

# DENISE R. SIMMONS, PhD, PE, PMP, LEED-AP

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## EDUCATION

- Ph.D., Civil Engineering**, 2012; Clemson University, Clemson, SC  
**Graduate certificate, Engineering Education**, 2010; Clemson University, Clemson, SC  
**Ph.D.-level coursework, Environmental Engineering**, 2005–2007; University of South Carolina, Columbia, SC. *Focus: Sustainable infrastructure*  
**M.S., Civil Engineering**, 1995; Clemson University, Clemson, SC. *Thesis title: Development of Engineering & Construction Project Management Guidelines*  
**B.S., Civil Engineering**, 1990; Clemson University, Clemson, SC

## PROFESSIONAL EXPERIENCE

- 2018–Present: Associate Professor, Department of Civil and Coastal Engineering, University of Florida  
2013–2018: Assistant Professor, Myers-Lawson School of Construction; Civil Engineering and Affiliate Faculty, Engineering Education Department, Virginia Tech  
2012–2013: Postdoctoral Associate, Department of Engineering Education, Virginia Tech; NSF Collaborative Proposal: Developing Engineer of 2020 Traits: How do Non-curricular Activities Impact African American Students?  
2008–2012: Graduate Research Assistant, Department of Engineering and Science Education, Clemson University  
2007–2012: Director, Savannah River Environmental Sciences Field Station (SRESFS) managed by SC State University  
2004–2005: Academic Program Coordinator for Civil Engineering Technology, SC State University  
2004–2008: ABET Assessment Coordinator, College of Math, Science, Engineering & Tech, SC State University  
2004–2008: Assistant Professor, Civil Engineering Technology, SC State University  
2003–2008: Faculty Practitioner, University of Phoenix, Virtual Campus and Columbia, SC  
2003–2004: Senior Functional Consultant, Indus International, Columbia, SC  
2001–2004: President, Denise S. Grant and Associates, Columbia, SC  
2001–2002: Consultant/Trainer, Project Management Consultants, LLC, Clemson, SC  
2001–2001: Adjunct Professor, Department of Civil Engineering Tech, Midlands Technical College, Columbia, SC  
2000–2001: Energy Engineer, Memphis Light, Gas & Water, Memphis, TN  
1997–1999: Adjunct Professor, Management Institute Voorhees College, Denmark, SC  
1996–2000: Project Engineer, SCANA Corp, Columbia, SC  
1994–1995: Graduate Researcher, Georgia Pacific, Clemson, SC and Atlanta, GA  
1991–1994: Associate Design Civil Engineer, Power Generation Group, Charlotte, NC

## PUBLICATIONS

### Refereed Journal Articles, in print

1. Chen, Z., **Simmons, D. R.**, Zhao, D. (in press). Interconnectivity in Collaboration Networks Impacts Member Belongingness. *Journal of Construction Engineering and Management*.
2. **Simmons, D. R.**, & Chau, A. D.<sup>P</sup> (in press). Factors predicting out-of-class Participation for underrepresented groups in STEM. *Journal of STEM Education: Innovations and Research*.
3. Bae, H.<sup>G</sup>, **Simmons, D. R.**, & Polmear, M.<sup>P</sup> (in press). Promoting the quarry workers' hazard identification through formal and informal safety training. *Safety and Health at Work*. doi:10.1016/j.shaw.2021.02.003
4. Sands, K.<sup>G</sup>, Pearce, A. R., Suh, M. J., Fiori, C. M., **Simmons, D. R.**, & Mouras, V. A. (in press). Understanding ethics education's influence on the ethical sensitivity of construction students. *Journal of Civil Engineering Education*.
5. Polmear, M.<sup>P</sup>, Chau, A. D.<sup>P</sup>, & **Simmons, D. R.** (in press). Intersection of diversity, out-of-class engagement, and Engineer of 2020 outcomes for civil engineering students. *Journal of Management in Engineering*.
6. McCall, C., McNair, E., & **Simmons, D. R.** (2021). Advancing from outsider to insider: A grounded theory of professional identity negotiation for undergraduate civil engineering. *Journal of Engineering Education*. <http://doi.org/10.1002/jee.20383>
7. Karakhan, A., Gambatese, J., **Simmons, D. R.**, & Al-Bayati, A. J. (2021). Identifying pertinent indicators for assessing and fostering diversity, equity, and inclusion of the construction workforce. *Journal of Management in Engineering*, 37(2), 04020114. doi:10.1061/(ASCE)ME.1943-5479.0000885
8. Polmear, M.<sup>P</sup>, Chau, A. D.<sup>P</sup>, & **Simmons, D. R.** (2020). Ethics as an outcome of out-of-class engagement. *Australasian Journal of Engineering Education*. doi:10.1080/22054952.2020.1836752
9. Sands, K.<sup>G</sup>, Pearce, A. R., Suh, M. J., **Simmons, D. R.**, Fiori, C. M., & Mouras, V. A. (2020). Toward a technique of evaluating student ethical sensitivity to professional issues of the construction industry. *Journal of Construction Engineering and Project Management*, 10(2), 1–20. doi:10.6106/JCEPM.2020.10.2.001
10. **Simmons, D. R.**<sup>A</sup>, Clegorne, N., Polmear, M.<sup>P</sup>, Scheidt, M., & Godwin, A. (2020). Connecting engineering students' perceptions of professional competencies and their leadership development. *Journal of Civil Engineering Education*, 147(2), 04020015. doi:10.1061/(ASCE)EI.2643-9115.0000031
11. **Simmons, D. R.**, Groen-McCall, C., & Clegorne, N. A. (2020). Leadership competencies for construction professionals as identified by construction industry executives. *Journal of Construction Engineering & Management*, 146(9), 04020109. doi:10.1061/(ASCE)CO.1943-7862.0001903
12. Clegorne, N. A., **Simmons, D. R.**, & McCall, C. (2021). Leadership competencies for post-secondary engineering experiences: A Delphi study of industry perspectives. *Journal of Leadership Education*. doi:10.12806/V20/I1/R4

<sup>A</sup> Publication received award; <sup>G</sup> Graduate student under direction of DRS; <sup>P</sup> Postdoc researcher under direction of DRS; <sup>U</sup> Undergraduate student under direction of DRS

13. McCall, C., Shew, A., **Simmons, D. R.**, Paretti, M. C., & McNair, L. D. (2020). Exploring student disability and professional identity: Navigating sociocultural expectations in U.S. undergraduate civil engineering programs. *Australasian Journal of Engineering Education*. doi:10.1080/22054952.2020.1720434
14. Karakhan, A. A., Gambatese, J., & **Simmons, D. R.** (2020). Development of assessment tool for workforce sustainability. *Journal of Construction Engineering and Management*, 146(4), 04020017. doi:10.1061/(ASCE)CO.1943-7862.0001794
15. Garahan, K., Clegorne, N. A., & **Simmons, D. R.** (2020). Understanding leadership through an ecological lens: A rhetorical cluster analysis of the Civil Engineering Body of Knowledge. *International Journal of Engineering Education*, 36(1), 130–141.
16. **Simmons, D. R.**, Hunsu, N. J., & Adesope, O. O. (2019). Enabling multi-dimensional measurement of engagement in engineering learning environments. *International Journal of Engineering Education*, 35(6), 1827–1838.
17. Turner, M., & **Simmons, D. R.** (2020). Taking a partnered approach to managing academic stress: An undergraduate study. *International Journal of Construction Education and Research*, 16(4), 251–269. doi:10.1080/15578771.2019.1619637
18. Quardokus Fisher, K., Kaufman, E., Calagna, O., Myles, L., Brinkworth, C., **Simmons, D. R.**, & Dixon, P. G. (2019). Developing scientists as champions of diversity to transform the geosciences. *Journal of Geoscience Education*, 67(4), 459–471. doi.org/10.1080/10899995.2019.1618692
19. **Simmons, D. R.**, & Lord, S. M. (2019). Removing invisible barriers and changing mindsets to improve and diversify pathways of groups underrepresented in engineering. *Advances in Engineering Education*, 7(2). <https://advances.asee.org/wp-content/uploads/vol07/issue02/papers/AEE-issue-24-EAGER-Simmons-Lord.pdf>
20. Groen, C.<sup>A,P</sup>, **Simmons, D. R.**, & Turner, M. (2019). Developing resilience: Experiencing and managing stress in a US undergraduate construction program. *Journal of Professional Issues in Engineering Education and Practice*, 145(2), 04019002. doi:10.1061/(ASCE)EI.1943-5541.0000407
21. **Simmons, D. R.**, Mullekom, J. V., & Ohland, M. W. (2018). The popularity and intensity of undergraduate out-of-class activities. *Journal of Engineering Education*, 107(4), 611–635. doi:10.1002/jee.20235
22. **Simmons, D. R.**<sup>A</sup>, Iorio, J., Taylor, J. E., & Li, D.<sup>G</sup> (2018). Work values across generations among construction professionals in the United States. *Journal of Construction Engineering and Management*, 144(10): 04018096. doi:10.1061/(ASCE)CO.1943-7862.0001554
23. Bowers, A. W.<sup>G</sup>, Ranganathan, S., & **Simmons, D. R.** (2018). Defining quality in higher education: Directions for future research informed by a literature review. *Higher Learning Research Communications*, 8(1), 5164. doi:10.18870/hlrc.v8i1.392
24. **Simmons, D. R.**<sup>A</sup>, Ye, Y.<sup>G</sup>, Ohland, M. W., & Garahan, K.<sup>G</sup> (2018). Understanding students' incentives for and barriers to out-of-class participation: Profile of civil engineering student engagement. *Journal of Professional Issues in Engineering Education and Practice*, 144(2), 04017015. doi:10.1061/(ASCE)EI.1943-5541.0000353 [Editor's Choice for the

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issue where it appeared]

25. **Simmons, D. R.**<sup>A</sup>, Clegorne, N. A., & Woods-Wells, T.<sup>G</sup> (2017). Leadership paradigms to develop professionals in the construction industry: A critical review informed research agenda. *Journal of Management in Engineering*, 33(4), 02517001. doi:10.1061/(ASCE)ME.1943-5479.0000518
26. **Simmons, D. R.**, Ye, Y.<sup>G</sup>, Hunsu, N. J., & Adesope, O. O. (2017). Development of a survey to explore out-of-class engagement of engineering students. *International Journal of Engineering Education*, 33(4), 1213–1221.
27. **Simmons, D. R.**, Creamer, E. G., & Yu, R.<sup>G</sup> (2017). Involvement in out-of-class activities: A mixed research synthesis examining outcomes with a focus on engineering students. *Journal of STEM Education: Innovations and Research*, 18(2), 10–16.
28. **Simmons, D. R.**, & Martin, J. P. (2017). Shaping autonomous decision makers: Familial influence on persisting first generation college engineering students. *Journal of Women and Minorities in Science and Engineering*, 23(1), 53–71. doi:10.1615/JWomenMinorScienEng.2017016316
29. **Simmons, D. R.**, & Martin, J. P. (2014). Developing effective engineering fictive kin to support undergraduate first-generation college students. *Journal of Women and Minorities in Science and Engineering*, 20(3), 279–292. doi:10.1615/JWomenMinorScienEng.2014010979
30. Martin, J. P., **Simmons, D. R.**, & Yu, S. L. (2014). Family roles in engineering students' academic and career choices: does parental education attainment matter? *International Journal of Engineering Education*, 30(1), 136–149.
31. Martin, J. P., Miller, M. K., & **Simmons, D. R.** (2014). Exploring the theoretical social capital "deficit" of first generation college students: Implications for engineering education. *International Journal of Engineering Education*, 30(4), 822–836.
32. Martin, J. P., **Simmons, D. R.**, & Yu, S. L. (2013). The role of social capital in the experiences of Hispanic women engineering majors. *Journal of Engineering Education*, 102(2), 227–243. doi:10.1002/jee.20010

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#### Invited Journal Editorials, in print

