

YUAN SUN

Ph.D. Student, M.E. Rinker, Sr. School of Construction Management, University of Florida
573 Newell Dr, Rinker Hall, Room 340, Gainesville, FL 32601, USA
(424) 527-1135 | yuansun@ufl.edu

EDUCATION

Doctor of Philosophy in Design, Construction, and Planning

2020 – Present

M.E. Rinker, Sr. School of Construction Management, University of Florida, Gainesville, FL, USA

- Dissertation Title: “*Active Learning in Online Construction Site Visits: Focusing on Students’ Knowledge Construction and Collaborative Problem Solving*”
- Committee Members: Masoud Gheisari (*Chair, Construction Management*); Jeelani Idris (*Construction Management*); Ricardo Eiris (*Construction Management*); Gabriel Castelblanco (*Construction Management*); and Pavlo Antonenko (*Education*).

Master of Science in Building Science

2018 – 2020

School of Architecture, University of Southern California, Los Angeles, CA, USA

- Dissertation Title: “*Enhanced Indoor Environmental Satisfaction: Potential Use of Multi-Occupants Bio-signals for Higher-Performance Building Control Mechanisms*”
- Committee Members: Joon-ho Choi (*Chair, Building Science*); Marc Schiler (*Building Science*); Yolanda Gil (*Information Science*), and Shrikanth Narayanan (*Computer Science*).

Bachelor of Engineering in Building Environment and Energy Engineering

2013 – 2017

School of Architecture, Yunnan Agricultural University, Kunming, China

- Graduation project focused on “*Building Mechanical Systems*”

PROFESSIONAL EXPERIENCE

Graduate Research & Teaching Assistant

2020 – Present

M.E. Rinker, Sr. School of Construction Management, University of Florida, Gainesville, FL, USA

- Research Projects:
 - “*Using Virtual Humans in 360-degree Immersive Digital Sites to Practice Communication Skills within Complex Spatiotemporal Contexts*”
Funded by the National Science Foundation (NSF)
 - “*Online Site Visits using 360-degree Panoramic Collaborative Spaces*”
Funded by the National Science Foundation (NSF)
- Teaching Responsibilities:
 - BCN3255 Graphic Communication in Construction (Fall 2020 – Present)
Facilitated all class sessions and assisted students with using different software (e.g., Revit, Navisworks, Microsoft Project Pro).
 - BCN4252 Introduction to BIM (Spring 2021)
Helped transition from in-person to online course delivery by building a virtual collaborative space where students presented their final projects.

Graduate Research Assistant

2018 – 2020

School of Architecture, University of Southern California, Los Angeles, CA, USA

- Research Projects:
 - “*Human-Building Integration: Bio-Sensing Adaptive Environmental Control for Human Health and Sustainability*”

Sustainability Consulting Internship

2019

Anhui Architectural Design Research Institute, Hefei, China

- Assisted clients in pursuing and complying with various net zero sustainability frameworks, such as LEED, WELL, Living Building Challenges, etc.
- Developed lifecycle cost calculations, water balance calculations, building energy studies, renewable and distributed energy feasibility studies, and operational and embodied carbon calculations.

Undergraduate Research Assistant

2015-2017

School of Thermal Energy Engineering, Shandong Jianzhu University, Jinan, China

- Research Projects:
 - “Numerical and Experimental Study on the Ventilation Resistance”

PUBLICATIONS

My Google Scholar profile: <https://scholar.google.com/citations?user=ZSVhJ6EAAAAJ&hl=EN>

Journal Publications

- J1. **Yuan Sun**, Masoud Gheisari, and Ricardo Eiris. 2024. Active Learning in Online Construction Site Visits: Focusing on Knowledge Construction and Collaborative Problem Solving of Students. *Under Preparation*.
- J2. **Yuan Sun**, Masoud Gheisari, and Ricardo Eiris. 2024. Collaborative Problem-Solving in Online Construction Site Visits. *Under Preparation*.
- J3. **Yuan Sun**, Masoud Gheisari, and Idris Jeelani. 2023. RoboSite: An Educational Virtual Site Visit about Safety Interaction of Four-legged Robots in Construction. *Elsevier Journal of Safety Science Special Issue on 2023 The Use of Extended Reality Technologies in Safety Research*. *Under Review*.
- J4. **Yuan Sun**, Masoud Gheisari, and Idris Jeelani. 2023. Safe Human-Robot Collaboration in Construction: A Conceptual Perspective. *Elsevier Journal of Safety Research Special Issue on 2022 National Occupational Injury Research Symposium (NOIRS): Preventing workplace injuries in a changing world*. 86:39-51. <https://doi.org/10.1016/j.jsr.2023.06.006>
- J5. **Yuan Sun**, Gilles Albeaino, Masoud Gheisari, and Ricardo Eiris. 2022. Online site visits using virtual collaborative spaces: A plan-reading activity on a digital building site. *Elsevier Journal of Advanced Engineering Informatics*. 53: 1-14. <https://doi.org/10.1016/j.aei.2022.101667>
- J6. Yu Pan, **Yuan Sun**, Yuancheng Wang, Huiyi Zhao, Tianyu Shi, and Lei Wei. 2016. The numerical and experimental study on the ventilation resistance of three stored grains during horizontal aeration and vertical aeration using half-round perforated duct on the floor. *Science and Technology of Cereals, Oils and Foods*. 24: 102-105. https://caod.oriprobe.com/articles/47694525/The_numerical_and_experimental_study_on_the_ventil.htm

