

KRISTEN PARRISH, PhD

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Kristen.Parrish@asu.edu

CURRICULUM VITAE

EDUCATION

- PhD in Civil Engineering Systems** May 2009
University of California, Berkeley
Dissertation: Applying a Set-Based Design Approach to Reinforcing Steel Design
- M.S. in Civil and Environmental Engineering (Structural Engineering)** May 2005
University of Michigan, Ann Arbor
- B.S. in Civil and Environmental Engineering** May 2004
University of Michigan, Ann Arbor

ACADEMIC EXPERIENCE

- Associate Director** Aug 2020 - Present
Research in Inclusive STEM Education (RISE) Center, Arizona State University (ASU)
- Graduate Programs Chair** Aug 2018 - Present
Del E. Webb School of Construction, Arizona State University (ASU)
- Associate Professor** Aug 2018 - Present
Del E. Webb School of Construction, Arizona State University (ASU)
- Senior Sustainability Scientist** Aug 2012 - Present
Global Institute of Sustainability, Arizona State University (ASU)
- Assistant Professor** Aug 2012 – Aug 2018
Del E. Webb School of Construction, Arizona State University (ASU)
- Lecturer** Jan 2010 – June 2010
Department of Civil and Environmental Engineering, University of California, Berkeley
- Graduate Student Researcher** Jan 2006 – May 2009
Department of Civil and Environmental Engineering, University of California, Berkeley
- Graduate Student Instructor** Spring 2007, 2008
Department of Civil and Environmental Engineering, University of California, Berkeley

INDUSTRY EXPERIENCE

Proposal Support

May 2021 – August 2022

Willmeng Construction, Phoenix, AZ

Supporting Construction Pursuits: Led collaborations with engineers, designers, and trade partners to develop project approaches that were cost-effective and time-efficient; completed data analysis to succinctly present evolving market conditions.

Women in Construction Task Force: Supported the People Operations Team as they developed strategies to recruit and retain women into construction.

Technical Writer

June 2020 – August 2020

Willmeng Construction, Phoenix, AZ

Writing for Construction Pursuits: Developed text for construction proposals spanning the commercial buildings market sectors; collected and analyzed data about COVID-19 impacts to construction activities; coordinated with engineers, designers, and trade partners to develop project approaches.

Case Study Documentation: Conducted interviews with project managers; developed and wrote case studies illustrating unique features of various construction projects.

Affiliate, Commercial Building Systems

Aug 2012 – present

*Building Technologies and Urban Systems Division
Lawrence Berkeley National Laboratory (LBNL)*

Energy Efficiency Research Collaborations: Review work products from LBNL staff; Provide expertise during program development; Support dissemination efforts in the Arizona market.

Scientific Engineering Associate, Commercial Building Systems

June 2011 – Aug 2012

*Building Technologies and Urban Systems Department
Lawrence Berkeley National Laboratory (LBNL)*

Continuous Improvement in Energy Performance: Developed energy performance targets for commercial buildings; co-developing the Department of Energy program for ISO 50001 (Energy Management Standard) implementation; developing documentation to assist in ISO 50001 implementation; facilitating the implementation of ISO 50001 on MIT campus; developing policy documents and standard operating procedures for MIT building.

Commercial Building Partnerships (CBP) Program: Engage owners, designers, engineers, and operators from various commercial building sectors to implement best practices in design, construction, and operation; identify and document technical and non-technical barriers to energy-efficiency in the higher education sector; manage three CBP projects

totaling \$1.2M to ensure timely and cost-effective project delivery; develop and document energy-efficiency strategies for modular construction; assessing the role of the building information model throughout design, construction, and operations.

Building Technologies Postdoctoral Fellow

Oct 2009 – May 2011

*Building Technologies and Urban Systems Department
Lawrence Berkeley National Laboratory (LBNL)*

Commercial Buildings Project Delivery: Analyzed the low-energy building project delivery system; identified stakeholders involved in each phase of an energy-efficient commercial building's life cycle; critically examined the impact of a stakeholder's role (or lack thereof) on a building's energy performance; explored the causes of the discrepancy between expected and actual energy performance; identified industry best practices in project delivery in support of low-energy buildings.

Commercial Building Partnerships (CBP) Program: Co-launched the United States Department of Energy's \$7 million Commercial Buildings Partnership Program at LBNL; engaged owners, designers, engineers, and operators from various commercial building sectors to implement best practices in design, construction, and operation; identified and documented barriers to energy-efficiency in commercial buildings; managed three CBP projects to ensure timely and cost-effective project delivery; developed energy-efficiency strategies for modular construction; assessed the role of the building information model throughout design, construction, and operations.

Commercial Building Energy Alliances: Managed the United States Department of Energy's Commercial Building Energy Alliances work at LBNL (Hospital and Commercial Real Estate Energy Alliances); collaborated with owners of large building portfolios to identify industry's research needs and developed research and demonstration projects to meet those needs; identified, compared, and evaluated low-energy building programs in the United States to inform development of future programs; developed best practice guides for the commercial building retrofit design process; developed a handbook for commissioning existing buildings.

Geological Project Scientist

June 2009 – Sept 2009

Earth Sciences Division, Lawrence Berkeley National Laboratory (LBNL)

Assessment of Geothermal Potential in the United States: Identified the role of geothermal energy in the American Reinvestment and Recovery Act; compared the emissions from geothermal power plants to those of coal and natural gas plants; collected data for use in a geothermal development decision-making framework; established a strategic plan for development of geothermal resources in the United States; mentored two undergraduate students as they developed their own energy research projects.

Engineer In Training

May 2004 - July 2005

Northwest Consultants, Inc., Canton, MI

Roadway Design: Designed and drafted roadway retrofits in Michigan; prepared cost estimates for clients based on estimated material quantities and labor costs; collected utility information in support of construction sequencing efforts

PROFESSIONAL LICENSURE

Engineer-In-Training

October 2003

AREAS OF EXPERTISE

Teaching

Construction Materials and Methods; Construction Engineering; Lean Construction; Engineering Economics; Retrofit Construction

Research

Low-Energy Design, Construction, and Operation of Commercial Buildings; Alternative Project Delivery (Integrated Project Delivery, Design-Build); Lean Construction; Lean Manufacturing; Engineering Education

HONORS AND AWARDS

Top 5% Teaching Award, Fulton Schools of Engineering	2021
Outstanding CII Instructor, Construction Industry Institute	2018
PeerLA Leadership Academy Cohort Member, ASU	2018
Penta Faculty Fellow, ASU	2018
Cache Valley Electric Lecturer #4, ASU	2016, 2017
Distinguished Professor Award, Construction Industry Institute	2016
Top 5% Teaching Award, Fulton Schools of Engineering, ASU	2015, 2016, 2017
School of Sustainable Engineering and the Built Environment Service Award, ASU	2013
Outstanding Performance Award, Lawrence Berkeley National Laboratory	2010
Project Production Systems Laboratory (P ² SL) Fellow, UC Berkeley	2009
Summer Institute for Preparing Future Faculty Fellow, UC Berkeley	2008
Civil and Environmental Engineering Fellowship, UC Berkeley	2008

FIATECH CETI Outstanding Student Researcher Award	2007
Civil and Environmental Engineering Fellowship, UC Berkeley	2007
Carl Walker Scholarship, University of Michigan	2005

PUBLICATIONS AND PRESENTATIONS

Summary of Publications

Total Journal Publications (Published, In Press, and/or Accepted): 33

Total Journal Publications (Published, In Press, and/or Accepted) from ASU: 32

Journal Publications Prior to ASU: 1

Manuscripts Submitted/In Revision from ASU: 1

Manuscripts in Preparation from ASU (to be submitted before April 30, 2021): 3

Refereed Conference Papers: 57

Refereed Reports & Technical Manuals: 6

Summary of Presentations

Invited Presentations – External: 25

Invited Presentations – Internal: 5

Invited Conference Presentations, Including Students: 17

In my field, authors are typically listed according to contribution. The first author generally leads both the intellectual contribution and the manuscript development and submission process. The faculty advisor(s) are listed following the students who complete the work. In some groups, the last faculty author is the faculty author that made the most substantive contribution. Thus, for each publication, I have indicated the contributions of my students, colleagues, and myself using the Legend Below.

Legend for all Publications

I indicate myself with an asterisk (*)

Bold indicates an ASU PhD student author

Underline indicates an ASU MS student author

(#) indicates an ASU undergraduate student author

(X) indicates an ASU Postdoctoral Researcher

(+) indicates equal contributions. Where contributions are not equal, I list contributions as a percentage of total effort (in parentheses following the citation; Author 1 Effort, Author 2 Effort, etc.).

REFEREED JOURNAL PUBLICATIONS

I endeavor to publish in journals that support dissemination of my work to colleagues with shared research interests. This supports critical review of my work, which ultimately improves my own scholarship. Moreover, this approach allows me to grow my own network, as readers of the journals where I publish often go on to become collaborators and co-authors. I target American Society of Civil Engineers (ASCE) journals, first and foremost, as these have large

readership within my discipline. I also target the American Society of Heating, Refrigeration, and Air Conditioning Engineers (ASHRAE) journals for my building energy work, as this is the premier professional organization for that research area and publication there supports my students growing their own professional networks. Where possible, I also look to publish in more international journals, particularly on the topic of sustainability and energy policy, since these research issues reach well beyond the United States. In the below table, I summarize the journals I publish in and their impact factors.

Journal	Impact Factor	# of Pubs
<i>Advances in Engineering Education</i>	.81	1
<i>Associated Schools of Construction (ASC) International Journal of Construction Education and Research</i>	.45	1
<i>ASCE Journal of Architectural Engineering</i>	1.01	2
<i>ASCE Journal of Civil Engineering Education (formerly ASCE J. of Professional Issues in Engineering Educ. & Practice)</i>	.88	6
<i>ASCE Journal of Construction Engineering and Management</i>	1.78	3
<i>ASCE Journal of Management in Engineering</i>	1.56	2
<i>ASCE Practice Periodical on Structural Design and Construction</i>	.39	1
<i>ASHRAE Science and Technology in the Built Environment</i>	1.15	1
<i>ASHRAE Transactions</i>	.65	4
<i>Construction Management and Economics</i>	2.45	1
<i>Energies</i>	3.0	1
<i>Energy and Buildings</i>	4.6	2
<i>Energy Policy</i>	2.7	1
<i>Energy Science and Engineering</i>	2.63	1
<i>ICE Proceedings – Engineering Sustainability</i>	.74	1
<i>Journal of Green Building</i>	.59	1
<i>Journal of Microbiology & Biology Education</i>	.94	1
<i>Sustainable Cities and Society</i>	2.86	3
<i>Seismological Research Letters</i>	3.13	1
<i>Wicazo Sa</i>	Unranked	1 (in rev)

PUBLISHED, IN PRESS, OR ACCEPTED

1. **Gin, L. E.**, Pais, D. C. (#), Parrish, K.* , Brownell, S. E., and Cooper, K. M. (2022). “New Online Accommodations Are Not Enough: The Mismatch between Student Needs and Supports Given for Students with Disabilities during the COVID-19 Pandemic.” *Journal of Microbiology & Biology Education*, 23(1), e00280-21. doi:10.1128/jmbe.00280-21.
2. Rybkowski, Z., Arroyo, P., and Parrish, K.* (2022). “Assessment of current Target Value Design practices: a Literature Review.” *Construction Management and Economics*, In press. DOI: <https://doi.org/10.1080/01446193.2022.2037146> (Work with former colleagues; 35%, 30%, 35%).
3. **Askari, N.**, and Parrish, K.* (2022). “A Novel Process for Selecting a PCM for a Building Energy Retrofit.” *ASHRAE Transactions*, Accepted (Paper accepted 3 May 2021). (I advised the first author; 70%, 30%).

