

Wooyoung Jung

Department of Civil and Architectural Engineering and Mechanics, The University of Arizona
 220D Civil Engineering, 1209 East 2nd Street, Tucson, AZ 85719
 wooyoung@arizona.edu | <https://orcid.org/0000-0003-2746-4983> | <https://hubs.engr.arizona.edu>

1. Principal Fields of Interests

- Human-Artificial Intelligence (AI)-Building Collaboration
- Smart, Sustainable, Resilient, and Healthy Built Environments
- Indoor Environmental Quality and Human Health
- Grid-Interactive Efficient Buildings
- Building Decarbonization and Electrification

My vision is to create a transformative research and educational program that contributes to synergistic human-AI-building collaborations that result in sustainable, resilient, and healthy built environments.

2. Education

- Doctor of Philosophy (05/2020) in Civil Engineering,
 Virginia Polytechnic Institute and State University, Blacksburg, Virginia, USA
 Advisor: Dr. Farrokh Jazizadeh
 Dissertation: Decentralized HVAC Operations: Novel Sensing Technologies and Control for Human-Aware HVAC Operations
- Master of Science (02/2016) in Architectural Engineering,
 Yonsei University, Seoul, Republic of Korea
 Advisor: Dr. Ghang Lee
 Thesis: Identification of key indices to assess Building Information Modeling (BIM) Adoption and Implementation and their practical use
- Bachelor of Science (02/2011) in Architectural Engineering
 Yonsei University, Seoul, Republic of Korea

3. Experience

Institution	Department/Division	Position	Period
The University of Arizona (U of A)	Civil and Architectural Engineering and Mechanics	Assistant Professor	08/2022 – Present
Pacific Northwest National Laboratory (PNNL)	Electricity Infrastructure and Buildings	Building Energy Simulation Engineer	09/2021 – 05/2022
		Post Doctorate Research Associate	07/2020 – 08/2021
Virginia Polytechnic Institute and State University (Virginia Tech)	Civil and Environmental Engineering	Graduate Assistant	08/2016 – 05/2020
Lawrence Berkeley National Laboratory	Energy Technologies Area	Affiliate	10/2019 – 04/2020
Yonsei University	Architecture and Architectural Engineering	Graduate Assistant	03/2014 – 02/2016
Daewoo Engineering & Construction	Building	Assistant Manager	01/2014 – 01/2016
		Field Engineer	01/2011 – 12/2013
		Intern	07/2010 – 08/2010

4. Teaching Record

Term	Subject No.	Subject Title	Role
2022–2024, 2025, 2026 Spring	ARCE 453/553	Human Building Interaction	Principal Instructor
2024 Fall	ARCE 450/550	Building Data Analytics, Visualization, and Management	Principal Instructor
2023 Fall	ENGR 211M	Electric Circuits	Principal Instructor

5. Sponsored Research Projects

As a Principal Investigator (PI) or Co-PI

Project Title	Sponsor	Role	Project Period	Total Budget (Jung portion)
Collaborative Research: Empowering STEM Education by Creating Benchmarking Models for GenAI Learning Assistants	National Science Foundation (NSF)	PI	10/2025 – 09/2028	\$400,000 (43%)
Potential Revenue Generation Through the Commercialization of Arizona Rest Areas	Arizona Department of Transportation	Co-PI	08/2025 – 07/2026	\$122,000 (19%)
Benefits of Smart Electric Panels for SRP Sustainability Goals	Salt River Project (SRP)	PI	08/2024 – 07/2026	\$168,927 (100%)
Emergency System for Collaborative and Active Protection and Evacuation	Western Alliance to Expand Student Opportunities	PI	08/2024 – 05/2025	\$4,000 (100%)
Modeling Distributed Energy Resource Solar Generation Output	SRP	Co-PI	08/2024 – 07/2025	\$79,700 (30%)
Enhancing Environmental and Energy Equity: Advanced Indoor Heat Stress Sensing for Diverse Populations	U of A SensorLab	PI	08/2024 – 06/2025	\$30,974 (100%)
Towards All-Electric Buildings in the SRP Territory	SRP	PI	08/2024 – 07/2025	\$79,748 (70%)
Total:				885k (Jung: 477k)