Referred Conference Proceedings

- C1. **Yuan Sun**, Masoud Gheisari, and Ricardo Eiris. Active Learning Approaches in Online Construction Site Visits. *Proceedings of the 59th ASC Annual International Conference*. *Under Preparation*
- C2. **Yuan Sun**, Masoud Gheisari, and Ricardo Eiris. Studying Students' Collaborative Problem-Solving Behaviors in Online Site Visits. *ASCE International Conference on Computing in Civil Engineering (i3CE) 2024*. *Under Preparation*
- C3. **Yuan Sun**, Masoud Gheisari, and Idris Jeelani. RoboSite: A Virtual Site Visit on using Four-legged Robots in Construction. *Proceedings of the 2024 ASCE Construction Research Congress (CRC)*. *In Press*
- C4. **Yuan Sun**, Masoud Gheisari, and Idris Jeelani. 2023. Enhancing Students' Attitudes Towards Robots using a Virtual Site Visit on Four-Legged Robot Applications in Construction. *Proceedings of the 28th International Symposium on Advancement of Construction Management and Real Estate (CRICOM)*. *In Press*
- C5. **Yuan Sun**, Masoud Gheisari, and Idris Jeelani. 2023. Potential Safety Challenges of Four-Legged Robots in Construction. *Proceedings of the 2023 ASCE International Conference on Computing in Civil Engineering (i3CE)*. *In Press*
- C6. **Yuan Sun**, Gilles Albeaino, Masoud Gheisari, and Ricardo Eiris. 2022. Virtual Collaborative Spaces for Online Site Visits: A

Plan-Reading Pilot Study. *Proceedings of the 58th ASC Annual International Conference*. 3: 688-696.

<https://doi.org/10.29007/d14v> (**Best Conference Paper – Honorable Mention Award**)

- C7. Ricardo Eiris, **Yuan Sun**, Masoud Gheisari, Brent Marsh, and Pasi Lautala. 2022. VROnSite – Online Site Visits Using Web-Based Virtual Environments. *Proceedings of the 2022 ASCE Construction Research Congress (CRC)*. 100-109. <https://doi.org/10.1061/9780784483985.011>
- C8. **Yuan Sun**, and Masoud Gheisari. 2021. Potentials of Virtual Social Spaces for Construction Education. *Proceedings of the 56th ASC Annual International Conference*. 469-477. <https://doi.org/10.29007/sdsj>

Posters

- P1. **Yuan Sun**, Masoud Gheisari, Idris Jeelani, Ricardo Eiris. 2024. Studying Students' Collaborative Problem-Solving Behaviors in Online Site Visits. *Proceedings of the 2024 ASCE Construction Research Congress (CRC)*. **Under Review**
- P2. **Yuan Sun**, Gilles Albeaino, Masoud Gheisari, and Ricardo Eiris. 2022. Virtual Collaborative Spaces for Online Site Visits: A Plan-Reading Pilot Study. *Proceedings of the 58th ASC Annual International Conference*.
- P3. **Yuan Sun**, Gilles Albeaino, Masoud Gheisari, and Ricardo Eiris. 2021. Virtual Collaborative Spaces for Online Site Visits: A Plan-Reading Pilot Study. *DCP Research Symposium, University of Florida*.

CONFERENCE PRESENTATIONS

- CP1. **Yuan Sun**, Masoud Gheisari, and Idris Jeelani. Enhancing Students' Attitudes Towards Robots using a Virtual Site Visit on Four-Legged Robot Applications in Construction. *Proceedings of the 28th International Symposium on Advancement of Construction Management and Real Estate (CRICOM)*.
- CP2. **Yuan Sun**, Masoud Gheisari, and Idris Jeelani. 2023. Potential Safety Challenges of Four-Legged Robots in Construction. *Proceedings of the 2023 ASCE International Conference on Computing in Civil Engineering (i3CE)*.
- CP3. **Yuan Sun**, Gilles Albeaino, Masoud Gheisari, and Ricardo Eiris. 2022. Virtual Collaborative Spaces for Online Site Visits: A Plan-Reading Pilot Study. *Proceedings of the 58th ASC Annual International Conference*.
- CP4. **Yuan Sun**, and Masoud Gheisari. 2021. Potentials of Virtual Social Spaces for Construction Education. *Proceedings of the 56th ASC Annual International Conference*.