1. Coley, B. C., **Simmons, D. R.**, & Lord, S. M. (2021). Dissolving the margins: LEANING INto an antiracist review process. *Journal of Engineering Education*.
2. **Simmons, D. R.**, & Lord, S. M. (2019). Advances from AEE: Call it by its name. *ASEE Prism*, 28(8), 43. doi:10.2307/26820257

#### Non-Refereed Journal Articles, in print

1. Beuth, C.<sup>U</sup>, Duran, A.<sup>U</sup>, **Simmons, D. R.**, & Turner, M. (2017). Resilience: Buildings aren't the only thing construction students build. *National Undergraduate Research Clearinghouse*, 20. <http://www.webclearinghouse.net/volume/20/Research>
2. Brenner, J. S.<sup>G</sup>, & **Simmons, D. R.** (2017). Undergraduate construction students & perceptions of effective leadership and preparation strategies. *National Undergraduate Research Clearinghouse*, 20. <http://www.webclearinghouse.net/volume/20/Research%20Lab-Undergradu.php>
3. Holliday, C., Ly, N.<sup>U</sup>, & **Simmons, D. R.** (2017). The role of work in developing resilient construction students. *National Undergraduate Research Clearinghouse*, 20. <http://www.webclearinghouse.net/volume/20/Research%20Lab-TheRoleofW.php>
4. Martin, J. T.<sup>U</sup>, Brenner, J. S.<sup>G</sup>, & **Simmons, D. R.** (2017). Comparing and contrasting leadership training of construction project managers in higher education and the workplace. *National Undergraduate Research Clearinghouse*, 20. <http://www.webclearinghouse.net/volume/20/Research%20Lab-Comparinga.php>
5. Periwal, M.<sup>U</sup>, & **Simmons, D. R.** (2017). An exploratory study to understand employers' perspectives on the competencies of entering professionals in the construction industry. *National Undergraduate Research Clearinghouse*, 20. <http://www.webclearinghouse.net/volume/20/Research%20Lab-AnExplorat.php>

#### Refereed Journal Articles, under review

1. Bae, H.<sup>G</sup>, **Simmons, D. R.**, & McCall, C. (under review). Building agency: Recruiting and retaining construction professionals in industry. *Engineering Project Organization Journal*.
2. Bae, H.<sup>G</sup>, **Simmons, D. R.**, McCall, C., & Polmear, M.<sup>P</sup> (under review). Photo elicitation in construction engineering research: The value of coupling participants' inside perspectives with researchers' outside perspective. *Visual Studies*.

#### Refereed Journal Articles, under development

1. Bae, H.<sup>G</sup>, Polmear, M.<sup>P</sup>, & **Simmons, D. R.** (2021). Civil engineering students' perceptions of professional preparedness in college. [Manuscript in preparation].
2. Chau, A. D.<sup>P</sup>, **Simmons, D. R.**, & Adesope, O. (2021). The role of gender, grades, and affective engagement in the decision to switch majors into engineering. [Manuscript in preparation].
3. Polmear, M.<sup>P</sup>, **Simmons, D. R.**, & Clegorne, N. A. (2021). Leveraging engineering faculty knowledge, experience, and training for leadership education in undergraduate curricula.

<sup>A</sup> Publication received an award; <sup>G</sup> Graduate student under direction of DRS; <sup>P</sup> Postdoc researcher under direction of DRS; <sup>U</sup> Undergraduate student under direction of DRS; \* Presenting author; \*\* Former name of DRS

- [Manuscript in preparation].
4. **Simmons, D. R.**, Chau, A. D.<sup>P</sup>, & Turner, M. (2021). Research in brief: validation of the resilience at university (RAU) scale with a graduate student sample. [Manuscript in preparation].
  5. Karakhan, A., Nnaji, C. Gambatese, J., & **Simmons, D. R.** (2021). Best Practice Strategies for Workforce Development and Sustainability in Construction – An Industry Perspective [Manuscript in preparation].
  6. **Simmons, D. R.**, Chau, A. D.<sup>P</sup>, & Adesope, O. O. (2021). The role of gender, grades, and affective engagement in the decision to switch majors into engineering. [Manuscript in preparation].
  7. Polmear, M.<sup>P</sup>, Clegorne, N., & **Simmons, D.R.** Uncovering the hidden curriculum of leadership education in civil engineering. [Manuscript in preparation].
  8. Polmear, M.<sup>P</sup>, Volpe, E.<sup>G</sup>, Weisenfeld, D.<sup>U</sup>, & **Simmons, D.R.** Leveraging engineering faculty knowledge, experience, and training for leadership education in undergraduate curricula. [Manuscript in preparation].
  9. Polmear, M.<sup>P</sup>, **Simmons, D.R.**, Cheung, C., & Zhang, R. The role of visualization technology in construction safety training. [Manuscript in preparation].
  10. Bae, H.<sup>G</sup>, Polmear, M., & **Simmons, D.R.** Bridging the gap between industry expectations and academic preparation: Civil engineering students' employability. [Manuscript in preparation].
  11. MLR paper [Manuscript in preparation].
  12. Path Model [Manuscript in preparation].
  13. Disaggregate 19 leadership competencies [Manuscript in preparation].
  14. New data set (2 RQs from Anh) [Manuscript in preparation].

#### Refereed Conference Papers, in print

1. Polmear, M.<sup>P</sup>, **Simmons, D. R.**, & Clegorne, N. A. (2020). Undergraduate civil engineering students' perspectives on skills for future success. *Frontiers in Education Conference*, Uppsala, Sweden.
2. **Simmons, D. R.**, Polmear, M.<sup>P</sup>, & Lord, S. M. (2020). Impactful for whom? Exploring the diversity of learning pathways outside of the classroom for engineering students. *Frontiers in Education Conference*, Uppsala, Sweden.
3. Polmear, M.<sup>P</sup>, **Simmons, D. R.**, Cheung, C., & Zhang, R. (2020). Construction safety training: What role can virtual reality play? *Association of Researchers in Construction Management Conference and Annual General Meeting*, Glasgow, UK.
4. **Simmons, D. R.**, & Chau, A. D.<sup>P</sup> (2020). The impact of fraternity and sorority participation on NAE's Engineer of 2020 outcomes for civil engineering undergraduates. *Proceedings of the 11th International Conference on Applied Human Factors and Ergonomics (AHFE 2017) and the Affiliated Conferences*, San Diego, CA.

<sup>A</sup> Publication received an award; <sup>G</sup> Graduate student under direction of DRS; <sup>P</sup> Postdoc researcher under direction of DRS; <sup>U</sup> Undergraduate student under direction of DRS; \* Presenting author; \*\* Former name of DRS

5. Bae, H.<sup>G</sup>, Polmear, M.<sup>P</sup>, & **Simmons, D. R.** (2020). Professional development of civil engineering students through internship. *Proceedings of the 2020 American Society for Engineering Education Annual Conference and Exposition*, Montreal, Canada.
6. Polmear, M.<sup>P</sup>, & **Simmons, D. R.** (2020). Developing and sustaining a research group: A novel approach to onboarding doctoral students. *Proceedings of the 2020 American Society for Engineering Education Annual Conference and Exposition*, Virtual Conference.
7. Polmear, M.<sup>P</sup>, **Simmons, D. R.**, & Clegorne, N.A. (2020). Developing leadership in civil engineering: Turning students' hindsight into others' foresight. *Proceedings of the 2020 American Society for Engineering Education Annual Conference and Exposition*, Virtual Conference.
8. Polmear, M.<sup>P</sup>, & **Simmons, D. R.** (2020). Defining workforce development: Launching a career from CAREER. *Proceedings of the 2020 American Society for Engineering Education Annual Virtual Conference and Exposition*, Virtual Conference.
9. Groen-McCall, C., Paretto, M. C., McNair, L. D., Shew, A., **Simmons, D. R.**, & Zongrone, C. (2020). Leaving civil engineering: Examining the intersections of gender, disability, and professional identity. *Proceedings of the 2020 American Society for Engineering Education Annual Conference and Exposition*, Virtual Conference.
10. Sands, K.<sup>G</sup>, Pearce, A. R., **Simmons, D. R.**, Suh, M. J., & Fiori, C. M. (2020). Ethics in undergraduate construction curricula: A two-stage exploratory sequential approach to developing and piloting the HETC Survey. *Proceedings of the 2020 American Society for Engineering Education Annual Conference and Exposition*, Virtual Conference.
11. Zongrone, C., McCall, C., Paretto, M. C., Shew, A., **Simmons, D. R.**, & McNair, L. D. (2020). "I'm looking at you, you're a perfectly good person ...": Describing non-apparent disability in engineering". *3rd Annual Collaborative Network for Engineering and Computing Diversity (CoNECD) Conference*, Washington, DC (Crystal City, VA).
12. Karakhan, A., Gambatese, J., **Simmons, D. R.**, & Nnaji, C. (2020). Development of a workforce sustainability model for construction. *Proceedings of the 2020 Construction Research Congress*, Tempe, AZ.
13. Bae, H.<sup>G</sup>, **Simmons, D. R.**, & McCall, C.<sup>P</sup> (2019). Construction companies as facilitators of satisfying work environments. *Engineering Project Organization Conference*. Vail, CO.
14. Bae, H.<sup>G</sup>, McCall, C.<sup>P</sup>, & **Simmons, D. R.** (2019). Investigating work, cultural, and life values of construction employees. *Proceedings from Associated Schools of Construction: The Business of the Built Environment*, San Antonio, TX.
15. **Simmons, D. R.**, Kirn, A., Valdes-Vasquez, R., & Pearson, N. (2019). Are constructors experiencing a warm climate? A study of generation in college, citizenship status and affective engagement. *Proceedings of the 2019 American Society for Engineering Education Annual Conference and Exposition*, Tampa Convention Center, Tampa, FL.
16. Zhao, D., **Simmons, D. R.**, & Duva, M. (2019). Measuring students' class-level sense of

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- belonging: A social-network-based approach. *Proceedings of the 2019 American Society for Engineering Education Annual Conference and Exposition*, Tampa Convention Center, Tampa, FL.
17. Groen-McCall, C.<sup>P</sup>, McNair, L. D., Paretti, M. C., **Simmons, D. R.**, & Shew, A. (2019). Disability identity experience: Examining nuanced and fluid identity dimensions within engineering education. *Proceedings of the 2019 American Society for Engineering Education Annual Conference and Exposition*, Tampa Convention Center, Tampa, FL.
  18. Groen-McCall, C.<sup>A,P</sup>, Paretti, M. C., McNair, L. D., **Simmons, D. R.**, & Shew, A. (2018). Experiencing disability: A preliminary analysis of professional identity development in U.S. undergraduate civil engineering students. *Proceedings of the Australasian Engineering Education Conference*, Hamilton, New Zealand. [Received Best Paper award for the conference]
  19. Groen, C. J.<sup>P</sup>, **Simmons, D. R.**, & Clegorne, N. A. (2018). Faculty ways of knowing, valuing and assessing leadership in the undergraduate engineering curriculum. *Proceedings of the 2018 American Society for Engineering Education Annual Conference and Exposition*, Salt Lake City, UT. <https://peer.asee.org/30513>
  20. Groen, C. J.<sup>P</sup>, McNair, L. D., Paretti, M. C., **Simmons, D. R.**, & Shew, A. (2018). Exploring professional identity development in undergraduate civil engineering students who experience disabilities. *Proceedings of the 2018 American Society for Engineering Education Annual Conference and Exposition*, Salt Lake City, UT. <https://peer.asee.org/30052>
  21. Knight, D. B.<sup>A</sup>, Matusovich, H. M., Artiles, M. S., Davis, K., Kinoshita, T., Bairaktarova, D., Hodges, K., Knott, T., Lee, W. C., McGlothlin Lester, M., McNair, E., Reid, K., & **Simmons, D. R.** (2018). Sustaining a study abroad program at scale: What motivates faculty members to engage in such programs? *Proceedings of the 125th Annual Conference of the American Society for Engineering Education*, Salt Lake City, UT. [Best paper in the International Division]
  22. Lutz, B. D., Ironside, A. J., Hunsu, N., Groen, C. J., Brown, S. A., Adesope, O., & **Simmons, D. R.** (2018). Measuring engineering students' in-class cognitive engagement: Survey development informed by contemporary educational theories. *Proceedings of the 2018 American Society for Education Annual Conference and Engineering Exposition*, Salt Lake City, UT. <https://peer.asee.org/30795>
  23. Hunsu, N., **Simmons, D. R.**, Brown, S., & Adesope, O. O. (2018). Developing an instrument of classroom social engagement. *Proceedings of the 2018 American Society for Engineering Education Annual Conference and Exposition*, Salt Lake City, UT. <https://peer.asee.org/30298>
  24. **Simmons, D. R.**, & Groen, C. J.<sup>P</sup> (2018). Increasing impact of the hidden curriculum: Exploring student outcomes from out-of-class activities. *Proceedings of the 2018 American Society for Engineering Education Annual Conference and Exposition*, Salt Lake City, UT. <https://peer.asee.org/29935>
  25. Groen, C. J.<sup>P</sup>, McNair, L. D., Paretti, M. C., **Simmons, D. R.**, & Shew, A. (2018).

