

CURRICULUM VITAE

NAME Rebecca Anne Atadero

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EDUCATION AND CREDENTIALS

2006	Ph.D. Structural Engineering, University of California, San Diego.
2004	M.S. Structural Engineering, University of California, San Diego.
2002	B.S. Civil Engineering, Colorado State University, Fort Collins. Summa Cum Laude
2011	Registered Professional Engineer, State of Colorado, License # 44842
2017	Envision Sustainability Professional
In progress	Masters of Public Policy and Administration, Colorado State University (30/39 credits complete)

ACADEMIC POSITIONS

(2023-)	Professor, Civil and Environmental Engineering, Colorado State University
(2023-2024)	Interim Associate Dean for Academic Affairs, Walter Scott, Jr. College of Engineering, Colorado State University
(2022-2023)	Program Director, Engineering Education Initiative, Walter Scott, Jr. College of Engineering, Colorado State University
(2016-2023)	Associate Professor, Civil and Environmental Engineering, Colorado State University
(2008-2016)	Assistant Professor, Civil and Environmental Engineering, Colorado State University
(2006-2008)	Research Scientist, Civil and Environmental Engineering, Colorado State University

HONORS AND AWARDS

2022, Selected to participate in the IAspire Leadership Academy 2022 cohort.

2022, Best Diversity Paper, Engineering Ethics Division, American Society for Engineering Education Annual Conference, Minneapolis, MN

2022, Faculty Institute for Inclusive Excellence Diversity Impact Award, Colorado State University

2022, Editor's Choice Paper, *ASCE Journal of Bridge Engineering*, February

2019, Faculty Award for Excellence in Service, Department of Civil and Environmental Engineering, Colorado State University, Fort Collins

2015, Faculty Fellow for Inclusive Excellence, Colorado State University, Fort Collins

2015, Selected to attend National Academy of Engineering Frontiers of Engineering Education Symposium held October 25-28, 2015

2015, 1st Place Best Diversity Paper part of the ASEE Year of Action on Diversity, American Society for Engineering Education Annual Conference, Seattle, WA

2015, 1st Place Best Paper, ASEE First-Year Programs Division, American Society for Engineering Education Annual Conference, Seattle, WA

- 2013, Faculty Award for Excellence in Service, Department of Civil and Environmental Engineering, Colorado State University, Fort Collins
- 2009, Faculty Award for Excellence in Teaching, Department of Civil and Environmental Engineering, Colorado State University, Fort Collins
- 2008, Outstanding Research Scientist/Instructor, Department of Civil and Environmental Engineering, Colorado State University, Fort Collins
- 2002-2006, Achievement Rewards for College Scientists Scholarship, ARCS San Diego Chapter, San Diego, CA
- 2004, Honorable Mention, National Science Foundation Graduate Fellowship Awards, Washington, D.C.
- 2002, Jacobs School of Engineering Fellowship, University of California, San Diego
- 2002, Outstanding Civil Engineering Student, Department of Civil and Environmental Engineering, Colorado State University, Fort Collins

PUBLISHED WORKS

Refereed Journal Articles (Published and In-Press):

Underlining – graduate advisees or co-advisees * - Postdoc or Research Scientist supervisees

49. Lockhart, M. E., Rambo-Hernandez, K., & Atadero, R. (2024). Investigating inclusive professional engineering identity developmental patterns of first-year engineering majors: A person-centered approach. *Journal of Engineering Education*.
48. Khalife, F. G., Arneson, E. E., Atadero, R. A., & Ozbek, M. E. (2023). Assessing social equity considerations within transportation asset management. *Transport Economics and Management*, 1, 160-167.
47. Abdallah, A. M., Ozbek, M. E., & Atadero, R. A. (2023). Transferring Research Innovations in Bridge Inspection Planning to Bridge Inspection Practice: A Qualitative Study. *Infrastructures*, 8(11), 164.
46. Casper, A. A., Atadero, R. A., Abdallah, A. R., & Siller, T. (2024). Bringing Social Justice Context into Civil Engineering Courses for First-Year and Third-Year Students. *Journal of Civil Engineering Education*, 150(2), 04023013.
45. Casper, A.M.A.*, Atadero, R.A., and Fuselier, L. (2022). Revealing the Queer-Spectrum in STEM Through Robust Demographic Data Collection. *PLoS ONE*. 17(3): e0264267. <https://doi.org/10.1371/journal.pone.0264267>
44. Casper, A.M.A.*, Rambo-Hernandez, K.E., Park, S., and Atadero, R.A. (2022). The Impact of Emergency Remote Learning on Students in Engineering and Computer Science in the United States: An Analysis of Four Universities. *Journal of Engineering Education*. 111(3): 703-728. <https://doi.org/10.1002/jee.20473>
43. Besiktepe, D., Ozbek, M., and Atadero, R. (2021). A Multi-Criteria Decision-Making Approach for Building Maintenance Strategy Selection using Choosing by Advantages, *Journal of Facility Management Education and Research*. 5(1), <https://doi.org/10.22361/jfmer/147479>
42. Siller, T.J., Atadero, R.A., Casper, A.M.A*, and Paguyo, C.H. (2022). Leveraging Sustainability to Teach About Social Justice in Civil Engineering Curricula. *International Journal of Engineering Education*. 38(3): 742-755.
41. Abdallah, A.M., Atadero, R.A., and Ozbek, M.E. (2022). A State-of-the-Art Review of Bridge Inspection Planning: Current Situation and Future Needs. *ASCE Journal of Bridge Engineering*, 27 (2): 03121001. [https://doi.org/10.1061/\(ASCE\)BE.1943-5592.0001812](https://doi.org/10.1061/(ASCE)BE.1943-5592.0001812)