4. **Sherman, R.**, Naganathan, H. (X), and Parrish, K.* (2021). “Energy Savings Results from Small Commercial Building Retrofits in the US.” *Energies*, 14(9), 6207. DOI: <https://doi.org/10.3390/en14196207>. (I advised the first author’s PhD and the second author’s postdoc; 35%, 35%, 30%).
5. Clark, R., Spisso, A., Ketchman, K., Landis, A. E., Parrish, K.*, Mohammadizazi, R., & Bilec, M. M. (2021). “Gamifying Sustainable Engineering Courses: Student and Instructor Perspectives of Community, Engagement, Learning, and Retention.” *Journal of Civil Engineering Education*, 147(4), 04021009. DOI: [https://doi.org/10.1061/\(ASCE\)EI.2643-9115.0000047](https://doi.org/10.1061/(ASCE)EI.2643-9115.0000047). (Note: I was on the PhD committee of the third author; 40%, 20%, 10%, 5%, 5%, 10%, 10%).
6. **Sherman, R.**, Gibson Jr, G. E., Merrow, E., and Parrish, K.* (2021). “Examining the Impact of Rate of Return Regulation on Capital Project Planning.” *Journal of Construction Engineering and Management*, 147(8), 8pp. DOI: [https://doi.org/10.1061/\(ASCE\)CO.1943-7862.0002069](https://doi.org/10.1061/(ASCE)CO.1943-7862.0002069) (I advised the first author; 60%, 10%, 10%, 20%).
7. Arababadi, R. (X), Naganathan, H. (X), Dadvar, A., Pour, M. S., Parrish, K.*, and Chong, O. (2021). “Building Stock Energy Modeling: Feasibility Study on Selection of Important Input Parameters Using Stepwise Regression.” *Energy Science & Engineering*, 9(2), 284-296. DOI: <https://doi.org/10.1002/ese3.847> (I advised the first two authors; 30%, 30%, 15%, 15%, 5%, 5%).
8. **Sherman, R.**, Parrish, K. *, and Lamanna, A. (2021). “Identifying and Categorizing Risks Incumbent in US Nuclear Power Plant Construction.” *Journal of Construction Engineering and Management*, 147(4), 4021024. DOI: 10.1061/(ASCE)CO.1943-7862.0002018 (I advised the first author; 60%, 30%, 10%).
9. Cruz Rios, F. (X), Naganathan, H., Tello, L. (X), Adams, S., Cook-Davis, A., El Asmar, M., Grau, D., and Parrish, K.* (2021). “Catalysts and Barriers Faced by Native American Engineering Undergraduate Students in Arizona.” *Journal of Civil Engineering Education*, 147(2), 04020017. DOI: [https://doi.org/10.1061/\(ASCE\)EI.2643-9115.0000033](https://doi.org/10.1061/(ASCE)EI.2643-9115.0000033). (Note: I was the postdoctoral supervisor for the first author and was for the third author. I was on the PhD committee of the second author; 40%, 20%, 10%, 10%, 5%, 5%, 5%, 5%).
10. Harris, N., Shealy, T., Parrish, K.*, and Granderson, J. (2019). “Cognitive Barriers During Monitoring-Based Commissioning of Buildings.” *Sustainable Cities and Society*. 46 (2019): 101389, 8 pp. DOI: 10.1016/j.scs.2018.12.017. (I served on the MS Committee of the first author; 70%, 15%, 10%, 5%).
11. **El Zomor, M.**, Mann, C., Doten-Snitker, K., Parrish, K.*, and Chester, M. (2018). “Leveraging Vertically-Integrated Courses and Problem Based Learning to Improve Students’ Performance and Skills.” *Journal of Professional Issues in Engineering Education and Practice*, 144(4): 12pp. DOI: 10.1061/(ASCE)EI.1943-5541.0000379. (I

advise(d) both of the first two authors, one for his PhD, the other for her MS; 30%, 30%, 15%, 20%, 5%)

12. **Burke, R.**, Antaya-Dancz, C. L., Ketchman, K., Bilec, M. M., Boyer, T., Davidson, C., Landis, A. E., and Parrish, K.* (2018). "Faculty Perspectives on Sustainability Integration in Undergraduate Engineering Curriculum." *Journal of Professional Issues in Engineering Education and Practice*, 144(3): 10pp. DOI: [https://doi.org/10.1061/\(ASCE\)EI.1943-5541.0000373](https://doi.org/10.1061/(ASCE)EI.1943-5541.0000373). (First author is a PhD student I advised and I was on the PhD committee for the other two student authors; 50%, 10%, 10%, 5%, 5%, 5%, 5%, 10%).
13. Ketchman, K., Parrish, K. *, Khanna, V., and Bilec, M. (2018). "Synergizing Disparate Component-level Energy Resources into a Single Whole Building Tool to Support Energy Conservation Action in Small Commercial Buildings" *Energy and Buildings*, 176(2018): 325-332. DOI: [10.1016/j.enbuild.2018.06.053](https://doi.org/10.1016/j.enbuild.2018.06.053) (I served on the PhD committee of the first author; 60%, 10%, 10%, 20%).
14. Ketchman, K., Parrish, K. *, Khanna, V., and Bilec, M. (2018). "Small Business Electricity Disaggregation: Where can we improve? Towards increased transparency of appliance modal parameters" *Energy and Buildings*, 176(2018):194-202. DOI: doi.org/10.1016/j.enbuild.2018.07.020 (I served on the PhD committee of the first author; 60%, 10%, 10%, 20%).
15. **El Zomor, M., Burke, R.**, Parrish, K. *, and Gibson Jr, G. E. (2018). "Front End Planning for Large and Small Infrastructure Projects: Comparison of Project Definition Rating Index Tools." *Journal of Management in Engineering*, 34 (4), p. 04018022-1-04018022-12. DOI: [https://doi.org/10.1061/\(ASCE\)ME.1943-5479.0000611](https://doi.org/10.1061/(ASCE)ME.1943-5479.0000611) (I advised both of the PhD student authors; 50%, 25%, 20%, 5%)
16. **Burke, R.**, Parrish, K. *, and El Asmar, M. (2018). "Environmental Product Declarations: Use in the Architectural and Engineering Design Process to Support Sustainable Construction." *Journal of Construction Engineering and Management*, 144(5): 04018026-1-04018026-10. DOI: 10.1061/(ASCE)CO.1943-7862.0001481. (I advised the first author; 70%, 20%, 10%)
17. Arababadi, R. (X), **Mosleh, S.**, El Asmar, M., Haavaldsen, T., & Parrish, K.* (2017). "Energy Policy Assessment at Strategic, Tactical, and Operational Levels: Case studies of EU 20-20-20 and U.S. Executive Order 13514." *Energy Policy*, 109, 530-538. (note that first author was a PhD student I advised; 70%, 10%, 5%, 5%, 10%)
18. **Dancz, C. L. A.**, Ketchman, K. J., **Burke, R.**, **Hottle, T. A.**, Parrish, K. *, Bilec, M. M., and Landis, A. E. (2017). "Utilizing Civil Engineering Senior Design Capstone Projects to Evaluate Students' Sustainability Education Across Engineering Curriculum." *Advances in Engineering Education*, 6 (2), 27pp. (note that I serve(d) on the PhD committee for the first two authors and advise the PhD thesis of the third author; 40%, 25%, 15%, 5%, 5%, 5%, 5%).

19. **Collins, W.**, Parrish, K.*, and Gibson Jr., G. E. (2017). "Development of a Project Scope Definition and Assessment Tool for "Small" Industrial Construction Projects." *Journal of Management in Engineering*, 33(4): 15pp. DOI: 10.1061/(ASCE)ME.1943-5479.0000514 (note that first author was a PhD student I advised; 80%, 15%, 5%)

20. Arababadi, R.(X), and Parrish, K.* (2017). "Reducing the Need for Electrical Storage by Coupling Solar PVs and Precooling in Three Residential Building Types in the Phoenix Climate." *ASHRAE Transactions*, 123(Part 1): 279-290. (note that first author was a PhD student I advised; 85%, 15%).

21. Ketchman, K., **Dancz, C. L. A.**, **Burke, R. D.**, Parrish, K.* , Landis, A. E., & Bilec, M. M. (2017). "Sustainable Engineering Cognitive Outcomes: Examining Different Approaches for Curriculum Integration." *Journal of Professional Issues in Engineering Education and Practice*, 143(3), 10pp. DOI: 10.1061/(ASCE)EI.1943-5541.0000324. (note that I serve(d) on the PhD committee for the first two authors and advise the PhD thesis of the third author; 55%, 15%, 10%, 5%, 5%, 10%).

22. **Antaya-Dancz, C. L.**, Parrish, K.* , Bilec, M. M., and Landis, A. E. (2017). "Assessment of Students' Mastery of Construction Management and Engineering Concepts through Board Game Design." *Journal of Professional Issues in Engineering Education and Practice*, 143(4), 12 pp. DOI: 10.1061/(ASCE)EI.1943-5541.0000340. (note that I served on the PhD committee for the first author; 70%, 20%, 5%, 5%).

23. Arababadi, R. (X), **El Zomor, M.**, & Parrish, K.* (2017). "Selection of Energy Efficiency Measures to Enhance the Effectiveness of Precooling in Residential Buildings in a Hot Arid Climate." *Science and Technology in the Built Environment*, 23(5), 858-867. DOI:10.1080/23744731.2016.1262660. (note that first authors are PhD students I advise(d); 55%, 25%, 20%).

