

Yvette E. Pearson, Ph.D., P.E., F.ASCE

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HIGHLIGHTS

Globally recognized expert in diversity, equity, and inclusion (DEI)

- Invited speaker for events hosted by the UN Foundation/Brookings Institution, National Academy of Engineering, ABET, World Federation of Engineering Organizations, Institution of Civil Engineers, and others
- Featured and/or quoted in the Houston Chronicle, Media Planet, ASCE News, and Diverse: Issues in Higher Education, PE Magazine, Medium, Civil Engineering Magazine, and Voyage Houston Magazine

Award-winning expert in higher education

- ABET's Claire L. Felbinger Award for Diversity and Inclusion (International)
- ASCE's Professional Practice Ethics and Leadership Award (International)
- Appointed Commissioner on the Engineering Accreditation Commission of ABET (International)
- University of Texas Regents' Outstanding Teaching Award (State)

Leadership of initiatives that have impacted the policies and practices of global organizations

- Led revision of ASCE's Policy 417: Justice, Equity, Diversity, and Inclusion
- Co-authored Canon 8 of ASCE's Code of Ethics, which focuses on inclusive engineering design and fair and equal treatment
- Inaugural Chair of MOSAIC (Members of Society Advancing an Inclusive Culture), ASCE's board-level committee on DEI
- Leading the development of a Best Practices Guide for ASCE that covers assessment and accountability, training and inclusive communications, inclusive events, inclusive leadership and engagement, and strategic partnerships
- Advised ABET and the American Society for Engineering Education (ASEE) on making their annual conferences more accessible and inclusive

Successful track record in securing funding and coaching teams to secure funding for education initiatives

- PI/Co-PI on ~\$6.4M in grant funding for education research and implementation initiatives focused on DEI
- Lead projects that address a wide range of dimensions (race, ethnicity, [dis]ability, gender, socioeconomic status)
- Coached teams to secure over \$10M in funding since 2017 to support their initiatives
- Former National Science Foundation (NSF) program officer

Host of Engineering Change Podcast

- Focused on intentional, sustainable change towards DEI in engineering education with broader implications for higher education
- Audience includes listeners in over 30 countries on six continents

EDUCATION

May 2017

Graduate Certificate in Educational Research Methodology

University of Illinois – Chicago, Chicago, Illinois

December 2000

Ph.D. in Engineering & Applied Science (Environmental Engineering)

University of New Orleans, New Orleans, Louisiana

ASEE Helen T. Carr Fellow

UNO Ernest G. Chachere Fellow

Dissertation: Model to Predict Ambient Particulate Concentrations at Traffic Intersections

Ph.D. Advisor: Bhaskar Kura, Ph.D., P.E.

July 1995

M.S. in Chemistry (Environmental Chemistry Option)

Southern University, Baton Rouge, Louisiana

FHWA/NHI Dwight D. Eisenhower Transportation Fellow

Thesis: Assessment of Commuter Exposure to Carbon Monoxide and Nitrogen Dioxide

May 1993

B.S. in Civil Engineering

Southern University, Baton Rouge, Louisiana

ADMINISTRATIVE APPOINTMENTS

August 2016 - present

RICE UNIVERSITY

Houston, Texas

George R. Brown School of Engineering

July 2018 – present Associate Dean for Accreditation, Assessment, & Strategic Initiatives

Collaborate with the dean and other School of Engineering leaders, faculty, staff, and students to ensure that all School of Engineering processes, policies, and strategic initiatives are implemented according to best practices for diversity, equity, and inclusion; work collaboratively with the dean, assistant dean, and department chairs in the identification and hiring of diverse faculty and staff candidates; work with the assistant dean and staff in the Center for Teaching Excellence and Office of Diversity and Inclusion to design and deliver training to faculty, staff, and students on identity, privilege, bias, stereotype threat, and other topics to promote a more inclusive climate in School of Engineering classrooms, laboratories, departments, and centers; identify and/or secure funding for outreach and engagement initiatives that support the recruitment of students from diverse backgrounds; establish and chair the School of Engineering's Committee on Diversity, Equity and Inclusion, charged with assessing and evaluating School climate and culture, making recommendations for changes, and reviewing bias incidents; additional accreditation and assessment duties described below.

August 2016 – June 2018 Associate Dean for Accreditation and Assessment

Oversee and manage the accreditation activities (ABET and SACSCOC) for all degree programs, minors, and certificate programs in the School of Engineering; inform, engage, and coach faculty and staff teams responsible for accreditation; provide expertise on measures for assessing student learning and assist in the development of assessment instruments; support administrative strategic planning, program development, and assessment in all engineering departments; supervise the systematic collection and analysis of educational data and communicate the results to internal and external constituents; assist faculty members in the development of proposals to obtain funding for educational research and other initiatives; coach prospective principal investigators on best practices for creating competitive educational proposals; co-author research presentations and publications; collaborate with School and University professionals to train teaching assistants and support faculty members in effective methods and practices.

May 2017 – present

THE PEARSON EVALUATION AND EDUCATION

RESEARCH (PEER) GROUP, LLC

Sugar Land, Texas

Founder & Lead Consultant

Provide consulting services in the areas of program development, STEM education research, and evaluation for projects focused on student success and faculty development, particularly related to the success of individuals from traditionally marginalized identities in STEM education; develop and implement trainings on diversity, equity, and inclusion and on proposal development with emphasis on proposals to the National Science Foundation (NSF) that are focused on STEM education research.

