

# XINJIE HUANG (he/him/his)

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## EDUCATION BACKGROUND

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**M.Phil. (master by research) in Mechanical Engineering** 2020-2022

**The University of Hong Kong**, Hong Kong (supported with full scholarships)

Supervisors: Dr. Jiyun Song (primary) and Prof. Yuguo Li

Research areas: urban climate, urban green infrastructure, building energy, thermal comfort, natural ventilation, indoor environmental quality

**B.Eng. in Building Environment and Energy Engineering** 2016-2020

**Southeast University**, Nanjing, China

Supervisor: Prof. Cong Liu

Cumulative GPA: 3.6 / 4.0, Major GPA: 3.9 / 4.0, Grade: 88 / 100

Research areas: indoor air quality, indoor-outdoor air exchanges, ventilation

## JOURNAL PUBLICATIONS (\*: Corresponding author; †: Equal contribution)

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1. **X. Huang**, J. Song\*, C. Wang, T.F.M. Chui, P.W. Chan, The synergistic effect of urban heat and moisture islands in a compact high-rise city, *Building and Environment* (IF: 6.456) (2021) 108274. <https://doi.org/10.1016/j.buildenv.2021.108274>.
2. J. Song\* (advisor), **X. Huang**, D. Shi, W.E. Lin, S. Fan, P.F. Linden, Natural ventilation in London: Towards energy-efficient and healthy buildings, *Building and Environment* (IF: 6.456) (2021) 107722. <https://doi.org/10.1016/j.buildenv.2021.107722>.
3. R. Du, J. Song\*, **X. Huang**, Q. Wang, C. Zhang, O. Brousse, P.W. Chan, High-resolution regional modeling of urban moisture island: mechanisms and implications on thermal comfort, *Building and Environment* (IF: 6.456) (2021) 108542. <https://doi.org/10.1016/j.buildenv.2021.108542>.
4. **X. Huang**, J. Song\*, C. Wang, P.W. Chan, Realistic prediction of pedestrian-level thermal stress in cities via a new urban environment-human coupling system, manuscript in preparation. (This work will soon be presented on the American Meteorological Society's (AMS) 102<sup>nd</sup> Annual Meeting, Jan. 23-27, 2022.)
5. C. Liu\*† (advisor), **X. Huang**† (co-first author), J. Li, Outdoor benzene highly impacts indoor concentrations globally, *Science of the Total Environment* (IF: 7.963) (2020) 137640. <https://doi.org/10.1016/j.scitotenv.2020.137640>.
6. H. Hu, **X. Huang**, Y. Zhao, H. Qian, C. Liu\*, A new PM<sub>2.5</sub>-based PM-up method to measure non-mechanical ventilation rate in buildings, *Journal of Building Engineering* (IF: 5.318) (2022) 104351. <https://doi.org/10.1016/j.jobee.2022.104351>.

## CONFERENCE PAPERS & PRESENTATIONS (\*: Corresponding author)

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1. **X. Huang**, J. Song, The synergistic effect of urban heat and moisture islands in a compact high-rise city: mechanisms and mitigation strategies, [poster presentation](#) (outstanding poster presentation award), the AMS's 13<sup>th</sup> Conference on Environment and Health on 102<sup>nd</sup> Annual Meeting, Jan. 23-27, 2022, Houston, TX, USA.

2. J. Song, **X. Huang**, Urban climate-human coupling system: model development and case study, [poster presentation](#) accepted, the AMS's 13<sup>th</sup> Conference on Environment and Health on 102<sup>nd</sup> Annual Meeting, Jan. 23-27, 2022, Houston, TX, USA.
3. F. Xia, **X. Huang**, E. Tian, J. Mo<sup>\*</sup>, An electrostatically assisted air filter for removing indoor bioaerosols. Paper 609. The 11<sup>th</sup> International Symposium on Heating, Ventilation and Air Conditioning (ISHVAC 2019), July 12-15, 2019, Harbin, China. 2016YFE0102300-03, 51722807, 51521005.

## HONORS, AWARDS, AND FUNDING

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<b>First Year Fellowship in Science and Engineering</b> , Princeton University, NJ, USA	2022-2023
<b>Outstanding Poster Presentation Award</b> , the AMS's 13 <sup>th</sup> Conference on Environment and Health on 102 <sup>nd</sup> Annual Meeting, Houston, TX, USA	2022
<b>Postgraduate Scholarship</b> , the University of Hong Kong, Hong Kong	2020-2022
<b>National First Prize</b> in Energy Saving & Emission Reduction Competition, Ministry of Education, China (Top 2%, team leader, media coverage: <a href="#">Southeast University</a> )	2019
<b>Student Research Funding</b> as the student PI in the National Research Training Program for University Students, Ministry of Education, China	2018
<b>First Prize</b> of Zhongnan Group Enterprise Scholarship (Top 10 out of ~16000 students), Southeast University, China	2018

## TEACHING EXPERIENCE

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<b>Teaching Assistant</b> at the University of Hong Kong (language of instruction: English) <b>Courses:</b> MECH3408: Mechanics of fluids; MECH2414: Thermofluids; ENVM8013: Air and noise pollution control and management; MECH4429: Integrated capstone experience (as the research mentor for three final-year undergraduate students)	2020-2022
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## SKILLS

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Software: MATLAB, Origin, SketchUp, C++, QGIS, ArcGIS, CAD, EnergyPlus, Fluent  
 Language: Chinese (native), English (TOEFL: 109, reading: 28, listening: 28, speaking: 25, writing: 28)