24. Barnes, E. A., and Parrish, K.* (2016). "Small Buildings, Big Impacts: the Role of Small Commercial Building Energy Efficiency Case Studies in 2030 Districts." *Sustainable Cities and Society*, 27(2016), p. 210-221. (note that first author was an MS student I advised; 70%, 30%).

25. **Arababadi, R.**, and Parrish, K.* (2016). "Modeling And Testing Multiple Precooling Strategies In Three Residential Building Types In The Phoenix Climate." *ASHRAE Transactions*. 122(2). (note that first author is a PhD student I advised; 70%, 30%).

26. Holloway, S. (#), and Parrish, K.* (2015). "The Contractor's Role in the Sustainable Construction Industry." *ICE Proceedings - Engineering Sustainability*, 168(2). 53-60. <http://dx.doi.org/10.1680/ensu.14.00026>. (note that first author is an undergraduate student whose thesis I advised; 60%, 40%).

27. Parrish, K.* , Singh, R., and Chien, S.-C. (2015). "The Role of International Institutional Partnerships in Delivering Low-Energy Building Design: A Case Study." *Sustainable*

Cities and Society, 14, 383-389. <http://dx.doi.org/10.1016/j.scs.2014.05.007>. (First author; work completed before arrival at ASU; 70%, 25%, 5%).

28. **Ghosh, A.**, Parrish, K.*, and Chasey, A. (2014). "Implementing a Vertically Integrated BIM Curriculum in an Undergraduate Construction Management Program." *International Journal of Construction Education and Research*, 11(2). 121-139. DOI: 10.1080/15578771. (note that first author is a student I mentor; 55%, 40%, 5%).
29. **Ladhad, A.**, and Parrish, K.* (2014). "Phoenix's First Zero-Net Energy Office Retrofit: A Green and Lean Case Study." *Journal of Green Building*, 8(4), 3-16. (note that first author is an MS student I worked with; 55%, 45%).
30. Parrish, K.*, and Chester, M. (2014). "Life-Cycle Assessment for Construction of Sustainable Infrastructure." *Practice Periodical on Structural Design and Construction*, 19(1), 89-94. [http://dx.doi.org/10.1061/\(ASCE\)SC.1943-5576.0000187](http://dx.doi.org/10.1061/(ASCE)SC.1943-5576.0000187). (First author; work completed with a colleague at ASU; 60%, 40%).
31. Sanders, M., Parrish, K.*, and Earni, S. (2013). "Savings to Sustainability: Application of a Novel Approach to Delivering a Sustainable Built Environment." *Journal of Architectural Engineering*, 19 (Special Issue: Emerging Trends of Sustainable Engineering, Design, and Construction), 156-163. [http://dx.doi.org/10.1061/\(ASCE\)AE.1943-5568.0000119](http://dx.doi.org/10.1061/(ASCE)AE.1943-5568.0000119). (note other authors are former colleagues from the Berkeley Lab; 40%, 40%, 20%).
32. Parrish, K.*, and Regnier, C. (2013). "A Proposed Design Process for Deep Energy Savings in Commercial Building Retrofit Projects." *Journal of Architectural Engineering*, 19(2), 71-80. (First author; work completed with a colleague at the Berkeley Lab; 70%, 30%).
33. Green, R. A., K. Gunberg, K. Parrish*, T. Munger. (2007). "A Simple Uniform Hazard Design Spectral Shape for Rock Sites." *Seismological Research Letters* 78(2): 323 – 343. (first author was the faculty advisor on the project, other authors were graduate students who worked on the project; 20%, 50%, 20%, 10%).

MANUSCRIPTS SUBMITTED OR IN REVISION

1. **Arviso, B.** and Parrish, K.* (In review) "Finding Connections Between the Diné Philosophy of Life and a Project Definition Rating Index to Develop a Planning Tool for Construction on Tribal Lands." *Wicazo Sa*. In review (Revisions submitted 8 Aug 2019). (I am the first author's PhD advisor; 70%, 30%).

MANUSCRIPTS IN PREPARATION FOR SUBMISSION (BY APRIL 30, 2021)

1. **Sherman, R.**, Gibson Jr, G. E., Merrow, E., and Parrish, K.* (2022). "Examining the Impact of Rate of Return Regulation on Capital Project Performance." *Energy Policy*, In

Preparation (Submission planned 31 May 2022). (I advised the first author; 65%, 10%, 5%, 20%).

2. **El Zomor, M.**, and Parrish, K.* (2022). “Project Definition Rating Index (PDRI) in the Classroom: A Case Study.” *Journal of Professional Issues in Engineering Education and Practice*, In Preparation (Submission planned 15 May). (I advised the first author; 70%, 30%)
3. Rios, F. C. (X), El Asmar, M., Grau, D., and Parrish, K.* (2022). “Promoting Native American Attainment in Engineering: The Role of Engineering Colleges.” *Journal of American Indian Education*, In preparation (Submission planned for 31 May 2022), 34 pp. (Note that I was the postdoctoral advisor for the first author; 80%, 5%, 5%, 10%).
4. **Cruz Rios, F.**, Parrish, K.*, & Chong, O. (2022). “Low Cost Energy Retrofit Method for Small and Medium Commercial Buildings.” *International Journal of Sustainable Development*, In preparation (Submission planned 15 June). (note that I taught the first author in my graduate class, and she developed this article from her work in my class; 70%, 20%, 10%).

REFEREED CONFERENCE PUBLICATIONS

1. Vaden, J. M., Dukes, A. A., Parrish, K.*, Nave, A. H., Landis, A. E., and Bilec, M. M. (2022). “Improving and Sustaining Inclusive Classroom Environments in Engineering.” *Proc. ASEE Annual Conference*, 26-29 Jun 2022, Minneapolis, MN, 4 pp. (50%, 20%, 5%, 5%, 5%, 15%)
2. Hamman, M., Parrish, K.*, and Feghaly, J. (2021). “A New Look at Designing Electrical Construction Processes.” In S. Walbridge (Ed.) *Proc. Canadian Society for Civil Engineering (CSCE) Annual Conference* 26-29 May 2021, Virtual, 10 pp. (70%, 10%, 20%).
3. Landis, A. E., Dancz, C. L. A., Parrish, K.*, and Bilec, M. M. (2021). “What works? Sustainability grand challenges in engineering curricula via experiential learning.” *Proc. EESD2021: Proceedings of the 10th Engineering Education for Sustainable Development Conference*, 14 Jun 2021, Cork, Ireland, 6 pp. (40%, 40%, 10%, 10%).
4. **Askari, N.**, **Nozaripour, M.**, and Parrish, K.* (2020). “Using Bio PCM as Sensible Heat Storage in a Hot Arid Climate: A Case Study.” *ASHRAE Conference 2020*, Virtual, 8 pp. (50%, 40%, 10%).
5. **Sherman, R.**, and Parrish, K.* (2020). “Regulation and the Impact it has on Power and Pipeline Construction.” *Proc. CRC 2020*, 8-10 March, Tempe, AZ, 9 pp. (75%, 25%).
6. Cruz Rios, F. (X), El Asmar, M., Grau, D., and Parrish, K.* (2020). “Challenges against Hiring Native American Engineering Faculty: An Institutional Perspective.” *Proc. CRC 2020*, 8-10 March, Tempe, AZ, 9 pp. (75%, 5%, 10%, 10%).

7. **Sherman, R.**, and Parrish, K.* (2019). "US Nuclear Power Plant Project Risks: An Analysis Across Nuclear Regions." *Proc. Engineering Sustainability 2019* Pittsburgh, PA. 8-10 April. 2pp. (75%, 25%).
8. **El Zomor, M.**, and Parrish, K.* (2018). "Integrating PDRI Tools Into Introductory Construction Classrooms." *Proc. Construction Research Congress 2018*, 3-5 April, New Orleans, LA, 10 pp. (80%, 20%).
9. **Burke, R.**, and Parrish, K.* (2018). "System Engineering Analysis Approach to Building Material Selection for Sustainable Buildings." *Proc. Construction Research Congress 2018*, 3-5 April, New Orleans, LA, 10 pp. (80%, 20%).
10. **Arviso, B.**, and Parrish, K.* (2018). "Unique Features of Construction on Tribal Lands." *Proc. Construction Research Congress 2018*, 3-5 April, New Orleans, LA, 10 pp. (80%, 20%).
11. **Sherman, R.**, Clark, R., Parrish, K.*, Bilec, M. M., & Landis, A. E. (2017). *Developing a Framework to Better Engage students in STEM via Game Design: Findings from Year 1*. Paper presented at the 124th Annual Conference of the American Society for Engineering Education, Columbus, OH. 25-28 June. 7pp. (60%, 15%, 15%, 5%, 5%).
12. **El Zomor, M.**, Parrish, K.*, & Chester, M. (2017). *Positioning Students to Understand Urban Sustainability Strategies through Vertical Integration: Years One through Four*. Paper presented at the 124th Annual Conference of the American Society for Engineering Education, Columbus, OH. 25-28 June. 7 pp.(80%, 15%, 5%).
13. **Sherman, R.**, and Parrish, K.* (2017). "Small Buildings, Big Impacts: The Role of Small Commercial Building Energy Efficiency Case Studies in 2030 Districts." *Proc. Engineering Sustainability 2017* Pittsburgh, PA. 9-11 April. 2pp. (75%, 25%).
14. **Burke, R.**, and Parrish, K.* (2017). "I Can See Clearly Now: Illuminating the Material Selection Process for High Performance Buildings." *Proc. Engineering Sustainability 2017* Pittsburgh, PA. 9-11 April. 2pp. (90%, 10%).
15. **Algassaf, A.**, and Parrish, K.* (2016). "Developing a Project Management Framework for Maintaining and preserving Historic buildings in Jeddah City, Saudi Arabia." In T. Alves, J. Reginato, and C. Pasquire (Eds.) *Proc. 24th Annual Conference of the International Group for Lean Construction (IGLC-24)*, 20-22 July, Boston, MA. (80%, 20%)
16. Maris, K. (#), and Parrish, K.* (2016). "The Confluence of Lean and Green Construction." In T. Alves, J. Reginato, and C. Pasquire (Eds.) *Proc. 24th Annual Conference of the International Group for Lean Construction (IGLC-24)*, 20-22 July, Boston, MA. (80%, 20%)