July 2020 – present

ABET ENGINEERING ACCREDITATION COMMISSION Baltimore, Maryland

Commissioner

Lead teams of program evaluators (PEVs) to review and visit programs for accreditation; work with teams, institutions, and ABET Headquarters to coordinate pre-visit preparation; manage site visits; write statements summarizing findings and recommendations from visits; work closely with institutions, PEVs, and editors on post-visit action items; engage with other commissioners to review and discuss findings from visits; vote on boards/actions presented at commission meetings; serve as a PEV (described below) as requested.

June 2013 – July 2020

ABET ENGINEERING ACCREDITATION COMMISSION Baltimore, Maryland

Program Evaluator (PEV)

Evaluated civil engineering programs against accreditation criteria established by ABET and the American Society of Civil Engineers (ASCE); reviewed self-study reports, transcripts and other documentation to determine the level of compliance with each criterion; communicate with program chairs as needed to resolve issues/ambiguities; visit campuses to further evaluate the program by interviewing faculty members, staff, students, administrators and advisory committee members and by reviewing coursework and assessment materials; prepare reports/draft statements describing findings and communicate those findings, which are discussed and agreed upon by the visit team, to the university president and other administrators; evaluate the performance of the team chair and other visit team members; respond to questions from the team chair as needed as he/she finalizes the team's reports.

August 2013 – August 2016

NATIONAL SCIENCE FOUNDATION

Arlington, Virginia

Division of Undergraduate Education

Program Director

Coordinated management of undergraduate education proposals and awards (portfolio ~\$70M); participated in all phases of the solicitation, review and management of proposals submitted to the Scholarships in Science, Technology, Engineering and Mathematics (S-STEM, Co-Lead), Advanced Technological Education (ATE), and Improving Undergraduate STEM Education (IUSE:EHR) programs; represented DUE and EHR in the development and management of cross-directorate initiatives such as Nanotechnology Undergraduate Education in Engineering (NUE), REvolutionizing engineering and computer science Departments (RED, Co-Lead), and Inclusion across the Nation of Communities of Learners of Underrepresented Discoverers in Engineering and Science (INCLUDES) programs; conducted post-award monitoring of funded projects, including site visits and review of annual and final reports; represented DUE at professional meetings and conferences; conducted analyses and assisted in preparing reports and internal budget plans for programs; contributed to NSF-wide coordination of scholarly activities for undergraduate STEM education; provided leadership in broadening participation in STEM disciplines and in undergraduate STEM education; and represented DUE in cross-directorate and interagency initiatives related to undergraduate education, including measures to keep both the content and teaching approaches current in and conforming to contemporary advances within the current STEM education research findings; conducted outreach to the national STEM education community to increase awareness of funding opportunities and share strategies for developing competitive STEM education and education research proposals.

June 2011 – September 2015

UNIVERSITY OF TEXAS AT ARLINGTON

Arlington, Texas

Department of Civil Engineering

Associate Chair

Provided leadership in undergraduate academic affairs; advised students; coordinated and managed departmental advising activities and policy changes; represented the department in college-level advisor meetings; evaluated student performance and made decisions regarding academic status based upon department, college and university criteria; reviewed and responded to student appeals; worked with faculty, staff and administrators across the College of Engineering and in University College to ensure that students were properly advised and that academic standards were enforced; provided leadership in ABET data collection, assessment, continuous

improvement and site visit preparation (including self-study report preparation); and coordinated and troubleshoot course schedules for both graduate and undergraduate offerings each semester.

May 1997 – September 1998

SOUTHERN UNIVERSITY AND A&M COLLEGE

Baton Rouge, Louisiana

College of Engineering

Director of Student Recruitment, Retention and Learning Center/Assistant to Dean

Developed and implemented student recruitment strategies and retention activities; managed the Student Recruitment, Retention and Learning Center (including computer laboratory and tutorial program); assisted with scholarship awards; led and assisted with implementation of outreach activities; developed financial management system for the college; tracked college income/expenditures; prepared budget reports; and prepared proposals for center initiatives.

ACADEMIC APPOINTMENTS

September 2007 – August 2016

Senior Lecturer

Department of Civil Engineering
University of Texas at Arlington
Arlington, Texas

August 1995 – August 2007

Assistant/Associate Professor (Tenured in 2005)

(Academic leave January 1999 through December 2000)

Department of Civil & Environmental Engineering
Southern University and A&M College
Baton Rouge, Louisiana

June 1999 – December 2000

Graduate Assistant

Department of Civil & Environmental Engineering
University of New Orleans
New Orleans, Louisiana

OTHER APPOINTMENTS/CONSULTING

May 2017 – present

Founder and Lead Consultant

The Pearson Evaluation and Education Research (PEER) Group
Sugar Land, Texas

March 2008 – September 2010

Independent Scientist/Engineer

Scientist Services Detailed in Holcim Settlement Agreement
Downwinders at Risk
Midlothian, Texas

September 2008 – August 2009

Consultant

Surface Coating PBR Protectiveness and Streamlining Review
Texas Commission on Environmental Quality
Austin, Texas