40. Rambo-Hernandez, K.E., Atadero, R.A. Paguyo, C.H., Morris, M. Park, S., Casper, A.M.A.*, Pedersen, B.A., Schwartz, J. and Henzel, R.A.M. (2021). Valuing Diversity and Enacting Inclusion in Engineering (VDEIE): Validity Evidence for a New Scale. *International Journal of Engineering Education*. 27(5): 1382-1397. <https://www.ijee.ie/contents/c370521.html>
39. Casper, A.M.A.*, Atadero, R.A., Hedayati Mehdiabadi, A., Baker, D.W. (2021). Linking Engineering Students' Professional Identity Development to Diversity and Working Inclusively in Technical Courses. *ASCE Journal of Civil Engineering Education*, 147(4): 04021012. [https://doi.org/10.1061/\(ASCE\)EI.2643-9115.0000052](https://doi.org/10.1061/(ASCE)EI.2643-9115.0000052)
38. Besiktepe, D., Ozbek, M. E., and Atadero, R. A. (2021). Condition Assessment Framework for Facility Management Based on Fuzzy Sets Theory. *Buildings*, 11(4): 156. <https://doi.org/10.3390/buildings11040156>
37. Abdallah, A.M., Atadero, R.A. and Ozbek, M.E. (2021). A Comprehensive Uncertainty-Based Framework for Inspection Planning of Highway Bridges. *Infrastructures*, 6(2): 27. <https://doi.org/10.3390/infrastructures6020027>
36. Besiktepe, D., Ozbek, M. E., and Atadero, R. A. (2020). Identification of the Criteria for Building Maintenance Decisions in Facility Management: First Step to Developing a Multi-Criteria Decision-Making Approach. *Buildings*, 10(9): 166. <https://doi.org/10.3390/buildings10090166>
35. Perry, B. J., Guo, Y., Atadero, R., and van de Lindt, J. W. (2020). Streamlined Bridge Inspection System Utilizing Unmanned Aerial Vehicles (UAVs) and Machine Learning. *Measurement*, 164: 108048. <https://doi.org/10.1016/j.measurement.2020.108048>
34. Guest, G., Zhang, J., Atadero, R., and Shirkhani, H. (2020). Incorporating the Effects of Climate Change into Bridge Deterioration Modeling: The Case of Slab-on-Girder Highway Bridge Deck Designs across Canada. *ASCE Journal of Materials in Civil Engineering*, 32(7): 04020175. [https://doi.org/10.1061/\(ASCE\)MT.1943-5533.0003245](https://doi.org/10.1061/(ASCE)MT.1943-5533.0003245)
33. Atadero, R. A., Jia, G., Abdallah, A., and Ozbek, M. E. (2019). An Integrated Uncertainty-Based Bridge Inspection Decision Framework with Application to Concrete Bridge Decks. *Infrastructures*, 4(3): 50. <https://doi.org/10.3390/infrastructures4030050>
32. Hafez, M., Ksaibati, K., and Atadero, R. (2018). Integration of Optimization Methodology to Evaluate Pavement Maintenance Strategies for Deteriorated Low-Volume Roads. *Canadian Journal of Civil Engineering*, 46(2): 104-113. <https://doi.org/10.1139/cjce-2018-0194>
31. Hafez, M., Ksaibati, K., and Atadero, R. A. (2018). Applying Large-Scale Optimization to Evaluate Pavement Maintenance Alternatives for Low-Volume Roads using Genetic Algorithms. *Transportation Research Record*, 2672(52): 205-215. <https://doi.org/10.1177/0361198118781147>
30. Badr, A. H., and Atadero, R. A. (2018). Using Concrete Service Life Prediction Software to Enhance Durability and Reduce Cost in Precast Parking Garage Design. *Practice Periodical on Structural Design and Construction*, 24(1): 06018005. [https://doi.org/10.1061/\(ASCE\)SC.1943-5576.0000395](https://doi.org/10.1061/(ASCE)SC.1943-5576.0000395)
29. Kelly, A.L., Atadero, R. A., and Mahmoud, H. N. (2018). Life Cycle Cost Analysis of Deteriorated Bridge Expansion Joints. *Practice Periodical on Structural Design and Construction*, 24(1): 04018033. [https://doi.org/10.1061/\(ASCE\)SC.1943-5576.0000407](https://doi.org/10.1061/(ASCE)SC.1943-5576.0000407)
28. Atadero, R. A., Paguyo, C. H., Rambo-Hernandez, K. E., and Henderson, H. L. (2018). Building inclusive engineering identities: implications for changing engineering culture. *European Journal of Engineering Education*, 43(3): 378-398. <https://doi.org/10.1080/03043797.2017.1396287>

27. Nickless, K. and Atadero, R.A. (2018). Mechanistic Deterioration Modeling for Bridge Design and Management. *Journal of Bridge Engineering*. 23(5): 04018018 [https://doi.org/10.1061/\(ASCE\)BE.1943-5592.0001223](https://doi.org/10.1061/(ASCE)BE.1943-5592.0001223)
26. Hafez, M., Ksaibati, K., and Atadero, R. (2017). Developing a methodology to evaluate the effectiveness of pavement treatments applied to low-volume paved roads. *International Journal of Pavement Engineering*, 1-11. <https://doi.org/10.1080/10298436.2017.1356174>
25. Saha, P., Ksaibati, K., and Atadero, R. (2017). Developing Pavement Distress Deterioration Models for Pavement Management System Using Markovian Probabilistic Process. *Advances in Civil Engineering*. <https://doi.org/10.1155/2017/8292056>
24. Balgopal, M. M., Casper, A. M. A., Atadero, R. A., and Rambo-Hernandez, K. E. (2017). Responses to different types of inquiry prompts: college students' discourse, performance, and perceptions of group work in an engineering class. *International Journal of Science Education*, 39(12): 1625-1647. <https://doi.org/10.1080/09500693.2017.1346847>
23. Hesse, A. A., Atadero, R. A., and Ozbek, M. E. (2017). Using Expert Opinion to Quantify Uncertainty in and Cost of Using Nondestructive Evaluation on Bridges. *Advances in Civil Engineering*. <https://doi.org/10.1155/2017/7925193>
22. Hafez, M., Ksaibati, K. and Atadero, R. (2017). Best practices to support and improve pavement management systems for low-volume paved roads, *International Journal of Pavement Engineering*. 20(5): 592-599. <https://doi.org/10.1080/10298436.2017.1316648>
21. Rambo-Hernandez, K.E., Atadero, R.A., and Balgopal, M.M. (2017). The Impact of Group Design Projects in Engineering on Achievement Goal Orientations and Academic Outcomes. *Educational Psychology*, 37(10): 1242-1258. <https://doi.org/10.1080/01443410.2017.1330947>
20. Vemuri, S.H. and Atadero, R.A. (2016). Case Study on Rapid Scanning Techniques for Concrete Bridge Decks with Asphalt Overlay: Ground Penetrating Radar and Infrared Thermography. *ASCE Practice Periodical on Structural Design and Construction*. 22(2): 05016004. [https://doi.org/10.1061/\(ASCE\)SC.1943-5576.0000313](https://doi.org/10.1061/(ASCE)SC.1943-5576.0000313)
19. Johnson, R.I. and Atadero, R.A. (2017). Simple-Made-Continuous Steel Bridges with Steel Diaphragms. *Engineering Journal-American Institute of Steel Construction*, 54(1), 3-19.
18. Clevenger, C., Ozbek, M., Simpson, S., and Atadero, R. (2016). Challenges in Developing a Transportation Sustainability Rating System That Meets the Preferences of a Department of Transportation. *Journal of Transportation Engineering*, 142(4): 04016005. [http://dx.doi.org/10.1061/\(ASCE\)TE.1943-5436.0000830](http://dx.doi.org/10.1061/(ASCE)TE.1943-5436.0000830)
17. McGuire, B., Atadero, R., Clevenger, C., and Ozbek, M. (2016). Bridge Information Modeling for Inspection and Evaluation. *Journal of Bridge Engineering*, 21(4): 04015076. [http://dx.doi.org/10.1061/\(ASCE\)BE.1943-5592.0000850](http://dx.doi.org/10.1061/(ASCE)BE.1943-5592.0000850)
16. Bright, C., Atadero, R., and van de Lindt, J. (2015). Concept Development and Evaluation of a New GFRP Reinforcement Geometry for Concrete Beams. *Journal of Composites for Construction*, 20(2): 04015049. [http://dx.doi.org/10.1061/\(ASCE\)CC.1943-5614.0000615](http://dx.doi.org/10.1061/(ASCE)CC.1943-5614.0000615) ,
15. Hesse, A., Atadero, R., and Ozbek, M. (2015). Uncertainty in Common NDE Techniques for Use in Risk-Based Bridge Inspection Planning: Existing Data, *Journal of Bridge Engineering*, 20(11): 04015004. [https://doi.org/10.1061/\(ASCE\)BE.1943-5592.0000733](https://doi.org/10.1061/(ASCE)BE.1943-5592.0000733)
14. Sobieck, T., Atadero, R., and Mahmoud, H. (2014). Fatigue Crack Propagation of Notched Steel Rebar in RC

Beams Repaired with Externally Bonded CFRP, *Journal of Composites for Construction*, 19 (5): 04014076.
[https://doi.org/10.1061/\(ASCE\)CC.1943-5614.0000541](https://doi.org/10.1061/(ASCE)CC.1943-5614.0000541)