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Experiencing disability in undergraduate civil engineering education: A preliminary analysis of professional identity development during the first semester of college. *Collaborative Network for Engineering and Computing Diversity (CoNECD)*, Crystal City, VA.

26. **Simmons, D. R.**, Iorio, J., Taylor, J. E., & Li, D.<sup>G</sup> (2018). Professional progression, company commitment, and project choice: An empirical investigation into professional staff values in construction. *Proceedings of the 2018 Construction Research Congress: Infrastructure and Facility Management*, New Orleans, LA. doi:10.1061/9780784481271.055
27. Zhao, D., Valdes-Vasquez, R., **Simmons, D. R.**, & Parrish, K. (2018). Assessing the graduate education in research methodology on sustainability. *Proceedings of the 2018 Construction Research Congress: Infrastructure and Facility Management*, New Orleans, LA. doi:10.1061/9780784481301.011
28. Clegorne, N. A., & **Simmons, D. R.** (2018). Engineering professionalism: towards a curricular model for professional skill and leadership competencies for emerging engineers. Accepted for presentation at the *Annual American Educational Research Association Conference*, New York, NY.
29. Clegorne, N. A., & **Simmons, D. R.** (2017). Engineering the best of both worlds: Towards a college curriculum of engaged citizen leadership for emerging engineers. *Proceedings of the Association for the Study of Higher Education Annual Conference*, Houston, TX.
30. Purchase, J. M.<sup>G</sup>, & **Simmons, D. R.** (2017). Exploring the meaning of fun: A missed opportunity to retain underrepresented groups in engineering? *Proceedings of the 2017 American Society for Engineering Education Annual Conference and Exposition*, Columbus, OH. <https://www.asee.org/public/conferences/78/papers/18745/view>
31. Purchase, J.<sup>G</sup>, & **Simmons, D. R.** (2017). Metric-based evaluation of urban greenway public engagement efforts. *Proceedings of the 2017 Engineering Project Organization Conference*, Lake Tahoe, CA.
32. **Simmons, D. R.** (2017). Developing T-shaped civil engineers through involvement in out-of-class activities. *Proceedings of the 8th International Conference on Applied Human Factors and Ergonomics (AHFE 2017) and the Affiliated Conferences*, Los Angeles, CA. doi:10.1007/978-3-319-60486-2\_16
33. Ironside, A., Pitterson, N. P., Brown, S. A., Fisher, K. Q., Gestson, S. L., **Simmons, D. R.**, & Adesope, O. (2017). Incorporating faculty sense making in the implementation and modification of an instrument to measure social and cognitive engagement. *Proceedings of the 2017 American Society for Engineering Education Annual Conference and Exposition*, Columbus, OH. <https://peer.asee.org/28509>
34. Groen, C. J.<sup>G</sup>, **Simmons, D. R.**, & McNair, L. D. (2017). An introduction to grounded theory: Choosing and implementing an emergent method. *Proceedings of the 2017 American Society for Engineering Education Annual Conference and Exposition*,

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Columbus, OH. <https://peer.asee.org/27582>

35. **Simmons, D. R.** (2017). Reflecting on out-of-class involvement of engineering students as a path to retain underrepresented students. *7th International Research in Engineering Education Symposium (REES2017)*, Bogota, Colombia.
36. Lord, S. M., & **Simmons, D. R.**, & Shuman, L. J. (2016). Innovation through propagation: Pathways to studying engineering, retention and diversifying the learning community. *Proceedings of the 2016 American Society for Engineering Education Annual Conference and Exposition*, New Orleans, LA.  
<https://www.asee.org/public/conferences/64/papers/16414/view>
37. Groen, C. J.<sup>G</sup>, **Simmons, D. R.**, & McNair, L. D. (2016). Disciplinary influences on the professional identity of civil engineering students: starting the conversation. *Proceedings of the 2017 American Society for Engineering Education Annual Conference and Exposition*, New Orleans, LA.  
<https://www.asee.org/public/conferences/64/papers/15019/view>
38. Valdes-Vasquez, R., **Simmons, D. R.**, Zhao, D., & Parrish, K. (2016). The Michael Horman Symposium: Developing a network of researchers and mentorship for sustainability topics. *Proceedings of the 2016 Construction Research Congress: Old and New Construction Technologies Converge in Historic San Juan*, San Juan, Puerto Rico. doi:10.1061/9780784479827.129
39. Spingola, E.<sup>G</sup>, & **Simmons, D. R.** (2016). Developing and implementing technology-enhanced, pedagogically sound courses for blended classrooms. *Proceedings from the 2016 Conference on Higher Education Pedagogy*, Blacksburg, VA.
40. Woods-Wells, T.<sup>G</sup>, Clegorne, N. A., & **Simmons, D. R.** (2015). Engineering leaders: A meta-synthesis of leadership themes in engineering literature. *Proceedings of the Association of Leadership Educators annual conference*. Washington, DC.
41. **Simmons, D. R.**, & Yu, R.<sup>G</sup> (2015). Conducting a Q study to refine and develop new measures of engineering student co-curricular involvement. *Proceedings of the 2015 Research in Engineering Education Symposium (REES 2015): Translating Research into Practice*, Dublin, Ireland.
42. Creamer, E. G., **Simmons, D. R.**, & Yu, R.<sup>G</sup> (2015). Using mixed methods to conduct a meta-synthesis of the literature: Moving from words to numbers. *Proceedings of the 2015 Conference on Higher Education Pedagogy*, Blacksburg, VA.
43. **Simmons, D. R.**, Tendhar, C.<sup>G</sup>, Yu, R.<sup>G</sup>, Vance, E., & Amelink, C. (2015). Developing the Postsecondary Student Engagement Survey (PosSES) to measure undergraduate engineering students' out of class involvement. *Proceedings of the 2015 American Society for Engineering Education Annual Conference and Exposition*, Seattle, WA. doi:10.18260/p.23845.
44. Yu, R.<sup>G</sup>, & **Simmons, D. R.** (2015). Synthesis of engineering undergraduate students' out of class involvement. *Proceedings of the 2015 American Society for Engineering*

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- Education Annual Conference and Exposition*, 2015. Seattle, WA. doi:10.18260/p.24787.
45. Makhmalbaf, M. O.<sup>G</sup>, & **Simmons, D. R.** (2015). Curricular and non-curricular factors impacting development of leadership competencies in undergraduate civil engineering and construction students. *Proceedings of the 2015 American Society for Engineering Education Annual Conference and Exposition*. Seattle, WA. doi:10.18260/p.23768.
  46. **Simmons, D. R.**, & Young, G. D.<sup>G</sup> (2014). Improving the student academic experience through lean engineering principles. *Proceedings of the 2014 IEEE Frontiers in Education Conference (FIE)*, Madrid, Spain. doi:10.1109/FIE.2014.7044326
  47. Young, G. D.<sup>G</sup>, Knight, D., & **Simmons, D. R.** (2014). Co-curricular experiences link to teamwork and reflective behavior skills for African American engineers. *Proceedings of the 2014 IEEE Frontiers in Education Conference (FIE)*, Madrid, Spain. doi:10.1109/FIE.2014.7044076
  48. **Simmons, D. R.**, Young, G. D.<sup>G</sup>, Adams, S. G., & Martin, J. P. (2014). Non-curricular activities help African American students and alumni develop Engineer of 2020 traits: A quantitative look. *Proceedings of the 2014 American Society for Engineering Education Annual Conference and Exposition*, Indianapolis, IN. <https://peer.asee.org/22870>
  49. Sands, K.<sup>G</sup>, & **Simmons, D. R.** (2014). Utilizing a think-aloud protocol to assess the usability of a test for ethical sensitivity in construction. *Proceedings of the 2014 American Society for Engineering Education Annual Conference and Exposition*, Indianapolis, IN. <https://peer.asee.org/23288>.
  50. **Simmons, D. R.**, & Martin, J. P. (2011). Implications of Black Greek letter membership on the development of the Engineer of 2020. *Proceedings of the 2011 Frontiers in Education Conference (FIE)*, Rapid City, SD. doi:10.1109/FIE.2011.6142984
  51. **Simmons, D. R.** (2011). Articulations of a novice qualitative researcher. *Seventh International Congress of Qualitative Inquiry*, Urbana, IL.
  52. Trenor, J. M., **Grant, D. S.**<sup>\*\*</sup>, & Archer, E. (2010). The roles of African American Greek organizations in engineering students' educational experiences in a Predominantly White Institution. *Proceedings of the 2010 IEEE Frontiers in Education Conference (FIE)*, Washington, DC. doi:10.1109/FIE.2010.5673317
  53. **Grant, D. S.**<sup>\*\*</sup>, & Trenor, J. M. (2010). Use of the critical incident technique for qualitative research in engineering education: An example from a grounded theory study. *Proceedings of the 2010 American Society for Engineering Education Annual Conference and Exposition*, Louisville, KY. <https://peer.asee.org/15712>
  54. Trenor, J. M., & **Grant, D. S.**<sup>\*\*</sup> (2009) Work in progress—A research-based tool kit for communicating unique messages about engineering to first generation college students. *Proceedings of the 2009 IEEE Frontiers in Education Conference (FIE)*, San Antonio, TX. doi:10.1109/FIE.2009.5350856
  55. Trenor, J. M., Yu, S. L., **Grant, D. S.**<sup>\*\*</sup>, & Hibah, S. (2009). Participation in a research experience for teachers program: Impact on perceptions and efficacy to teach

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engineering. *Proceedings of the 2009 American Society for Engineering Education Annual Conference and Exposition*, Austin, TX. <https://peer.asee.org/4992>

56. Klotz, L., & **Grant, D. S.\*\*** (2009). A balanced view of sustainability in civil engineering and construction. *Proceedings of the 2009 Construction Research Congress: Building a Sustainable Future*, Seattle, WA, 1338–1347. doi:10.1061/41020(339)136
57. **Grant, D.\*\***, & Haselbach, L. (2007). Building green: A case study at the University of South Carolina. *Proceedings of the 2007 Construction Research Congress: Innovation for Reshaping Construction*, Grand Bahama Island, Bahamas.