July 2005 – October 2006

Project Engineer/Independent Contractor

Krestworth Group
Baton Rouge, Louisiana

May 2002 – December 2004

Technical Team Member

Norco Community Air Monitoring Project
Norco, Louisiana

May 1992 – August 1992

Field Engineer Intern

Exxon Company, USA Marketing Terminal
Memphis, Tennessee

May 1991 – August 1991

Staff/Field Engineer Intern

Exxon Company, USA Marketing Terminal
Baton Rouge, Louisiana

LICENSES, CERTIFICATIONS, AND OTHER TRAINING

June 2002 – present

Professional Engineer (Environmental, #30192)

Louisiana

May 2017

Graduate Certificate in Educational Research Methodology

University of Illinois at Chicago, Chicago, Illinois

1989 – 2007

Real Estate Salesperson

Louisiana Real Estate Commission

SPONSORED PROJECTS

Rice University – \$2.6M PI/Co-PI, \$3.7M Total (with collaborations)

September 2019 – August 2024

Collaborative Research: The AGEP Data Engineering and Science Alliance Model: Training and Resources to Advance Minority Graduate Students and Postdoctoral Researchers into Faculty Careers
\$1,899,507 (Co-PI, Project Director)
National Science Foundation AGEP
Collaborating Institutions: Texas Southern University, University of Houston
(Project Total \$2,664,885)

August 2017 – July 2020

Collaborative Research: Solving Problems of Mathematics Accessibility with Process-Driven Math
National Science Foundation (IUSE:EHR)
\$331,336 (PI, includes \$37,898 supplement)
Collaborating Institution: Auburn University Montgomery (Project Total \$629,520, including supplement)

January 2017 – December 2020 Capacity Building for Competitive S-STEM Proposals
National Science Foundation (S-STEM)
\$381,564 (PI)

University of Texas at Arlington – \$1.8M PI/Co-PI

February 2009 – January 2015 Focus On Retention in Cohorts of Engineering Students (FORCES)
National Science Foundation (S-STEM)
\$600,000 (PI)

September 2010 – August 2014 Civil Engineering and Life Decisions: Choose Wisely
UT Arlington QEP Phase II
\$118,348 (Co-PI)

July 2010 – June 2013 UT Arlington REU Site on Hazard Mitigation
National Science Foundation (REU)
\$300,000 (Co-PI)

September 2009 – August 2011 Engineering Sustainable Engineers
National Science Foundation (IEECI)
\$150,000 (Co-PI)

September 2008 – August 2009 Surface Coating Permit by Rule Protectiveness and
Streamlining Review
Texas Commission on Environmental Quality
\$69,951 (Co-PI)

March 2008 – March 2010 Scientist Services Detailed in Holcim Settlement
Agreement
Downwinders at Risk
\$20,000 (Co-PI)

March 2008 – February 2011 UT Arlington RET Site on Hazard Mitigation
National Science Foundation (RET)
\$511,456 (Co-PI)

Southern University and A&M College – \$0.94M PI/Co-PI

January 2007 – December 2011 Scholarships Creating Opportunities for Retention in
Engineering (SCORE)
National Science Foundation (S-STEM)
\$500,000 (PI)

October 2006 – May 2007 Steel Bridge Design, Fabrication and Construction
Project
LA DOTD Support Program for Civil Engineering
Studies
\$5,000 (PI)

July 2006 – June 2007 Enhancement of Environmental Science Instruction with Emphasis on
Environmental Microbiology
Louisiana Board of Regents
\$193,718 (Co-PI)

August 2004 – July 2005	Relation of Residential Proximity and Vehicular Density to Childhood Cancer Occurrences in Baton Rouge Southern University/NSF HBCU-UP Start-up \$10,000 (Mentor Stipend)
July 2004 – June 2006	Southern University Institute for Transportation Studies (SUITS) Canadian National Railroad \$150,000 (Co-PI)
May 1996 – September 1997	Summer Transportation Institute (STI) South Carolina State University/FHWA \$40,000 (PI)
May 1997 – September 1998	Summer Transportation Institute (STI) South Carolina State University/FHWA \$40,000 (PI)

The PEER Group (Consulting Projects)

August 2020 (postponed)	Excellence in Civil Engineering Education (ExCEED) American Society of Civil Engineers Role: Evaluation
December 2019 – November 2024	Retaining Undergraduate Engineering Students through Experiences in Industry, Entrepreneurship, Community Engagement, and Research National Science Foundation (S-STEM) Role: Educational Research
October 2019 – September 2020	Workshop on Gender and Diversity Analysis in Research across the Science Infrastructure National Science Foundation (GVF) Role: Evaluation
May 2019 – April 2024	Collaborative Research: Human-centered Computing Scholars: Need-based, Extensive Support through Degree Completion National Science Foundation (S-STEM) Role: Evaluation
October 2018 – September 2020	Pathways for Advancing Student Success US Department of Education Role: Evaluation
August 2018 – July 2020	EAGER: Supporting Early Career Development in Engineering Education Research National Science Foundation (EngEd) Role: Evaluation

HONORS AND AWARDS

2019	ABET Claire L. Felbinger Award for Diversity and Inclusion (International)
2018	ASCE Professional Practice Ethics and Leadership Award (International)

