

Bio – Liangzhu Leon Wang

Liangzhu Leon Wang is a Professor at Concordia University, Montreal, Canada, and Associate Director at Centre for Zero Energy Building Studies (CZEBS), formerly Centre for Building Studies, established in 1976 as the Canadian very first program of Building Engineering (a.k.a. Building Service/Architectural Engineering). The Centre is known for its world-leading research on net-zero energy buildings with >100 students, 20 full-time professors, and associate members. He received PhD in Mechanical Engineering from Purdue University in 2007 and worked as a PDF at Building and Fire Research Labs at the US National Institute of Standards and Technology; and China: MSc in Civil Engineering (2002), and BSc in Thermal Engineering (1999).

Dr. Wang studies *Resilient, Healthy, and Sustainable Urban Microclimate and Built Environment* and has rich research experience in *Building Science, Indoor Environments and Building Fire Safety*. He published over 260 papers and made substantial impacts on building standards, codes, guidelines, and international building performance simulation communities. His work on real-time forecasting of building indoor contaminant spreads was awarded one of the three "[*Best Journal Paper Award*](#)" from *Building and Environment* among 1,300 papers for "*originality, contributions to the field, quality of presentation, soundness of science.*", and one of the three "[*Best Poster Award*](#)" at the 10th *Asia- Oceania Symposium on Fire Science and Technology (AOSFST)*, Tsukuba, Japan. He developed public guidelines for the US Centers for Disease Control and Prevention Guidance on Carbon Monoxide Poisoning from generators, the US Consumer Product Safety Commission rulemaking for generator safety, the International Energy Conservation Codes C402, ASHRAE Standard 189.1&90.1, California Building Energy Efficiency Code (Title 24), ANSI/AMCA Standard 220, AMCA COVID Guidance for Unducted Fans. During the pandemic, his team's urban model of *City Reduced Probability of Infection* for Indoor Airborne Transmission of SARS-CoV-2 for North America (NA), was widely covered by Canadian Broadcasting Corporation, Radio One, CTV News & CBC TV (live interviews), CityNews, Global News, Le Devoir, Los Angeles Times etc.

Dr. Wang led over \$8 Million CAD funding with ~1/3 from industries in large-scale projects, such as the SEED project on 'urban microclimate' under the recently awarded Canada First Research Excellence Fund (CFREF) project "*Electrifying Society: Towards Decarbonized Resilient Communities*" 2023-2030 – *Theme 1: Smart, Sustainable and Healthy Built Environment*, and many large infrastructure projects. Many of his projects were from US governments and US-based industries.

Dr. Wang is a Fellow of the International Building Performance Simulation Association (IBPSA) and a Fellow of the American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE). He is an Associate Editor (AE) and Special Issue Editor of *Journal of Energy and Buildings*, AE of *Building Simulation and Indoor Environments* (the Official Journal of International Society of Indoor Air Quality and Climate - ISIAQ), and Editorial Member of *Journal of Wind Engineering and Industrial Aerodynamics*, and the *Journal of Building and Environment*.

Dr. Wang was the Undergraduate Program Director in charge of holistic building science and building technology program developments (e.g., urban climate, building materials, building fire safety, building science, building envelopes, etc.). He is well-positioned to integrate his extensive expertise seamlessly across various interdisciplinary fields within the university, and his strong international experience and networks provide him effective leadership in the global research landscape.

Short CV – Liangzhu Leon Wang

Liangzhu Leon Wang, P.Eng., Concordia University Research Chair
Dept. of Building, Civil & Environmental Engineering, Concordia University, Canada

Education and certification

- Ph.D. in Mechanical Engineering (2002 – 2007), Purdue University, West Lafayette, IN, USA
- MSc. in Civil Engineering (1999 – 2002), Tianjin University, China
- BSc. in Thermal Engineering (1995 – 1999), Tianjin Institute of Urban Construction, China
- P.Eng. (Professional Engineer), Ontario, Canada (2014 –)

Work experiences

- Professor (2022 –), Associate Professor (2015 – 2022), Assistant Professor (2010 – 2015), Dept. of Building, Civil & Environmental Engineering, Concordia University, Montreal, QC, Canada
- Postdoc Research Associate, Building and Fire Research Laboratory, the U.S. National Institute of Standards and Technology (NIST) (2007 – 2010), Gaithersburg, MD, USA

Honors and Awards

- ASHRAE Fellow. American Society of Heating, Refrigerating & Air-Conditioning Engineers. 2025
- Runner-up for the best paper award. eSim2024. 2024
- IBPSA Fellow. International Building Performance Simulation Association. 2023
- International Research Communicator of the Year. Concordia University. 2021
- Concordia University Research Chair. Concordia University. 2014 – 2019
- Best Poster Award. 10th Asia-Oceania Symposium on Fire Science and Technology. 2015
- Best Paper Award. Building and Environment. 2013
- Distinguished Associate Award. Building and Fire Research Laboratory, NIST, USA. 2008
- Best Graduate Thesis. Civil Engineering, Tianjin University, 2002
- Best Capstone Project. Thermal Engineering, Tianjin Institute of Urban Construction, 1999
- Artificial Environment Engineering Award. Tsinghua Tongfang Artificial Environment. 1998
- Tianjin Science and Engineering Fellowship. Tianjin Higher Education Commission, 1998
- Excellent Undergraduate Award. Tianjin Higher Education Commission, 1998
- Chenqi Fellowship Tianjin Institute of Urban Construction, 1997

Research grants (CAD)

- Federal and provincial grants (\$ 4.4M); Federal and provincial contracts (\$ 1.3M); Industrial and international contracts (\$ 2.4M); Total (\$ 8.1M)

Professional leadership

- Co-Chair of DBMC 2026. The 17th International Conference on Durability of Building Materials and Components
- Chair of COBEE 2022. The 5th International Conference on Building Energy and Environment. <http://www.cobee2022.org/>
- 2022/06 ~ 2023/06. Member of Technical Advisory Group, Engineering Global Preparedness Against Pandemics, Royal Academy of Engineering, UK