13. Atadero, R.A. Rambo-Hernandez, K., and Balgopal, M. (2015). Using Social Cognitive Career Theory to Assess Student Outcomes of Group Design Projects in Statics, *Journal of Engineering Education*, 104(1): 55-73. <https://doi.org/10.1002/jee.20063>
12. Mata, O.R. and Atadero, R.A. (2014). Evaluation of Pull-Off Tests as a FRP-Concrete Bond Testing Method in the Laboratory and Field, *ASCE Practice Periodical on Structural Design and Construction*, 19(2): 04014001. [https://doi.org/10.1061/\(ASCE\)SC.1943-5576.0000170](https://doi.org/10.1061/(ASCE)SC.1943-5576.0000170)
11. Hesse, A., Atadero, R. and Mahmoud, H. (2014). Hoan Bridge Approach Span Failure as a Case Study for Engineering Students and Practicing Engineers, *ASCE Journal of Performance of Constructed Facilities*, 28(2): 341-348. [https://doi.org/10.1061/\(ASCE\)CF.1943-5509.0000403](https://doi.org/10.1061/(ASCE)CF.1943-5509.0000403)
10. Balogh, J., Fragiaco, F., Gutkowski, R., Atadero, R. and Ivanyi, P. (2013) Low-to-High cycle Fatigue Behavior of Wood-Concrete Composite Beams with Notched Interlayer Connections, *Pollack Periodica*, 8(1): 3-14.
9. Allen, D.G. and Atadero, R.A. (2012). Case Study on Evaluating the Long-Term Durability of Externally-Bonded FRP via Field Assessments, *ASCE Journal of Composites for Construction*, 16(6): 737-746. [https://doi.org/10.1061/\(ASCE\)CC.1943-5614.0000305](https://doi.org/10.1061/(ASCE)CC.1943-5614.0000305)
8. Steadman, J., Atadero, R.A., and Heyliger, P.R. (2014). Influence of Local Wall Variation in the Elastic Properties of Planar Cellular Solids, *International Journal for Computational Methods in Engineering Science and Mechanics*, 21(2): 117-128. <https://doi.org/10.1080/15376494.2012.680663>
7. Riley, C.E., Atadero, R.A., van de Lindt, J.W. and Heyliger, P.R. (2011). Cementitious Spray Dryer Ash-Tire Fiber Material for Maximizing Waste Diversion, *Advances in Civil Engineering*, Vol. 2011, 8 pages. <https://doi.org/10.1155/2011/354305>
6. Namagga, C. and Atadero, R.A. (2011). Valuable Utilization of Spray Dryer Ash and Its Performance in Structural Concrete, *International Journal of Sustainable Engineering*, 4(2): 153-163. <https://doi.org/10.1080/19397038.2010.540358>
5. Wieghaus, K.T. and Atadero, R.A. (2011). Effect of Existing Structure and FRP Uncertainties on the Reliability of FRP-Based Repair, *ASCE Journal of Composites for Construction*, 15(4): 645-643. [https://doi.org/10.1061/\(ASCE\)CC.1943-5614.0000197](https://doi.org/10.1061/(ASCE)CC.1943-5614.0000197)
4. Atadero, R.A. and Karbhari, V.M. (2009). Sources of Uncertainty and Design Values for Field-Manufactured FRP, *Composite Structures*, 89, 83-93. <https://doi.org/10.1016/j.compstruct.2008.07.001>
3. Atadero, R.A. and Karbhari, V.M. (2008). Calibration of Resistance Factors for Reliability-Based Design of Externally-Bonded FRP, *Composites, Part B: Engineering*, 39(4): 665-679. <https://doi.org/10.1016/j.compositesb.2007.06.004>
2. van de Lindt, J.W. and Atadero, R.A. (2008). Shake Table Test Results for a Half-Scale Reinforced Concrete Indonesian House with and without Economical Base Isolation, *Asian Journal of Civil Engineering (Building and Housing)*, 9(1): 1-13.
1. Atadero, R., Lee, L., and Karbhari, V.M. (2005). Consideration of Material Variability in Reliability Analysis of FRP Strengthened Bridge Decks, *Composite Structures*, 70(4), 430-443. <https://doi.org/10.1016/j.compstruct.2004.09.003>

Refereed Chapters in Books:

1. Atadero, R.A., 2011, Areas of Uncertainty in the use of Fiber Reinforced Polymer (FRP) Composites in the Rehabilitation of Civil Engineering Structures, In: Service Life Estimation and Extension of Civil Engineering Structures (Lee, L.S. and Karbhari, V.M.), Woodhead, 96-116.

Refereed Proceedings/Transactions:

27. Besiktepe, D., Ozbek, M. E., & Atadero, R. A. (2023, May). Choosing by Advantages Application Areas in Facilities Management: A Literature Review. In *IOP Conference Series: Earth and Environmental Science* (Vol. 1176, No. 1, p. 012028). IOP Publishing.
26. Leutenegger, S.T., GauthierDickey, C. Brown Adelman, R., Norman, T., Atadero, R., Rambo Hernandez, K., Paguyo, C.H., (2022). Using An Interactive Theater Intervention To Promote Gender Inclusion in Computer Science, 27th annual ACM conference on Innovation and Technology in Computer Science Education (ITiCSE), online.
25. Hedayati-Mehdiabadi, A., Atadero, R. (2022). How are Issues of Diversity, Equity, Inclusion, and Justice Reflected in Engineering Societies' Written Communications? A Review. ASEE Annual Conference and Exposition, Minneapolis, MN, United States. (Best Diversity paper for Engineering Ethics Division)
24. Atadero, R. A., Casper, A.M.*, DeLyser, R., Griffin, C., Hensel, R., Leutenegger, S., Morris, M., Paguyo, C., Paul, J., Rambo-Hernandez, K. E. (2022). Partnership for Equity: A Collaborative IUSE Project Surprises along the Path toward Equity in Engineering and Computer Science Education. ASEE Annual Conference and Exposition, Minneapolis, MN, United States. (poster presentation with paper)
23. Casper, A. M.*, Rambo-Hernandez, K. E., Park, S., Atadero, R. (2021). *Variability in Access and Stress: A Descriptive Study of Student Responses to Remote Emergency Learning at Four Universities*. 2021 AERA Annual Meeting. (Virtual meeting).
22. Besiktepe, D., Ozbek, M. E., and Atadero, R. A. (2019). Analysis of the Maintenance Work Order Data in Educational Institutions, ISEC 2019-10th International Structural Engineering and Construction Conference.
21. Paguyo, C. H., Casper, A. K., Atadero, R. A., Rambo-Hernandez, K. E., Iturbe,-LaGrave, V., Paul, J., DeLyser, R., Leutenegger, S., GauthierDicky, D. (2020). Assessment through Self-Reflection: Connecting Research to the Experiences of Leading Higher Education Diversity Initiative, American Educational Research Association. (conference cancelled)
20. Park, S., Atadero, R. A., Casper, A. K., Rambo-Hernandez, K. E., Paul, J., Morris, M., Griffin, C., DeLyser, R., Paguyo, C., Leutenegger, S. (2020). Partnership for Equity: STEM- Engaging with Faculty to Cultivate Inclusive Professional Identities in Engineering and Computer Science, ASEE Annual Conference, moved online. (poster presentation with paper)
19. Rambo-Hernandez, K. E., Morris, M., Casper, A., Hensel, R., Schwartz, J., and Atadero R.A. (2019). Examining the Effects of Equity, Inclusion, and Diversity Activities in First-Year Engineering Courses, ASEE Annual Conference, Tampa, FL, 2019.
18. Hedayati, A., Atadero, R.A., Baker, D. and Casper, A. (2019). Analyzing the Effects of an Innovative Intervention to Infuse Diversity and Inclusion in a Statics Course, ASEE Annual Conference, Tampa, FL, 2019.
17. Norris, A., Siller, T., Cook, A. and Atadero, R.A. (2019). Full Paper: An Evaluation of a First-Year Civil Engineering Student Group Dynamics Intervention, American Society of Engineering Education First Year Engineering Experience Conference, College Park, PA. 2019.
16. Rambo-Hernandez, K.E., Roy, A., Morris, M., Hensel, R., Schwartz, J., Hasemi, M., Atadero, R. and Paguyo, C. (2018). Using Interactive Theater to Promote Inclusive Behaviors in Teams for First-Year Engineering Students: A Sustainable Approach, ASEE CoNECD Conference, Washington, D.C., 2018.

