

YOUNGSIK CHOI

youngsik-choi.github.io

(Updated on Mar. 15, 2023)

EDUCATION

PhD	Texas A&M University , Mechanical Engineering - <i>Building Energy & HVAC</i> Advisor: Prof. Zheng O'Neill	May. 2022 –
MS	Seoul National University , Architectural Engineering - <i>Building Simulation</i> Advisor: Prof. Cheol-Soo Park Thesis: ' <i>Stochastic Setpoint Temperature Learning for Occupant Behavior-based Control</i> '	Mar. 2020 – Feb. 2022
BS	Seoul National University , Architectural Engineering 2-year absence to fulfill mandatory military service (Aug. 2016 – Jul. 2018)	Mar. 2014 – Feb. 2020
	Peking University , College of Engineering International Exchange Student (Summer session offered in English)	Jul. 2016

FIELDS OF INTEREST

Building Simulation, EnergyPlus Modeling, Building HVAC Control, Machine Learning, Occupant Behavior

EXPERIENCE

Research Assistant , Texas A&M University	May. 2022 –
Teaching Assistant , Seoul National University <ul style="list-style-type: none">400.418 Creative Engineering Design	Sep. 2020 – Feb. 2021

HONORS AND AWARDS

AI for IoT Information (AI3) Competition Phase Winner Phase 1 winner, Won \$10,000 as a team	Feb. 2023
Emil Buehler Aerodynamic Analo Fellowship Fellowship, J. Mike Walker '66 Department of Mechanical Engineering, Texas A&M University	Aug. 14, 2022
Outstanding Paper Award (co-author) The 2022 Spring Annual Conference of the Architectural Institute of Korea	Apr. 29, 2022
Poster Session Award Winner (runner-up) The 2020 Winter Simulation Conference	Dec. 14, 2020
Organization Scholarship Full tuition, The Education and Research Foundation of Seoul National University	Sep. 2020 – Feb. 2022
Eminence Scholarship Full tuition, Seoul National University	Mar. 2016 – Feb. 2020
Certificate of Appreciation 2018 Key Resolve R.O.K & U.S. Joint Exercise (Took charge of translation)	May. 3, 2018

Organization Scholarship
Full tuition, Moon-Ju Scholarship Foundation

Sep. 2015 – Feb. 2016

Merit-based Scholarship
Partial tuition (40%), Seoul National University

Mar. 2015 – Aug. 2015

PROJECTS

High-performance Whole Building Design 3D-printed Carbon–Absorbing Funicular Structures (led by UPenn)
Jan. 2023 – Dec. 2024
DOE ARPA-E HESTIA, @ Texas A&M University

Optimizing Supply Air Temperature Control for Dedicated Outdoor Air Systems
May. 2022 – Mar. 2024
ASHRAE 1865, @ Texas A&M University

Development of BEMS Algorithms
@ Seoul National University
Jun. 2020 – Feb. 2021

Development of Real-time Diagnosis Technology of Home Energy Usage and Smart & Autonomous Control/Management System
@ Seoul National University
Jan. 2020 – Feb. 2022

CONFERENCE PROCEEDINGS

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*)

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

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

TECHNICAL SKILLS

Building Simulation: EnergyPlus modeling, Optimization, Machine learning

Programming: Python, Visual Basic, Arduino

OTHER EXPERIENCE

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

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

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