



Chemical Engineering & Applied Chemistry UNIVERSITY OF TORONTO

Seminar
October 3, 2019
10.00 am – 11.00 am
WB215, 200 College St.

Industrial Ventilation Research and Energy Conservation in China

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Abstract

The seminar will focus on leading edge research in China on ventilation and energy conservation for industrial processing plants. Team members and research platforms of national key laboratories will be discussed. An outline will be presented of the major research work at Xi'an University in the industrial ventilation field and how the research has been applied to engineering applications for specific industrial applications. An extensive compilation of Chinese standards as they apply to industrial ventilation and energy efficiencies will be discussed. A scientific review will include research projects currently underway at Xi'an University which includes the scope of independent research projects, domestic collaboration, and also a new thrust in international collaboration with the global scientific research community. Two examples of innovative research in the industrial ventilation field will be presented. The first example will be the use of scale model experiments to optimize the design of local ventilation systems. Air pollution and energy consumption in industrial plants are serious challenges to sustainable development in China's economy. The second example will be the introduction of innovative research in the area of vortex ventilation techniques to the application of various ventilation systems and practical engineering applications.

Research Interests of Professor Wang and her research team

Transport of contamination and the efficiency of ventilation systems in industrial buildings;
Building environment and energy efficiency;
Theories and methods of natural ventilation;
Assessment of thermal comfort and indoor air quality