17. **Dancz, C. L. A.**, Ketchman, K. J., **Burke, R.**, Bilec, M. M., Adams, E. A., Allenby, B., Chester, M., Khanna, V., Parrish, K.*, Seager, T. P., and Landis, A. E. (2016). "Integrating Sustainability Grand Challenges and Experiential Learning into Engineering Curricula: Years 1 through 3." *Proc. 123rd ASEE Annual Conference*, 26-29 June, New Orleans, LA, 4 pp. (80%, 5%, 5%, 1%, 1%, 1%, 1%, 1%, 1%, 1%, 1%, 1%)
18. **ElZomor, M.**, Mann, C., Parrish, K.*, and Chester, M. (2016). "Positioning Students to Understand Urban Sustainability Strategies through Vertical Integration: Years 1 through 3." *Proc. 123rd ASEE Annual Conference*, 26-29 June, New Orleans, LA, 4 pp. (40%, 40%, 15%, 5%)
19. **Collins, W.**, Parrish, K.*, and Gibson Jr., G. E. (2016). "Comparison of Front End Planning Practices for Small and Large Industrial Construction Projects." *Proc. Construction Research Congress 2016*, 31 May - 2 June, Puerto Rico, 10 pp. (75%, 15%, 10%)
20. **Burke, R.**, Parrish, K.*, and Gibson Jr., G. E. (2016). "Defining Small Projects in Developing the PDRI for Small Infrastructure Projects." *Proc. Construction Research Congress 2016*, 31 May - 2 June, Puerto Rico, 10 pp. (75%, 15%, 10%)
21. Valdez-Vasquez, R., Simmons, D., Zhao, D., and Parrish, K.* (2016). "The Michael Horman Symposium: Developing a Network of Researchers and Mentorship for Sustainability Topics." *Proc. Construction Research Congress 2016*, 31 May - 2 June, Puerto Rico, 10 pp. (40%, 40%, 15%, 5%)
22. **Arababadi, R.**, Parrish, K.*, and El Asmar, M. (2016). "Waging War on Climate Change." In O. Chong and K. Parrish (Eds.) *Proc. International Conference on Sustainable Design, Engineering, and Construction (ICSDEC 2016)*, 18-20 May, Tempe, AZ, 8 pp. (60%, 30%, 10%)
23. Santiago, K. (#), Vasquez, J. (#), and Parrish, K.* (2016). "The Role of Small Commercial Buildings in Achieving Energy Efficiency." In O. Chong and K. Parrish (Eds.) *Proc. International Conference on Sustainable Design, Engineering, and Construction (ICSDEC 2016)*, 18-20 May, Tempe, AZ, 8 pp. (40%, 40%, 20%)
24. Nikolin, B., Herrera, J., McCready, T., Grau, D., and Parrish, K.* (2015). "A Call for New Research in the Lean Construction Community: Alternative Work Schedules." In O. Seppanen, P. Arroyo, and V. Gonzalez (Eds.) *Proc. 23rd Annual Conference of the International Group for Lean Construction (IGLC 23)*, 29-31 July, Perth, Australia, 9 pp. (Published with industry authors. 15%, 15%, 15%, 25%, 30%)
25. **Arababadi, R.**, and Parrish, K.* (2015). "Developing and Modeling Potential Precooling Strategies for Residential Buildings in the Phoenix Climate." *Proc. ASHRAE 2015 Annual Conference*, 27 June - 1 July, Atlanta, GA, 7 pp. (80%, 20%)
26. **Collins, W.**, Parrish, K.*, and Gibson Jr., G. E. (2015). "Improving Project Performance

within Industrial-Focused Organizations with the Project Definition Rating Index for Small Industrial Projects.” In P. Chan and R. Leicht (Eds.) *Proc. 2015 Engineering Project Organizations Conference*, 24-26 June, Edinburgh, Scotland, 18 pp. (75%, 20%, 5%)

27. **Collins, W.**, Parrish, K.*, and Gibson, G. E. (2015). “Development and Utilization of the Project Definition Rating Index for Small Industrial Projects.” In A. Javernick-Will (Ed.) *Proc. 5th International/11th Construction Specialty Conference*, 8-10 June, Vancouver, British Columbia, 10 pp. (75%, 20%, 5%)
28. **Arababadi, R.**, **Naganathan, H.**, Parrish, K.*, and Chong, W. K. (2015). “Determining the Feasibility of Statistical Techniques to Identify the Most Important Input Parameters of Building Energy Models ” In O. Chong (Ed.) *Proc. International Conference on Sustainable Design, Engineering, and Construction*, 11-13 May, Chicago, IL, 8 pp. (40%, 40%, 10%, 10%)
29. Barnes, E. A., and Parrish, K.* (2015). “Small Buildings, Big Impacts: Developing a Library of Small Commercial Building Energy Efficiency Case Studies.” In O. Chong (Ed.) *Proc. International Conference on Sustainable Design, Engineering, and Construction*, 11-13 May, Chicago, IL, 8 pp. (70%, 30%)
30. Mann, C., Parrish, K.*, and Chester, M. (2015). “Positioning Students to Understand Urban Sustainability Strategies through Vertical Integration”. Paper presented at the 122nd ASEE Annual Conference, Seattle, WA, 14-17 June. (75%, 20%, 5%)
31. **Antaya, C. L.**, Ketchman, K. J., **Burke, R.**, Bilec, M. M., Adams, E. A., Allenby, B., Chester, M., Khanna, V., Parrish, K.*, Seager, T., and Landis, A. E. (2015). “Integrating Sustainability Grand Challenges and Experiential Learning into Engineering Curricula: Years 1 and 2.” *Proc. 122nd ASEE Annual Conference*, 14-17 June, Seattle, WA, 4 pp. (I serve on the PhD committees of the two student authors I do not advise. 72%, 10%, 10%, 1%, 1%, 1%, 1%, 1%, 1%, 1%, 1%, 1%)
32. Mann, C., Parrish, K.*, and Chester, M. (2015). “Teaching Urban Sustainability Strategies Through Vertical Integration and Problem-Based Learning.” Paper presented at the Engineering Sustainability 2015, Pittsburgh, PA, 20-21 April. (75%, 20%, 5%)
33. Parrish, K.* (2015). “Small Buildings, Big Impacts: Promoting Energy Efficiency in Small Commercial Buildings Through 2030 Districts.” *Proc. Engineering Sustainability 2015* Pittsburgh, PA, 20-21 April. 4 pp.
34. **Antaya, C.**, Parrish, K.*, Bilec, M., and Landis, A. E. (2014). “Assessing Comprehension With Student-Developed Construction Games.” In B. Gehrig (Ed.) *Proc. 121st ASEE Annual Conference & Exposition*, 15-18 June, Indianapolis, IN, 13 pp. (I serve on the PhD committee of the student author; 75%, 10%, 10%, 5%)

35. Parrish, K.* (2014). "Towards a Language-Action Paradigm: Experiences of a Trade Contractor." In B. T. Kalsaas (Ed.) *Proc. 22nd Annual Conference of the International Group for Lean Construction (IGLC-22)*, 23-27 June, Oslo, Norway, 1169-1180. (Work completed with industry practitioners in Phoenix; 100%)

36. Maestas, A., and Parrish, K.* (2014). "Exploring the Roots of Lean Culture at DPR Construction: A Case Study in Lean Culture." In B. T. Kalsaas (Ed.) *Proc. 22nd Annual Conference of the International Group for Lean Construction (IGLC-22)*, 23-27 June, Oslo, Norway, 1413-1422. (I advised the student author; 70%, 30%)

37. **Collins, W.**, and Parrish, K.* (2014). "The Need for Integrated Project Delivery in the Public Sector." In D. Castro-Lacouture (Ed.) *Proc. Construction Research Congress 2014 (CRC 2014)*, 19-21 May, Atlanta, GA., 10 pp. (75%, 25%)

38. Parrish, K.*, and Whelton, M. (2013). "Lean Operations: An Energy Management Perspective." In P. Tzortzopoulos and C. Formoso (Eds.) *Proc. 21st Annual Conference of the International Group for Lean Construction (IGLC-21)* Fortaleza, Brazil, 865-874. (Work completed with a former colleague; 70%, 30%)

39. Holloway, S. (#), and Parrish, K.* (2013). "The Contractor's Self-Perceived Role in Sustainable Construction: Results of a Survey." In P. Tzortzopoulos and C. Formoso (Eds.) *Proc. 21st Annual Conference of the International Group for Lean Construction (IGLC-21)* Fortaleza, Brazil, 905-914. (I advised the student author; 70%, 30%)

40. Ladhad, A., and Parrish, K.* (2013). "The Role of Lean Practices for Zero Net Energy Retrofits." In P. Tzortzopoulos and C. Formoso (Eds.) *Proc. 21st Annual Conference of the International Group for Lean Construction (IGLC-21)* Fortaleza, Brazil, 895-904. (I advised the student author; 70%, 30%)

41. **Ghosh, A.**, Parrish, K.*, and Chasey, A. (2013). "From BIM to Collaboration: A Proposed Integrated Construction Curriculum." In J. Hildreth (Ed.) *Proc. 120th ASEE Annual Conference & Exposition*, 23-26 June, Atlanta, GA, 8 pp. (I mentor the student author; 70%, 25%, 5%)

42. **Antaya, C.**, Parrish, K.*, Adams, E. A., and Landis, A. E. (2013). "Experiential Learning in the Civil Engineering Curriculum: Collaborations between Community Colleges, Research I Universities and National Laboratories." *Proc. 120th ASEE Annual Conference & Exposition*, 23-26 June, Atlanta, GA, 12 pp. (I serve on the PhD committee of the student author; 60%, 20%, 15%, 5%)

43. Parrish, K.* (2013). "The Role of Building Information Models in Efficient Delivery of Sustainable Healthcare Buildings." In M. Bilec (Ed.) *Proc. International Symposium on Sustainable Systems & Technologies (ISSST2013)*, 15-17 May, Cincinnati, OH, 5 pp. (Work I completed with the Alliance for Construction Excellence; 100%)