#### Conference Abstracts

1. Clegorne, N. A., **Simmons, D. R.**, & McCall, C. (2020). Developing leadership-coupled competencies for engineering preparatory pathways: A Delphi study of industry perspectives. *American Educational Research Association (AERA) Annual Meeting*, Virtual Conference.
2. Dixon, P. G., Quardokus Fisher, K., Calagna, O., Kaufman, E., Myles, L., Brinkworth, C., & **Simmons, D. R.** (2020). Results of a three-year project to increase diversity in geosciences. *Annual Meeting of the American Association of Geographers*, Virtual Conference.
3. Bae, H.<sup>G</sup>, **Simmons, D. R.**, & McCall, C.<sup>P</sup> (2019). Developing a conceptual model of construction employees' professional values. *Proceeding of Research in Engineering Education Symposium*, Cape Town, South Africa
4. Myles, L., Dixon, P. G., Brinkworth, C., Kaufman, E., Fisher, K. Q., & **Simmons, D. R.** (2018). Creating and connecting champions for diversity in the geosciences: Hearts of GOLD. *Annual Meeting of the American Geophysical Union*, Washington, DC.
5. Fisher, K. Q., Dixon, P. G., Kaufman, E. K., Calagna, O., **Simmons, D. R.**, Brinkworth, C., & Myles, L. (2018). Preparing geoscientists to lead diversity, equity, and inclusion cultural changes in the geological sciences: Hearts of GOLD. *Annual Meeting of the Geological Society of America*, Indianapolis, IN.
6. Myles, L., Brinkworth, C., Dixon, P. G., Kaufman, E. K., Quardokus Fisher, K., & **Simmons, D. R.** (2017). Geo Opportunity for Leadership in Diversity (GOLD): Hearts of gold. *Annual Meeting of the Geological Society of America*, Seattle, WA.
7. **Simmons, D. R.** (2017). What should your students join? Pathways for African American engineering students' development of 21st century competencies. *National Association of Multicultural Engineering Program Advocates (NAMEPA)*, Blacksburg, Virginia.
8. Clegorne, N. A., Carlson, K., Evans, H., & **Simmons, D. R.** (2016). The Leadership Education Collaborative: An alternative campus-wide leadership curriculum. *Annual International Leadership Association Annual Conference*, Atlanta, GA.

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9. Clegorne, N. A., Evans, H. S., Carlson, K. A., & **Simmons, D. R.** (2016). The Leadership Education Collaborative: The value of pluralistic leadership philosophies on college campuses. *Proceedings from Association of Leadership Educators 26th Annual Conference*, Sacramento, CA, 696–698.

#### Refereed Conference Papers, accepted for publication

1. None

#### Refereed Conference Papers, under review

1. Bae, H.<sup>G</sup>, Polmear, M.<sup>P</sup>, & **Simmons, D. R.** (under review). Faculty members' perceptions of engineering students' preparedness for leadership competencies. *Proceedings of the 2021 American Society for Engineering Education Annual Virtual Conference and Exposition*, Virtual Conference.
2. Polmear, M.<sup>P</sup>, & **Simmons, D. R.** (under review). Students that stand out: Faculty perspectives on the competencies that define outstanding engineering students entering the workforce. *Proceedings of the 12th International Conference on Applied Human Factors and Ergonomics (AHFE 2021) and the Affiliated Conferences*, New York, NY.
3. McCall, C., & **Simmons, D. R.** (under review). Exploring disciplinary technologies for increased accessibility in the civil engineering and construction industry: Starting the conversation. *Proceedings of the 12th International Conference on Applied Human Factors and Ergonomics (AHFE 2021) and the Affiliated Conferences*, New York, NY.

#### Book Chapters

1. **Simmons, D. R.** (2019). Developing and engaging T-engineers inside and outside of the classroom. In P. Gardner & H. Maietta (Eds.), *Advancing talent development: Steps toward a T-model infused undergraduate education* (Ch. 10). Business Expert Press.
2. Bowser, G., Roberts, N. S., **Simmons, D. R.**, & Perales, M. K. (2012). The color of climate: Ecology, environment, climate change, and women of color—Exploring environmental leadership from the perspective of women of color in science. In D. R. Gallagher (Ed.), *Environmental leadership: A reference handbook* (pp. 60–67). Sage.

#### Other Presentations to Professional Societies, non-refereed

1. Clegorne, N. A., Evans, H. S., Carlson, K. A., & **Simmons, D. R.** (2016). The Leadership Education Collaborative: The value of pluralistic leadership philosophies on college campuses. *Association of Leadership Educators Annual Conference*, Sacramento, CA.
2. **Simmons, D. R.** (2012). Initial findings: Unbundling the impact of engineering student involvement experiences on the development of professional competencies. *College of Architecture and Urban Studies' Research Forum at Virginia Tech*, Blacksburg, VA.
3. **Simmons, D. R.**, Martin, J. P., Young, G.<sup>G</sup>, & Adams, S. G. (2014). Sharpening your vision to 20/20. *Annual Meeting of the National Society of Black Engineers (NSBE40): Engineering and Leadership in Harmony*, Nashville, TN.
4. **Simmons, D. R.** (2011). Leading transformation through sustaining and enhancing

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effective team performance. *Women in Engineering ProActive Network, Inc. (WEPAN) National Conference*, Seattle, WA.

5. **Simmons, D. R.** (2010). Planning strategically: How to intentional cultivate tomorrow's talent. *WEPAN/NAMEPA National Conference*, Baltimore, MD.

#### Research Reports

1. Liou, A.<sup>U</sup>, Zundel, Z.<sup>U</sup>, Suhr, J.<sup>U</sup>, Lu, J.<sup>U</sup>, Bowman, B.<sup>U</sup>, Chau, A. D.<sup>P</sup>, & **Simmons, D. R.** (2019). Develop a data visualization system for out-of-class activities data of engineering students, University of Florida, <https://github.com/introNG2E/simmonsDataVis>
2. Lu, J.<sup>U\*</sup>, Bowman, B.<sup>U\*</sup>, Chau, A. D.<sup>P</sup>, & **Simmons, D. R.** (2019). Decision support system for engineering undergraduates on participating in out-of-class activities (under development), University of Florida, <https://github.com/simmonsData/simmonsDataVis2>
3. Gambatese, J., Karakhan, A., & **Simmons, D. R.** (2019). *Development of a workforce sustainability model for construction*. The Center for Construction Research and Training (CPWR). [https://www.cpwrr.com/wp-content/uploads/publications/publications\\_SS2019-workforce-sustainability-model-development.pdf](https://www.cpwrr.com/wp-content/uploads/publications/publications_SS2019-workforce-sustainability-model-development.pdf)
4. **Grant, D.\*\***, & Haselbach, L. (2006). *Sustainable construction at the University of South Carolina*. USCRF Award 15520- KA06. University of South Carolina Research Foundation.

#### Research Posters

1. Carcaba, J.<sup>U\*</sup>, **Simmons, D.R.**, Volpe, E.<sup>G</sup>, Polmear, M.<sup>P</sup> (2021) *Leadership Project: Engagement In, And Benefits of, Out-Of-Class Activities*. University of Florida Virtual Spring Undergraduate Research Symposium.
2. Pfeiffer, D.<sup>U\*</sup>, **Simmons, D. R.**, & Polmear, M.<sup>P</sup> (2020). *Exploring opportunities to integrate virtual reality into construction and transportation safety training*. University of Florida Virtual Spring Undergraduate Research Symposium.
3. Young, G.<sup>U\*</sup>, **Simmons, D. R.**, & Polmear, M.<sup>P</sup> (2020) *Integrating virtual reality into construction safety and transportation training*. University of Florida Virtual Spring Undergraduate Research Symposium.
4. Paulsen, B.<sup>U\*</sup>, **Simmons, D. R.**, & Polmear, M.<sup>P</sup> (2020) *Effective implementation of visualization technology in construction safety training*. University of Florida Virtual Spring Undergraduate Research Symposium.
5. **Simmons, D. R.**, & Chau, A. D.<sup>P</sup> (2019). *CAREER: Investigating co-curricular participation of students underrepresented in engineering*. National Science Foundation (NSF) Engineering Education and Centers (EEC) Grantees Conference, Arlington, VA.
6. **Simmons, D. R.**, & Chau, A. D.<sup>P</sup> (2019). *Preparing a 21st century STEM workforce: Defining & measuring leadership in civil engineering education*. National Science

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- Foundation (NSF) Engineering Education and Centers (EEC) Grantees Conference, Arlington, VA.
7. **Simmons, D. R.** <sup>\*</sup> (2018). *Professional development of emerging civil engineers for the construction industry occurs through out-of-class engagement*. National Society of Black Engineers (NSBE) 44th Annual Convention, Pittsburgh, PA.
  8. **Simmons, D. R.** <sup>\*</sup> (2017). *Increasing impact of the hidden curriculum: Exploring student outcomes from out-of-class activities*. National Science Foundation (NSF) Engineering Education and Centers (EEC) Grantees Conference, Arlington, VA.
  9. Periwal, M. <sup>U\*</sup> & **Simmons, D. R.** (2017). *An exploratory study of employers' perspectives on the competencies of entering professionals in the construction industry*. Young Researchers Conference, University of Maryland, College Park, MD.
  10. Han, J. <sup>G\*</sup>, Ranganathan, S., & **Simmons, D. R.** (2017). *Using social network analysis to examine social engagement in an engineering class [An update]*. University of Connecticut 34rd Quality and Productivity Research Conference (QPRC), Storrs, CT.
  11. Beuth, C. <sup>U\*</sup>, Duran, A. <sup>U\*</sup>, **Simmons, D. R.**, & Turner, M. (2017). *Resilience: Buildings aren't the only thing construction students build*. Institute for Critical Technology and Applied Science (ICTAS) Research Poster Presentation, Blacksburg, VA.
  12. Holliday, C. <sup>U\*</sup>, Ly, N. <sup>U\*</sup>, **Simmons, D. R.**, & Turner, M. (2017). *Role of work in developing resilient construction students*. Institute for Critical Technology and Applied Science (ICTAS) Research Poster Presentation, Blacksburg, VA.
  13. Brenner, J. <sup>G\*</sup>, Solanki, N. <sup>G\*</sup>, & **Simmons, D. R.** (2017). *Leadership competency in students*. Virginia Tech 33rd Annual Graduate Student Assembly Research Symposium (GSARS) and the 7th Annual CEE Research Day, Blacksburg, VA.
  14. Desai, D. <sup>G\*</sup>, & **Simmons, D. R.** (2017). *Succession planning in construction industry*. Virginia Tech 33rd Annual Graduate Student Assembly Research Symposium (GSARS) and 7th Annual Civil & Environmental Engineering (CEE) Research Day, Blacksburg, VA.
  15. Han, J. <sup>G\*</sup>, **Simmons, D. R.**, & Ranganathan, S. (2017). *Using social network analysis to examine social engagement in an engineering class*. Virginia Tech 33rd Annual Graduate Student Assembly Research Symposium (GSARS), Blacksburg, VA.
  16. Purchase, J. M. <sup>G\*</sup>, & **Simmons, D. R.** (2017). *Effective community and stakeholder engagement for public infrastructure projects*. 7th Annual Civil & Environmental Engineering (CEE) Research Day, Blacksburg, VA.
  17. Purchase, J. M. <sup>G\*</sup>, **Simmons, D. R.**, & Hermundstad, A. (2017). *Exploring the meaning of fun: A missed opportunity to retain underrepresented students in engineering*. Virginia Tech 33rd Annual Graduate Student Assembly Research Symposium (GSARS), Blacksburg, VA.
  18. Groen, C. J. <sup>G\*</sup>, McNair, L. D., & **Simmons, D. R.** (2016). *Disciplinary influences on the professional identity of civil engineering students: Starting the conversation*. 123rd American Society for Engineering Education Annual Conference & Exposition, New

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Orleans, LA.

