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## **ASHRAE Distinguished Lecture Series:** **Fundamentals of Ultraviolet Germicidal Irradiation for Air and** **Surface Disinfection**

Date : 16 November 2016 (Wed)  
Time : 7:00pm – 9:00pm (Registration will start at 6:30pm)  
Venue : Y416 , The Hong Kong Polytechnic University , Hung Hom

**Free of charge!**

### **Seminar Highlights:**

Poor air quality, sick building syndromes and other building related illness are emerging as critical health, environment and legal issues throughout the world. Maintaining a healthy and comfortable indoor environment in any building requires integrating many components of a complex system. Indoor environment problems are preventable and solvable by many types of air treatment applications.

Germicidal radiation produced by low pressure mercury vapor lamps and other sources is seeing increasing application both for air disinfection and for control of biological growth on surface. This presentation provides an overview of the fundamentals of ultraviolet germicidal irradiation (UVGI) including principles of operation, component characteristics, system types, applications, and published evidence of effectiveness.

### **Honorable Speaker:**



### **William P. Bahnfleth, Ph.D., P.E.**

**Distinguished Lecturer of ASHRAE**  
**Professor, Department of Architectural Engineering**  
**The Pennsylvania State University, United States**

William Bahnfleth is Professor and Director of the Indoor Environment Center in the Department of Architectural Engineering at the Pennsylvania State University (Penn State) in University Park, PA, where he has been employed since 1994. Previously, he was a Senior Consultant for ZBA, Inc. in Cincinnati, OH and a Principal Investigator at the U.S. Army Construction Engineering Research Laboratory in Champaign, IL. He holds BS, MS, and PhD degrees in Mechanical Engineering from the University of Illinois, where he also earned an undergraduate degree in music (pipe organ performance), and is a registered professional engineer.

At Penn State, Dr. Bahnfleth teaches undergraduate courses in HVAC fundamentals 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

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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 150 technical papers and 13 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.

Dr. Bahnfleth is a fellow of ASHRAE, the American Society of Mechanical Engineers (ASME) and the International Society for Indoor Air Quality and Climate (ISIAQ). He is a member of the Indoor Air Quality Association (IAQA), the International Building Performance Simulation Association (IBPSA), Sigma Xi, the American Society for Engineering Education (ASEE), and the Society of Building Science Educators (SBSE). He has served ASHRAE in a variety of capacities, including Student Branch Advisor, Chapter Governor, Technical Committee and Standing Committee Chair, and as Director-at-Large, Vice President, Treasurer, and 2013-14 Society President. He is the recipient of a 1st place ASHRAE Technology Award, Transactions Paper Award, and Distinguished Service and Exceptional Service Awards. In 2016, he received the Penn State Engineering Alumni Society's World-Class Engineering Faculty Award.

Language: English

Fee: Free of charge

Remark: 2-hour CPD certificate will be provided.

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### Registration & Enquiry:

Open to all interested persons, but priority will be given to members of organizers. Number of participants is limited and prior registration is required. For registration, please complete Registration Form in the following "[On-Line Registration Link](#)". Only the applications from the members of Organizer will be accepted. The deadline of application is on 8 Nov 2016. Successful members will be notified by e-mail on or before 11 Nov 2016, which has to be presented at the registry of the venue entrance for verification. If the applicants have not received the confirmation e-mail on or before 11 Nov 2016, their applications will be regarded as not successful.

If typhoon signal no. 8 or black rainstorm signal is in force and still hoisted after 5:00 pm of 16 Nov 2016, the talk would be cancelled without further arrangement or notification. For enquiry, please send e-mail to [patrick.huang@arup.com](mailto:patrick.huang@arup.com).

For enquiry, please contact Mr. Patrick Huang at 6077-2053 or email to [patrick.huang@arup.com](mailto:patrick.huang@arup.com)