44. Parrish, K.*, and Ladhad, A. (2013). "The Contractor's Role in Achieving Deep Building Energy Savings." In G. M. Kovalcik (Ed.) *Proc. Engineering Sustainability 2013* Pittsburgh, PA. (I advised the student author and was still developing his writing; 70%, 30%)
45. Parrish, K.*, and Singh, R. (2012). "The Role of International Partnerships in Delivering Low-Energy Building Design: A Case Study." *Proc. International Conference on Sustainable Design, Engineering, and Construction*, Fort Worth, TX, 72-80. (Work completed with former colleagues; 90%, 10%)
46. Parrish, K.* (2012). "Lean and Green Construction: Lessons Learned from Design and Construction of a Prefabricated LEED Gold Building." In K. Walsh and I.D. Tommelein (Eds.), *Proc. 20th Annual Conference of the International Group for Lean Construction (IGLC 20)*, 18-20 July 2012, San Diego, CA, 10 pp. (Work completed at the Berkeley Lab; 100%)
47. Parrish, K.*, Ledewitz, J., and Leonard, E. (2012). "Building an Energy Management System for MIT: Lessons Learned from Implementing ISO 50001." In T. Hong and J. Loper (Eds.) *Proc. ACEEE Summer Study on Energy Efficiency in Buildings* Asilomar, CA., 12 pp. (Work completed with former colleagues; 80%, 10%, 10%)
48. Sanders, M. D., S. Earni, K. Parrish* (2011). "Savings to Sustainability: A Proposed Project Finance Method to Deliver Sustainable Federal Buildings." *Proc. ASCE International Conference on Sustainable Design & Construction*, Kansas City, MO, 23-25 March, 7 pp. (Work completed with former colleagues and lead author misunderstood author order; 50%, 10%, 40%)
49. Yin, R., S. Kiliccote, M. A. Piette, K. Parrish.* (2010). "Scenario Analysis of Peak Demand Savings for Commercial Buildings with Thermal Mass in California" *Proc. 2010 ACEEE Summer Study on Energy Efficiency in Buildings*, Pacific Grove, CA, 15-20 Aug, 2010. LBNL-3636E, 12 pp. (Work completed with former colleagues; 60%, 15%, 10%, 15%)
50. Kiliccote, S., M. A. Piette, J. Mathieu, K. Parrish.* (2010). "Findings from Seven Years of Field Performance Data for Automated Demand Response in Commercial Buildings" *Proc. 2010 ACEEE Summer Study on Energy Efficiency in Buildings*, Pacific Grove, CA, 15-20 Aug, 2010. LBNL-3643E, 12 pp. (Work completed with former colleagues; 60%, 10%, 15%, 15%)
51. Parrish, K.* and I. D. Tommelein. (2009). "Making Design Decisions using Choosing By Advantages." *Proc. 17th Annual Conference of the International Group for Lean Construction (IGLC 17)*, 15-17 July 2009, Taipei, Taiwan, 10 pp. (Work completed in graduate school at UC Berkeley; 85%, 15%)
52. Wong, J.-M., K. Parrish*, I. D. Tommelein, B. Stojadinovic. (2009). "SetPlan: A Computer Tool to Aid in Set-Based Design." *Proc. 17th Annual Conference of the*

International Group for Lean Construction (IGLC), 15-17 July 2009, Taipei, Taiwan, 10 pp. (Work completed in graduate school at UC Berkeley; 60%, 30%, 5%, 5%)

53. Parrish, K.*, I. D. Tommelein, G. Ballard. (2009). "Use of A3 Reports to Focus Design and Construction Conversations." *Proc. Construction Research Congress*, 5-7 April, Seattle, WA, 10 pp. (Work completed in graduate school at UC Berkeley; 85%, 10%, 5%)
54. Parrish, K.*, J.-M. Wong, I. D. Tommelein, B. Stojadinovic. (2008). "Set-Based Design: A Case Study on Innovative Hospital Design." In P. Tzortzopoulos and M. Kagioglou (Eds.) *Proc. 16th Annual Conference of the International Group for Lean Construction (IGLC 16)*, 16-18 July, Manchester, UK, 413-423. (Work completed in graduate school at UC Berkeley; 60%, 30%, 5%, 5%)
55. Parrish, K.*, J.-M. Wong, I. D. Tommelein, B. Stojadinovic. (2008). "Value Propositions for Set-Based Design of Reinforced Concrete Structures." In P. Tzortzopoulos and M. Kagioglou (editors). *Proc. 16th Conference of the International Group for Lean Construction (IGLC 16)*, 16-18 July, Manchester, UK, 495-506. (Work completed in graduate school at UC Berkeley; 70%, 20%, 5%, 5%)
56. Wong, J.-M., K. Parrish*, I. D. Tommelein, B. Stojadinovic. (2007). "Communication and Process Simulation of Set-Based Design for Concrete Reinforcement." in Henderson, S.G., Biller, B., Hsieh, M.-H., Shortle, J., Tew, J.D., and Barton, R.R. (eds.) *Proceedings of the 2007 Winter Simulation Conference*, 9-12 December 2007, Washington, D.C. (Work completed in graduate school at UC Berkeley; 60%, 30%, 5%, 5%)
57. Parrish, K.*, J.-M. Wong, I. D. Tommelein, B. Stojadinovic. (2007). "Proof-of-Concept of Set-Based Design for Reinforced Concrete Structures." in Pasquire, C.L. and Tzortzopoulos, P. (editors). *Proc. 15th Annual Conference of the International Group for Lean Construction (IGLC 15)*, 18-20 July 2007, East Lansing, MI, 213-222. (Work completed in graduate school at UC Berkeley; 60%, 30%, 5%, 5%)

REFEREED REPORTS AND TECHNICAL MANUALS

1. **El Zomor, M., Burke, R., Parrish, K.*, and Gibson Jr, G. E.** (2017). "Development of the Project Definition Rating Index (PDRI) for Small Infrastructure Projects." *RR 314-12*, Construction Industry Institute, Austin, TX., 214 pp.
2. **Collins, W., Parrish, K.*, and Gibson Jr, G. E.** (2015). "Development of the Project Definition Rating Index (PDRI) for Small Industrial Projects." *RR 314-11*, Construction Industry Institute, Austin, TX., 263 pp.
3. O'Donnell, J., Maile, T., Rose, C., Mrazović, N., Morrissey, E., Regnier, C., Parrish, K.*, and Bazjanac, V. (2013). "Transforming BIM to BEM: Generation of Building Geometry for the NASA Ames Sustainability Base BIM." *LBNL Report 6033E*, Lawrence Berkeley National Laboratory, Berkeley, CA Available at

<http://eetd.lbl.gov/sites/all/files/publications/lbnl-6033e.pdf>, 27 pp. (Report published with former colleagues; 15%, 15%, 15%, 15%, 10%, 10%, 10%, 10%)

4. Parrish, K.*, Granderson, J., Mercado, A., and Mathew, P. A. (2012). “Improving Energy Efficiency through Commissioning: Getting Started with Commissioning, Monitoring, and Maintaining Performance.” *LBNL Report 6495E*, Lawrence Berkeley National Laboratory, Berkeley, CA, 41 pp. (Report published with former colleagues; 50%, 20%, 20%, 10%)
5. Parrish, K.* (2012). “A Path to Successful Energy Retrofits: Early Collaboration through Integrated Project Delivery Teams.” *LBNL Report 6130E*, Lawrence Berkeley National Laboratory, Berkeley, CA Available at <http://eetd.lbl.gov/sites/all/files/lbnl-6130e.pdf>. 10 pp. (Report completed at the Berkeley Lab; 100%)
6. Sanders, M., Parrish, K.*, and Mathew, P. A. (2012). “Ready to Retrofit: The Process of Project Team Selection, Building Benchmarking, and Financing Energy Retrofit Projects.” *LBNL Report 5893E*, Lawrence Berkeley National Laboratory, Berkeley, CA, 34 pp. (Report published with former colleagues; 50%, 25%, 25%)

INVITED PRESENTATIONS – EXTERNAL (LOCAL, NATIONAL, OR INTERNATIONAL MEETINGS)

1. Roofing Alliance Faculty Retreat on Roofing
“Active Learning Strategies for Construction Management Faculty”
Tempe, AZ
March 9th, 2022
2. Construction Industry Institute Board of Advisers Meeting
“Safely Reoccupying Commercial Buildings in the Age of COVID-19”
Cape Coral, FL
November 11th, 2021
3. Georgia Institute for Technology School of Building Construction Seminar
“One (Possible) Future for the School of Building Construction”
Virtual Campus Visit
March 4th, 2021
4. KQED News
“Energy Implications of COVID-19 Vaccine Storage”
Recorded Interview
December 25, 2020
5. CNN Newsroom with Alex Marques
“COVID-19 Vaccine: Cold Storage Implications”
Live interview
December 13, 2020

6. Fox News Arizona
“COVID-19 Vaccine Storage”
Recorded interview
December 5, 2020
7. Washington State University’s Distance Learning Workshop
“Best Practices for Distance Learning in Graduate Courses”
Virtual Presentation
July 10, 2020
8. Construction Industry Institute Front End Planning Community of Practice
“PDRI – Small Industrial and Small Infrastructure Projects: Results from RT 314(A)”
Virtual Meeting
March 16, 2017
9. Clemson University Sustainability Seminar
“We Can Do It, So Why Don’t We?”
Clemson, SC
February 11, 2016
10. University of Pittsburgh Graduate Seminar
“We Can Do It, So Why Don’t We?”
Pittsburgh, PA
October 27, 2015
11. U.S. Department of Commerce’s U.S. – Palestine Green Building Cultural Exchange
“Green Buildings in the U.S. – A Construction Perspective”
Nablus, Palestine
August 26, 2015
12. Department of Energy’s Federal Energy Management Program’s Energy Efficiency Exchange
“Judging a Book by the Cover” (co-presented with John Riley)
Phoenix, AZ
August 13, 2015
13. Department of Energy’s Federal Energy Management Program’s Energy Efficiency Exchange
“Educating the Next Generation of Sustainability Professionals”
Phoenix, AZ
August 12, 2015
14. Engineering Sustainability 2015
“Small Buildings, Big Impacts: Promoting Energy Efficiency in Small Commercial Buildings through 2030 Districts”

Pittsburgh, PA
April 20, 2015

15. North America-East Asia Workshop on Big Data Analytics for Infrastructure and Building Sustainability and Resilience (ISBR) Research
“Energy Policy Assessment and the Need for Big Data”
Beijing, China
September 20, 2014
16. VerdeXchange Arizona 2014
“Let’s Build Sustainable for People”
Phoenix, AZ
May 1, 2014
17. Arizona Section of the American Society of Highway Engineers
Monthly Meeting; Phoenix, Arizona
“*Roadway Sustainability: Is It Just Good Engineering?*”
March 11, 2014
18. American Concrete Institute (ACI) Fall 2013 Convention
“Lean Rebar Design and Delivery: Successes and Challenges”
Phoenix, AZ, Lean Construction Panel
October 22, 2013
19. Sustainability Data Community Workshop
“The Need for Energy Data to Promote Savings in Commercial Buildings”
Chicago, IL
July 19, 2013
20. Clemson University Seminar
“Energy Efficiency in Commercial Buildings”
Clemson, SC, Civil and Environmental Engineering Seminar
July 8, 2013
21. Arizona Association of Environmental Professionals
Monthly Meeting; Scottsdale, Arizona
“*Energy Efficiency as an Environmental Resource*”
April 23, 2013
22. Arizona Section of the American Society of Civil Engineers
Annual Meeting, Phoenix, AZ
“*Sustainability: Is It Really Just Good Engineering Design?*”
September 13, 2013
23. Engineering Project Management Seminar
University of California, Berkeley