15. Henderson, H. L., Rambo-Hernandez, K. E., Atadero, R. A., and Paguyo, C. (2017). The Effect of Gender on the Relationship between Implicit Theories of Intelligence and Engineering Identity: A Longitudinal Study, ASEE Annual Conference, Columbus, OH, 2017.
14. Rambo-Hernandez, K. E., Atadero, R. A., Paguyo, C., and Schwartz, J. (2017). Inclusive Engineering Identities: Two New Surveys to Assess Students' Inclusive Values and Behaviors, ASEE Annual Conference, Columbus, OH, 2017.
13. Harper-Smith, A. L., Rager, K., Mahmoud, H., Atadero, R., Martinez, J., Wang, T., and Khan, A. (2017). Thermal Effects on Deck Joint Movement in Colorado, TRB 96th Annual Conference, Washington, D.C., 2017. Transportation Research Board.
12. Hafez, M., Ksaibati, K., and Atadero, R. A. (2017). Pavement Management System for Low-Volume Paved Roads. TRB 96th Annual Conference, Washington, D.C., 2017. Transportation Research Board.
11. Atadero, R. A., Paguyo, C. H., Rambo-Hernandez, K. E., and Henderson, H. (2016). Promoting Inclusive Engineering Identities in First-Year Engineering Courses, ASEE Annual Conference, New Orleans, LA, 2016. (paper and poster)
10. Paguyo, C. H., Atadero, R.A., Rambo-Hernandez, K.E., and Francis, J. (2015). Creating Inclusive Environments in First-Year Engineering Classes to Support Student Retention and Learning, ASEE Annual Conference, Seattle, WA, 2015.
9. Atadero, R.A., Rambo-Hernandez, K.E., Balgopal, M.M., and Casper, A.M. (2014). Project-Based Learning in Statics: Curriculum, Student Outcomes, and Ongoing Questions, ASEE Annual Conference, Indianapolis, IN, 2014.
8. Casper, A.M., Atadero, R., Balgopal, M.M., and Rambo-Hernandez, K. (2014) Discourse between men and women during PBL engineering group work, Annual Conference of the National Association of Researchers in Science Teaching, Pittsburgh, PA, 2014.
7. Ozbek, M. E., Albeiruti, N., and Atadero, R. (2015). Understanding Public Perceptions of Different Revenue Generation Systems for Highway Construction and Maintenance, TRB 94th Annual Conference, Washington, D.C., 2015. Transportation Research Board.
6. Simpson, S., Clevenger, C.M., Ozbek, M. E., Rabbani, E., and Atadero, R. (2014). A Framework for Assessing Transportation Sustainability Rating Systems for Implementation in U.S. State Departments of Transportation, TRB 93rd Annual Conference, Washington, D.C., 2014. Transportation Research Board.
5. Casper, A.M., Atadero, R., Balgopal, M.M., Rambo, K., and Fontane, D. (2013). The Impact of Project-Based Group Work on Engineering College Students' Content Knowledge and Affect, Annual Conference of the National Association of Researchers in Science Teaching, Puerto Rico, 2013.
4. Keeler, K., Clevenger C.M., and Atadero, R. (2013). Framework for Sustainability Challenges within the Building Industry, Associated Schools of Construction 49th Annual International Conference, San Luis Obispo, CA, 2013.
3. Atadero, R.A. (2008). Considering the Effect of Uncertainty in the Existing Structure on the Reliability of FRP Repair Schemes, 5th International Conference on Advanced Composite Materials in Bridges and Structures, Winnipeg, Manitoba, 2008. Canadian Society of Civil Engineers.
2. Atadero, R.A. and Karbhari, V.M. (2005). Probabilistic Based Design for FRP Strengthening of Reinforced Concrete, ACI SP 230 Proceedings of 7th International Symposium on Fiber Reinforced Polymer (FRP) Reinforcement for Concrete Structures, Kansas City, MO, 2005. American Concrete Institute.
1. Atadero, R.A., Lee, L.S. and Karbhari, V.M. (2004). Materials Variability and Reliability of FRP Rehabilitation of Concrete, 4th International Conference on Advanced Composite Materials in Bridges and Structures, Calgary, Alberta, 2004. Canadian Society of Civil Engineers.

Non-Refereed Journal Articles/Chapters/Proceedings/Transactions:

9. Lee, L.S., Estrada, H. and Atadero, R.A. (2010). Time Dependent Reliability Analysis of FRP Rehabilitated RC Beams, SAMPE, Seattle, WA, 2010.
8. Namagga, C., and Atadero, R.A. (2009). Optimization of Fly Ash in Concrete: High Lime Fly Ash as a Replacement for Cement and Filler Material, World of Coal Ash, University of Kentucky Center for Applied Energy Research, Louisville, KY, 2009.
7. Riley, C.E, Atadero, R.A., van de Lindt, J.W., and Heyliger, P.R. (2008). Sustainable Structural Materials with Fly Ash and Recycled Tire Fibers, ASCE 5th International Engineering and Construction Conference, Long Beach, CA, 2008.
6. Atadero, R.A., Goode, J.S. and van de Lindt, J.W. (2007) Development of Lifetime Statistical Distributions of Wind Speed for Fatigue-Based Design, ASCE Structures Congress, American Society of Civil Engineers, Long Beach, CA, 2007.
5. Atadero, R.A. and Karbhari, V.M. (2006). Load and Resistance Factor Design for FRP Strengthening of Concrete Structures, of 3rd International Conference on FRP Composites in Civil Engineering, Miami, FL, 2006. International Institute for FRP in Construction.
4. Atadero, R.A., and Karbhari, V.M. (2005). Consideration of Time-Dependent Degradation in the Development of Probabilistic Based Design of FRP Strengthening, American Society for Composites 20th Annual Technical Conference, Philadelphia, PA, 2005.
3. Atadero, R.A. and Karbhari, V.M. (2005). Determination of Design Values for FRP Used for Strengthening, SAMPE, Long Beach, CA, 2005.
2. Atadero, R.A., Lee, L.S. and Karbhari, V.M. (2004). Effect of Variability of Composite Properties on Wet Layup Based Rehabilitation of Concrete Structures, American Society for Composites 19th Annual Technical Conference, Atlanta, GA, 2004.
1. Atadero, R.A. and Karbhari, V.M. (2004). Reliability Based Assessment of FRP Strengthened Slabs, SAMPE, Long Beach, CA, 2004.

Conference Posters (without paper)

4. Casper, A.M.A.*, Bhaskar, A., and Atadero, R.A. Incorporation of JEDI Content into an Undergraduate Hydrology Course. (2021). American Geophysical Union Conference. New Orleans, LA and Online.
3. Abdallah, A.M., Ozbek, M.E., and Atadero, R.A. (2022). Transferring Research Innovations in Bridge Inspection Planning to Bridge Inspection Practice: A Qualitative Study. TRB. Washington, D.C.
2. Casper, A. K., King, K. R., Atadero, R. A., Fuselier, L. (2020). Revealing the Queer-spectrum in STEM: Undergraduate student responses to diverse gender identity and sexual orientation demographics questions. NARST. (conference moved online)
1. Casper, A.M., Atadero, R.A., and Siller, T.J. (2019). Teaching the Socially-Situated Nature of Climate Change Science in Technical STEM Courses: A Hurricane Katrina Case Study, AGU Annual Meeting, San Francisco, CA, 2019.