19. Yu, R.<sup>G\*</sup>, & **Simmons, D. R.** (2015). *Use of Q methodology to investigate reasons engineering students participate in out of class activities*. Virginia Tech 31st Annual Graduate Student Assembly Research Symposium (GSARS), Blacksburg, VA.
20. **Simmons, D. R.**, Tendhar, C.<sup>G\*</sup>, & Yu, R.<sup>G\*</sup> (2015). *Developing the Postsecondary Student Engagement Survey (PosSES) to measure undergraduate engineering students' out of class involvement*. Virginia Tech 31st Annual Graduate Student Assembly Research Symposium (GSARS), Blacksburg, VA.
21. Makhmalbaf, M. O.<sup>G\*</sup>, & **Simmons, D. R.** (2015). *Curricular and non-curricular factors impacting development of leadership competencies in undergraduate civil engineering and construction students*. Virginia Tech 31st Annual Graduate Student Assembly Research Symposium (GSARS), Blacksburg, VA.
22. Spingola, E.<sup>G\*</sup>, & **Simmons, D. R.** (2015). *Work in progress: Understanding constructs in engineering culture associated with climate*. Virginia Tech 31st Annual Graduate Student Assembly Research Symposium (GSARS), Blacksburg, VA.
23. Young, G.<sup>G\*</sup>, **Simmons D. R.**, & Adams, S. G. (2014). *Unbundling the impact of engineering student involvement experiences on the development of professional competencies*. College of Architecture and Urban Studies (CAUS) Research Symposium, Blacksburg, VA.
24. Young, G.<sup>G\*</sup>, **Simmons D. R.**, Adams, S. G. (2014). Co-curricular involvement translates into essential skills for future engineers. Academic and Research Leadership Network Symposia at the Annual Meeting of the National Society of Black Engineers (NSBE40), Nashville, TN.
25. Young, G.<sup>G\*</sup>, **Simmons D. R.**, Adams, S. G. (2013). *Impact of non-curricular activities on African American engineers' development of Engineer of 2020 traits*, Virginia Tech Summer Undergraduate Research Symposium, Blacksburg, VA.

#### Invited Keynote Speaker, Speaker, Lecturer, or Panelist

1. Invited Speaker, March 26, 2021. Civil & Environmental Engineering Department's Diversity, Equity, and Inclusion Committee and the Pelham Scholars Program, University of Michigan. *Centering People and Diversity, Equity, and Inclusion in Civil Engineering Research*. Virtual Presentation.
2. Lead Instructor, March 24–25, 2021. American Society for Engineering Education's Developing Engineering Leaders of Tomorrow in the Academy (DELTA). *Junior Faculty Institute*. Virtual Presentation.
3. Invited Speaker, March 22, 2021. CE 3530: Junior Seminar, Clemson University. *Take charge! Leverage out-of-class involvement to gain leadership competencies essential for the civil engineering workforce*. Virtual Presentation.
4. Invited Panelist, March 19, 2021. Engineering Education and Science Department Seminar, Arizona State University. *Community Conversations for Change: LEANING Into an Anti-Racist Review Process*. Virtual Presentation.

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5. Invited Speaker, March 17, 2021. University of Florida Chapter of National Society of Black Engineers (NSBE). *Getting involved in research*. Virtual Presentation.
6. Invited Panelist, March 16, 2021. NSF-funded GRaduate Education for Academically Talented Students (GREATS) program, University of Illinois. *Perspectives on Leadership Development and Inclusion*. Virtual Presentation.
7. Invited Speaker, March 9, 2021. EGN 4952: Integrated Product and Process Design 2, University of Florida. *Looking to distinguish yourself and develop leadership competencies: Participate in out-of-class activities!* Virtual Presentation.
8. Invited Panelist, February 23, 2021. Professional Preparation Panel, Coastal Carolina University. *My life as an engineer*. Virtual Presentation.
9. Invited Panelist, February 15, 2021. Department of Civil Engineering, Clemson University. *Ask me anything*. Virtual Presentation.
10. Keynote speaker, February 12, 2021. Black Empowerment Alliance at Moffitt (B.E.A.M.) Series, Moffitt Cancer Center. *Inculcating and inclusive workplace: Is having a seat at the table enough?* Virtual Presentation.
11. Invited Panelist, January 26, 2021. 3rd Annual Conference of CoNECD (Collaborative Network for Engineering and Computing Diversity). *Diversity, equity, and inclusivity in action: What can engineering education research publications do?* Virtual Presentation.
12. Guest lecturer, October 4, 2020. Chi Epsilon Meet and Greet on Career Experiences: Industry, Academia, and Entrepreneurial Pursuits, Clemson University. *You Have Autonomy! The Career Path of a Joyful Professor*. Virtual Presentation.
13. Guest lecturer, September 15, 2020. Epsilon Lambda Chi, Engineering Leadership Circle, University of Florida. *Preparing to Lead*. Virtual Presentation.
14. Guest lecturer, April 6, 2020. Freshman Engineering Leadership Group (FLEG) Meeting, University of Florida. *Preparing to lead as a Gator engineer*. Virtual Presentation.
15. Keynote Speaker, April 12, 2019. LEAD Forward Lunch, Clemson University. *Women authentically leading*. Clemson, SC.
16. Keynote Speaker, February 28, 2019. We Are Women in Engineering Workshop, North Carolina State University. *Meet the once apprehensive girl who became a resilient, joyful, accomplished civil engineer*. Raleigh, NC.
17. Keynote Speaker, March 12, 2018. College of Engineering Dean's Distinguished Speaker's Series, North Carolina A&T State University. *Professional preparation: Rethinking engineering learning environments in response to massive industry disruptions*. Greensboro, NC.
18. Invited Speaker, February 22, 2018. Engineering School of Sustainable Infrastructure & Environment, University of Florida. *Young adventurers to socially responsible civil engineers: Disrupting mindsets through study abroad*. Gainesville, FL.
19. Invited Panelist, November 11, 2017. National Society of Black Engineers Region II

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- Fall Leadership Conference. *Construction logistics*. Greensboro, NC.
20. Invited Speaker, December 4, 2017. Department of Civil Engineering, Purdue University. *Rewards and challenges of investigating the nature and development of expertise in the construction industry*. West Lafayette, IN.
  21. Invited Speaker, June 10, 2017. National Society of Black Engineers National Leadership Conference. *Differentiating capital letter "L" from lower case "l" when examining competencies associated with leadership*. Blacksburg, VA.
  22. Invited Speaker, April 12, 2017. National Society of Black Engineers, Virginia Tech. *Leveraging your involvement in NSBE*. Blacksburg, VA.
  23. Invited Speaker, March 9, 2017. Engineering Education Research, University of Colorado-Boulder. *Interdisciplinary research: Methods and theories to investigate construction workforce challenges*. Boulder, CO.
  24. Invited Speaker, March 10, 2017. Construction Engineering & Management Seminar, University of Colorado-Boulder. *Investigating the nature and development of expertise in construction engineering*. Boulder, CO.
  25. Invited Panelist, October 2016. Multicultural Academic Opportunities Program's (MAOP) Graduate School Preparation Retreat for Louis Stokes Alliance For Minority Participation (LSAMP) Institutions, Virginia Tech. *Preparing for graduate school: Becoming a competitive candidate*. Blacksburg, VA.
  26. Invited Lecturer, October 2016 and October 2017. Rosemary Blieszner's Citizen Scholar Engagement Seminar, Virginia Tech. *Development of broader impact in grant proposals*. Blacksburg, VA.
  27. Invited Lecturer, September 2016 and September 2017. CNST 5944: Research Topics Course, Virginia Tech. *Research supporting the development of a diverse, prepared workforce*. Blacksburg, VA.
  28. Invited Workshop Presenter, January 2016. Future Faculty Program, Virginia Tech. *First year success: How to have a successful first year as a tenured track faculty member*. Blacksburg, VA.
  29. Invited Participant, March 20–24, 2016. 2016 GEO Opportunities for Leadership in Diversity (GOLD) workshop, NSF Geosciences Directorate (GEO) Ideas Lab. Annapolis, MD.
  30. Invited Lecturer, March 3, 2016. NSF CAREER Project Overview and Writing Strategies, Virginia Tech. *Developing your funded research program course*. Blacksburg, VA.
  31. Invited Lecturer, September 9, 2015. ESED 8880: Preparing for the Professoriate, Clemson University. *Your career choices after earning a PhD: Advice from the joyful professor*. Clemson, SC.
  32. Keynote Speaker, August 19, 2015. Welcome Back Luncheon for Graduate Students, Virginia Tech. *You are spires of Virginia Tech*. Blacksburg, VA.

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33. Keynote Speaker, April 27, 2015. Call Me Doctor Distinguished Speaker's Series, Clemson University. *Unleashing your power through disciplined leadership*. Clemson, SC.
34. Invited Lecturer, April 1, 2015. Preparing for the Professoriate, Clemson University. *Your career choices after earning a PhD and your first 100 Days*. Clemson, SC.
35. Invited Lecturer, November 20, 2014. Preparing for the Professoriate, Clemson University. *First year success: How to have a successful first year as a tenured track faculty member*. Clemson, SC.
36. Invited Lecturer, November 5, 2014. Research Methods, Virginia Tech. *Introduction to grounded theory in 30 minutes or less!* Blacksburg, VA.
37. Invited Lecturer, September 17, 2014. Construction Research Topics Course, Virginia Tech. *Research supporting the development of a diverse, prepared workforce*. Blacksburg, VA.
38. Keynote Speaker, April 2014. Culminating Event for NSF Emerging Frontiers in Research and Innovation (EFRI) Research Experience and Mentoring (REM) Program. *Becoming a game changer: Significant steps from student researcher to career*. Clemson, SC.
39. Invited Lecturer, April 2014. Programs for Engineering Enrichment and Retention, Clemson University. *Is graduate school for me?* Clemson, SC.
40. Invited Lecturer, April 2014. Department of Engineering & Science Education Seminar, Clemson University. *Developing effective engineering fictive kin—Administrators, faculty, and staff: You Have A Role*. Clemson, SC.
41. Invited Lecturer, December 7, 2012. Department of Engineering Education Seminar. *Building tomorrow's talent in engineering: Constructing a grounded theory*. Blacksburg, VA.
42. Invited Speaker, July 2012. NSF-Funded Interfaces and Surfaces and Advanced Membranes REU, Clemson University. *Career paths*. Clemson, SC.
43. Invited Speaker, October 2011. Broader Impacts Workshop, Global Women Scholars Network in Sustainability. *Considerations of broader impacts in STEM*. Jackson Hole, WY.
44. Invited Speaker, October 2011. Department of Civil and Environmental Engineering, UNC-Charlotte. *Building tomorrow's talent in science and engineering*. Charlotte, NC.
45. Invited Speaker, April 2011. Strategies to Broaden Participation in STEM, Communicating Science: Tools and Solutions, La Selva Biological Station in Costa Rica. *Recruiting & retaining underrepresented minorities in ecology*. Puerto Viejo de Sarapiquí, Costa Rica.
46. Invited Lecturer, January 2009. Best Practices in Black Student Achievement VIII, Clemson University. *Experiences with PEER: Perspectives from my undergraduate years*. Clemson, SC.

<sup>A</sup> Publication received an award; <sup>G</sup> Graduate student under direction of DRS; <sup>P</sup> Postdoc researcher under direction of DRS; <sup>U</sup> Undergraduate student under direction of DRS; \* Presenting author; \*\* Former name of DRS

47. Invited Speaker, October 2008, Department of Energy Office of Environmental Management HBCU Technology Day, Spelman College. *Lessons learned from directing the Savannah River Environmental Sciences Field Station*. Atlanta, GA.

#### International teaching activities

1. Scholar in Residence, July 28–August 8, 2018. Royal Melbourne Institute of Technology. Guest lecturer for two project management courses. Melbourne, Australia.