As a Member or Awardee

Project Title	Sponsor	Role	Involvement
<i>PNNL</i>			
ASHRAE Standard 140 Maintenance and Development	U.S. Department of Energy (DOE)	Member	02/2022 – 05/2022
EnergyPlus Development	U.S. DOE	Member	05/2021 – 05/2022
Healthy Buildings	U.S. DOE	Member	07/2020 – 05/2022
Building Energy Codes Program	U.S. DOE	Member	07/2020 – 05/2022
Quantification of HVAC Energy Savings for Occupancy Sensing in Buildings Through an Innovative Testing Methodology	Advanced Research Projects Agency – Energy	Member	09/2020 – 03/2022
<i>Virginia Tech</i>			
National Science Foundation-funded Non-Academic Research Internships for Graduate Students – Supplementary Funding Opportunity	NSF (LBNL as a hosting institution)	Awardee	10/2019 – 04/2020
Human-Aware Environments for Distributed Building Systems Operations	NSF	Member	08/2017 – 05/2020

Yonsei University

Open Building Information Modeling (BIM) based Building Design Standard and IT-infrastructure	Ministry of Land, Infrastructure and Transportation	Member	03/2014 – 02/2016
Advanced architectural performance technologies based on future information	National Research Foundation of Korea	Member	03/2014 – 02/2016

6. Ph.D. Dissertation Supervised

Student	Semester Finished	Title of Dissertation	Status
Prosper Babon-Ayeng	6	TBD	Current student

7. Publications

*: Jung's current or former students

Book

- 1) A Engineer, A Ida, **W Jung**, and E M Sternberg. 2024. Measuring the Impact of the Built Environment on Health, Wellbeing, and Performance: Techniques, Methods, and Implications for Design Research. *Taylor & Francis*.

Technical Report

- 1) C Nambiar, M Rosenberg, D Maddox, H Nagda, M Tilou, M Karpman, **W Jung**, D Kim. 2024. Commercial Building Prototypes Based on ANSI/ASHRAE/IES Standard 90.1-2019 Appendix G PRM (PNNL-32815). *PNNL*. [Link](#).

Journal Papers

Submitted (Under Review)

- 1) **W Jung** and P Babon-Ayeng*. Large Language Model-Driven Context-Aware Eco-Feedback Generation and Evaluation. *Energy & Buildings*. Submitted in 01/2026
- 2) **W Jung**. BuildGraph: A Synthetic Multi-Archetype Building Knowledge Graph Dataset. *Journal of Computing in Civil Engineering*. (Data Paper). Submitted in 05/2026
- 3) **W Jung**, K Jeon, and P Babon-Ayeng*. Human-AI Interaction in Large Language Model-Integrated Building Energy Management Systems: The Role of User Domain Knowledge and AI Literacy. Submitted in 10/2025. arXiv: <https://arxiv.org/abs/2602.16140>

Published

21. **W Jung** and Y Mo. 2026. Adoption, Use, and Perception of Room and Personal Comfort Systems in U.S. Households. *Journal of Building Engineering*. 125, 116313. DOI: <https://doi.org/10.1016/j.jobe.2026.116313>
20. **W Jung** and S Witt*. 2026. Understanding smart thermostat adoption: Housing, HVAC, and socio-economic traits in the U.S. *Energy Reports*. 15, 109244. DOI: <https://doi.org/10.1016/j.egyr.2026.109244>
19. S Kim, S Chang, **W Jung**, L Debs, SE Jung. 2026. Integrating social justice criteria into multiscale spatial modeling of energy burden: A case study of four states in the United States. *Energy Research & Social Science*. 134, 104630. DOI: <https://doi.org/10.1016/j.erss.2026.104630>
18. P Babon-Ayeng* and **W Jung**. 2025. Personalized building thermal resilience assessment under future climate scenarios. *Building and Environment*. 290, 114165. DOI: <https://doi.org/10.1016/j.buildenv.2025.114165>
17. D Khovalyg, . . . , **W Jung**, . . . (53 authors). 2025. Personalized Environmental Control Systems (PECS): Systematic review of benefits for thermal comfort, air quality, health, and human performance. *Building and Environment*. 286, 113541. DOI: <https://doi.org/10.1016/j.buildenv.2025.113541>
16. D Al-Assaad, . . . , **W Jung**, . . . (52 authors). 2025. Personalized environmental control systems (PECS): A systematic review of performance evaluation methods for thermal comfort, air quality and energy. *Building and Environment*. 284, 113471. DOI: <https://doi.org/10.1016/j.buildenv.2025.113471>
15. D Woo, **W Jung**, J Menna, M Al-Hamando. 2025. Streamlining occupant-centric HVAC operations through multi-modal infrared array sensing technology. *Energy and Buildings*. 346, 116106. DOI: <https://doi.org/10.1016/j.enbuild.2025.116106>
14. P Babon-Ayeng*, **W Jung**. 2025. Personalized indoor heat stress response modeling and assessment for improved