CONTRACTS & GRANTS

Externally-Funded Projects as PI

- (2022-2025) Collaborative Research: Research: Early-Career Engineers Experiences with Equity and Ethics as They Transition to Practice and Implications for Formation of Engineers, Collaborators: Amir Hedayati-Mehdiabadi University of New Mexico, National Science Foundation, \$159,038 at CSU (\$349,763 total); interdisciplinary; I lead this project at CSU and will advise a graduate student as the project progresses.
- (2022-2023) Expansion Joint Movement Calculation for Bridges with Integral Abutments, Colorado Department of Transportation, \$42,000; disciplinary; I direct this project, advising one graduate student.
- (2022-2023) Incorporation of Social Equity Considerations into Transportation Asset Management, co-PIs: Mehmet Ozbek CSU, Erin Arneson CSU, Mountain Plains Consortium, \$50,000; disciplinary; I co-advise one graduate student and provide expertise on equity issues.
- (2019-2021) Investigating the Applicability of Multi-Fidelity Modeling to Condition Evaluation of Transportation Infrastructure, co-PI: Yanlin Guo CSU, Mountain Plains Consortium, \$60,000; disciplinary; I provide expertise on bridge inspection.
- (2017-2018) Use of Life Cycle Cost Analysis to Enhance Inspection Planning for Transportation Infrastructure, co-PI: Mehmet Ozbek CSU, Mountain Plains Consortium, \$54,000; interdisciplinary within civil/construction engineering; I co-advise a graduate student on this project.
- (2017-2023) Collaborative Research: IUSE-EHR: Cultivating Inclusive Identities of Engineers and Computer Scientists: Expanding Efforts to Infuse Inclusive Excellence in Undergraduate Curricula, Collaborators: Karen-Rambo Hernandez TAMU, Christina Paguyo University of Denver, Jody Paul Metropolitan State University, National Science Foundation, \$852,695 at CSU (\$1,918,720 total); interdisciplinary; I lead the project effort at CSU developing new curricula, working with faculty, collecting and analyzing data.
- (2016-2018) Developing an Optimization Model for Managing Low-Volume Roads in Colorado, co-PI: Khaled Ksaibati consultant, Colorado Department of Transportation, \$87,000; interdisciplinary within civil engineering; I provide general transportation asset management expertise while the co-investigator provides pavement specific expertise.
- (2015-2017) Outside Review of CDOT Low-Volume Road Treatment Strategies for Hot Mix Asphalt (HMA) Pavements, co-PI: Khaled Ksaibati consultant, Colorado Department of Transportation, \$72,340; interdisciplinary within civil engineering; I provide general transportation asset management expertise while the co-investigator provides pavement specific expertise.
- (2015-2017) Investigation of Mechanistic Deterioration Modeling for Bridge Design and Management, Colorado Department of Transportation, \$99,000; disciplinary.
- (2014-2017) (EI)²: Exploring Inclusive Engineering Identities through Freshman Engineering Curriculum Change, co-PI: Karen Rambo-Hernandez WVU, National Science Foundation, \$200,000; interdisciplinary-engineering education; I led development of the curriculum activities while my co-PI provided assessment expertise.
- (2014-2015) Determining the Uncertainty in the Current Condition of Bridges for Use in Risk Based Inspection and Management, Mountain Plains Consortium, \$21,000; disciplinary.
- (2014-2015) Using Building Information Modeling to Track and Assess Structural Condition, co-PIs: Caroline Clevenger CU Denver & Mehmet Ozbek CSU, Mountain Plains Consortium, \$36,000; interdisciplinary within civil/construction engineering; I provided expertise on bridges while co-PI Clevenger provided expertise in BIM and co-PI Ozbek provided expertise in asset

management.

- (2013-2014) Predicting Fatigue Service Life Extension of RC Bridges with Externally Bonded CFRP, Mountain Plains Consortium, \$64,712; disciplinary.
- (2012-2014) Enabling Unique Plastic-Reinforced Bridge Decks, co-PI: John van de Lindt CSU, Mountain Plains Consortium, \$23,000; disciplinary; I co-advised a graduate student on this project and provided expertise on composite materials and concrete.
- (2012-2014) Quantifying Uncertainty in Nondestructive Bridge Inspection Methods for use in Performance Based Inspection, co-PI: Mehmet Ozbek CSU; Mountain Plains Consortium, \$50,000; interdisciplinary within civil/construction engineering, I provide expertise on bridges while co-PI Ozbek provides expertise in asset management.
- (2011-2014) Research Initiation Grant: Problem/Project-Based Learning in Statics, a Stepping Stone to Engineering Education Research, co-PIs: Darrell Fontane CSU, Meena Balgopal CSU, Karen Rambo-Hernandez CSU (now WVU), National Science Foundation, \$150,000; interdisciplinary – engineering education; I provided the engineering knowledge and taught the experimental course sections while co-PIs Balgopal and Rambo-Hernandez provided assessment expertise.
- (2010-2012) Long Term Performance of FRP Repair Materials, Mountain Plains Consortium, \$52,000; disciplinary.
- (2010-2012) Long Term Monitoring of Mechanical Properties of FRP Repair Materials Subject to Environmental Exposure, Colorado Department of Transportation, \$50,000; disciplinary.
- (2010-2011) Laboratory Testing of Innovative Steel Bridge Designs, co-PI: Suren Chen CSU, Mountain Plains Consortium, \$52,000; disciplinary; I led the testing including advising the Ph.D. student who worked on the project.
- (2009-2010) Fatigue Testing of Wood-Concrete Composite Beams, co-PI: Jeno Balogh Metro State University, Mountain Plains Consortium, \$18,569; disciplinary; testing was conducted at Metro State, I helped primarily on publication of results.
- (2009-2010) Sustainable Concretes for Transportation Infrastructure (phase 2), Mountain Plains Consortium, \$18,475; disciplinary.
- (2008-2009) Sustainable Concretes for Transportation Infrastructure, Mountain Plains Consortium, \$18,697; disciplinary.

Externally-Funded Projects as CoPI

- (2022-2023) Minimizing Barriers to Implementing a Risk-Based Inspection Planning Framework in State Departments of Transportation (DOTs) PI: Yanlin Guo CSU, Mountain Plains Consortium, \$60,000; disciplinary; I provide expertise on bridge inspection and will co-advise one graduate student.
- (2020-2022) Development of a new airborne portable sensing system to investigate bridge response to agricultural vehicles, PI: Yanlin Guo CSU, Mountain Plains Consortium, \$60,000; disciplinary; I provide expertise on bridge inspection.
- (2018-2020) Transferring Research Innovation in Bridge Inspection Planning to Bridge Inspection Practice, PI: Mehmet Ozbek CSU, Mountain Plains Consortium, \$54,000; interdisciplinary within civil/construction engineering; PI Ozbek and I co-advise a graduate student on this project.
- (2018-2020) Development of an Autonomous Transportation Infrastructure Inspection System Based on Unmanned Aerial Vehicles (UAV), PI: Yanlin Guo CSU, co-PI John van de Lindt CSU, \$58,000;

disciplinary; I provide expertise on bridge inspection and helped advise the GRA on the project.

