

Jinying Xu (Dr.)

PhD, MMgtSc., BEng, LL.B., AFHEA



Assistant Professor
Department of the Built Environment
College of Design and Engineering
National University of Singapore
4 Architecture Drive
Singapore 117566
Tel: (65) 6516 3412
Room: SDE1-04-08
Email: jinying.xu@nus.edu.sg]

PROFESSIONAL/ ACADEMIC QUALIFICATIONS:

- Doctor of Philosophy (Construction Technology Management), 2021, Dept. of Real Estate and Construction, The University of Hong Kong, HK SAR.
- Master of Management Science (Project Management and Finance), 2017, Dept. Construction Management and Real Estate, Tongji University, Shanghai, China.
- Bachelor of Engineering (Engineering Management) and Bachelor of Law (Sociology), 2014, Dept. Construction and Real Estate, Harbin Institute of Technology, Harbin, China.

EMPLOYMENT RECORDS:

- Assistant Professor, Dept. of the Built Environment, National University of Singapore, SG. (2025-Present)
- Carbon Specialist (Secondment), National Highways, UK. (2024-2025)
- Marie Skłodowska–Curie Fellow, Dept. of Engineering, University of Cambridge, UK. (2022-2025)
- Postdoctoral Fellow, Dept. of Real Estate and Construction, The University of Hong Kong, HK. (2021-2022)

TEACHING:

[To be advised]

RESEARCH INTERESTS:

- Construction digitalization and automation (digital twin and human-machine collaboration);
- Project organizing and integration;
- Lean construction;
- Infrastructure sustainability (carbon-cost optimization, infrastructure system climate resilience);
- Data science and information management in the built environment;
- Cyber-Physical-Social System and System thinking.

SELECTED PUBLICATIONS:

(For full and updated publication list, please visit my [Google Scholar](#))

1. **Xu, J.**, & MacAskill, K. (2024). Carbon data and its requirements in infrastructure-related GHG standards. *Environmental Science & Policy*, 162, 103935. <https://doi.org/10.1016/j.envsci.2024.103935>
2. Li Y., Wang Q., Pan X., Zuo J., **Xu J.**, Han Y*. (2024). Digital Twins for Engineering Asset Management: Synthesis, Analytical Framework, and Future Directions. *Engineering*. <https://doi.org/10.1016/j.eng.2023.12.006>

3. **Xu J.**, **Lou J.***, Lu W.S., **Wu L.**, Chen C. (2023). Ensuring construction material provenance using Internet of Things and blockchain: Learning from the food industry. *Journal of Industry Information Integration*, 33, 100455. <https://doi.org/10.1016/j.jii.2023.100455>
4. **Wu L.**, Lu W.S., Zhao R., **Xu J.**, Li X., Xue F. (2022). Using blockchain to improve information sharing accuracy in the on-site assembly of modular construction. *Journal of Management in Engineering*, 38 (3), 04022014. [https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0001029](https://doi.org/10.1061/(ASCE)ME.1943-5479.0001029) (**Best Paper Award**)
5. **Xu J.***, Lu W.S., **Wu L.**, Li X., **Lou J.** (2022). Balancing privacy and occupational safety and health in construction: A blockchain-enabled P-OSH deployment framework. *Safety Science*, 154, 105860. <https://doi.org/10.1016/j.ssci.2022.105860>
6. **Xu J.***, Lu W.S. (2022). Developing a Human-Organization-Technology Fit (HOT) model for information technology adoption in organizations. *Technology in Society*, 70, 102010. <https://doi.org/10.1016/j.techsoc.2022.102010>
7. **Xu J.***, Lu W.S., Papadonikolaki E. (2022). Human-Organization-Technology Fit Model for BIM adoption in Construction Project Organizations: Impact factor analysis using SNA and comparative case study. *Journal of Management in Engineering*, 38 (3), 04022004. [https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0001013](https://doi.org/10.1061/(ASCE)ME.1943-5479.0001013)
8. **Xu J.**, Ye M., Lu W.S., Bao Z., Webster C. (2020). A four-quadrant conceptual framework for analyzing extended producer responsibility in offshore prefabrication construction. *Journal of Cleaner Production*, 282, 12540. <https://doi.org/10.1016/j.jclepro.2020.12540>
9. Lu W.S., **Xu J.***, Söderlund J. (2020). Exploring the effects of building information modelling (BIM) on projects: A longitudinal social network analysis. *Journal of Construction Engineering and Management*, 146(5), 04020037. [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0001823](https://doi.org/10.1061/(ASCE)CO.1943-7862.0001823)
10. **Xu J.**, Lu W.S., Xue F., Chen K. (2019). 'Cognitive facility management': definition, system architecture, and example scenario. *Automation in Construction*. 107, 102922. <https://doi.org/10.1016/j.autcon.2019.102922>

AWARDS (SELECTED):

- 2022, **Best Paper Award**, Journal of Management in Engineering, American Society of Civil Engineers (ASCE).
- 2021, **Professional Research Award**, buildingSMART International Awards Programme.
- 2020, **Outstanding Paper Award**, The 25th International Symposium on the Advancement of Construction Management and Real Estate, CRIOCM.
- 2019, **Excellent Paper Award**, The 24th International Symposium on the Advancement of Construction Management and Real Estate, CRIOCM.