#### Video presentations

1. Jacobs, D.<sup>U</sup>, & **Simmons D. R.** (January 2020). Leading to a successful future <https://youtu.be/pG99FImbAAg>

## SPONSORED RESEARCH AND PRACTICE

#### Funded

1. NSF Research Experiences for Undergraduates, Collaborative Research, REU Site: *Establishing New Generations of Scholars to Amplify and Grow Engineering Education (ENGagED)*. Award #s 2050899 and 2051156, PIs: Brooke Coley and **Denise R. Simmons**. Amount requested: \$525,409 (Simmons share \$68,890). Funding period: 3/1/21–2/28/24.
2. NSF Award: *Professional Identity Development in Civil Engineering Students with Disabilities*; Award #: EEC Award 1733636, PI: Lisa McNair, co-PIs: Denise R. Simmons, Marie Paretti, and Ashley Shew. Award Amount: \$400,388.00 (Simmons share 26.22%, \$104,970). Funding period: 9/1/17–5/30/20.
3. NSF Award: *Preparing a 21st Century STEM Workforce: Defining & Measuring Leadership in Engineering*. Award #: EEC Proposal 1463802, PI: **Denise R. Simmons**, co-PI: Nicholas Clegorne. Award Amount: \$444,183.00 (Simmons share 50%, \$222,091.50). Funding period: 1/1/16–12/31/19
4. NSF Award, DGE Program Evaluation/PRIME: *Collaborative Research: An Instrument and Adoption Framework for Student Cognitive and Social Engagement with a Course*. Award #: 1544171. PIs: **Denise R. Simmons**, Dong Zhao, Shane Brown, and Olusola Adesope. Award Amount: \$796,872 (Simmons share 40.4%, \$321,857). Funding period: 1/1/16–12/31/19.
5. NSF CAREER Award: *CAREER: Investigating Co-Curricular Participation of Students Underrepresented in Engineering*. Award #: EEC 1351156. Award Amount: \$451,768. Funding Period: 7/1/14–6/30/19.
6. The Institute for Society, Culture and Environment (ISCE) 2017 Scholars Program: *Measuring Quality in Civil Engineering Education*. PI: Shyam Ranganathan; co-PI: **Denise R. Simmons**. Award Amount: \$30,000 (Simmons share 50%, \$15,000). Funding Period: 1/1/17–12/31/17.
7. Institute for Critical Technology and Applied Science (ICTAS) Research Experiences for Undergraduates (REU) Grants aligned with Human Safety, Health, and Wellness and

<sup>A</sup> Publication received an award; <sup>G</sup> Graduate student under direction of DRS; <sup>P</sup> Postdoc researcher under direction of DRS; <sup>U</sup> Undergraduate student under direction of DRS; \* Presenting author; \*\* Former name of DRS

- Intelligent Infrastructure for Human Centered Communities DA: *ICTAS REU Resilience in Construction Students Research*. PI: **Denise R. Simmons**, co-PIs: Brian Kleiner, Michelle Turner. Award Amount: \$100,000. Funding Period: 1/1/17–12/31/17.
8. NSF Award, NSF Includes: *GEO Opportunities for Leadership in Diversity (GOLD): Hearts of GOLD*. Award #: ICER Award 1645430. PI: P. Grady Dixon; co-PIs: **Denise R. Simmons**, Kathleen Quardokus Fisher, LaToya Myles, and Eric Kaufman. Award Amount: \$399,877 (Simmons share 4%, \$14,829). Funding Period: 1/1/17–12/31/18.
  9. Virginia Tech Student Engineer’s Council. *Support for student scholarships for winter session course: CEE 3014, Construction Management (Abroad)*. Award Amount: \$6,000. Funding Period: 1/1/18–12/31/18
  10. Center for Construction Research and Training Small Study Award, National Institute for Occupational Safety and Health: *Development of Workforce Sustainability Model for Construction*. Award #: CPWR small study no. 17-8-PS; agreement number U60 OH009762 CFDA #93.262. Award Amount: \$29,947 (**Denise R. Simmons** share 10%, \$2900). Funding Period: 11/01/17–10/31/18.
  11. Institute for Critical Technology and Applied Science (ICTAS) Research Experiences for Undergraduates (REU) Grant: *Using Case Studies to Build Transdisciplinary Research Skills at the Undergraduate Level*. PI: Freddy Paige; co-PI: **Denise R. Simmons and** Walter Lee. Award Amount: \$10,000. Funding Period: 9/28/17–6/15/18.
  12. Pathways Minor Award: *Global STEAM Pathways Minor*. co-PIs: **Denise R. Simmons** and David Knight. Award Amount: \$35,000 (Simmons share 50%, \$17,500). Funding Period: 7/1/16–6/30/17.
  13. Virginia Tech’s Institute for Society, Culture and Environment: *Preparing STEM Workers–Investigating Leadership Conceptions and Misconceptions*. co-PIs: **Denise R. Simmons** and Nicholas Clegorne. Award Amount: \$8,695.00 (Simmons share 50%, \$4,345.50). Funding Period 5/9/14–9/30/14.
  14. As the Savannah River Environmental Sciences Field Station (SRESFS) director and PI, I was responsible for writing programmatic-focused grants to support operations, my summer salary, and travel. From 2007–2012, I was awarded \$2,287,793 (not including non-federal cash matching support and in-kind services) in external grants to primarily support student scholarships and faculty teaching stipends for courses at the SRESFS. Those awards were:
    - a. Department of Energy/Environmental Management in cooperation with the US Forestry Service (\$981,000, multi-year award: 2008–2011; \$120,000 in 2012)
    - b. Wal-Mart Foundation State Giving Program (\$150,000, 2009)
    - c. USDA/Natural Resources Conservation Service, South Carolina Program (\$125,000 in 2009 #69-4639-9-9022; \$74,999 in 2010; \$74,999 in 2011, #69-4639-11-0016; \$74,999 in 2012)
    - d. USDA Capacity Building Grant (Preparing for Readiness in the Environmental Professions, \$150,000 in 2010). U. S. Department of Agriculture National Institute of Food and Agriculture (NIFA) Award Number

2010-38821-21509

- e. Department of Energy/Environmental Management (\$536,796, multi-year award: 2010–2012). DOE Award # DE-EM0000594

#### Under Negotiation for Funding

1. None

#### Pending Review

1. EHR CORE Research, Collaborative Research: *Investigating Black Engineering Students' Agency: Amplifying Students' Power to engineer Robust futurEs (ASPIRE)*. PIs: **Denise R. Simmons**, Lisa Lattuca, Brooke Coley. Amount Requested: \$2.5M (Simmons/UF share \$1.15M). Submitted October 1, 2020.
2. RFE: *Together We Learn: Exploring Asset-based and Inclusive Teaching Practices of Faculty in Post-secondary Distance (Hybrid and Online) Engineering Courses for Student Engagement*. PI: Idalis Villanueva, co-PI: **Denise R. Simmons**. Amount Requested: Equal share of \$350,000. Submitted December 2020.
3. SCC: *Construction and Vocational Training and Education for Intelligent Jobsites*. Amount requested \$2.5M. Submitted February 24, 2021.
4. Mid-scale RI-2: *Next Generation Centrifuge Facility for Hyper Gravity Experiments and Model Tests*. Amount Requested: Subaward requested \$1.6M. Submitted March 5, 2021.
5. FW-HTF-R: Collaborative Research: *Partnering Workers with Interactive Robot Assistants to Usher Transformation in Future Construction Work*. PI: **Denise R. Simmons**. Amount Requested: \$230,000. Submitted March 24, 2021.

#### Under Development and Planned

1. NSF CBET Proposal 2035173: Collaborative Research: *Modeling Construction Organizations' Resilience in Response to Societal and Economic Impacts*. Amount Requested: @ \$380,000 to UF, \$120,000 to Colorado State University and Oregon State University. Submitted May 2020 (Revise and Resubmit).
2. NSF AGEP, Planned Submission: December 2021.

## TEACHING (Courses Taught)

### *University of Florida (2018–Present)*

CGN 4905: Construction Project Management  
CCE 4015: Civil Engineering Estimating  
CCE 6037: Civil Engineering Operations I

### *Virginia Tech (2013–2018)*

CEE 3014: Construction Management  
CNST 5984: Communicating Research to the Public  
CEE 4014: Estimating, Production and Cost Engineering  
CNST 5984: STEM Workforce Development: Structure, Policies and

## Initiatives

CNST 5984: Building People for Work in Construction

### ***South Carolina State University (2004–2008)***

ET 250: Technical Communications  
ET 255: Engineering Economics  
CET 412: Construction Codes & Contracts  
CET 415: Fluid Mechanics  
CET 459: Senior Project Proposal  
CET 460: Senior Project  
ENV 490: Principles of Pollution Control  
TRP 530: Urban Transportation Planning  
***TRP 640: Transportation & Land Use***

### ***University of Phoenix, Online Learning & Columbia, SC (2003–2008)***

Junior and senior level project management and operations courses

### ***Midlands Technical College, Columbia, SC (2002)***

Senior level environmental engineering course

### ***Voorhees College Management Institute, Denmark, SC (1997–1999)***

Group & Organizational Behavior  
Career and Life Assessment  
Business Ethics

## **PROFESSIONAL DEVELOPMENT**

1. 2021, Inaugural Cohort, Game Changer Academies for Advancing Research Innovation. A consulting company is partnering with National Science Foundation (NSF) through the CMMI division in the Engineering directorate to build on NSF's robust agenda for rewarding innovation and transformative science. CMMI's Game Changer Academies focuses on improving panel discussions, ameliorating a variety of forms of cognitive bias, and examining the meaning of "high risk/high reward" in an engineering context.
2. 2020, *Foundations of Social Justice for Engineers Seminar*. The webinar introduced key concepts of social justice, provided case study examples within a context to illustrate social justice issues and explores ways in which engineers and engineering educators can ground their practice in these concepts.
3. 2020, National Effective Teaching Institute (NETI-3) for Online Instruction. The National Effective Teaching Institute (NETI-1) has been given since 1991, reaching nearly 2000 participants from over 300 different schools. Since October 2012, a more advanced workshop (NETI-2) has been offered. The instructors are offering NETI-3 in response to the need to prepare instructors to teach online. At the conclusion of the workshop, the participants will be able to:
  - a) Define active learning, both face-to-face and online
  - b) Develop plans to successfully adopt active learning in your own online classes

- c) Describe the challenges of motivating students in an online class
  - d) Identify approaches to motivating students in an online class
  - e) Describe at least one way to do diagnostic and formative assessment in your online class
  - f) Identify 2 strategies to make your online assessments more inclusive
4. 2019, The First Year Faculty Teaching Academy (FYFTA), University of Florida
  5. 2016, Minority Faculty Development Symposium: *21<sup>st</sup> Century Mindsets & Strategies for Career Advancement*; UC Berkeley, Berkeley, CA; September 21–24, 2016.
  6. 2016, Pathways Summer Institute:
    - a) Designed/redesigned courses and planned Pathways minor to fit Pathways curriculum
    - b) Worked in a community-of-practice dedicated to meeting the Pathways Principles of Inclusivity, Integration, and Relevance
  7. 2015, 2016, Research Talk, Topics in collecting, writing and analyzing qualitative research; Chapel Hill, NC. Also supports on-going mentorship by Dr. Kathy Charmaz
  8. 2014, Proposal Development Institute, Virginia Tech
  9. 2014, International Faculty Development Program, Ecuador & Chile, Virginia Tech; Travel to Ecuador and Chile to establish research collaborations
  10. 2014, ADVANCE (WOC) Career Coaching Program, Purdue University
  11. 2014, New Media Seminar, Virginia Tech
  12. 2014, Construction Engineering Conference and Workshop 2014: *Setting an Industry-Academic Collaborative Research Agenda*, Catholic University, University of Washington and NSF; Seattle, WA, March 27–29, 2014
  13. 2012 Graduate Engineering Education Consortium for Students (GEECS) Symposium  
Fellow GEECS is an annual event, where accepted participants attend a research-based symposium and the National Science Foundation (NSF) Engineering Education Awardees Conference. The multi-day event provides an opportunity for graduate students in the field of engineering education research to share current work-in-progress, get feedback on work, and collaborate with other graduate students. Benefits of partnering with the NSF Engineering Education Awardees Conference for GEECS include the opportunity to learn about and network within the field of engineering education with experts.
  14. 2010 Virginia Tech Future Faculty Development Program Participant  
The Virginia Tech Future Faculty Development Program is an exciting and rewarding two-day event for a small group of doctoral students and post-doctoral scholars interested in pursuing academic careers. The program brings together doctoral candidates and post-doctoral scholars to Virginia Tech for an all-expense paid workshop. As part of the experience, participants are hosted by a Virginia Tech department to tour research facilities, meet with current faculty to gain a greater awareness of research and teaching opportunities, and discuss their career prospects and academic work. The program is part of comprehensive strategic faculty recruitment at Virginia Tech.
  15. 2009 (March), NSF Workshop: *Creating Engineering Education Opportunities: Why & How?*; Arlington, VA
  16. 2009, Clemson University Office of Teaching Effectiveness and Innovation (OTEI) Training:
    - a) Workshop: Academic Writing: The Process of Crafting Scholarly Prose
    - b) Workshop: Contract Grading: Melding Learning with Assessment
    - c) Workshop: Learning Styles: Multiple Models, Multiple Teaching Methods