2018	Educator of Excellence Award, Achievement Through Leadership Foundation (Regional)
2016	10 Women Trailblazers of Civil and Structural Engineering (ILSI, National)
2015	Elected Fellow, American Society of Civil Engineers (International)
2013	University of Texas System Regents' Outstanding Teaching Award (State)
2013	Ranked among the Top 25 Women Professors in Texas (State)
2012	Who's Who in Black Dallas (Inaugural Edition, Regional)
2012, 2010	UT Arlington Provost's Award for Excellence in Teaching
2012, 2007	Oxford Round Table Delegate (Invited)
2011	Nominee, ASEE Sharon Keillor Award for Women in Engineering Education (National)
2010	Nominee, UT Arlington Outstanding Academic Advisor
2009	UT Arlington College of Engineering Research Excellence Award
2006, 2007	Participant, Center for the Advancement of Scholarship on Engineering Education (CASEE), National Academy of Engineering (National)
2006	Certificate of Commendation as ASCE Student Chapter Advisor (National)
2005	Order of the Engineer Inductee
2005, 2003, 2002	Most Outstanding Civil Engineering Faculty Member
2003	Southern University College of Engineering Teacher of the Year
2002	Southern University STEM Hall of Fame Inductee
1997, 1996	Most Outstanding Civil Engineering Faculty Member
1998 – 2000	Helen T. Carr Fellow (ASEE, National)
1998 – 2000	Ernest G. Chachere Fellow (University of New Orleans)
1993 – 1995	Dwight D. Eisenhower Transportation Fellow (FHWA/NHI)

PUBLICATIONS AND PRESENTATIONS

Book Chapters

Pearson, Y.E., and Alexander, Q.G. (2020). Inclusion of Persons with Disabilities in STEM Education and Careers. Chapter 9, in *Implementation Strategies for Improving Diversity in Organizations*, IGI Global, Editor: Claretha Hughes.

Weatherton, Y. and Womack-Richardson, E. (2010). An Examination of Air Temperatures and Soil Temperatures in the United States Gulf Coast and Implications Related to Nitrous Oxide Emissions from Soil. Chapter 36, in *Climate Change and Sustainable Development*, Linton Atlantic, Editor: Ruth Reck.

Weatherton, Y. (2010). Appendix B: Review Questions. *Climate Change and Sustainable Development*, Linton Atlantic, Editor: Ruth Reck.

Journal Articles and Conference Proceedings

*Denotes undergraduate researcher

*Boyle, S.R., Phillips, C.M.L., **Pearson, Y.E.**, Mattingly, S.P., DesRoches, R., Li, W., Nordberg, A., and Rifai, H. An Exploratory Study of Intentionality towards Diversity in STEM Faculty Hiring. (2020). *Proceedings of the Annual Conference of the American Society for Engineering Education*. **Best Diversity Paper Award Recipient**

*Boyle, S.R., **Pearson, Y.E.**, Beier, M.E., Gilberto, J., Mattingly, S.P., Satterbak, E.A., and Shethia, A.K. Analysis of Reviews of Proposals to the S-STEM Program (2020). *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Pearson, Y.E. (2019). Inclusion, Diversity Now Factor into Accreditation Standards. *PE Magazine*, 41(4). (Invited Article)

Pearson, Y.E. (2019). To Improve Engineering Design, Ask Your Users. *PE Magazine*, 41(1). (Invited Article)

Pearson, Y.E., and Simmons, D.R. (2018). Diversity and Inclusion in Civil Engineering Education and Practice: Special Collection. *Journal of Professional Issues in Engineering Education and Practice, Special Collection on Diversity and Inclusion in Civil Engineering Education and Practice*, 144(4).

Pearson, Y.E., Phillips, C.M.L., Beier, M.E., Mattingly, S.P., Saterbak, A., Shethia, A.K., and *Sun, R. (2018). Evaluating the Quality of Project Summaries for S-STEM Proposals. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Phillips, C.M.L., Gulley, A., **Pearson, Y.E.**, *Prickett, L., Price, J., Ragland, M., Eyler, J., et al. (2018). Solving Problems of Mathematics Accessibility with Process-Driven Math: Methods and Implications. *Proceedings of the Annual Conference of the American Society for Engineering Education*. **Best Diversity Paper Award Nominee**

Phillips, C.M.L., **Pearson, Y.E.**, Black, L., and Alexander, Q. (2018). The American Society of Civil Engineers' Canon 8: Codifying Diversity as Ethics. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Bheemasetti, T. V., Puppala, A.J., Verreault, L., Pedarla, A., and **Weatherton Y.P.** (2018). Optimizing Geotechnical Data for Levee Resilience. In *Proceedings of the Institution of Civil Engineers: Engineering Sustainability*, Volume 171, No 2, p. 90-101: <http://dx.doi.org/10.1680/jensu.16.00072>.