“Commercial Buildings Partnership Program – Lean and Green Project Delivery”
November 30, 2010

24. Structural Engineers Association of Northern California
Younger Members Forum
“Set-Based Design of Reinforced Concrete Structures”
May 19, 2008

25. Structural Engineers Association of Northern California
Leadership Public Schools, Hayward, CA.
High School Outreach Program: “What do Structural Engineers Actually Do?”
February 28, 2008

INVITED PRESENTATIONS – INTERNAL TO ASU

1. Welcome to Engineering Event
“Welcome to IAFSE!”
March 30, 2021
2. FSE 150 (Grand Challenges in Engineering) Guest Lecture
“Towards a more Sustainable Built Environment”
October 14, 2021
3. FSE 150 (Grand Challenges in Engineering) Guest Lecture
“Creating a more Sustainable Built Environment”
July 25, 2017
4. Women in Engineering
“How Did I Get Here? One Female Faculty Perspective”
April 4, 2017
5. ASU International Women’s Day Panelist
ASU Celebration of Women’s Day
March 20, 2017

INVITED CONFERENCE PRESENTATIONS, INCLUDING STUDENTS

1. 2022 CoNECD Conference
New Orleans, LA
“Creating and Sustaining Inclusive Classroom Environments in Engineering”
February 20-23, 2022
2. 2021 CURT/CII Conference
Orlando, FL
“Safely Re-occupying buildings during the COVID pandemic”
August 2-4, 2021

3. 2021 ASHRAE Summer Meeting
Virtual Conference
"A Novel Approach for Selecting a PCM for a Building Energy Retrofit"
June 26-30, 2021
4. 2020 ASHRAE Summer Meeting
Virtual Conference
"Using Bio PCM as Sensible Heat Storage in a Hot Arid Climate: A Case Study"
July 18, 2020
5. 2019 Engineering Education & Centers (EEC) Grantees Conference
Crystal City, VA
"Native American Attainment in Engineering Education: The Role of Universities"
October 21-23, 2019
6. 2017 Joint Conference of the ISIE and ISSST Poster Session
Chicago, IL
"Small Commercial's Big Problem: Disaggregating Whole Building Energy Bills"
June 26-28, 2017
7. Construction Industry Institute Annual Conference
National Harbor, MD
"Research Team 314a – Developing a PDRI for Small Infrastructure Projects"
August 1-3, 2016
8. 12th Annual Construction in Indian Country (CIIC) Conference
Chandler, AZ
"A Survey to Better Understand the Status of Tribal Housing"
April 26, 2016
9. Construction Industry Institute Annual Conference
Boston, MA
"Research Team 314 – Developing a PDRI for Small Industrial Projects"
August 3, 2015
10. 11th Annual Construction in Indian Country (CIIC) Conference
Scottsdale, AZ
"Efficiency Opportunities in Tribal Housing"
April 22, 2015
11. International Group for Lean Construction Annual Conference
Oslo, Norway
"Planning for Small Construction Projects in the Industrial Sector"
(Presented by Wes Collins; PhD Student)
June 26, 2014

12. Institute of Industrial Engineers Annual Conference & Expo 2014
Montreal, Canada
“Assessing the Relationship between Human Comfort and Student Engagement”
(Presented by Kathleen Duggan; student researcher)
June 1, 2014
13. 10th Annual Construction in Indian Country (CIIC) Conference
Chandler, AZ
“CATCH: Comprehensive Assessment of Tribal and Community Housing”
April 30, 2014
14. 63rd Arizona Conference on Roads and Streets
Tucson, AZ
“Achieving Sustainability through Good Design Practice”
April 17, 2014
15. Construction Engineering Conference
Seattle, WA
“Life-Cycle Assessment for Construction of Sustainable Infrastructure”
March 27, 2014
16. 9th Annual Construction in Indian Country (CIIC) Conference
Chandler, AZ
“Leveraging ASU’s Resources to Promote Service Learning”
April 30, 2013
17. Association of Public and Land-grant Universities Annual Conference
“Deep Energy Retrofits on College Campuses”
San Francisco, CA, APLU Energy Forum
November 14, 2011

PROFESSIONAL ACTIVITIES AND SERVICE

Summary:

Editorial Board for 1 peer-reviewed journal
2 International Conference Chaired
4 International Conference Committees
5 International Conference Sessions Chaired
Peer Reviewer for 10 Journals
Proposal Review Service for 2 Funding Agencies
4 ASU-level committees, 6 Unit-level committees, 3 Professional Committees

EDITORIAL BOARD POSITIONS

1. Associate Editor, ASCE Journal of Architectural Engineering 2019-present

2. Guest Editor, Sustainable Cities and Society 2016

INTERNATIONAL CONFERENCE CHAIRPERSONSHIPS

1. Technical Co-Chair, ASCE Architectural Engineering Conference 2023
2. Chair, Applications to Interviews Workshop, CRC 2020 2020
3. Chair, International Conf. on Sustainable Design, Engineering, and Construction 2016

INTERNATIONAL CONFERENCE COMMITTEES

1. Organizing Committee, ASCE Architectural Engineering Conference 2021-present
2. Organizing Committee, Construction Research Congress 2020 2019-2020
3. Organizing Committee, Engineering Sustainability Conference 2017-present
4. Social Organizer, Int'l Symposium on Sustainable Systems and Technology 2013
5. Referee, Annual Conf. of the International Group for Lean Construction 2009-present

INTERNATIONAL CONFERENCE SESSIONS CHAIRED

1. Chair, CII Track at CRC and CSCE Conferences 2016-present
2. Panel Leader, ACEEE Summer Study on Buildings 2014, 2016, 2018, 2020, 2022
3. Michael Horman Symposium Co-Chair, Engineering Sustainability Conference 2015, '17
4. Session Moderator, Construction Education Track, CRC 2014
5. Session Chair, 20th Annual Conf. of the International Group for Lean Construction 2012

JOURNAL PEER REVIEWER

1. *Journal of Cleaner Production* (2 Reviews) 2019-present
2. *Applied Energy* (2 Reviews) 2020-present
3. *Journal of Management in Engineering* (7 Reviews) 2016-present
4. *Energy Efficiency* (5 Reviews) 2015-present
5. *Building and Environment* (2 Reviews) 2015-present

6. *Energy and Buildings* (4 Reviews) 2014-present
7. *Journal of Architectural Engineering* (3 Reviews) 2014-present
8. *Built Environment Project and Asset Management Information* (2 Reviews) 2014-present
9. *Journal of Construction Engineering and Management* (9 Reviews) 2013-present
10. *Journal of Civil Engineering Education* (5 Reviews) 2013-present

PROPOSAL REVIEW SERVICES

1. USAID Reviewer (1 panel) 2020
2. National Science Foundation Reviewer (4 panels) 2013, 2018

COMMITTEE MEMBERSHIPS

ASU-LEVEL COMMITTEES

1. SRP Research Liaison, Non-Electrical Engineering Research 2021-present
2. FSE Diversity, Inclusion, Equity, and Belonging Advisory Council (IFAC) 2021-present
3. Diversity & Inclusion Initiative @FSE 2018-2020
4. General Studies Council, Arizona State University 2016-2021

UNIT LEVEL COMMITTEES

1. SSEBE Advisory Council 2019-present
2. DEWSC Scholarship Committee 2018-present
3. SSEBE Search Committee (3 positions) 2017
4. Quality Assessment Committee, Del E. Webb School of Construction 2015-present
5. DEWSC Academic Affairs Committee 2012-3
6. DEWSC Faculty Search Committee (5 positions) 2012, 2013, 2019, 2020, 2021

PROFESSIONAL COMMITTEES

1. Architectural Engineering Institute, ASCE 2020-present

2. Academic Advisor, Facilities and Healthcare Comm., Constr. Ind. Inst. 2019-present
3. NSF National Visiting Committee Chairperson, Laney BEST Center 2013- present

STUDENT ORGANIZATION ADVISING

1. Faculty Advisor, Advancing Women in Construction 2018-present
2. Mentor, Fulton Undergraduate Research Initiative 2013 - present
3. Faculty Advisor, ASUNM Solar Decathlon Team 2012-3
4. Faculty Co-Advisor, Engineers Without Borders 2013-present
5. E2 Camp Volunteer 2012-5

PROFESSIONAL MEMBERSHIPS

1. Advancing Women in Construction 2012 - present
2. American Society of Engineering Education 2012 - present
3. Society of Women Engineers 2010 - present
4. American Society of Civil Engineers 2003 - present
5. Structural Engineers Association of Northern California 2005 - 2010

PERSONNEL: STUDENT SUPERVISION/MENTORING, TEACHING, DISSERTATION COMMITTEES, RESEARCHERS, AND OUTREACH

Summary of Mentoring:

Mentored Personnel in US Academia (Tenure-Track Positions): 5

Postdoctoral Researchers: 4

Ph.D. Students Graduated: 7

Ph.D. Students Current: 1

M.S. Students Graduated: 25

M.S. Students Current: 0

Undergraduate Students (Research): 15 (includes primary advisees and committee advising)

Student Fellowships and Awards: 2

Summary of Teaching:

Undergraduate Courses Taught: 18

Graduate Courses Taught, including New Course Development: 18

Average Teaching Evaluation Score for Undergraduate Courses Taught at ASU: 4.72

Average Teaching Evaluation Score for Graduate Courses Taught at ASU: 4.52

MENTORED PERSONNEL IN US ACADEMIA

1. Rachael Sherman, Ph.D., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Assessing the Impact of Regulation on the Performance of Power and Pipeline Projects*
August 2020
Current position: Assistant Professor, University of North Carolina, Charlotte
2. Hariharan Naganathan, Ph.D., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Energy Analytics for Infrastructure: An Application to Institutional Buildings*
August 2017
Current position: Assistant Professor, Wentworth Institute of Technology
3. Rebekah Burke, Ph.D., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Early Design Decisions in Building Materials for Higher Performing Buildings*
May 2018
Current Position: Assistant Professor, the Citadel
4. Mohamed El Zomor, Ph.D., Construction Management
Arizona State University
Thesis: *Development and Deployment of the PDRI Tool for Small Infrastructure Projects*
August 2017
Current position: Assistant Professor, Florida International University
5. Wesley Collins, Ph.D., Construction Management
Arizona State University
Thesis: *PDRI Tool for Small Industrial Projects*
August 2015
Current Position: Associate Professor, Auburn University

