YOUNGSIK CHOI

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EDUCATION

PhD   **Texas A&M University**, Mechanical Engineering   Jun. 2022 –
Advisor: Prof. Zheng O'Neill

MS   **Seoul National University**, Architectural Engineering   Mar. 2020 – Feb. 2022
Advisor: Prof. Cheol-Soo Park
Thesis: 'Stochastic Setpoint Temperature Learning for Occupant Behavior-based Control'
GPA: 3.97/4.3 (major: 4.3/4.3)

BS   **Seoul National University**, Architectural Engineering, *Cum Laude*   Mar. 2014 – Feb. 2020
GPA: 3.88/4.3 (rank: 6th out of 66 graduated students)
2-year absence to fulfill mandatory military service (Aug. 2016 – Jul. 2018)

       Peking University, College of Engineering   Jul. 2016
International Exchange Student (Summer session offered in English)

FIELDS OF INTEREST

Building Simulation, Occupant Behavior, Building Control, Indoor Thermal Modeling, Machine Learning

HONORS AND AWARDS

Poster Session Award Winner (runner-up)   Dec. 14, 2020
The 2020 Winter Simulation Conference

Organization Scholarship   Sep. 2020 – Feb. 2022
Full tuition, The Education and Research Foundation of Seoul National University

Eminence Scholarship   Mar. 2016 – Feb. 2020
Full tuition, Seoul National University

Certificate of Appreciation   May. 3, 2018
2018 Key Resolve R.O.K & U.S. Joint Exercise
Took charge of interpreting at the R.O.K & U.S. combined task force

Organization Scholarship   Sep. 2015 – Feb. 2016
Full tuition, Moon-Ju Scholarship Foundation

Merit-based Scholarship   Mar. 2015 – Aug. 2015
40% tuition, Seoul National University

PROJECT EXPERIENCE

Development of BEMS Algorithms   Jun. 2020 – Feb. 2021
- Indoor air temperature & electricity prediction modeling for an existing office building (@ SNU)

Development of Real-time Diagnosis Technology of Home Energy Usage and Smart & Autonomous Control/Management System   Jan. 2020 – Feb. 2022
- Indoor air temperature modeling & occupant-centric control for existing residential buildings (@ SNU)

CONFERENCE PROCEEDINGS (PRIMARY-AUTHORED)

[1] **Choi, Y**., Shin, H.S., Cho, S., Ko, Y.D. and Park, C.S. (2020), Predictive Uncertainty of Residential Building Energy Model, *Proceedings of the 2020 Winter Simulation Conference* (**Best Poster Award**)

[2] **Choi, Y**., Yi, D.H., Shin, H., Chu, H.G., Yoo, S. and Park, C.S. (2020), Application of transfer learning to a simulation model for room air temperature, *Proceeding of Annual Conference of the Architectural Institute of Korea*, Vol. 40-2, pp. 386-387 (**in Korean with English abstract**)

[3] **Choi, Y**., Shin, H., Ko, Y., Cho, S. and Park, C.S. (2020), Predictive uncertainty of energy simulation model using Deep Ensembles, *Proceeding of Annual Conference of the Architectural Institute of Korea*, Vol. 40-1, pp. 290-291 (**in Korean with English abstract**)

TECHNICAL SKILLS

Building Simulation: Whole building energy simulation (EnergyPlus), Uncertainty analysis, Indoor thermal modeling (Numerical methods, Machine learning)

Programming: Python, Visual Basic, Arduino, MATLAB

TEACHING EXPERIENCE

Teaching Assistant, Seoul National University   Fall 2020
- Assisted teaching 'Creative Engineering Design', an undergraduate course covering following topics: Integration of architecture and Internet of Things (IOT), Basics of Arduino and environmental sensors.

Peer Tutor, Seoul National University   Fall 2019
- Taught a junior from same department about major courses.

OTHER EXPERIENCE

Hyundai Engineering and Construction   Dec. 2018 – Feb. 2019
- Worksite manager

Republic of Korea Naval Mobile Construction Squadron   May. 2017 – Jul. 2018
- Construction engineer & translator (mandatory military service)

Republic of Korea Naval Academy   Oct. 2016 – Apr. 2017
- Building facility manager (mandatory military service)