Clark II, C.J., **Pearson, Y.E.**, and Pipkin, L.M. (2017). Degradation of 17 β -estradiol by Zero Valent Iron. *International Journal of Water and Wastewater Treatment*, Volume 3, No. 3: doi <http://dx.doi.org/10.16966/2381-5299.146>

Pearson Weatherton, Y., Mayes, R. D., and Villanueva-Perez, C. (2017). Barriers to Persistence for Engineering Students with Disabilities. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Pearson Weatherton, Y., Crosby, K., Kruzic, A., Mattingly, S. P., Tiernan, J. C., and Isbell, B. (2016). Challenges, Opportunities, and Impacts of S-STEM Projects: Insights for Institutional Capacity Building at Minority Serving Institutions. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Pearson Weatherton, Y. and Hess, J. L. (2016). Thinking Globally, Acting Locally: Efforts Towards Immersion of Sustainability in Civil Engineering Education. *Ideas for Better Training and Education for Engineers*, Volume 19, 74-89.

Pearson Weatherton, Y., Sattler, M., Mattingly, S. P., Chen, V., Rogers, K. J., Dennis, B. (2015). A Multi-pronged Approach for Incorporating Sustainability into an Undergraduate Civil Engineering Curriculum. *Journal of Professional Issues in Engineering Education and Practice, Special Issue on Sustainability Engineering Education*, Volume 141, No. 2.

Jones, E. C., **Weatherton, Y.**, Gray, B., Armstrong, H. and Chen, W. (2014). A Framework for Detecting Hazardous Events Occurring in Transit with AutoID Technologies. *IEEE Sensors*, Volume 4, No. 9.

Pearson Weatherton, Y., Mattingly, S. P., Kruzic, A. P., Frost, H. and Rahman, Z. (2014). Is There a Correlation between First Year Critical Thinking Assessment Test Performance and Retention among Civil Engineering Students? *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Mattingly, S. P., Kruzic, A. P., **Pearson Weatherton, Y.**, Frost, H. and Rahman, Z. (2014). Alternative Analysis in the Curriculum: Making Better Decisions. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Gray, B., Jones, E. C., **Weatherton, Y.**, Sunnarto-Bussey, R., and Armstrong, H. (2013). Utilizing Pipeline Quality and Facility Sustainability to Optimize Crude Oil Supply Chains. *International Journal of Supply Chain Management* Volume 2, No. 4.

Athappan, A., Sumitsawan, S., Gangupomu, R. J., Kositkanawuth, K., Parikh, P., Afotey, B., Sule, N., Kalidindi, S. R., Sattler, M., and **Pearson Weatherton, Y.** (2013). Volatile Organic Compound Emissions from Surface Coating Facilities: Characterization of Facilities, Estimation of Emission Rates, and Dispersion Modeling of Off-Site Impacts. *International Journal of Environmental Protection*.

Pearson Weatherton, Y., Sattler, M., Mattingly, S., Chen, V., Rogers, K. J., and Dennis, B. (2012). Engineering Sustainable Engineers through the Undergraduate Experience. *Forum on Public Policy*, Volume 2012, No. 2.

Pearson Weatherton, Y., Chen, V., Mattingly, S., Rogers, K. J., and Sattler, M. (2012). Sustainable Engineering Internships: Creation and Assessment. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Sattler, M., Chen, V., Dennis, B.H., Mattingly, S.P. Rogers, K. J., **Pearson Weatherton, Y.**, Rani, M., and Kositkanawuth, K. (2012). Integrating Sustainability Across the Curriculum: Engineering Sustainable Engineers. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Chen, V., Rogers, K. J., Graham, A., Dickson, J., Mattingly, S., Sattler, M., and **Pearson Weatherton, Y.** (2012). Sustainable Industrial Engineering Modules. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Mattingly, S., Chen, V., Dennis, B.H., Rogers, K. J., Sattler, M., **Weatherton, Y.P.**, and Afotey, B. (2012). Multidisciplinary Sustainable Senior Design Project: Design of a Campus Biodiesel Refinery. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Pearson Weatherton, Y., Daza, S., and *Pham, V. (2011). Perceived Barriers to Participation in Engineering: Why Underrepresented Groups Remain Underrepresented. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Pearson Weatherton, Y., Isbell, B., Kruzic, A., Tiernan, J. C., Peterson, L., and *Pham, V. (2011). Mathematics Performance and First Year Retention of Students in Engineering Learning Communities. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Sattler, M., **Pearson Weatherton, Y.**, Mattingly, S., Chen, V., and Rogers, K. J. (2011). Engineering Sustainable Civil Engineers. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Wade, B., **Pearson Weatherton, Y.**, and Sattler, M. (2011). Educational Benefits of Computational Modeling and Kinesthetic Experimentation. *Proceedings of the Annual Conference of the American Society for Engineering Education*.

Weatherton, Y. and Womack-Richardson, E. (2007). Analysis of Surface Temperature and Soil Temperature Trends in the United States Gulf Coast. *Forum on Public Policy*. Volume 3, No. 4, pp.467-470.

Weatherton, Y. (2006). Clear Skies in Louisiana. *The Louisiana Civil Engineer*. Volume 14, No. 4, pp. 5-7. (Feature Article)

Kura, B., **Weatherton, Y.**, et al. (2005). Sidestream Cigarette Smoke: A Low-Cost Monitoring System to Evaluate PM10 and PM2.5 Emission Factors. *WIT Transactions on Ecology and the Environment*. Volume 42, pp. 417-424.

Weatherton, Y. (2004). Community Air Monitoring Network. *The Louisiana Civil Engineer*. Volume 13 No. 1, pp.19-21.