- building thermal resilience. *Energy and Buildings*. 345, 115965. DOI: <https://doi.org/10.1016/j.enbuild.2025.115965>
13. K Keene, K McCord, A Dehwah, **W Jung**. 2025. Meta-Analysis and Regression Modeling of the Impacts of Four Indoor Environmental Quality Metrics on Office Performance. *Indoor Air*. 6840369. DOI: <https://doi.org/10.1155/ina/6840369>
 12. Y Ye, C Faulkner, **W Jung**, J Zhang. 2024. A new database of building-space-specific internal loads and load schedules for performance based code compliance modeling of commercial buildings. *Building Simulation*. 17, pp. 877–892. DOI: <https://doi.org/10.1007/s12273-024-1111-z>
 11. **W Jung**, F Jazizadeh. 2023. Towards intelligent workstations: Investigating the feasibility of Doppler radar sensors for personal respiratory quantification in thermal comfort. *Building and Environment*. 245, 110846. DOI: <https://doi.org/10.1016/j.buildenv.2023.110846>
 10. **W Jung**, Z Wang, T Hong, F Jazizadeh. 2023. Smart Thermostat Data-driven Residential Occupancy Schedules And Development of a Residential Occupancy Schedule Simulator. *Building and Environment*. 243, 110628. DOI: <https://doi.org/10.1016/j.buildenv.2023.110628>
 9. K Keene, **W Jung**. 2021. A Statistical Evaluation of Combining Human Productivity Metrics in the Indoor Environment. *ASME Journal of Engineering for Sustainable Buildings and Cities*, 2(4), 041002. DOI: <https://doi.org/10.1115/1.4052872>
 8. **W Jung**, F Jazizadeh. 2020. Energy Efficiency Potentials of Integrating Personal Thermal Comfort Models into Operation of Building Systems. *Applied Energy*, 268, 114882. DOI: <https://doi.org/10.1016/j.apenergy.2020.114882>
 7. **W Jung**, F Jazizadeh, Thomas E. Diller. 2019. Heat Flux Sensing for Machine-Learning-Based Personal Thermal Comfort Modeling. *Sensors*, 19(17), 3691. DOI: <https://doi.org/10.3390/s19173691>
 6. **W Jung**, F Jazizadeh. 2019. Comparative Assessment of HVAC Control Strategies using Personal Thermal Comfort and Sensitivity Models. *Building and Environment*, 158, pp. 104–119. DOI: <https://doi.org/10.1016/j.buildenv.2019.04.043>
 5. **W Jung**, F Jazizadeh. 2019. Human-in-the-loop HVAC Operations: A Quantitative Review on Occupancy, Comfort, and Energy-Efficiency Dimensions. *Applied Energy*, 239, pp. 1471–1508. DOI: <https://doi.org/10.1016/j.apenergy.2019.01.070>
 4. **W Jung**, F Jazizadeh. 2018. Vision-based Thermal Comfort Quantification for HVAC Control. *Building and Environment*, 142, pp. 512–523. DOI: <https://doi.org/10.1016/j.buildenv.2018.05.018>
 3. F Jazizadeh, **W Jung**. 2018. Personalized Thermal Comfort Inference using RGB Video Images for distributed HVAC Control. *Applied Energy*, 220, pp. 829–841. DOI: <https://doi.org/10.1016/j.apenergy.2018.02.049>
 2. **W Jung**, G Lee. 2016. Slim BIM Charts for Rapidly Visualizing and Quantifying Levels of BIM Adoption and Implementation. *Journal of Computing in Civil Engineering*, ASCE, 30(4). DOI: [https://doi.org/10.1061/\(ASCE\)CP.1943-5487.0000554](https://doi.org/10.1061/(ASCE)CP.1943-5487.0000554)
 1. **W Jung**, T Lee, P-w Rhee, G Lee. 2015. An Analysis of the Duration of the Construction Document Phase of Large Public Building Projects Delivered by the Total Solution Service from 2009 to 2014. *Korean Journal of Construction Engineering and Management (KICEM)*, 16(4), pp 89–97. DOI: <https://doi.org/10.6106/KJCEM.2015.16.4.089>

