Curriculum Vitae
Jaehyun Go

Lyles School of Civil Engineering
Purdue University, West Lafayette, IN, USA E-mail: go16@purdue.edu

RESEARCH INTERESTS

- Building energy modeling and occupant behavior analysis
- Decision-theoretic modeling of thermostat usage behavior in residential communities
- AI-assisted decision making for energy-efficient HVAC operation

EDUCATION

Purdue University, West Lafayette, IN, USA Aug. 2023–Present
Ph.D. Student, Lyles School of Civil Eng.
Advisor: Prof. Panagiota Karava and Prof. Ilias Bilionis

Korea University, Seoul, Republic of Korea Mar. 2020–Aug. 2022
M.Sc., School of Civil, Environmental, and Architectural Eng.
Advisor: Prof. Yeonsook Heo

Korea University, Seoul, Republic of Korea Mar. 2014–Feb. 2020
B.S., School of Civil, Environmental, and Architectural Eng.

HONORS & AWARDS

Student Paper Award, 8th International High Performance Buildings Conference (Daikin) 2024

Ross Fellowship, Purdue University 2023

Best oral paper, the Architectural Institute of Korea 2021

WORK EXPERIENCE

Research Assistant Aug. 2023–Present
Center for High Performance Buildings, Purdue University
Behavior-aware thermostat modeling and AI-assisted decision support for residential energy interventions

Research Associate Sep. 2022–Aug. 2023
Institute of Engineering Research, Korea University
Developed and evaluated control strategies for battery–H2 energy supply systems in zero-energy residential communities

Research Assistant Mar. 2020–Aug. 2022
Urban Energy and Environment Lab, Korea University
Analyzed reliability, economic, and environmental performance of battery–H2 storage systems for zero-energy buildings

JOURNAL PAPERS

Kim, H., **Go, J.**, Devarapalli, H., Bilionis, I., Karava, P., & Braun, J. E. (2025). Social energy games for smart and connected residential communities: Mechanism design. Energy and Buildings, 116187.

Kim, C., Kim, H., Byun, J., **Go, J.**, & Heo, Y. (2024). Structured stochastic models based on multi-source heterogeneous data for predicting internal electricity load of non-residential buildings. *Journal of Building Engineering*, 84, 108411.

Go, J., Byun, J., Orehounig, K., & Heo, Y. (2023). Battery-H2 storage system for self-sufficiency in residential buildings under different electric heating system scenarios. Applied Energy, 337, 120742.

Byun, J., **Go, J.**, Kim, C., & Heo, Y. (2023). Reliability, economic, and environmental analysis of fuel-cell-based hybrid renewable energy networks for residential communities. Energy Conversion and Management, 284, 116964.

Kim, C., Byun, J., **Go, J.**, & Heo, Y. (2023). Structured probabilistic models for capturing household and temporal variations in the internal electricity load. Energy and Buildings, 279, 112685.