Weatherton, Y., Sadanand, P., and Kura, B. (1999). Model to Predict Ambient Particulate Matter at Traffic Intersections, *Proceedings of the 92nd Annual Conference of the Air & Waste Management Association*. (Published Abstract)

Kura, B. and **Weatherton, Y.** (1998). Air Quality Status in Louisiana: A Historical Perspective. *Environmental State of the State III Conference Proceedings*, pp. 7-25.

Invited Plenaries/Keynotes/Distinguished Lectures/Panels

ASCE Industry Leaders Council. Social Justice in the Civil Engineering Profession. October 2020.

ASCE Convention. #Inclusion: Become a Change Agent to Rise Together. October 2020.

Women's Transportation Seminar. The Vulnerability Index: Global Inclusive Transportation Design. October 2020.

UN Foundation and Brookings Institution. American Leadership in Advancing the UN Sustainable Development Goals. September 2020

Purdue University School of Engineering Education. REDEFINE Engineering Education: Toward Ubiquitous Inclusion. September 2020.

ASCE V-Tech 2020. Improving Our Profession, Improving Our World. September 2020.

ASCE Department Heads Conference. Toward Ubiquitous Inclusion in Civil Engineering Education. June 2020.

ABET Sponsored Session at the ASEE Annual Conference. ABET Criteria and Opportunities for Inclusion in Engineering Education. June 2020.

ASCE Virtual Panel: Anti-Racism in Engineering Education—From Dialogue to Action. June 2020.

ASCE Virtual Roundtable. Engineering a Culture of Inclusion in the Face of Injustice. June 2020.

Women's Transportation Seminar Annual Conference, Phoenix, Arizona. The Vulnerability Index: Global Inclusive Transportation Design. May 2020 (event cancelled due to COVID-19).

ABET Symposium, Nashville, Tennessee. Engineering Inclusive Engineers: Equity and Inclusion in Engineering Curricula. March 2020 (event cancelled due to COVID-19).

World Federation of Engineering Organizations Committee on Education in Engineering, Melbourne, Australia. REDEFINE Engineering Education: Global Considerations. November 2019.

National Academy of Engineering, Grand Challenges Scholars Program Annual Meeting, Washington, DC. The U.N. Sustainable Development Goals and the NAE Grand Challenges. November 2019.

Society of Women Engineers Annual Conference, Anaheim, California. Confidence Crisis: How to Embrace Failure on Your Success Journey. November 2019.

National Science Foundation, Engineering Education and Centers Grantees Meeting, Washington, DC. A Conversation about Marginalization, Equity, and Inclusion. October 2019.

Florida International University School of Universal Computing, Construction, and Engineering Education Discipline-Based Education Research Speaker Series, Miami, Florida. REDEFINE Engineering Education. October 2019.

ASCE Education Summit, Dallas, Texas. Diversity, Equity, and Inclusion in Civil Engineering Education. May 2019.

National Academy of Engineering Convocation of Professional Engineering Societies, Washington, DC. Ubiquitous Inclusion and User-Centered Design. April 2019.

ABET Symposium, Dallas, Texas. Sustainability and the Ethics of Inclusion. April 2019.

ASCE Illinois Section, Chicago, Illinois. Raising Awareness on Diversity and Inclusion in Engineering (RAIDE). April 2019.

University of Illinois Urbana-Champaign, WeSTEM Conference, Champaign, Illinois. Using Difference to Your Advantage. February 2019.

Rice Center for Engineering Leadership, Houston, Texas. The Gender Factor: Leadership Double Standards in Tech. January 2019.

AIChE Institute for Sustainability/United Engineering Foundation, Pittsburgh, Pennsylvania. Technical and Engineering Challenges of Addressing the UN Sustainable Development Goals: Education and Professional Training of Engineers. November 2018.

Global Engineering Congress, London, UK. Advancing the UN Sustainable Development Goals through Inclusive Engineering Education. October 2018.

New York State Department of Transportation, Long Island City, New York. ASCE Canon 8 and User-Centered Universal Design in Civil Engineering. October 2018.

ASCE Region 1 Assembly, Saratoga Springs, New York. ASCE Canon 8 and Climate Change: Diversity, Equity, and Inclusion in Civil Engineering. September 2018.

Bechtel Corporation, Houston Texas. Diversity, Equity, and Inclusion in Academic and Professional Organizations. August 2018.

ASCE Region 3 Assembly, Chicago, Illinois. ASCE Canon 8 and Climate Change: Diversity, Equity, and Inclusion in Civil Engineering. August 2018.

ASCE Environmental & Water Resources Institute Congress, Minneapolis, Minnesota. Disasters and Decision Making: A Matter of Ethics. June 2018.

ASCE San Antonio Branch, San Antonio, Texas. Codifying Diversity as Ethics: ASCE Canon 8. May 2018.
Collaborative Network for Engineering and Computing Diversity, Arlington, Virginia What's Our "Time's Up" Moment? April 2018.

ABET Symposium, San Diego, California. Diversity and Inclusion: Great Minds, Greater Impact. April 2018.

University of San Diego Shiley-Marcos School of Engineering, San Diego, California. User-Centered Universal Design: Employing User Experiences (UX) to Ensure Equal Access. April 2018.

Rice Center for Engineering Leadership (RCEL), Rice University, Houston, Texas. Ethics and Leadership for Engineers. April 2018.