RESEARCH MENTORING EXPERIENCE

Research Mentorship

2021 – Present

M.E. Rinker, Sr. School of Construction Management, University of Florida, Gainesville, FL, USA

- Advised and assisted students throughout the process of conducting research, ranging from the research problem, questions, and objectives to improving manuscript writing for submission and publication in peer-reviewed venues.
- Mentored students:
 - **Parth K. Bhadaniya**, 2023-Present (Ph.D. Student, Construction Management, University of Florida).
 - Research Project: *Online Site Visits using 360-degree Panoramic Collaborative Spaces*
 - **Xuefei Sun**, 2021-2022 (M.Eng. Student, Civil Engineering, University of Florida).
 - Research Project: *Legged Robots: Potential Challenges in Construction Management*

HONORS AND AWARDS

- A1. ASC International Best Conference Paper Runner-Up Award, The 58th Annual Associated Schools of Construction (ASC) International Conference, 2022.
- Our paper entitled "[*Virtual Collaborative Spaces for Online Site Visits: A Plan-Reading Pilot Study*](#)" received the Best Paper Runner-Up Award at the 58th Annual Associated Schools of Construction International Conference 2022 in Atlanta, GA. The extended version of the paper was also published in the Elsevier Journal of Advanced Engineering Informatics.
- A2. The Grinter Fellowship, College of Design, Construction, and Planning, University of Florida, 2023 – Present.
- The Grinter fellowship helps recruit truly exceptional PhD students entering the University of Florida.
- A3. Best Data Science at USC Data Fest 2019, University of Southern California, 2019

- Research project entitled "[*Enhanced Indoor Environment Satisfaction: The Potential Use of Multi-Occupant Bio-Signals for High-Performance Building Control Mechanisms*](#)" received the Best Data Science Award at USC Data Fest 2019.
- A4. Outstanding Research Presentation, University of Southern California, 2020
 - Research presentation entitled "*The Potential Use of Multi-occupant Bio-signals for High-performance Building Control Mechanisms.*"
- A5. USC School of Architecture Merit Scholarship, University of Southern California, 2018-2020
 - *The Scholarship is offered to one Master student with the aim of supporting exceptional graduate students in their academic journey.*
- A6. First Class Scholarship and Merit Student, Yunnan Agricultural University, 2017
 - *Scholarship recipients are selected based on academic record, demonstrated leadership, participation in university and community activities, honors, and work experience.*

ACADEMIC SERVICE AND PROFESSIONAL AFFILIATIONS

Reviewer

EMERALD Journal of Engineering, Construction and Architectural Management (2023-Present)
 Associated Schools of Construction (ASC) Conference Proceedings (2021-Present)
 ASCE Construction Research Congress (CRC) Conference Proceedings (2022-Present)
 ASCE International Conference on Computing in Civil Engineering (i3CE) Proceedings (2023-Present)
 International Symposium on Automation and Robotics in Construction (ISARC) Conference Proceedings (2022-Present)

Affiliations

American Society of Civil Engineering (ASCE): Student Member.
 ASCE Visualization, Information Modeling, and Simulation (VIMS) Committee: Student Member.
 American Society of Heating, Refrigeration and Air-Conditioning Engineers (ASHRAE): Student Member.
 U.S. Green Building Council (USGBC) member.

OTHER SKILLS

Computer

- **Construction Management and Building Information Modeling:** Autodesk Revit, Autodesk BIM 360, Autodesk Construction Cloud, Autodesk Recap, Autodesk Navisworks, Autodesk AutoCAD, Lumion, On-screen Takeoff, Oracle Primavera P6, and Synchro PRO.
- **Energy Simulation:** DesignBuilder, IESVE, and eQuest
- **Data Analysis:** R and IBM SPSS
- **Programming:** Python and C#
- **Design, Rendering and Virtual Reality:** Unity, 3Ds Max, Blender, Sketchup, Rhino, Unreal Engine, and Mozilla Spoke

Professional Certifications

- 30-Hour Safety Training. Occupational Safety and Health Administration (OSHA).
- LEED AP BD+C. U.S. Green Building Council.
- SPSS and SamplePower 3 Series, University of Florida

Language

- English: Professional working proficiency
- Chinese: Native