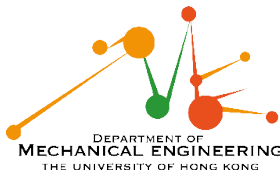


Organizer:



Department of
Mechanical Engineering
The University of Hong Kong



Tam Wing Fan
Inno Wing Two

FACULTY OF ENGINEERING

The Surein Foundation
(J&F Kwan) Distinguished
Lecture Series

THE SUREIN FOUNDATION (J&F KWAN) DISTINGUISHED LECTURE SERIES : “FILTRATION SOLUTIONS FOR SUSTAINABLE ENVIRONMENT”

Professor David Y. H. Pui

Member of U.S. National Academy of Engineering

Regents Professor, and Director of the Center for Filtration Research, University of Minnesota

Distinguished Visiting Professor, The University of Hong Kong

Date: 30th January 2024 (Tuesday)

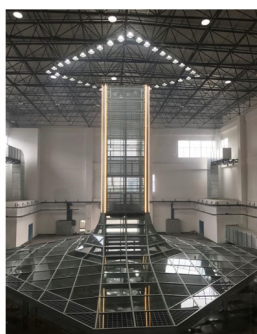
Time: 4:00 pm

Venue: Tam Wing Fan Innovation Wing Two

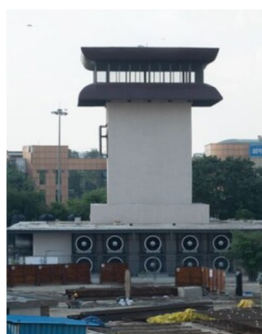
Language: English



First generation
SALSCS, Xi'an



Second generation
SALSCS, Yancheng



Third generation system,
Delhi, India

Abstract

We are developing filtration technologies to benefit sustainable environment. The Center for Filtration Research (CFR) at the University of Minnesota, collaborating with 20 leading international filtration manufacturers and end users, was established to find filtration solutions to mitigate PM_{2.5} and other environmental pollutants. There are more than 15 on-going fundamental and applied research projects on air, gas and liquid filtration. Five projects will be presented: 1. reduction of aerosol concentration in classrooms to prevent virus transmissions; 2. electret and nanofiber media to improve filtration performance; 3. indoor air cleaning using gas purifiers, ionizers, and UV-C; 4. real-time image detection of airborne biological particles; 5. temperature resistant nano-scale membrane for enhanced ceramic wall-flow filter performance. Large scale air cleaning towers are established in Xi'an and Yancheng in China to mitigate urban air PM_{2.5} and CO₂ (Yancheng) with two additional towers in Delhi, India. All these research and development activities are helping to improve sustainable environment.



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Speaker:

Professor David Y. H. Pui



Member of U.S. National Academy of Engineering
Regents Professor, and
Director of the Center for
Filtration Research, University of
Minnesota
Distinguished Visiting Professor,
The University of Hong Kong

Professor David Y. H. Pui is a Regents Professor and LM Fingerson/TSI Inc. Chair in Mechanical Engineering at the University of Minnesota. He is a member of the U.S. National Academy of Engineering (NAE) and the Director of the world-renowned Particle Technology Laboratory at the University of Minnesota. He is also the Director of the Center for Filtration Research (CFR) consisting of >20 leading international filtration manufacturers and end users. Dr. Pui has a broad range of research experience in aerosol and nanoparticle engineering and filtration technology, and has over 360 journal papers and 43 patents. He has developed several widely used commercial aerosol instruments for PM_{2.5} measurements. Dr. Pui has received many awards, including the Max Planck Research Award (1993), the Humboldt Research Award for Senior U.S. Scientists (2000), the Fuchs Memorial Award (2010) -- the highest disciplinary award conferred jointly by the American, German and Japanese Aerosol Associations. He served as President of the American Association for Aerosol Research (2000-2001), and President of the International Aerosol Research Assembly (2006-2010) consisting of 16 member associations from around the world.

Moderator:

Professor Dennis Leung



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