- (2018-2021) Precast Bootcamp, PI: Mohammed Mehany, PCI Foundation, \$81,652; interdisciplinary within civil/construction engineering; I recruit students from civil engineering and attend evening sessions presented by industry sponsors.
- (2015-2017) Sustainable Heated Pavements for Infrastructure Longevity, Safety and Economic Competitiveness PI: Paul Heyliger, CSU co-PI: Scott Glick, CSU, Mountain Plains Consortium, \$49,000; interdisciplinary collaboration with Construction Management, I contribute knowledge about infrastructure durability.
- (2015-2017) Joint Removal Implications--Thermal Analysis and Life Cycle Costs, PI: Hussam Mahmoud CSU, Colorado Department of Transportation, \$99,000; disciplinary, I am co-advise the graduate student working on this project and providing expertise on concrete bridges.
- (2012-2014) Understanding Public Perceptions of Different Revenue Generation Systems for Highway Construction and Maintenance, PI: Mehmet Ozbek CSU, Mountain Plains Consortium, \$27,000; interdisciplinary within civil/construction engineering, I primarily provided feedback to the PI and graduate student on this project.
- (2012-2014) Assessing Existing Transportation Sustainability Rating Systems for use in Mountain-Plains Consortium States (2012-2013), PI: Mehmet Ozbek CSU, Mountain Plains Consortium, \$21,000; interdisciplinary within civil/construction engineering, I primarily provided feedback to the PI and graduate student on this project.

Externally-Funded Projects as Investigator or role other than PI or CoPI

- (2010-2017) I served as the CSU Program Director for the Mountain Plains Consortium, the USDOT University Transportation Center for FHWA Region 8. North Dakota State University is the lead institution in the eight school consortium. Each year funds are allocated to each university and individual projects at each university are identified. The individual projects I have worked on as PI or Co-PI are indicated in the externally funded projects listed above. In the following table I have listed the total CSU allocation for each year, and the total number of projects and investigators. As the CSU program director I was responsible for identifying projects, allocating funds between projects, and managing reporting to NDSU including newsletter content and final reports.

Program Years	CSU Budget	Number of Projects	Number of Investigators
2009-2010	\$268,053	10	8
2010-2011	\$271,592	5	4
2011-2012	\$420,000	10	6
2013	\$407,712	7	8
2014	\$324,000	6	9
2015	\$321,337	7	10
2015-2016	\$293,756	4 + 3 continuations	8
2017	\$288,935	6	9

- (2009-2013) Implementation and Assessment of Failure Case Studies in the Engineering Curriculum, PI: Norbert Delate Cleveland State University, I was the PI at CSU for a subcontract to collect data in my classes, National Science Foundation, \$10,000 subcontract; interdisciplinary – engineering education research.
- (2007-2009) Durable Roof Tiles from a Fly Ash/Tire Composite: Testing and Manufacturing Toward a Sustainable World, PIs: Paul Heyliger and John van de Lindt, Colorado Commission on Higher

Education, \$113,126; disciplinary, I was a co-investigator and led laboratory material testing and helped co-advise a graduate student on the project.

Internally-Funded Awards

- (2023-2024) Developing Course Modules on Social Equity for Civil and Environmental Engineering and Construction Management Curricula, co-PIs: Mehmet Ozbek and Erin Arneson, CSU School of Global Environmental Sustainability, \$15,000; interdisciplinary; with this grant we are developing new course activities for three courses in the CEE and CM departments.
- (2019) Pre-CIP: Resilient Natural and Human Systems: A Framework for Linking Social and Environmental Systems to Create More Resilient Communities, co-PIs: Hussam Mahmoud, Ryan Morrison, Camile Stevens-Rumann, Elicia Ratajczyk, CSU OVP, \$5,000; interdisciplinary; this grant was intended to help develop a research team spanning engineering, ecology, and social sciences to look at wildfire resilience.
- (2014-2015) Investigation of Reflective Writing as a Tool to Promote Appreciation of Diversity in Engineering Students, co-PIs: Susan James and Meena Balgopal, College of Engineering Interdisciplinary grants, \$19,000; interdisciplinary – engineering education, I handle the logistics of working with classes and instructors in engineering and collaborate on data analysis.
- (2009-2010) Applying Structural Reliability Methods to Improve the Design of Wind Turbine Gearboxes, CSU Clean Energy Supercluster, \$17,000, disciplinary.
- (2008-2009) Predictive Models and Mechanics of Adaptive Solid Open-Cell Foams Co-PI: Paul Heyliger, NASA Space Grant at CSU, \$7,500, disciplinary, I advised the graduate student working on this project.

PAPERS PRESENTED/SYMPOSIA/INVITED LECTURES/PROFESSIONAL MEETINGS/WORKSHOPS

***Invited presentations**

November 17, 2023, Identifying Performance Metrics to Support the Integration of Social Equity in Asset Management. ASCE INSPIRE 2023, Washington, D.C., United States.

*March 2, 2023, DEI Issues on Engineering and Construction Curricula and Decision-Making. Panel; ASCE Construction Institute Summit, St. Louis, MO, United States.

June 28, 2022, Diversity, inclusion, and equity activities in engineering and computer science classrooms: You can do it, we can help. Workshop; ASEE Annual Conference and Exposition, Minneapolis, MN, United States.

June 2, 2022, Developing DEI Curricular Interventions in Engineering and Computer Science. Workshop; 2022 IUSE Summit. Washington, D.C., United States.

*February 18, 2022, CSU Office of the Vice President for Research DEI Forum, Fort Collins, CO.

June 17, 2019, Analyzing the Effects of an Innovative Intervention to Infuse Diversity and Inclusion in a Statics Course, ASEE Annual Conference, Tampa, FL.

*June 28, 2016, Creating Inclusive Environments in First-Year Engineering Classes to Support Student Learning and Retention, ASEE Annual Conference Plenary session for Best Papers from 2015.

October 7, 2016, Promoting Inclusive Attitudes in All Engineering Students, Dean's Advisory Board, Fort Collins, CO.

March 22, 2016, Promoting an Inclusive Culture in CSU's College of Engineering, Engineering Innovation

Breakfast, Denver, CO.

June 15 and June 16, 2015, Creating Inclusive Environments in First-Year Engineering Classes to Support Student Retention and Learning, ASEE Annual Conference, Seattle, WA. (refereed)

April 4, 2014, Uncertainty in Bridge Inspection Results in Bridge Management and Inspection Planning, ASCE Structures Congress, Boston, MA.

* September 25-26, 2013, Field Performance of FRP Repair Materials: The Need for More Data, U.S. Department of Transportation-Federal Highway Administration's Workshop on Aging of Composites, September 25-26, 2013, Ashburn, Virginia.

March 30, 2013 Using Project-Based Learning in A Large Statics Course: Is it Worth It?, ASEE Rocky Mountain Section Conference, Pueblo, CO.

September 23, 2008, Considering the Effect of Uncertainty in the Existing Structure on the Reliability of FRP Repair Schemes, 5th International Conference on Advanced Composite Materials in Bridges and Structures, Canadian Society of Civil Engineers, Winnipeg, Manitoba, Canada. (refereed)

May 17, 2007, Development of Lifetime Statistical Distributions of Wind Speed for Fatigue-Based Design, ASCE Structures Congress, Long Beach, CA.

December 14, 2006, Load and Resistance Factor Design for FRP Strengthening of Concrete Structures, 3rd International Conference on FRP Composites in Civil Engineering, International Institute for FRP in Construction, Miami, FL. (refereed)

November 7, 2005, Probabilistic Based Design for FRP Strengthening of Reinforced Concrete, 7th International Symposium on Fiber Reinforced Polymer (FRP) Reinforcement for Concrete Structures, American Concrete Institute, Kansas City, MO. (refereed)

September 8, 2005, Consideration of Time-Dependent Degradation in the Development of Probabilistic Based Design of FRP Strengthening, American Society for Composites 20th Annual Technical Conference, Philadelphia, PA.