Peer-reviewed Conference Papers/Proceedings

Published & Accepted

27. **W Jung** and P Babon-Ayeng*. 2026. Language As a Sensor: Narrative-Enhanced Thermal Comfort Modeling. *The 13th ACM International Conference on Systems for Energy-Efficient Buildings, Cities, and Transportation (BuildSys '26)*, Banff, AB, Canada, June 22–25. (Note paper. Acceptance rate: 22%). DOI: <https://doi.org/10.1145/3744256.3812583>
26. **W Jung**, K Jeon, and P Babon-Ayeng*. 2026. What You Know Does Not Show: Domain Knowledge and Occupant-AI Interaction in Building Energy Management. *ACM Sustainability Week 2026 (ACM Sustainability Week Companion '26)*, Banff, AB, Canada, June 22–25. DOI: <https://doi.org/10.1145/3765611.3815499>
25. **W Jung**. 2026. BrickTrace: Separating Ontology Reasoning from Building Grounding in Knowledge Graph Question Answering. *ACM Sustainability Week 2026 (ACM Sustainability Week Companion '26)*, Banff, AB, Canada, June 22–25. DOI: <https://doi.org/10.1145/3765611.3815486>

24. **W Jung**. 2026. What LLM-Simulated Users Can and Cannot Tell Us About Conversational Energy Management Systems. *ACM Sustainability Week 2026 (ACM Sustainability Week Companion '26)*, Banff, AB, Canada, June 22–25. DOI: <https://doi.org/10.1145/3765611.3815484>
23. **W Jung**. 2026. Chain-of-Thought Prompting for Generating Personalized Home Energy-Saving Strategies. *The 12th International Conference on Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC 2026)*, Los Angeles, CA, May 18–22.
22. **W Jung**, P Babon-Ayeng*, K Keene, S Witt*, and Jessica Baweja. 2026. Applicability Assessment of Office Worker Performance Metrics in the Field of Indoor Environmental Quality. *The 12th International Conference on Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC 2026)*, Los Angeles, CA, May 18–22.
21. **W Jung**, P Babon-Ayeng*, and K Jeon. 2026. Human-AI Interaction in LLM-Integrated Building Energy Management System: User Prompt Strategy. *The 12th International Conference on Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC 2026)*, Los Angeles, CA, May 18–22.
20. **W Jung** and N Kim. 2026. Agentic AI Learning Assistant for Human Building Interaction Education: System Architecture and Preliminary Performance. *The 12th International Conference on Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC 2026)*, Los Angeles, CA, May 18–22.
19. P Babon-Ayeng* and **W Jung**. 2026. Uncovering Age-Related Differences in Heat Stress Recognition and Progression Under Gradual Indoor Heat Exposure: Insights for Building Thermal Resilience. *Construction Institute & Construction Research Congress Joint Conference 2026 (CI & CRC 2026)*, San Antonio, TX, March 18–21.
18. **W Jung**. 2025. U.S. Smart Thermostat Adopters Through the Lens of Diffusion of Innovation Theory. *The 11th International Conference on Construction Engineering and Project Management (ICCEPM 2025)*, Jeju, South Korea, Nov 17–20.
17. P Babon-Ayeng*, S Jung, K Cheng, and **W Jung**. 2025. Sustainability Engagement and Career Aspirations Among Underrepresented Engineering Students: Insights from a Comparative Analysis. *The 10th Joint Construction Research Congress/Canadian Society of Civil Engineering Construction (CRC/CSCE) Specialty Conference*, Montreal, Canada, July 28–31.
16. **W Jung**, N Kim. 2025. Student and Educator Perceptions Toward Generative AI in Architecture, Engineering, and Construction Education. *The 10th Joint Construction Research Congress/Canadian Society of Civil Engineering Construction (CRC/CSCE) Specialty Conference*, Montreal, Canada, July 28–31.
15. **W Jung**, S Kim, S Chang. 2025. Exploring Awareness, Knowledge, and Interest in Energy Equity Among Civil, Architectural, and Construction Undergraduates. *The 10th Joint Construction Research Congress/Canadian Society of Civil Engineering Construction (CRC/CSCE) Specialty Conference*, Montreal, Canada, July 28–31.
