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## Introduction

I am a Visiting PhD student at NUS, coming from Hunan University in China. My research topic focuses on achieving building energy efficiency with advanced technology and innovative building envelope, such as building integrated photovoltaics, light-transmitting concrete and radiant cooling systems. In addition, I am curious about data science and other new technology, and trying to integrate them with my research.

## Education

2019.09 - Today	PhD candidate in Heating, Ventilation and Air-Conditioning (HVAC), College of Civil Engineering, Hunan University, China
2023.01 - Today	Visiting PhD student, Department of the Built Environment, College of Design and Engineering, National University of Singapore
2018.09 - 2019.07	Master's degree candidate in HVAC, College of Civil Engineering, Hunan University, China
2014.09 - 2018.07	Bachelor of Engineering, majoring in Building Environment and Energy Engineering, College of Civil Engineering, Hunan University, China

## Research Interests

- Building Energy Efficiency
- Energy-efficient Building Envelope
- Building-integrated Photovoltaics
- Radiant cooling technology in buildings

## Publications

- [1] **Xiaosong Su**, Ling Zhang\*, Zhongbing Liu, Daylighting and energy performance of the combination of optical fiber based translucent concrete walls and windows, *Journal of Building Engineering*, 67 (2023), 105959, IF=7.144.  
<https://doi.org/10.1016/j.jobbe.2023.105959>.
- [2] **Xiaosong Su**, Ling Zhang\*, Zhongbing Liu, et al. An optical and thermal analysis of translucent concrete considering its dynamic transmittance, *Journal of Cleaner Production*, 364 (2022), 132588, IF=11.072.
- [3] **Xiaosong Su**, Ling Zhang\*, Yongqiang Luo, et al. An energy analysis of translucent concrete embedded with inclined optical fibers, *Energy and Buildings*, 273 (2022), 112409, IF=7.201.  
<https://doi.org/10.1016/j.enbuild.2022.112409>.
- [4] **Xiaosong Su**, Ling Zhang\*, Yongqiang Luo, et al. Energy performance of a reversible window integrated with photovoltaic blinds in Harbin, *Building and Environment*, 213 (2022), 108861, IF=7.093.  
<https://doi.org/10.1016/j.buildenv.2022.108861>.
- [5] **Xiaosong Su**, Ling Zhang\*, Yongqiang Luo\*, et al. Conceptualization and preliminary analysis of a novel reversible photovoltaic window, *Energy Conversion and Management*, 250 (2021), 114925, IF=11.533.  
<https://doi.org/10.1016/j.enconman.2021.114925>.
- [6] **Xiaosong Su**, Ling Zhang\*, Zhongbing Liu, et al. Performance evaluation of a novel building envelope integrated with thermoelectric cooler and radiative sky cooler, *Renewable Energy*, 171 (2021), 1061-1078, IF=8.634.  
<https://doi.org/10.1016/j.renene.2021.02.164>.
- [7] **Xiaosong Su**, Ling Zhang\*, Zhongbing Liu, et al. Daylighting performance simulation and analysis of translucent concrete building envelopes, *Renewable Energy*, 154 (2020), 754-766, IF=8.634.  
<https://doi.org/10.1016/j.renene.2020.03.041>.
- [8] **Xiaosong Su**, Ling Zhang\*, Zhongbing Liu, et al. A computational model of an improved cooling radiant ceiling panel system for optimization and design, *Building and Environment*, 163 (2019), 106312, IF=7.093.  
<https://doi.org/10.1016/j.buildenv.2019.106312>.
- [9] **Xiaosong Su**, Ling Zhang\*, Yongqiang Luo\*, et al. An improved model for optimal design of building integrated photovoltaic thermoelectric systems, In: *Proceedings*

*of the 11th International Symposium on Heating, Ventilation and Air Conditioning (ISHVAC 2019)*. ISHVAC 2019. Environmental Science and Engineering. Springer, Singapore. [https://doi.org/10.1007/978-981-13-9528-4\\_147](https://doi.org/10.1007/978-981-13-9528-4_147).

- [10] Huixian Yang, Ling Zhang\*, **Xiaosong Su**\*, et al. Thermal performance evaluation of window with transparent insulation slats, *Building and Environment*, 225 (2022), 109623, IF=7.093. <https://doi.org/10.1016/j.buildenv.2022.109623>.
- [11] Zhenghong Wu, Ling Zhang\*, **Xiaosong Su**, et al. Experimental and numerical analysis of naturally ventilated PV-DSF in a humid subtropical climate, *Renewable Energy*, 200 (2022), 633-646, IF=8.634. <https://doi.org/10.1016/j.renene.2022.09.108>.
- [12] Huixian Yang, Ling Zhang\*, **Xiaosong Su**, et al. Modeling and analyzing the optical and thermal performance of window with transparent insulation slats, *Energy and Buildings*, 277 (2022), 112567, IF=7.201. <https://doi.org/10.1016/j.enbuild.2022.112567>.
- [13] Yongqiang Luo, Ling Zhang\*, **Xiaosong Su**, et al. Improved thermal-electrical-optical model and performance assessment of a PV-blind embedded glazing façade system with complex shading effects, *Applied Energy*, 255 (2019), 113896, IF=11.466. <https://doi.org/10.1016/j.apenergy.2019.113896>.