July, 22, 2004, Materials Variability and Reliability of FRP Rehabilitation of Concrete, 4th International Conference on Advanced Composite Materials in Bridges and Structures, Canadian Society of Civil Engineers, Calgary, Alberta, Canada. (refereed)

October 18, 2004 Effect of Variability of Composite Properties on Wet Layup Based Rehabilitation of Concrete Structures, American Society for Composites 19th Annual Technical Conference, Atlanta, GA.

May 17, 2004, Reliability Based Assessment of FRP Strengthened Slabs, SAMPE 2004, Long Beach, CA.

TEACHING

Courses Taught

1. CIVE 102 Introduction to Civil and Environmental Engineering (Fall 2023)
2. CIVE 103 Engineering Graphics and Computing (Spring 2024)
3. CIVE 260 Engineering Mechanics: Statics (Fall and Spring 2012)
4. CIVE 302 Evaluation of Civil Engineering Materials (Fall Semesters 2011-2019, 2021-2022)
5. CIVE 367 Structural Analysis (Fall Semesters 2008-2010)
6. CIVE 466 Design and Behavior of Steel Structures (Spring 2009-2011)
7. CIVE 467 Design of Reinforced Concrete Structures (Spring 2012-2017, 2020, 2022-2024)
8. CIVE 566 Intermediate Structural Analysis (Fall 2010, 2011, 2014)
9. CIVE 567 Advanced Concrete Design (Spring 2014-2016, Fall 2017, 2019, 2021)
10. CIVE 507 Structural Inspection, Management, and Repair (Spring 2017, Fall 2018)

Participation in Professional Development Activities Related to Teaching

Participant, Best Practices in Teaching: First Four Weeks, CSU TILT, Summer 2023

This was a three week online course about planning for the first four weeks of a semester to support student belonging and success.

Participant, CSU Online Course Development Process, Spring 2022

I took a two week Canvas course about designing effective online courses and then worked with an instructional designer to prepare an online version of CIVE 467, reinforced concrete design.

Participant, WSCOE Inclusive Teaching Workshop, 3 sessions, Fall 2019

The three part inclusive teaching workshop was specific to engineering and offered new information about our students and a chance to reflect about practices in the college and their impact on students, particularly students from marginalized identities.

Participant, Workshop on Intergroup Relations sponsored CSU Provost's Office and Division of Student Affairs, January 14-16, 2019

The Intergroup relations workshop built on content I learned in the Faculty Institute for Inclusive Excellence and the Social Justice Workshop. This workshop emphasized dialog as a form of communication (as opposed to debate or discussion) and offered strategies to help at difficult moments in the classroom.

Participant, CSU TILT Summer Teaching Conference, May 16-17, 2018

The theme of the 2018 TILT summer conference was Closing the Student Achievement Gap. At this workshop we learned about the CSU First Four Weeks Initiative, and how active learning benefits students of color and other marginalized students disproportionately.

Participant, CSU Safezone Training, August 11, 2017

Safezone training is not specific to teaching, but helped me be more aware of the challenges LGBTQ+ students may face on campus and in the classroom.

Participant, Precast/Prestressed Concrete Professors Workshop, May 16-18, 2017

The PCI professor's workshop included teaching information for all disciplines within architecture/engineering/construction. As a group we took tours of Denver area precast concrete plants and learned about applying to the PCI Foundation for support in teaching precast and prestressed concrete topics.

Participant, CSU Social Justice Workshop, June 6-9, 2016

The Social Justice Workshop was a more general workshop about diversity, equity, and inclusion. Content covered in the workshop was relevant to all aspects of faculty careers including teaching, research and service.

Participant, CSU TILT Summer Teaching Conference, May 18-19, 2016

The theme of the 2016 workshop was High Impact Practices and included sessions on teaching strategies such as the use of Learning Assistants and flipped classrooms.

Participant in Faculty Institute for Inclusive Excellence, CSU, 2015

The Faculty Institute met six times during the spring of 2015 to learn about and discuss issues of diversity and inclusiveness in our classrooms, our course activities, and the campus at large. In the fall of 2015 we completed projects implementing our new knowledge. For my project I developed a 1.5 hour workshop for engineering students about the importance and relevance of diversity, equity, and inclusion to engineering.

Participant in Portland Cement Association Professor's Workshop, August 1-5, 2011

This week long workshop at the PCS headquarters in Skokie, IL covered a wide range of topics related to concrete materials and design of concrete structures and pavements. The content of the course is directly applicable to CIVE 302, CIVE 467 and CIVE 567 and provided me with knowledge and resources to

share with my students in these courses.

Participant in CSU TILT Summer Retreat on the Theory and Practice of Teaching, May 24-27, 2011

This workshop covered many aspects of teaching including how to promote critical thinking, integrate active learning strategies, develop effective assignments and assessments, deal with difficult students, and use technology to teach.

Participant in ASCE ExCEEEd (Excellence in Civil Engineering Education) Teaching Workshop, July 2008

This is a weeklong workshop specifically for civil engineering faculty. The workshop focuses on a lot of nuts and bolts in the classroom teaching skills, but I especially appreciated the emphasis on getting to know your students and in developing clear learning objectives for each class session.

Participant in CSU TILT Workshop on Critical Thinking, May 2008

This was a two day workshop on strategies and techniques to promote critical thinking in students.

Participant in Faculty Workshop on Failure Case Studies in the Civil Engineering Curriculum, July 2007

This was a one day workshop providing materials and strategies for instructors to implement failure case studies in their courses. I have included some of this material in CIVE 367, CIVE 302 and CIVE 466 during various semesters.

Student in EDUC 713, Teaching, Learning, and Professional Growth, Colorado State University, Fall 2007

This was a semester long, 3 credit seminar course. The theme of the course when I took it was diversity. This course was the first opportunity I had to think about issues of privilege, access and inclusion in higher education.

Other Teaching Experiences

Department of Construction Management, PCI Boot Camp, assistant instructor. 1 credit, Fall 2018, Fall 2019

College of Engineering Professional Learning Institute Session: Working with Diversity in Engineering: Why it

Matters and Strategies to Promote Effective Teamwork. Offered: April 6, 2016 and November 3, 2017

Teaching Assistant, University of California, San Diego, Spring 2004 and 2006 SE 2-Structural Materials.

STUDENT ADVISING/GRADUATE SUPERVISION

Undergraduate Students:

2008-2022 Routine undergraduate course advising: approximately 7-9 students each year.

Graduate Students:

The term *jointly-advised* is used to indicate students where the advisors worked as true partners and contributions to student progress were roughly equal.

The term co-advisor is used when I advised a student in a secondary role.

