

Jiangsu-Hong Kong-Macao University Alliance Open Research Seminar on

Smart green building and low-carbon city

& Kick-off session of RGC Young Collaborative Research Fund C6003-22Y

Time: 3rd – 4th June, 2023

Location: Leung Yat Sung Lecture Theatre (LT-F), HKUST, Clear Water Bay, Hong Kong

Online broadcast link:

- Zoom: <https://hkust.zoom.us/j/8539810850> (password: 208922)
- Bilibili: <http://live.bilibili.com/27798577>

Day 1 (3rd June, Saturday)	
10:00-10:15	Opening and Welcome Speech <i>Limin ZHANG, Chair Professor, Department Head, HKUST</i>
10:20-12:00	Session 1. Healthy Building
	What to ventilate, rooms or people? <i>John Zhang LIN, Chair Professor, CityU</i>
	Vertical transmission risk caused by the sewer system in high-rise buildings <i>Hua QIAN, Professor, Southeast University</i>
	Enhancing Indoor Air Quality: Transportation and Controlling Strategies of SVOC <i>Shanshan SHI, Associate Professor, Nanjing University</i>
	Using Integrated Health and Environmental Data to Improve Public Health: Strategies and Case Studies <i>Linyan LI, Assistant Professor, CityU</i>
12:00-13:30	Lunch (HKUST China Garden Restaurant)
13:30-16:00	Session 2. Green Building Technologies
	A view on the adaptive reuse of heritage buildings: a sustainable and cost-effective way to preserve buildings <i>Siu Ming LO, Professor, Former Department Head, CityU</i>
	Data-driven approach for carbon neutrality operation of conventional Chinese dwellings with courtyard <i>Jiawei LENG, Professor, Dean, Southeast University</i>
	Principles and applications of personalized radiative cooling system <i>Gongsheng HUANG, Professor, CityU</i>
	Novel methods for low-carbon built thermal environment <i>Yonggao YIN, Professor, Department Head, Southeast University</i>
	Concept and practice of personal comfort system (PCS) <i>Bin CAO, Associate Professor, Tsinghua University</i>
	Optimal Analysis of Renewable Energy Utilization Considering the Matching of Supply and Demand—— Taking Solar Hot Water System as an Example <i>Xin ZHOU, Associate Professor, Southeast University</i>

16:00-16:20	Tea break
16:20-18:20	Session 3. Low-carbon City
	Rethinking the Method of Building Indoor Environment for Carbon Neutralization <i>Yingxin ZHU, Professor, Former Associate Dean, Tsinghua University</i>
	Optimizing Low-Carbon Urban Energy Management: Aggregating Residential Appliances to Balance Smart City Electricity Supply and Demand <i>Qinran HU, Associate Professor, Southeast University</i>
	A temporally dynamic model for regional carbon impact assessment based on city information modeling <i>Shu SU, Associate Professor, Southeast University</i>
	From building to city: building energy saving based on micro-climate and energy model <i>Wei WANG, Associate Professor, Southeast University</i>
	Dynamic pricing of free-floating car-sharing networks with sensitivity to travelers' risk attitudes <i>Chenyang WU, Associate Professor, Northwestern Polytechnical University</i>
	Comparison of reinforcement learning and model predictive control for building energy system optimization <i>Zhe Wang, Assistant Professor, HKUST</i>
18:30-20:00	Dinner (Unibistro Restaurant)
20:00-22:00	Hong Kong night view (Victoria Peak)

Day 2 (4th June, Sunday)

10:00-11:20	Session 4. Smart Building
Research and application of new human-oriented environmental control system and intelligent operation technology <i>Borong LIN, Professor, Associate Dean, Tsinghua University</i>	
Scalable building automation system and its application for the energy saving of data center cooling system <i>Lun ZHANG, Associate Professor, Southeast University</i>	
A preliminary view on the use of Remote Sensing for Urban Zoning Analysis for Carbon Emission and Energy Consumption <i>Jacqueline LO, Assistant Professor, PolyU</i>	
Towards energy efficient and satisfactory indoor environment: computer vision-based smart HVAC control for ensuring individual thermal comfort <i>Cynthia HOU, Assistant Professor, PolyU</i>	
AI-empowered fast indoor environment prediction and its applications <i>Qi ZHOU, Postdoc, HKUST</i>	
11:20-11:30	Tea break
11:30-12:50	Session 5. RGC Young Collaborative Research Fund C6003-22Y kick-off
Toward 2060 Carbon Neutrality: Life-cycle Planning and Design of Photovoltaic Integrated Green Roof (PVIGR) Systems for Hong Kong and the Greater Bay Area <i>Zhe Wang, Assistant Professor, HKUST</i>	
Development of Solar cities with the aid of Remote Sensing and Geographical Information Science <i>Man-sing, Charles WONG, Professor, Associate Dean, PolyU</i>	
High fidelity solar resourcing techniques for BIPV applications <i>Mengying LI, Assistant Professor, PolyU</i>	
Hybrid AI approaches for solar forecasting and integration <i>Yinghao CHU, Assistant Professor, CityU</i>	
A novel 3D-geographic information system and deep learning integrated approach for high-accuracy rooftop solar potential characterization of high-density cities <i>Yongjun SUN, Associate Professor, CityU</i>	
13:00-14:30	Lunch (HKUST China Garden Restaurant)