XINJIE HUANG (he/him/his)

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EDUCATION BACKGROUND

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 and Prof. Yuguo Li
Research areas: urban climate, building energy model, thermal comfort, urban canopy
model, land-atmosphere interactions, urban green infrastructure, urban biometeorology

B.Eng. in Building Environment and Energy Engineering   2016-2020
Southeast University, Nanjing, China
Cumulative GPA: 3.6 / 4.0, Major GPA: 3.9 / 4.0, Grade: 88 / 100
Supervisor: Prof. Cong Liu
Research areas: indoor air quality, indoor-outdoor air exchanges, ventilation

ACADEMIC POSITIONS

Research Assistant in School of the Environment   2021
Yale University, New Haven, CT, USA
Advisor: Prof. Xuhui Lee
Research project: Biking for science and health (https://biking-for-science.yale.edu/)

Research Assistant in Department of Building Science   2019
Tsinghua University, Beijing, China
Advisor: Prof. Jinhan Mo
Research project: An electrostatic assisted air filter for removing indoor bioaerosols

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

M.Phil.'s works (2020-present):

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*, D. Shi, 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) 102nd Annual Meeting, Jan. 23-27, 2022.)

Undergraduate works (2016-2020):

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, C. Liu[*], **X. Huang.**, Y. Zhao, H. Qian, A new $PM_{2.5}$-based P-up method to measure building ventilation rate, *Indoor Air* (IF: 5.770) under review.

CONFERENCE PAPERS & PRESENTATIONS ([*]: Corresponding author)

M.Phil.'s works (2020-present):

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 accepted, the AMS's 13th Conference on Environment and Health on 102nd 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 13th Conference on Environment and Health on 102nd Annual Meeting, Jan. 23-27, 2022, Houston, TX, USA.

Undergraduate work (2016-2020):

3. F. Xia, **X. Huang**, E. Tian, J. Mo[*], An electrostatically assisted air filter for removing indoor bioaerosols. Paper 609. The 11th International Symposium on Heating, Ventilation and Air Conditioning (ISHVAC 2019), July 12-15, 2019, Harbin, China. 2016YFE0102300-03, 51722807, 51521005.

HONORS, AWARDS, AND FUNDING

Postgraduate Scholarship (~56000 USD), The University of Hong Kong, Hong Kong	2020-2022
National First Prize in Energy Saving & Emission Reduction Competition, Ministry of Education, China (Top 2%, team leader, media coverage: Southeast University)	2019
Student Research Funding (~4000 USD) as the student PI in the National Research Training Program for University Students, Ministry of Education, China	2018
First Prize of Zhongnan Group Enterprise Scholarship, Southeast University, China (Top 10 out of ~16000 students, ~2000 USD)	2018

TEACHING EXPERIENCE

Teaching Assistant at the University of Hong Kong (language of instruction: English) **Courses:** 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

SKILLS

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