ASCE Committee on Advancing the Profession Winter Meeting, Austin, Texas. Climate Change: Promising Practices for Inclusivity in Academic and Professional Organizations. January 2018.

World Federation of Engineering Organizations, Engineering Education Committee, Rome, Italy. Diversity in Engineering Education with Perspectives on Inclusion as it Relates to ABET EAC's Upcoming Changes to Criteria 3 and 5. November 2017.

University of San Diego. User-Centered Universal Design. October 2017.

Mid-America Transportation Center (MATC) Scholars Conference, Lincoln, Nebraska. Strategies to Succeed in Graduate School. September 2017.

Achievement through Leadership Foundation Scholarship Dinner, Houston, Texas. A Charge to the Scholars: Plan, Prepare, Persevere. May 2017.

American Society for Engineering Education, Washington, DC. Transforming Undergraduate Engineering Education Phase IV. April 2017.

Rice Center for Engineering Leadership (RCEL), Rice University, Houston, Texas. Ethics in Leadership. April 2017.

Clemson University and University of Washington, Clemson, South Carolina. Who's Not at the Table? Building Research Capacity for Underserved Communities in Engineering. October 2016.

Annual Conference of the Society of Women Engineers, Philadelphia, Pennsylvania. Disability, Diversity, & Engineering: Strategies to Support and Encourage Individuals with Disabilities in Engineering. October 2016.

American Society for Engineering Education Diversity Committee. Annual Conference of the American Society for Engineering Education, New Orleans, Louisiana. Action on Diversity - Students with Disabilities: Now That We Know Who They Are, How Do We Respond? June 2016.

University of Louisville, Department of Civil Engineering, Louisville, Kentucky. Strategies and Resources for Incorporating Sustainability into Civil Engineering Curricula. May 2016.

ABET Symposium, Hollywood, Florida. Strategies and Resources for Incorporating Sustainability into Engineering Curricula. April 2016.

ASCE eLearning Webinar. Strategies for Including Principles of Sustainability in Civil Engineering Design. November 2015.

Florida International University, Miami, Florida. A Broader View of Broader Impacts. September 2015.

American Society for Engineering Education Diversity Committee, Engineering Libraries Division and Educational Research and Methods Division, Annual Conference of the American Society for Engineering Education, Seattle, Washington. Microaggressions Experienced by Non-traditional Marginalized Groups in Engineering. June 2015.

Institute for Electrical and Electronics Engineers Southeastern Michigan Humanitarian Technology Conference, Livonia, Michigan. Engineering for Humanity: A Broader View of Broader Impacts. July 2015.
GE Healthcare, Plano, Texas. Presenting with Power. December 2012.

Oxford Round Table on the Environment and Climate Change. Oxford, England. Engineering Sustainable Engineers through the Undergraduate Experience. July 2012.

DFW Women's Transportation Seminar Statewide Leadership Conference, Dallas, Texas. Women in STEM: Challenges and Opportunities., September 2011.

Oxford Round Table on Global Warming and Sustainability, Oxford, England. Analysis of Surface Temperature and Soil Temperature Trends in the United States Gulf Coast., August 2007.

US Geological Survey Safety Week, Baton Rouge, Louisiana. Overview of Hazardous Waste Management. April 1999.

Conference Presentations

Pearson, Yvette E. and Alexander, Quincy G. Sustainable Development: Convergence and Innovation in Engineering Education and Practice. World Engineering Convention, Melbourne, Australia, November 2019.

Pearson, Yvette E., Phillips, Canek M. L. et al. Evaluating the Quality of Project Summaries for S-STEM Proposals. Annual Conference of the American Society for Engineering Education, Salt Lake City, Utah, June 2018.

Phillips, Canek M. L., Pearson, Yvette E., Black, Lisa, and Alexander, Quincy. The American Society of Civil Engineers' Canon 8: Codifying Diversity as Ethics. Annual Conference of the American Society for Engineering Education, Salt Lake City, Utah, June 2018.

Phillips, C.M.L., Gulley, A., Pearson, Y.E., Prickett, L., Price, J., Ragland, M., Eyler, J., et al. Solving Problems of Mathematics Accessibility with Process-Driven Math: Methods and Implications. Annual Conference of the American Society for Engineering Education, Salt Lake City, Utah, June 2018.

Pearson, Yvette, Mattingly, Stephen, and Haselbach, Liv. Sustainability and Inclusion: A Perspective on Diversifying Engineering Education. World Engineering Forum, Rome, Italy, November 2017.

Pearson Weatherton, Yvette, Mayes, Renae D., and Villanueva-Perez, Carol. Barriers to Persistence for Engineering Students with Disabilities. Annual Conference of the American Society for Engineering Education, Columbus, Ohio, June 2017.

Pearson Weatherton, Yvette and Haselbach, Liv. The Role of Engineering Education towards Attaining UN Sustainable Development Goals. ABET Symposium, Baltimore, Maryland, April 2017.

Gulley, Ann, Prickett, Logan, Price, Jordan, Perez, Luis, and Pearson Weatherton, Yvette. The Logan Project: Improving Access to Math with Universal Design for Learning and Mobile Technology. 32nd CSUN Assistive Technology Conference, Sand Diego, California, March 2017.