POSTDOCTORAL RESEARCHERS

- | | |
|----------------------------|-----------------------------|
| 1. Fernanda Cruz Rios Ford | August 2018 – December 2019 |
| 2. Linda Tello | May 2017 – July 2018 |
| 3. Hariharan Naganathan | August 2017 – December 2017 |
| 4. Reza Arababadi | July 2016 - December 2016 |

PHD STUDENT ADVISING

CURRENT – PRIMARY ADVISOR

1. Abdul Shaibh, Ph.D., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: TBD
May 2024

CURRENT – COMMITTEE MEMBER

1. Joseph Cleary, Ph.D., Construction Management
Arizona State University
Thesis: *TBD*
August 2022
2. Vartenie Arameli, Ph.D. Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *TBD*
August 2022

GRADUATED – PRIMARY ADVISOR

1. Brianne Arviso, Ph.D. Construction Management & Technology
Arizona State University
Thesis: *Developing a Project Definition Rating Index (PDRI) for Tribal Building Projects*
May 2022
Current position: Project Manager, Arviso Construction, and Lecturer, University of New Mexico
2. Rachael Sherman, Ph.D. Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Assessing the Impact of Regulation on the Performance of Power and Pipeline Projects*
August 2020
Current position: Assistant Professor, University of North Carolina, Charlotte
3. Neda Askari, Ph.D., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Application of Phase Change Materials for Building Energy Retrofits in a Hot Arid Climate*
May 2020
Current position: Business Development Associate, Climatec
4. Rebekah Burke, Ph.D., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Early Design Decisions in Building Materials for Higher Performing Building*
May 2018
Current position: Assistant Professor, the Citadel

5. Mohamed ElZomor, Ph.D., Construction Management
Arizona State University
Thesis: *Development of the Project Definition Rating Index for Small Infrastructure Projects and its Application in the Classroom*
August 2017
Current position: Assistant Professor, Florida International University
6. Reza Arababadi, Ph.D., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Operational and Technological Peak Load Shifting Strategies for Residential Buildings*
May 2016
Current position: Assistant Professor, Kerman Graduate University of Advanced Technology, Iran
7. Wesley Collins, Ph.D., Construction Management
Arizona State University
Thesis: *PDRI Tool for Small Industrial Projects*
August 2015
Current Position: Associate Professor, Auburn University

GRADUATED – COMMITTEE MEMBER

1. Alireza Samieadel, Ph.D., Civil, Environmental, and Sustainable Engineering
Arizona State University
Thesis: *Multi-scale Characterization of Bitumen Doped with Sustainable Modifiers*
May 2020
2. Salim Moslehi, Ph.D., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Sustainability Assessment of Community Scale Integrated Energy Systems: Conceptual Framework and Applications*
August 2018
3. Fernanda Cruz Rios, Ph.D., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Beyond Recycling: Design for Disassembly, Reuse, and Circular Economy in the Built Environment*
May 2018
4. Virginia Counts, Ph.D., Civil, Environmental, & Sustainable Engineering
Co-advised with Dr. Brad Allenby
Arizona State University
Thesis: *Electronic Communication for Professionals – Challenges and Opportunities*
May 2018

5. Kevin Ketchman, PhD in Civil Engineering
University of Pittsburgh
Thesis: *Utilizing the Interconnectivity of Multi-Sector Communities for Innovative Building Energy Efficiency Methods*
December 2017
6. Hariharan Naganathan, Ph.D., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Energy Analytics for Infrastructure: An Application to Institutional Buildings*
August 2017
7. Claire Antaya-Dancz, PhD in Civil, Environmental, and Sustainable Engineering
Arizona State University
Thesis: *Integrating Sustainability Grand Challenges and Active, Experiential Learning into Undergraduate Engineering Education*
August 2016
8. Roberta Bosfield, PhD in Construction Management
Arizona State University
Thesis: *Feasibility of an Open Source Repository for Increasing the Usage of Best Practices in the Architecture-Engineering-Construction Industry*
December 2014

MASTERS STUDENT ADVISING

CURRENT – PRIMARY ADVISOR

GRADUATED – PRIMARY ADVISOR

1. Mohamed Sabek, M.S., Construction Management & Technology
Arizona State University
May 2022
2. Abdul Shaibh, M.S., Construction Management
Arizona State University
May 2021
3. Kshitij Kapse, M.S., Construction Management
Arizona State University
May 2021
4. Matthew Parsons, M.S., Construction Management
Arizona State University

December 2021

5. Reilly Smith, M.S., Construction Management
Arizona State University
December 2021
6. Abdul Shaibh, M.S., Construction Management
Arizona State University
May 2021
7. Behnaz Sabbaghi, M.S., Civil, Environmental, & Sustainable Engineering
Arizona State University
December 2020
8. Cecile LeJeune, M.S., Civil, Environmental, & Sustainable Engineering
Arizona State University
December 2020
9. Menna Hammam, M.S., Construction Management
Thesis: *A New Look at Designing Electrical Construction Processes: A Case Study of Cable Pulling and Termination Processes on Data Center Construction Sites*
Arizona State University
May 2020
10. Matthew Powers, M.S. Construction Management
Arizona State University
May 2020
11. Earl Malit, M.S., Construction Management
Arizona State University
May 2020
12. Daniel Bly, M.S., Construction Management
Arizona State University
May 2020
13. Amal Jacob, M.S., Construction Management
Arizona State University
December 2019
14. Maryam Nozaripour, M.S., Civil, Environmental, & Sustainable Engineering
Arizona State University
August 2019
15. Ahmed Alsaggaf, M.S., Construction Management
Arizona State University

May 2016

16. Gagandeep Kaith, M.S., Construction Engineering
Arizona State University
December 2015
17. Chelsea Mann, M.S., Civil, Environmental, & Sustainable Engineering
Arizona State University
May 2015
18. Elizabeth Barnes, M.S., Civil, Environmental, & Sustainable Engineering
Arizona State University
December 2014
19. Aaron Maestas, M.S., Construction Management
Arizona State University
December 2013
20. Akash Ladhani, M.S., Construction Management
Arizona State University
December 2013

CURRENT – COMMITTEE MEMBER

GRADUATED – COMMITTEE MEMBER

1. Rita El Kassis, MS in Construction Management
Thesis: *Augmented Reality Communication in Construction Factors Present in Uncontrolled Environment*
Arizona State University
May 2021
2. Spencer Hawkins, MS in Construction Management
Arizona State University
Thesis: *A Qualitative Study of EMaaS Performance in California Schools*
May 2020
3. Martine Clerroburn, MS in Construction Management
Arizona State University
December 2019
4. Aparna Perikamana, MS in Construction Management
Arizona State University
Thesis: *Assessing the Impact of BIM Process Mapping Activities In Construction Education*

May 2017

UNDERGRADUATE STUDENT RESEARCH ADVISING

GRADUATED – PRIMARY ADVISOR

1. Gary Taylor B.S., Construction Engineering
Arizona State University
Thesis: *Imagineering and Construction*
December 2020
2. Juliana Vasquez B.S., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *The Plastic Problem*
May 2018
3. Natasha Hebel B.S., Construction Management
Arizona State University
Thesis: *BIM Applications for Facilities Management*
May 2017
4. Hannah Hansen B.S., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Integration Case Studies for Improved Hospital Construction Projects*
May 2017
5. Kelsey Maris, B.S., Construction Management
Arizona State University
Thesis: *The Confluence of Lean and Green Construction*
May 2015
6. JR Nelson, B.S., Mechanical Engineering
Arizona State University
Project: *Effects of Energy Storage on an Arizona Residential Solar Energy System's ROI*
May 2015
7. Kathleen Duggan, B.S., Industrial Engineering
Arizona State University
Thesis: *Building Better Engagement – An Approach To Improving Student Engagement in Higher Education Environments*
May 2014
8. Jason Babbel, B.S., Mechanical Engineering
Arizona State University
Project: *The Pulse of Buildings: Weather-Independent Energy Efficiency Analysis*
May 2014

9. Skyler Holloway, B.S., Construction Management
Arizona State University
Thesis: *The Contractor's Self-Perceived Role in Sustainable Construction*
May 2013

GRADUATED – COMMITTEE MEMBER

1. Mecah Levy, B.S., Construction Management
Arizona State University
Thesis: *Exploring Different Aspects of Construction of Phoenix Sky Harbor Sky Train Expansion*
May 2020
2. Brooke Ridley, B.S., Civil, Environmental, & Sustainable Engineering
Arizona State University
Thesis: *Engineering The Environment: Comparison Of The Aral Sea And Florida Everglades To Determine Effective Sustainable Engineering Approaches And Earth Systems Engineering And Management*
May 2016
3. Kaleigh Campbell
Arizona State University
Thesis: *The LEED Rating System and the International Green Construction Code: A Comparative Analysis of Green Building Design Approaches*
May 2016
4. Pimwadee Limsirichai, B.S. in Materials Science and Engineering
Arizona State University
Thesis: *Under the Camper Shell*
December 2014
5. Hayley Magerman, B.A. in Business Administration
Arizona State University
Thesis: *Marketing Strategy Analyses for Residential Photovoltaic Module Providers*
May 2013

STUDENT FELLOWSHIPS AND AWARDS

1. Rebekah Burke, Ph.D. Civil, Environmental, & Sustainable Engineering, *May 2018, National Science Foundation Graduate Research Fellowship Program Award*
2. Wes Collins, Ph.D. Construction Management, *August 2015, Arizona State University Dean's Fellowship*

UNDERGRADUATE COURSES TAUGHT

Semester	Course	Student Credit Hours	Course Title	No. of Students	Average Score* (Instructor)	Average Score* (Course)
Fall 2021	CON 101	3	Construction & Culture: A Built Environment	434	4.84	4.63
Fall 2020	CON 101	3	Construction & Culture: A Built Environment	212	4.84	4.76
Spring 2020	CON 252	3	Construction Materials, Methods, and Equipment	37	4.74	4.72
Fall 2019	CON 101	3	Construction & Culture: A Built Environment	187	4.79	4.52
Spring 2019	CON 252	3	Construction Materials, Methods, and Equipment	38	4.84	4.73
Fall 2018	CON 100	3	Introduction to Construction	40	4.65	4.64
Spring 2018	CON 252	3	Construction Materials, Methods, and Equipment	40	4.92	4.67
Spring 2017	CON 252	3	Construction Materials, Methods, and Equipment	40	4.78	4.46
Fall 2016	CON 101	3	Construction & Culture: A Built Environment	70	4.87	4.64
Spring 2016	CON 252	3	Construction Materials, Methods, and Equipment	23	4.64	4.46
Fall 2015	CON 101	3	Construction & Culture: A Built Environment	64	4.82	4.59
Spring 2015	CON 252	3	Construction Materials, Methods, and Equipment	74	4.78	4.47
Fall 2014	CON 101	3	Construction & Culture: A Built Environment	82	4.85	4.63
Spring 2014	CON 252	3	Construction Materials, Methods, and Equipment	42	4.76	4.53

Semester	Course	Student Credit Hours	Course Title	No. of Students	Average Score* (Instructor)	Average Score* (Course)
Fall 2013	CON 252	3	Construction Materials, Methods, and Equipment	56	4.33	4.41
Spring 2013	CON 252	3	Construction Materials, Methods, and Equipment	38	4.66	4.3
Fall 2012	CON 252	3	Construction Materials, Methods, and Equipment	37	4.77	4.47
Spring 2010	CE 167	4	Engineering Project Management	71	6.2** (SD: .9)	5.9** (SD: 1.2)

*Scale out of 5; 5 being the most effective; **Scale out of 7; 7 being the most effective

Construction 100 (CON 100), Introduction to Construction
Arizona State University

Fall 2018

Lower division undergraduate course covering the fundamentals of construction project management; developed one midterm exam and one midterm project; developed a final report and presentation assignment; graded and reviewed all assignments; maintained course website.

