ir Franky Cheng (BSOMES members) at 93652523 / email to BSOMES at [event@bsomes.org.hk](mailto:event@bsomes.org.hk) .