14. E Alavy* and **W Jung**. 2025. Performance Evaluation of Electrified Office Buildings Under Infection Risk Management Mode. *2025 American Society of Heating, Ventilation, and Air-conditioning Engineers (ASHRAE) Annual Conference*, Phoenix, AZ, June 21–25.
13. **W Jung** and K Song. 2025. Virtual and Augmented Reality in Building Science and Technology Education: A Review Framework. *The 2025 ASCE International Conference on Computing in Civil Engineering (i3ce 2025)*, New Orleans, LA, May 11–14.
12. **W Jung**, Y Mo, and S Witt*. 2025. A New Simple HVAC Energy Performance Metric: Climate and Occupant Preference-Adjusted. *The 2025 ASCE International Conference on Computing in Civil Engineering (i3ce 2025)*, New Orleans, LA, May 11–14.
11. P Babon-Ayeng* and **W Jung**. 2025. Real-Time Heat Strain Monitoring Using Heart Rate Variability: A Predictive Modeling Approach. *The 2025 ASCE International Conference on Computing in Civil Engineering (i3ce 2025)*, New Orleans, LA, May 11–14.
10. P Babon-Ayeng* and **W Jung**. 2025. Unveiling the Spectrum of Personal Heat Stress Responses in Buildings. *The 20th Conference of the International Society for Computing in Civil and Building Engineering (ICCCBE 2024)*, Montreal, Canada, August 25–28. DOI: https://doi.org/10.1007/978-3-031-84224-5_14
9. **W Jung**, F Jazizadeh. 2021. Understanding the Influence of Short-Term Thermal History on Personalized Thermal Comfort Votes. *eSim 2021*, Vancouver, Canada, June 14–16.
8. **W Jung**, M Chan, F Jazizadeh, T. E. Diller. 2019. Feasibility Assessment of Heat Flux Sensors for Human-in-the-loop HVAC Operations. *The 2019 ASCE International Conference on Computing in Civil Engineering (i3ce 2019)*, New Orleans, LA, May 11–14.

- 2019), Atlanta, GA, June 17–19. URL: <https://ascelibrary.org/doi/10.1061/9780784482445.032>
7. **W Jung**, F Jazizadeh. 2019. Spatial Efficacy of Respiration Monitoring using Doppler Radars for Personalized Thermal Comfort Assessment. *The 36th International Symposium on Automation and Robotics in Construction (ISARC 2019)*, Banff, Canada, May 21–24.
 6. **W Jung**, F Jazizadeh. 2018. Multi-Occupancy Indoor Condition Optimization in consideration of Thermal Sensitivity. *The 25th International Workshop on Intelligent Computing in Engineering (EG-ICE 2018)*, Lausanne, Switzerland, June 10–13. DOI: https://doi.org/10.1007/978-3-319-91638-5_12
 5. **W Jung**, F Jazizadeh. 2018. Towards Non-intrusive Metabolic Rate Evaluation for HVAC Control. *The 17th International Conference on Computing in Civil and Building Engineering (ICCCBE 2018)*, Tampere, Finland, June 5–7.
 4. **W Jung**, F Jazizadeh. 2017. Towards Integration of Doppler Radar Sensors into Personalized Thermoregulation-Based Control of HVAC. *The 4th ACM International Conference on Systems for Energy-Efficient Built Environments (Buildsys 2017)*, Delft, The Netherlands, November 8–9. (Acceptance rate: 31%). DOI: <https://doi.org/10.1145/3137133.3137166>
 3. **W Jung**, F Jazizadeh. 2017. Non-Intrusive Detection of Respiration for Smart Control of HVAC system. *The 2017 International Workshop on Computing in Civil Engineering (IWCCE 2017)*, Seattle, WA, June 25–27.
 2. G Lee, K Lee, **W Jung**, K Hwang, S Han, N Jung, H Lee, M Kim. 2016. Introduction to the Global BIM Dashboard. *16th International Conference on Computing in Civil and Building Engineering (ICCCBE 2016)*, Osaka, Japan, July 6–8.
 1. K Lee, Y-h Park, G Lee, **W Jung**, S Lee, H Lee. 2015. An Introduction to South Korea's BIM Knowledge Base Development Project. *32nd International Symposium on Automation and Robotics in Construction and Mining (ISARC 2015)*, Oulu, Finland, June 15–18.