Construction 101 (CON 101), Construction and Culture: A Built Environment
Arizona State University

Fall 2014, 2015, 2016

Lower division undergraduate course covering the origins of the construction industry and the history of building construction; developed two midterm exams, a final report, and a final project; graded and reviewed final reports and papers; managed a graduate assistant who posted and graded reading quizzes and graded exams.

Construction 252 (CON 252), Construction Materials, Methods, and Equipment
Arizona State University

Fall 2012 - present

Lower division undergraduate course covering elements of building construction, from foundations to roofs; developed a midterm exam and final project; arranged for field trips to local construction sites; managed two assistants who posted, graded, and returned homework assignments, exams, and reports to students within reasonable time limits.

Civil Engineering 167 (CE 167), Engineering Project Management
University of California Berkeley

Spring 2010

Upper division undergraduate course covering engineering economics, construction law, and project management; developed two midterms and one final exam; arranged for field

trips to local construction sites; managed two graduate assistants who posted, graded, and returned homework assignments, exams, and reports to students within reasonable time limits.

GRADUATE COURSES TAUGHT

Semester	Course	Student Credit Hours	Course Title	No. of Students	Average Score* (Instructor)	Average Score* (Course)
Fall 2021	RED 508	3	Real Estate Engineering and Construction	21	6.7**	6.5**
Fall 2021	CON 534	3	Retrofit Construction (<i>Online</i>)	7	4.44	4.32
Summer 2021	CON 598	3	Retrofit Construction (<i>Online</i>)	7	3.44	3.43
Spring 2021	RED 513	3	Advanced Engineering and Construction for Real Estate Development	26	6.9**	6.7**
Fall 2020	RED 508	3	Real Estate Engineering and Construction	26	6.6**	6.7**
Fall 2020	CON 598	3	Retrofit Construction	4	5	5
Summer 2020	CON 598	3	Retrofit Construction (<i>Online</i>)	15	4.62	4.36
Spring 2020	RED 513	3	Advanced Engineering and Construction for Real Estate Development	31	5	6.7**
Fall 2019	RED 508	3	Real Estate Engineering and Construction	31	6.9**	6.4**
Fall 2019	CON 598	3	Retrofit Construction	15	4.68	4.45
Summer 2019	CON 598	3	Retrofit Construction (<i>Online</i>)	19	4.47	4.46
Fall 2018	CON 598	3	Retrofit Construction	15	4.65	4.69
Summer 2018	CON 598	3	Retrofit Construction (<i>Online</i>)	4	4.59	4.4
Fall 2017	CON 598	3	Retrofit Construction	5	5	4.89
Fall 2016	CON 598	3	Retrofit Construction	9	4.46	4.3

Semester	Course	Student Credit Hours	Course Title	No. of Students	Average Score* (Instructor)	Average Score* (Course)
Fall 2015	CON 598	3	Retrofit Construction	15	4.36	4.32
Fall 2014	CON 598	3	Retrofit Construction	9	4.43	4.33
Spring 2014	CON 591	1	Construction Graduate Student Seminar	6	4.39	3.33
Fall 2013	CON 591	1	Construction Graduate Student Seminar	7	4.96	4.93

*Scale out of 5; 5 being the most effective

NEW COURSES DEVELOPED

Construction 598 (CON 598), Retrofit Construction

Fall 2014, 2015, 2016

Arizona State University

Graduate course focusing on retrofit projects, including structural, mechanical, and energy systems in historic and non-historic commercial buildings; developed presentation rubrics for student and instructor evaluations; developed course homeworks, reading quizzes, research paper and final project assignments.

Construction 591 (CON 591), Construction Graduate Student Seminar Fall 2013 - Spr 2014

Arizona State University

Graduate course focusing on verbal and written communication of technical topics; arranged for student and industry presentations; developed presentation rubrics for student and instructor evaluations; co-taught with colleague Dr. Mounir El Asmar.

TEACHING AWARDS

Fulton Schools of Engineering Top 5% Teaching Award

2015, 2016, 2017, 2021

Outstanding Graduate Student Instructor Award, UC Berkeley

2008

RESEARCH SUPPORT

Summary of Research Support

Total Approved/Anticipated External Funding (including supplements): \$2,210,366

Total Approved/Anticipated External Funding as PI: \$1,207,460

Professor Kristen Parrish Funding Recognition: \$1,256,059

Award Amount Received at ASU (as of 3/22/21; Prof. Kristen Parrish Recognition): \$1,256,059

Total Research Expenditures (as of 3/22/21; Prof. Kristen Parrish Recognition): \$906,822

SPONSORED RESEARCH AWARDS

Sponsor	Title	Role	Performance Period	Total	Recognition
CII	COVID 19 – Facilities Design, Construction, and Operational Reopening Best Practices	PI	10/21-6/22	\$14,353	\$14,353

Sponsor	Title	Role	Performance Period	Total	Recognition
SRP	FY 21 SRP/ASU Cooperative Agreement (Project Title: Developing a Tool to Quickly Assess a Customer's Readiness for Participation in a Connected Communities Program)	PI	8/21-7/22	\$63,636	\$63,636
NSF (INCLUDES)	NSF INCLUDES Planning Grant: Developing a Shared Vision for Engaging Persons with Disabilities in Science and Engineering	PI	9/20-12/21	\$100,000	\$50,000

Sponsor	Title	Role	Performance Period	Total	Recognition
NSF (Innovationis in Undergraduate STEM Education)	Collaborative Research: PIPE: Proven Inclusivity Practices for Engineering	PI	1/21-12/23	\$54,521	\$54,521
NSF	Workshop: Applications to Interviews: Preparing for the Faculty Job Market	PI	8/19-7/20	\$47,355	\$47,355

Sponsor	Title	Role	Performance Period	Total	Recognition
SRP	FY 20 SRP/ASU Cooperative Agreement (Project Title: Developing & Assessing Packages of Residential Energy Efficiency Measures for Reducing Peak Loads in SRP Territory)	PI	8/19-8/20	\$72,728	\$72,728
SRP	FY 19 SRP/ASU Cooperative Agreement (Project Title: Developing a Decision Support Tool for Retrofit of Generation Facilities within SRP's Portfolio)	PI	7/18-8/19	\$68,397	\$68,397

Sponsor	Title	Role	Performance Period	Total	Recognition
SRP	FY 19 SRP/ASU Cooperative Agreement (Project Title: Assessing the Reverse Demand Response Capabilities of Various Residential Technologies in SRP Territory)	PI	7/18-8/19	\$68,397	\$68,397

Sponsor	Title	Role	Performance Period	Total	Recognition
SRP	FY 18 SRP/ASU Cooperative Agreement (Project Title: Assessing the Effectiveness of the Viking Cold Solutions Energy Storage System for Load Shifting in SRP's Service Area)	PI	7/17-8/18	\$61,108	\$61,108

Sponsor	Title	Role	Performance Period	Total	Recognition
SRP	FY 17 SRP/ASU Cooperative Agreement (Project Title: Assessing the Effects of Various Precooling Strategies for Small Commercial Building Load Shifting in SRP's Service Area	PI	7/16-8/17	\$58,794	\$58,794
NSF (Broadening Participation in Engineering)	P ³ : Producing Native American PhDs and Professors in Engineering	PI	1/16-12/18	\$337,651	\$114,801

Sponsor	Title	Role	Performance Period	Total	Recognition
NSF (Dept. of Undergraduate Education)	Collaborative Research: Developing a Framework to better engage students in STEM via Game Design	PI	1/16-12/17	\$176,183	\$176,183
CII	Project Definition Rating Index Tool for Small Infrastructure Projects (supplemental funds to PDRI - Small Industrial Projects)	Co-PI	9/15 – 10/16	\$66,117	\$36,364

Sponsor	Title	Role	Performance Period	Total	Recognition
SRP	FY 16 SRP/ASU Cooperative Agreement (Project Title: Eliminating the Need for Residential Electric Storage by Coupling Precooling and Solar PVs)	PI	8/15-7/16	\$55,115	\$55,115
City of Scottsdale	City of Scottsdale Energy Star Portfolio Manager Assessment	Co-I	8/14 - 1/15	\$9,580	\$3,161
SRP	FY 15 SRP/ASU Cooperative Agreement (Project Title: Assessing the Effects of Various Precooling Strategies)	PI	8/14-7/15	\$53,200	\$53,200

Sponsor	Title	Role	Performance Period	Total	Recognition
NSF (TUES)	NSF TUES 2: Integrating Sustainability Grand Challenges and Systems Thinking into Engineering Curriculum	Sr. P	6/13 – 5/15	\$384,998	\$38,538
CII	Project Definition Rating Index Tool for Small Industrial Projects	Co-PI	10/13 – 10/15	\$245,592	\$135,076
SRP	FY14 SRP/ASU Cooperative Agreement (Project Title: Assessing the Effects of Various Precooling Strategies)	PI	8/13-7/14	\$4,011	\$4,011

Sponsor	Title	Role	Performance Period	Total	Recognition
DOE	Small Commercial 2030 District Program and Toolkit (\$4M in total)	PI	9/13 – 8/15	\$50,000	\$50,000
NSF	TUES: Positioning Engineers for Urban Sustainability Transition Strategy Development	Co-PI	8/13-7/16	\$196,619	\$98,310
DOE	Solar Decathlon 2013	Co-I	1/12 - 8/13	\$100,000	\$10,000
TOTAL				\$2,288,355	\$1,334,048

NSF = National Science Foundation; DOE = Department of Energy; CII = Construction Industry Institute; SRP = Salt River Project