Current Graduate Advisees:

Fawzi Khalife, PhD, Civil/Construction Engineering (jointly-advised)

Karen Gupta, PhD, Civil Engineering

Mohammad Teymouri Moogooee, Civil/Construction Engineering

Winnifred Ahga, Civil Engineering

Joseph Bindner, PhD, Civil Engineering (co-advisor)

Graduate Degrees Completed Under My Supervision:

PhD

Lisa Weber, Chemical and Biological Engineering/ Engineering Education (co-advisor), Spring 2024

Abdelrahman Abdullah, Civil/Construction Engineering (jointly-advised), Summer 2021

Deniz Besiktepe, Civil/Construction Engineering (jointly-advised), Spring 2021

Robert Johnson, Civil Engineering, Spring 2015

Charles Riley, Civil Engineering, (co-advisor) Fall 2009

MS Plan A

Ali Hadi Badr, Fall 2017
Aura Lee Harper-Smith, Summer 2017, co-advisor
Kyle Nickless, Spring 2017
Karly Rager, Summer 2016, co-advisor
Sri Harsha Reddy, Spring 2016
Patrick Sanders, Summer 2015
Brendan McGuire, Fall 2014
Tyler Sobieck, Summer 2014
Christopher Bright, Summer 2014 jointly-advised
Alex Hesse, Spring 2013
Oscar Mata-Carrillo, Fall 2012
Doug Allen, Fall 2011
Carolyn Namagga, Spring 2010
Kyle Weighaus, Summer 2009
Jason Steadman, Summer 2009

MS Plan B

Aaron Wood, Fall 2023
John McWilliams, Spring 2018
Rohan Kadole, Summer 2018
Nitin Meharwade, Spring 2017
Ethan Mathern, Fall 2014
Alexandra Dukeman, Fall 2013
Whitney Achter, Spring 2013
Poojitha Deshraj, Fall 2012
Mark Benjamin, Fall 2010
Neal Bohnen, Spring 2010
Nicole Jecminek, Fall 2009

Postdoctoral students/Research Scientists Supervised

Prior:

A.M. Aramati Casper Ph.D. (Research Scientist II) August 2108-2023
Abdelrahman Abdallah, PhD, August 2021 -December 2021
Amir Hedayati Mehdiabadi, PhD, April 2018-July 2018
Christina H. Paguyo, PhD, Fall 2014-Fall 2016

Descriptions of Mentoring Activities:

- ASCE Faculty Advisor (2018 – 2023) ASCE has about 10 officers each year. I attend officer meetings monthly and travel with students to the annual conference.
- Senior Design, I have assisted ASCE Concrete Canoe teams to various degrees since 2010. I have assisted PCI Big Beam Competition teams in 2017-2020.
- Mentor to Scott Undergraduate Research Scholars – Spring 2019, Spring 2022
- WSCOE PROGRESS presentations (February 2020, 2022, November 2023) I gave a presentation about mentors over my career path to about 50 women undergraduate students and had follow-up mentoring meetings with 2 of the students.
- I mentored an African American woman student in our department with monthly meetings over the course of 1.5 years.

COMMITTEES

University:

Faculty Council Task Force for AUCC 1C Implementation, 2021- 2022
 Think Tank to Revise the CSU Common Core Experience, Representative for the College of Engineering, 2020
 Reviewer for President's Race, Bias, and Equity Initiative, February 2020
 President's Commission on Diversity and Inclusion, College of Engineering co-Representative 2016-2018
 Faculty Council, 2015 - 2018
 Search Committee for Director of Office of Undergraduate Research and Artistry (TILT), 2008

College:

Search Committee Member for Director of Engineering Success Center, 2023
 Chair, Task Force for the First-Year Experience, 2022-
 Search Committee Member for Director of Enrollment, Access, and Equity, 2022
 Strategic Plan Development Committee, 2021
 Strategic Plan Implementation Committee, Chair of subcommittee for Initiative 5, 2016-2019
 College Curriculum Committee, 2016-2020
 CSU Master Teacher Initiative, co-coordinator for College of Engineering, 2017-2018
 Associate Dean for Academic Affairs Search Committee, 2015
 College of Engineering Student Technology Committee, 2013-2015
 College of Engineering ABET Committee, 2012-2013, 2017-2019
 College of Engineering Scholarship Committee, 2009-2011
 College of Engineering Silver Medal Award Committee, 2008-2009

Department:

Graduate Admissions Committee, 2021-2023
 Tenure Committee, 2017-2020, 2021-
 Diversity, Equity and Inclusion Committee, 2019-
 Accreditation Committee, 2014-2018, Chair 2018-2019, continuing support 2020
 Led preparation of the Civil Engineering Self-Study Report for ABET Accreditation 2013, 2019
 Structures Faculty Search Committees, 2010, 2011-2012, 2015-2016
 Instructor Search Committee, 2016
 CE Teaching Lab Manager Search Committee, 2017, 2019
 Harold Short Chair Search Committee, 2014-2015
 Undergraduate Instruction Committee, 2008-2011, Chair, 2012 -2013
 CEE Department Strategic Planning Committee, 2008

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Memberships

American Society of Civil Engineers
 American Society for Engineering Education

- Commission on Diversity, Equity and Inclusion Delegate for the Civil Engineering Division (2022).
- Year of Impact on Racial Equity Task Force Member (2021-2022)

Grant Review Panels

NSF Ad Hoc Reviewer, SBIR Phase I, 2023
 NSF Panel Member, Professional Formation of Engineers, 2022
 NSF Panel Member, Improving Undergraduate STEM Education, 2020
 NSF Ad Hoc Reviewer, Improving Undergraduate STEM Education, 2019
 NSF Panel Member, Research in Engineering Education, 2015
 NSF Panel Member, Improving Undergraduate STEM Education, 2015
 NSF Ad Hoc Reviewer, Improving Undergraduate STEM Education, 2014
 NSF Ad Hoc Reviewer, Science, Technology and Society, 2014
 NSF Ad Hoc Reviewer, Civil Infrastructure Systems, 2013

NSF Panel Member, Civil Infrastructure Systems, 2013
NSF Panel Member, SBIR Phase I, 2011

Manuscript Refereeing

Journal of Engineering Education
Journal of Women and Minorities in Science and Engineering
Journal of Structural Integrity and Maintenance
Construction and Building Materials
Journal of Cleaner Production
Computer Applications in Engineering Education
ASCE Journal of Hydraulic Engineering
ASCE Journal of Cold Regions Engineering
ASCE Journal of Bridge Engineering
International Journal of Sustainable Engineering
ASCE Journal of Composites for Construction
TRB Annual Meeting/Transportation Research Record
Journal of Undergraduate Research and Scholarly Excellence (CSU)
Composites: Part B Engineering
Composite Structures
Open Civil Engineering Journal
Advances in Civil Engineering
Advances in Structural Engineering
International Journal of Concrete Structures and Materials
ASCE Journal of Materials in Civil Engineering
Structure and Infrastructure Engineering
Structural Safety

Conference Paper Peer Reviewer

ASCE Annual Conference, 2017, 2018, 2019, 2020, 2022, 2023
ASCE CoNECD Conference, 2018, 2019, 2020

External Reviewer for Tenure or Promotion

1 Review 2020
3 Reviews 2018
1 Review 2017

OUTREACH

STEM Advisory Board Member Colorado Early Colleges (2 meetings annually), 2020-present
Interview about Structural Engineering with “Young Scholar” O’dea Elementary, 2021
Webelos Engineering Badge Day, CSU coordinator, each Fall 2007-2018
Materials testing for elementary student science fair project, Spring 2018
WSCOE Envision Summer camp presenter, Summer 2018
Judge, O’dea Elementary Science Fair, March 2017
Meet with 5th grade students from Laurel Elementary, March 2017
Liberty Common High School, Engineering Class visitor, Fall 2015
Odyssey of the Mind, Poudre High School, Fall 2012
Demonstrate Shake Table Testing for Elementary and High School Students, Spring 2011
Presenter at College of Engineering Saturday Morning Club, Spring 2009
Presenter for CSU WISDOM, November 2010

OTHER ACTIVITIES/ACCOMPLISHMENTS

Professional Development

Race: Let's Talk About It, Office of Social Sustainability, City of Fort Collins, June 2019

AAC&U, Project Kaleidoscope PKAL STEM Leadership Institute, July 2018