8. Invited Talks

Seminars

Presentation Title	Institution	Inviter	Date
Career Pathways: Building Science Track	Konkuk University	Dr. Hyunwoo Lim	11/10/2025
Why do we need EnergyPlus and what do we use it for?	Ajou University	Dr. Hyenguk (Henry) Ahn	10/28/2025
Understanding the State of the Art in Any Field	Incheon National University	Dr. Woojung Kim	09/29/2025
Surviving as an Assistant Professor in the U.S.	Yonsei University	Dr. Ghang Lee	09/17/2025
Built Environment Sustainability through Human-Centered Operations	Korea Institute of Construction Engineering & Management	Dr. Choongwan Koo	01/19/2023
Towards Sustainable Buildings via Human-Centered Operations	Virtual (IAQVEC)	Dr. Joon-ho Choi	01/19/2023
Adaptive Built Environment through Human-Centered Operations	Global Network of Korean Building Technologists and Scientists	Dr. Joon-ho Choi	12/08/2022
Built Environment Sustainability through Human-Centered Operations	Ajou University	Dr. Hyenguk (Henry) Ahn	11/11/2022
Getting a Job in Academia	Yonsei University	Dr. Ghang Lee	06/16/2022
My Journey till PNNL	Clemson University	Dr. Da Li	10/22/2021
Human-in-the-loop HVAC operations: innovative sensing technology and control	University of Southern California, iLab	Dr. Yu Hou	09/16/2019

Guest Lecturers

- 1) ARC497B/597B, invited by Dr. Altaf Engineer – Human-Centered Operations in Buildings. 2023 Spring, 2024 Spring in the UArizona CAPLA building.

9. Contribution to Software and Dataset

- 1) BuildGraph: A Synthetic Multi-Archetype Building Knowledge Graph Dataset, developed by **W Jung**. 2026.
<https://github.com/humanbuildingsynergy/BuildGraph>
 Published: DOI: <https://doi.org/10.5281/zenodo.20015123>
- 2) Multi-Agent Home Energy Management Assistant (HEMA), developed by **W Jung**.
<https://github.com/humanbuildingsynergy/HEMA>
 Published: **W Jung**. 2026. *SoftwareX*. 34, 102633. DOI: <https://doi.org/10.1016/j.softx.2026.102633>
- 3) Residential Occupancy Schedule Simulator, developed by **W Jung**.
<https://github.com/humanbuildingsynergy/ResidentialOccupancyScheduleSimulator>
- 4) EnergyPlus (contributed as a member, 05/2021 – 05/2022): <https://energyplus.net/>

10. Other International Research Collaboration

Project Title	Organizer	Period	Role
Annex 95 “Human-Centric Building Design and Operation for a Changing Climate”	International Energy Agency	12/2024 – Current	Member
Annex 87 “Energy and Indoor Environmental Quality Performance of Personalised Environmental Control systems”	International Energy Agency	05/2022 – Current	Subtask C leader

