XINJIE HUANG (he/him/his)

Personal websites: https://xinjiematthuang.github.io/
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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 (GPA: 3.6 / 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)

MPhil's works (2020-now):

1. **Huang X.**, Song J.*, Wang C., Chui TFM., Chan PW. (2021) The synergistic effect of urban heat and moisture islands in a compact high-rise city, *Building and Environment* (IF: 6.456), DOI: 10.1016/j.buildenv.2021.108274.

2. Song J.* (supervisor), **Huang X.**, Shi D., Lin WE., Fan S., Linden PF. (2021) Natural ventilation in London: towards energy-efficient and healthy buildings, *Building and Environment* (IF: 6.456), DOI: 10.1016/j.buildenv.2021.107722.

3. Du R., Song J.*, **Huang X.**, Wang Q., Zhang C., Brousse O., Chan PW. (2022) High-resolution regional modeling of urban moisture island: mechanisms and implications on thermal comfort, *Building and Environment* (IF: 6.456), DOI: 10.1016/j.buildenv.2021.108542.

4. **Huang X.**, Song J.*, Shi D., Wang C., Chan PW. (Ongoing) Urban climate-human coupling system: model development and case study, 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. Liu C.[*] [†] (supervisor), **Huang X. [†] (co-first author)**, Li J. (2020) Outdoor benzene highly impacts indoor concentrations globally, *Science of the Total Environment* (IF: 7.963), DOI: 10.1016/j.scitotenv.2020.137640.

6. Hu H., Liu C.[*], **Huang X.**, Zhao Y., Qian H. (2021) A new $PM_{2.5}$-based P-up method to measure building ventilation rate, *Indoor Air* (IF: 5.770), under review.

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

MPhil's works (2020-now):

1. **Huang X.**, Song J. (2022) 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. Song J., **Huang X.** (2022) 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. Xia F., **Huang X.**, Tian E., Mo J.[*] (2019) 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, The University of Hong Kong, Hong Kong — 2020-2022

National First Prize as the team leader in the National University Student Competition on Energy Saving & Emission Reduction, Ministry of Education, China — 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) — 2018

TEACHING EXPERIENCE

Teaching Assistant at the University of Hong Kong — 2020-2022
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)

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)