- d) Workshop: Maximizing Student Learning and Participation in Discussions
- e) Workshop: Writing Objective Test Items That Assess Thinking Skills
- 17. 2008 (October), Frontiers in Education Conference; Saratoga Springs, NY
- 18. 2007 (October), ABET Workshop: *Faculty Workshop on Assessing Program Outcomes*, ABET Annual Meeting; Incline Village, NV
- 19. 2007, ABET Faculty Workshop on Assessing Program Outcomes and ABET Annual Meeting
- 20. 2006, Southeastern Alliance for Graduate Education and the Professoriate (SEAGEP) Conference
- 21. 2006 (March), NSF Workshop *Advancement and Retention of Underrepresented and Minority Engineering Educators*, Arlington, VA.
- 22. 2005–2011, Institute on Teaching and Mentoring

## **PROFESSIONAL SERVICE**

### **American Society of Civil Engineering (ASCE)**

1. *Journal of Civil Engineering Education* (formerly: *Journal of Professional Issues in Engineering Education and Practice*)
  - Associate Editor, 2017–Present
  - Special Collection Lead Co-editor; Special Collection on Diversity and Inclusion, Fall 2016–Spring 2018
  - Reviewer, 2015–Present
2. *Journal of Construction Engineering and Management*, Reviewer, 2015–Present
3. Construction Research Congress, Session Moderator and Reviewer, 2012–2018
4. Members of Society Advancing an Inclusive Culture (MOSAIC), Reviewer of ASCE’s first *Diversity, Equity, and Inclusion Best Practices Guide* (BPG), 2020

### **American Society for Engineering Education (ASEE)**

1. *Journal of Engineering Education*
  - Associate Editor, 2020–Present
  - Author and Reviewer Guidelines Subcommittee, 2020–Present
  - Reviewer, 2014–Present
2. ASEE Annual Conference & Exposition
  - Session Moderator and Reviewer, 2009–2018
3. Educational Research and Methods Division (ERM)
  - Judge for the Frontiers in Education 2020 Virtual Conference New Faculty Fellows program
  - Mentor for Apprentice Faculty Grant awardee, Dr. Leroy Long, III, 2019–Present
  - Frontiers in Education Session Moderator and Reviewer, 2009–2014
4. Committee on Diversity, Equity, and Inclusion (CDEI), 2020–Present
5. Plagiarism Ad Hoc Committee Chair, 2020
6. ASEE President’s Task Force Steering Committee Member, *Re-envisioning the Curriculum for the 21st Century: Pathways to Engineering*, 2020–Present

### **International Society of Service Innovation Professionals (ISSIP)**

1. Applied Human Factors and Ergonomics The Human-Side of Service Engineering (AHFE HSSE)
  - Member, Scientific Advisory Board, 2019–Present
  - Session chair for AHFE HSSE international conference, July 25–29, 2021
  - Research lead for workforce development topics, 2020–Present

### **Funding Agencies**

1. Proposal Reviewer, National Science Foundation Programs
  - Research & Evaluation on Education in Science and Engineering (REESE)
  - Scholarships in Science, Technology, Engineering, and Mathematics (S-STEM)
  - Faculty Early Career Development (CAREER)
  - Engineering Education Research in the Formation of Engineers (RFE)
  - NSF Research Traineeship (NRT), Phase II
2. Program Peer Reviewer
  - Department of Energy: Building Technologies Office

### **Service Related to NSF-funded Projects**

1. Mentor, NSF AGEP Project, *Strengthening Training and Resources for Inclusion in Data Engineering and Sciences (STRIDES)*, 2020 – Present
2. Lead Mentor for NSF CAREER Network, Matched to mentor 3 assistant professors (2 African American and 1 Asian), 2019–Present
3. Invited participant, NSF-funded EAGER project (1837808/1837805) to generate community consensus on what information and advice early career engineering researchers could use as well as what makes successful Engineering Education and Centers CAREER proposals; Minneapolis, MN, March 14–15, 2019
4. External Evaluator, Principal Investigators Drs. Allison Godwin, Purdue University, and Adam Kirn, University of Nevada, Reno; NSF Research in Engineering Education (REE) Project: *Bridging the Gap: Building Supports for Diversity through Engineering Teams*, 2016–Present
5. Advisory Board Member, Dr. Lisa Benson, Clemson University, Clemson, SC, Department of Engineering and Science Education (ESED); *SPRITE (Student Perceptions of Researcher Identity and Transformative Epistemologies)*, NSF REE Program, 2017–Present
6. Advisory Board Member, Principal Investigator Dr. Anand Gramopadhye, Clemson University; NSF Grant: *Statewide Consortium: Supporting Underrepresented Populations in Precalculus by Organizational Redesign Toward Engineering Diversity (SC: SUPPORTED)*, 2017–Present
7. Subject Matter Expert & Invited Author of journal manuscript, Engineering Pathways Research, Dr. Mary Besterfield-Sacre, University of Pittsburgh; NSF Grant: *Innovation Through Propagation: Determining an Engineering Education Research Agenda*, Award # 1451263, 2015–2017

### **Textbook Reviewer**

1. Book Reviewer, *Environmental Engineering: Fundamentals, Sustainability, Design* (1st ed.), Wiley Publishing, June 2009

## **Industry Service**

1. Invited Researcher, Future Women in Kiewit, Kiewit Corporation, February 19–21, 2020
2. American Society for Engineering Education Designated International Specialist on Best Practices in Conducting Education Research; Technical Research; Diversity, Inclusion, and Equity; Retention; and Industry Practices and Desired Skills, 2020–Present

## **Miscellaneous**

1. Reviewer: *Journal of Engineering Education*, *International Journal of Engineering Education*, *European Journal for Engineering Education*
2. Workshop Planner & Moderator: *Unique & Emerging Methods to Investigate Sustainability Topics*, 2015 Horman Sustainability Symposium, April 19, 2015

## **UNIVERSITY SERVICE**

### **University of Florida**

#### *College Service*

1. Session Presenter, Women in Engineering Luncheon (STEPUP Online Women in Engineering Virtual Luncheon), August 2019–Present
2. Invited Panelist, College of Engineering, Black or African American Graduate Studies Webinar for Black or African American Prospective Masters and Ph.D. Students, Fall 2020
3. Member, UN Women’s Day Planning Committee, Fall 2019–Spring 2020

#### *Department Service*

1. Committee for Inclusion, Diversity, Equity and Access (IDEA) Member, 2020–Present
2. University of Florida Transportation Institute Advisor Board Member, 2019–Present
3. Graduate program partnership: University of Parma, Italy, 2019–Present
4. Faculty search committee, Fall 2019–Spring 2020
5. Graduate recruitment: Simmons, D. R., Tran, K., & Chau, A. D. *How to apply for doctoral study in the USA (emphasizing the University Florida): Preparations and recommendations for Vietnamese applicants*. Ho Chi Minh, Da Nang, and Ha Noi, Vietnam, Fall 2019
6. Junior Preview: developed activities and schedule for construction engineering, Fall 2019
7. Guest lecture (*Your Amazing Career in Construction Engineering*), CGN 2002: Introduction to Civil Engineering, September 26, 2019

### **Virginia Tech**

1. Mentored several African-American students from departments and programs across Virginia Tech
2. Future Faculty Program Advisory Committee Member
3. Participated in Women’s Preview Weekend Faculty Dinner, Spring 2018
4. Co-chaired, Human Centered Issues in Construction Community of Practice Committee, 2017–2018
5. Co-organizer, Women and Underrepresented Minorities (URMs) Faculty Panel Session at ASCE Construction Research Congress, Spring 2018

6. Member, The Collaborative Network for Engineering and Computing Diversity (CoNECD) Conference Plenary Speakers Committee, Spring 2018
7. Member, Department of Civil & Environmental Engineering VCEMP Faculty Search Committee, Fall 2016–Spring 2017
8. Participated in HBCU Day at Virginia Tech sponsored by College of Engineering, Fall 2016
9. Member, College of Engineering Dean Search Committee, Spring–Fall 2016
10. Member, Destination Area Committee on Smart, Human-Centered Infrastructure, Spring 2016
11. Member, Workforce Challenges Community of Practice Committee, Fall 2015–Fall 2016
12. Outreach events related to Student Transition Engineering Program (STEP), Summers
13. Virginia Tech's College of Engineering, CAREER panels (College-level), 2013–2015)
14. Led group of students composed mostly of civil engineering undergraduates to Panama for the Engineers Without Borders and ASCE conference, October 2014
15. Served on Faculty Search Committees for two positions in the Department of Civil and Environmental Engineering, 2014–2015
16. Virginia Tech's Learning Objects Repository Initiative (University-level)
17. College of Architecture and Urban Studies 2014 Research Symposium, Moderator (College-level)
18. Virginia Tech Student Experience Task Force (University-level), 2013 –2014
19. Virginia Tech's Human Centered Design Interdisciplinary Graduate Education Program, 2013–2015
20. Virginia Tech's Smart Infrastructure Laboratory (VT-SIL), 2013–2014
21. Panel Discussant, Multicultural Academic Opportunities Program (MAOP) & Black Graduate Student Organization (BGSO) [up to 4 activities each year]
22. Mentor, Inaugural group of under-represented scholars supported through the College of Engineering, New Horizons Scholars Program
23. Founding Member, Virginia Tech Leadership Education Collaborative (University-level)
24. Co-Advisor, Building Women in Construction, Virginia Tech student organization
25. Member & Faculty Lead, Engagement & Outreach Committee, Myers-Lawson School of Construction Industry Board

### **Clemson University**

1. Clemson University NSF Science Master's Program Advisory Committee (Department-level), 2009–2012

### **South Carolina State University**

1. SC State (University-level) and UTC Scholarship Selection Committee, 2010–2011
2. SC State SACS 2010 Physical Resources Committee, Co-Chair (University-level), 2009–2010
3. SC State ABET Continuous Improvement Committee (College-level), 2004–2008
4. SC State Convocation Committee (University-level), 2007–2008
5. Clemson-SCSU Civil Engineering Joint Program (Department-level), 2006–2007
6. SC State Professional Land Surveying–New Program Development Committee (Department-level), 2006–2007
7. SC State Energy & Environment Program–New Program Development Committee (College-

- level), 2005–2006
8. SC State Faculty Research Recognition Committee (University-level), 2004

## **PROFESSIONAL REGISTRATIONS**

- Registered Professional Engineer (PE, TN #106991)
- Project Management Professional (PMP, 383095)
- Leadership in Energy & Environmental Design Accredited Professional (LEED-AP)

## **PROFESSIONAL MEMBERSHIPS**

- ASCE Construction Institute Construction Research Council Committee (CI-CRCC)
- Engineering Project Organization Society (EPOS)
- International Society of Service Innovation Professionals (ISSIP)
- American Society of Civil Engineers (ASCE)
- American Society for Engineering Education (ASEE)
- American Association of Blacks in Energy (AABE)
- National Society of Black Engineers (NSBE)
- Project Management Institute (PMI)
- Chi Epsilon, Civil Engineering Honor Society

## **FELLOWSHIPS AND AWARDS**

1. 2019 Inductee, Thomas Green Clemson Academy of Engineers and Scientists, College of Engineering, Computing and Applied Sciences at Clemson University
2. 2019 Distinguished Alumni, Glen Department of Civil Engineering at Clemson University.
3. 2018 Australasian Engineering Education Conference Best Paper Award for Groen-McCall, C., McNair, L. D., Paretti, M. C., Shew, A. H., & Simmons, D. R. (2018). Experiencing disability: A preliminary analysis of professional identity development in U.S. undergraduate civil engineering students.
4. 2018 *Journal of Construction Engineering and Management* Editor's Choice recognition for Simmons, D. R., Iorio, J., Taylor, J. E., & Li, D. (2018). Work values across generations among construction professionals in the United States.
5. 2018 Best Paper Award in the International Division at ASEE for Knight, D.B., Matusovich, H. M., Artiles, M. S., Davis, K., Kinoshita, T., Bairaktarova, D., Hodges, K., Knott, T., Lee, W. C., McGlothlin Lester, M., McNair, E., Reid, K., & Simmons, D. R. (2018,). Sustaining a study abroad program at scale: What motivates faculty members to engage in such programs?
6. 2018 Myers Lawson School of Construction Diversity Award
7. 2018 *Journal of Professional Issues in Engineering Education and Practice* Editor's Choice for Simmons, D. R., Ye, Y., Ohland, M., & Garahan, K. (2018). Understanding students' incentives for and barriers to out-of-class participation: A profile of civil engineering student engagement.
8. 2017 *Journal of Management in Engineering* Editor's Choice for Simmons, D. R., Clegorne, N., & Woods-Wells, T. (2017). Leadership paradigms to develop professionals in the

construction industry: A critical review informed research agenda.

