



Department of  
Mechanical Engineering  
The University of Hong Kong



## SEMINAR

### **Multi-scale spatiotemporal analysis of urban and building thermal airflows**

**Date:** 8 September, 2023 (Friday)  
**Time:** 3:30 p.m.  
**Venue:** Room 7-35, Haking Wong Building, HKU

**Speaker:** Professor Liangzhu (Leon) Wang  
Research Chair in Building Airflow and Thermal Management  
Department of Building, Civil & Environmental Engineering  
Concordia University  
Canada

#### **Abstract:**

Climate-related emergencies, such as heatwaves, fires and ice/snowstorms challenge buildings and cities. For both design and operation, computer simulations are possible, but uncertainties exist. Sub-scale experiments demand improvement of similarity theories and scaling laws. This seminar reports our most recent research on small-scale testing, and physics-based and AI-assisted large-scale modeling, from indoors to whole-building and community for achieving energy efficiency, climate and resilience at building and city scales.

#### **Biography:**

Dr. Wang is a Professor and Associate Director of the Centre for Zero Energy Building Studies (CZEBS) at Concordia. He has led multiple large-scale projects with Advancing Climate Change Science in Canada, and Canada Foundation of Innovation. He contributes to international codes/standards and guidelines of IECC, ASHRAE and REHVA. His research interests also include urban heat island, and COVID-19 intervention. He collaborates with National Research Council Canada, Health Canada, and Environment and Climate Change Canada. He currently leads a Canada First Research Excellence Fund (CFREF) project "Electrifying Society - Towards Decarbonized Resilient Communities".

ALL INTERESTED ARE WELCOME

For further information, please contact Prof. Y. Li at 3917 2625.