11. Awards

- Outstanding Performance Award, *PNNL*, 09/2021
- 2019 Highly Cited Review Paper, *Applied Energy*, 10/2020
- Vecellio Fellow, *Virginia Polytechnic Institute and State University*, 08/2016 – 05/2017
- University-designated Scholarship, *Yonsei University*, 09/2009

12. Departmental and University Committees, Services, etc.

12.1. Activities

Activities	Role	Start	End
ARCE Undergraduate Student Committee	Member	08/2022	–
Graduate Student Committee	Member	10/2022	02/2024
ARCE AEI Student Chapter	Faculty Advisor	08/2023	12/2023
Search Committee for ARCE Professor of Practice	Member	09/2022	03/2023

13. Professional Committees & Services

13.1. Peer Reviewers

Journals (alphabetically ordered):

- 1) *Applied Energy*
- 2) *Building and Environment*
- 3) *City and Environment Interactions*
- 4) *Computers in Industry*
- 5) *Energy and Buildings*
- 6) *Expert Systems with Applications*
- 7) *Information Fusion*
- 8) *Journal of Architectural Engineering*
- 9) *Journal of Building Engineering*
- 10) *Renewable & Sustainable Energy Reviews*
- 11) *Science and Technology for the Built Environment*
- 12) *SoftwareX*

Conferences:

- 1) The International Conference on Indoor Air Quality, Ventilation & Energy Conservation in Buildings (IAQVEC): 2025
- 2) The ASCE International Conference on Computing in Civil Engineering (i3ce): 2019, 2024, 2025

- 3) The International Symposium on Automation and Robotics in Construction (ISARC): 2019, 2024, 2025
- 4) Construction Institute (CI) & Construction Research Congress (CRC) 2018, 2024, 2025
- 5) Building Performance Analysis Conference (BPAC) and SimBuild: 2022
- 6) The Association for Computing Machinery International Conference on Systems for Energy-Efficient Built Environments (Buildsys): 2020
- 7) 25th International Workshop on Intelligent Computing in Engineering (EG-ICE): 2018

Proposal Review:

- 1) National Science Foundation, 2023, 2024
- 2) Arizona State University, 2023

13.2. Conference Committee

Name	Role
Buildsys 2020, 2026	Technical Committee
IAQVEC 2026	Technical Committee
CI & CRC Joint Conference 2024	Track Co-Chair

14. Outreach Activities

Name	Institution	Role	Date
Summer Engineering Academy	U of A	Coordinator Activity Leader	09/2023 – Present 07/2023
Celebrate Lunar New Year with the Asian Pacific Islander Resource and Outreach Connection (AROC)	PNNL	Presenter	2021
Center for the Enhancement of Engineering Diversity	Virginia Tech	Presenter	2016, 2017, 2018, 2019
YouTube Channel – Easy! Construction/Architectural Engineering!	YouTube	Content Creator	2017–2019

15. Professional Membership

- American Society of Heating, Refrigerating, and Air-conditioning Engineers (ASHRAE), since 2020
- International Building Performance Simulation Association (IBPSA), since 2020
- American Society of Civil Engineers (ASCE), since 2017

16. Supervised Undergraduate / Graduate Students for Research

Name	Level	Major	Period
Calvin Curtiss	Undergraduate	Civil Engineering	10/2025 – Current
Efren Figueroa	Undergraduate	Architecture	09/2024 – 05/2025
Sascha Moran	Undergraduate	Architecture	09/2024 – 05/2025
Nick Kyle	Undergraduate	Architectural Engineering	09/2024 – 05/2025
Alyssa La Fountain	Undergraduate	Architectural Engineering	08/2024 – 12/2024
Lucas DeFrancesco	Undergraduate	Architectural Engineering	08/2024 – 12/2024
Elham Hasani Alavy	Graduate	Civil Engineering	08/2024 – 08/2025
Shivani Bavhankar	Graduate	Business Analytics	02/2024 – 08/2025
Diego Fajardo	Undergraduate	Civil Engineering	01/2024 – 05/2024
Prosper Babon-Ayeng	Graduate	Civil Engineering	08/2023 – Current
Erin Driver	Graduate	Public Health	05/2023 – 05/2024
Sophia Witt	Undergraduate	Civil Engineering	02/2023 – Current