9. 2017 Institute for Society, Culture and Environment ISCE Faculty Scholar.
10. 2016 Recipient of Virginia Tech's National Distinction Award for Research
11. 2016 Outstanding New Assistant Professor, Virginia Tech College of Engineering Dean's Award
12. 2016 Black Graduate Student Organization's Lisa Tabor Award for Community Service
13. 2015 Engineering Sustainability Travel Award
14. 2015 National Society of Black Engineers Travel Award
15. 2014 Faculty Fellow, Frontiers in Education
16. 2014 Younger Leaders Fellow for the Civil Engineering Division of ASEE
17. 2011 NSF Study Abroad Fellowship to study the energy industry in Santiago, Chile
18. 2010 SC State She-Ro award in recognition for leadership of the SRESFS
19. 2009 Dean's Award for Outstanding Service, SC State University
20. 2009 Award Recognizing Dedicated Service to NSF/HBCU-UP/RISC Summer Research Internship Program
21. 2008–2011 South East Alliance for Graduate Education and the Professoriate (SEAGEP) Fellow
22. 2007 Sloan Foundation Research Fellow

## **POSTDOCTORAL ADVISING**

### **Current**

1. Ahn Duc Chan, 2019–Current
2. Madeline Polmear, 2019–Current

### **Completed**

1. Cassandra Groen McCall, 2017–2019. Currently Assistant Professor, Department of Engineering Education, Utah State University.

## **GRADUATE ADVISING**

### ***Current***

#### ***Committee Chair/Co-Chair***

1. Hwangbo Bae, PhD Civil & Coastal Engineering, University of Florida, expected graduation December 2022 (chair).
2. Elizabeth Volpe, PhD Civil & Coastal Engineering, University of Florida, expected graduation May 2025 (chair).

#### ***Committee Member***

1. None active.

## Completed

### **Committee Chair/Co-chair, PhD**

1. Lindy Cranwell, PhD Planning, Governance and Globalization, School of Public and International Affairs, CAUS, Virginia Tech, graduated December 2020 (committee co-chair). Dissertation: *University Comprehensive Internationalization (CI): Faculty Meaning-Making, Motivations, and Perceptions for Engaging Globally*; Currently Director, International and Graduate Education, Department of Civil and Environmental Engineering, Virginia Tech.
2. MiguelAndres Guerra, PhD Civil Engineering, COE, Virginia Tech, graduated August 2019 (committee co-chair). Dissertation: *Prototyping as a User-Centered and Risk Reduction Approach During the Planning, Design, and Construction of More Sustainable Transit and Urban Infrastructure Systems*. Currently Professor of Civil Engineering, University of San Francisco at Quito, Ecuador.
3. Cassandra Groen, PhD Engineering Education, Virginia Tech, graduated May 2017 (committee co-chair). Dissertation: *Advancing from Outsider to Insider (in Civil Engineering): A Grounded Theory of Professional Identity Negotiation*. Currently Assistant Professor, Department of Engineering Education, Utah State University.
4. Amy Hermundstad Nave, PhD Engineering Education, Virginia Tech, graduated December 2018 (committee co-chair). Dissertation: *All in a Day's Work: Women Engineering Students' Professional Development in a Living-Learning Community*. Currently Faculty Developer in the Trefny Innovative Instruction Center at the Colorado School of Mines, Golden, CO.

### **Committee Chair/Co-chair, MS (Project & Report)**

1. Hwangbo Bae, MS Civil Engineering, COE, Virginia Tech, graduated August 2019 (committee chair). Thesis: *Quarry Worker's Safety Recognition, Interpretation, and Prevention Skills*. Currently PhD student, University of Florida.
2. Miranda Tuell, MS (P&R) Civil Engineering, COE, Virginia Tech, graduated May 2016 (committee co-chair). Report: *The Relationship between Project Performance and the Frequency of Communication between Virginia Department of Transportation and Contractor Construction Managers*. Currently: Project Engineer, Virginia Department of Transportation.
3. Tyler Beach, MS (P&R) Civil Engineering, COE, Virginia Tech, graduated December 2016 (committee chair). Report: *Work Value Characteristics of Construction Professionals*. Currently: a Civil Engineer / Cost Estimator at the Bureau of Reclamation at the Technical Service Center (TSC) in Denver, Colorado.

### **Committee Chair, MS (Coursework only)**

1. Saniya Kulkarni, MS Civil Engineering, Virginia Tech, graduated 2018.
2. Pranav Kulkarni, MS Civil Engineering, Virginia Tech, graduated 2018.
3. Flora, Matthew, MS Civil Engineering, Virginia Tech, graduated 2018.
4. Dhruv Desai, MS Civil Engineering, Virginia Tech, with research project, graduated 2017.
5. Nikunj Solanki, MS Civil Engineering, Virginia Tech, with research project, graduated 2017. Currently: Project Engineer with Webcor Builders, California, USA.
6. Yamini Mahendran, MS Civil Engineering, Virginia Tech, graduated 2017.

### **Committee Member, PhD**

1. Rebecca Komarek, PhD Civil Systems, University of Colorado-Boulder, graduated May 2020. Dissertation: *Exploration and Assessment of Leadership Development in Engineering Students*.
2. Yangming Shi, PhD Civil & Coastal Engineering, University of Florida, graduated August 2020. Dissertation: *A Working Memory Investigation of Emerging Visualization Technologies on Construction Task Performance*.
3. Julio Alberto Roa, PhD in Civil Engineering, Virginia Tech, graduated December 2018. Dissertation: *Development of Aircraft Wake Vortex Dynamic Separations Using Computer Simulation and Modeling*. Currently Assistant Professor in the Department of Civil and Geomatics Engineering at California State University, Fresno, CA.
4. Kenneth Sands, PhD in Building Construction, Virginia Tech, graduated December 2014. Dissertation: *Ethics Education and Its Relationship to Undergraduate Construction Students' Professional Ethical Sensitivity*. Currently Assistant Professor, Florida Gulf Coast University.

**Committee Member, MS (Thesis)**

1. Sarah Jonson, MS (thesis) School of Public and International Affairs, graduated December 2016. Thesis titled "Occupational segregation in Namibia: Women's experience doing "men's" work in the construction and manufacturing industries". Currently: Program Coordinator, Africa at International Youth Foundation, Washington, District Of Columbia.

**Committee Member, MS (Project and Report)**

1. Rory Alfree, MS P&R Civil Engineering, COE, Virginia Tech, graduated December 2013. Report: *A Comprehensive Review of Five Courses of Virginia Tech's Construction Engineering Management Program*. Currently Project Engineer, Scott Long Construction, Inc.

**Committee Member, MS (Coursework only)**

1. J. Tyler Crouse, MS in Civil Engineering, graduated 2017.
2. Andrew Davis, MS in Civil Engineering, graduated 2017.
3. Aswin Sangameswaran Muthukumarasam, MS in Civil Engineering, graduated 2017.
4. Rachelle Johnson, MS in Building Construction, graduated 2016.

**DIRECTED HOURLY RESEARCH**

1. Elizabeth Spingola, PhD in Engineering Education, graduated 2020 (with publication).
2. Fang Fang, PhD in Sociology, graduated 2020.
3. Mary Norris, PhD in Education, graduated 2020.
4. Marissa Lang, PhD in Sociology, graduated 2019 (with publications).
5. Alison Bowers, PhD in Education, graduated 2019 (with publication).
6. Katie Garahan, PhD in English, graduated 2019 (with publications).
7. Corey Miles, PhD in Sociology, graduated 2019.
8. Micah Roediger, PhD in Psychology, graduated 2018.
9. Mary Seeman, PhD in Building Construction, graduated 2018.
10. Jennifer Turner, PhD in Sociology, graduated 2018.
11. Chris Davidson PhD in Education, graduated 2017.
12. Yi Liu, PhD in Statistics, graduated 2017.



13. Jaeo Han, MS in Statistics, graduated 2017 (with publications).
14. Jeremy Brenner, MS in Building Construction, graduated 2017 (with publications).
15. Glenda Young, PhD in Engineering Education, graduated 2017 (with publication).
16. Brian Novoselich, PhD in Engineering Education, graduated 2016.
17. Chosang Tendhar, PhD in Education, graduated 2015 (with publication).
18. Yincheng Ye, PhD in Education, graduated 2015 (with publications).
19. Rongrong Yu, PhD in Education, graduated 2015 (with publications).
20. Mohammad O. Makhmalbaf, PhD student Civil Engineering, left without degree (with publication).

## **UNDERGRADUATE ADVISING**

1. Jackson Carcaba, Civil & Coastal Engineering, expected to graduate December 2024
2. Danielle Weisenfeld, Civil & Coastal Engineering, expected to graduate December 2022
3. Alex Liou, Statistics and Computer Science, expected to graduate May 2021.
4. Ivan Zundel, Statistics and Computer Science, expected to graduate May 2022.
5. Juan Suhr, Statistics and Computer Science, expected to graduate May 2022.
6. Joey Lu, Statistics and Computer Science, expected to graduate May 2021.
7. Blaise Bowman, Statistics and Computer Science, expected to graduate December 2020.
8. Boyette Sarah, Physics, expected to graduate December 2020.
9. Jarling Liu, Sociology, expected to graduate May 2021.
10. Derek Pfeffer, Aerospace Engineering, expected to graduate May 2023.
11. Brian Paulsen, Engineering, expected to graduate May 2023.
12. Garrett Young, Electrical Engineering and Music, expected to graduate May 2023.
13. Danielle Jacobs, Civil Engineering, graduated 2019.
14. Allie Jo Vogrig, Construction Engineering and Management, graduated 2018.
15. Alberto Duran, Construction Engineering & Management, graduated 2017 (with publication).
16. Caitie Holliday, Building Construction, graduated 2017 (with publication).
17. Caroline Beuth, Construction Engineering & Management, graduated 2017 (with publication).
18. Mayank Periwal, Construction Engineering & Management, graduated 2017 (with publication).
19. Nhi Ly, Psychology, graduated 2017 (with publication).
20. Amy Vogrig, Computer Science, graduated 2016.
21. James T. Martin, Construction Engineering & Management, graduated 2016 (with publication).
22. Abby Jetmundsen, Computer Science, graduated 2016.
23. Jeremy Brenner, Building Construction, graduated 2016.

## **UNDERGRADUATE ADVISING (under the supervision of Dr. Julie P. Martin, 2009–2010, Clemson University)**

1. Walter Lee, BS Industrial Engineering, Clemson University, 2010; Ph.D. in Engineering Education at Virginia Tech, 2015; Currently Assistant Professor in Engineering Education Department at Virginia Tech.
2. Brianna' Fleming, BS Industrial Engineering, Clemson University, 2010; Currently pursuing Masters in Industrial Engineering at Old Dominion University.

3. Jenny Smith, BS Chemical Engineering, Clemson University, 2010; Currently employed in industry.