Pearson Weatherton, Yvette, Crosby, Karen, Kruzic, Andy, Mattingly, Stephen P., Tiernan, J. Carter, and Isbell, Beth. Challenges, Opportunities, and Impacts of S-STEM Projects: Insights for Institutional Capacity Building at Minority Serving Institutions. Annual Conference of the American Society for Engineering Education, New Orleans, Louisiana, June 2016.

Navarre, Fredric A. and Pearson Weatherton, Yvette. Black Male Achievement in STEM: Impacting Lifelong Trajectory of Success with an Integrated Mathematics Education Approach. 22nd Annual Conference of Adults Learning Mathematics, Opening Our Mathematic Eyes: Seeing Math in Everything We Do, Alexandria, Virginia, July 2015.

Pearson Weatherton, Yvette, Mattingly, Stephen P., Kruzic, Andrew P., Frost, Heather and Rahman, Ziaur. Is There a Correlation between First Year Critical Thinking Assessment Test Performance and Retention among Civil Engineering Students? Annual Conference of the American Society for Engineering Education, Indianapolis, Indiana, June 2014.

Pearson Weatherton, Yvette; Daza, Stephanie; Pham, Vu. Perceived Barriers to Participation in Engineering: Why Underrepresented Groups Remain Underrepresented. Annual Conference of the American Society for Engineering Education, Vancouver, British Columbia, June 2011.

Pearson Weatherton, Yvette; Isbell, Beth; Kruzic, Andy; Tiernan, J. Carter; Peterson, Lynn; Pham, Vu. Mathematics Performance and First Year Retention of Students in Engineering Learning Communities. Annual Conference of the American Society for Engineering Education, Vancouver, British Columbia, June 2011.

Sattler, Melanie; Pearson Weatherton, Yvette; Mattingly, Stephen; Chen, Victoria; Rogers, K. Jamie. Engineering Sustainable Civil Engineers. Annual Conference of the American Society for Engineering Education, Vancouver, British Columbia, June 2011.

Wade, Blake; Pearson Weatherton, Yvette; Sattler, Melanie. Educational Benefits of Computational Modeling and Kinesthetic Experimentation. Annual Conference of the American Society for Engineering Education, Vancouver, British Columbia, June 2011.

Pearson Weatherton, Yvette, and Daza, Stephanie. Engineering for Teachers of Diverse Student Populations: The Possibilities and Challenges of an NSF Grant on Research Experiences for Teachers. 6th International Conference on Teacher Education and Social Justice: Reframing Race, Gender and Teacher Education Policy, Chicago, Illinois, December 2009.

Pearson Weatherton, Yvette Crosby, Karen, Blevins, Edgar and Louis, Linda Is High School Performance a Good Predictor of Undergraduate Minority Engineering Student Success? Annual Conference of the American Society for Engineering Education, Pittsburgh, Pennsylvania, June 2008.

Pearson Weatherton, Yvette. Higher Education and Professional Licensure. National Society of Black Engineers, DFW Alumni Extension Professional Development Mini-Conference, Dallas, Texas, February 2008.

Weatherton, Yvette. Air Monitoring... Norco. Environmental State of the State Conference, New Orleans, Louisiana, October 2003.

Recent Workshops and Webinars

Identifying and Disrupting Systemic Inequities in Engineering Organizations

The PEER Group, October 2020

Untangling Knowledge Generation and Evaluation in S-STEM Proposals

AAAS Webinar, March 2020

ASCE Canon 8: Ethics Guiding the Profession to an Inclusive Future

ASCE Webinar, December 2019

(With Quincy G. Alexander)

Capacity Building for Competitive S-STEM Proposals

Rice University, Houston, Texas, January 2019

(With Drs. Margaret Beier, Ann Saterbak, et al)

Applications of the Envision Rating System in Engineering Courses and Curricula

ASCE Annual Conference, Salt Lake City, Utah, June 2018

(With Drs. Cliff Davidson and Malay Ghose Hajra)

STEM Education Proposal Development Workshop

The PEER Group, Anchorage, Alaska, May 2018

Capacity Building for Competitive S-STEM Proposals

Rice University, Houston, Texas, January 2018

(With Drs. Margaret Beier, Ann Saterbak, et al)

Education Proposal Development Workshop

The PEER Group, Sugar Land, Texas, July 2017

Role of Engineering Education towards Attaining UN Sustainable Development Goals

ABET Symposium, Baltimore, Maryland, April 2017

(With Dr. Liv Haselbach)

Capacity Building for Competitive S-STEM Proposals

Rice University, Houston, Texas, February 2017

(With Drs. Ann Saterbak, Margaret Beier, et al)

Tips for Turning Good Ideas into Competitive NSF Engineering Education Proposals

ASCE Annual Conference, New Orleans, Louisiana, June 2016

(With Drs. Karen Crosby, Elliot Douglas, et al)

Civil Engineering and STEAM

Color of Leadership Conference for Middle School Girls, Arlington Public Schools Office of Minority Achievement, Arlington, Virginia, November 2015

Proposal Writing Strategies (NSF STEM Education Proposals, Invited)

- University of Louisville, Louisville, Kentucky, May 2016
- Francis Marion University, Florence, South Carolina, March 2016
- Creating Futures through Technology Conference, Biloxi, Mississippi, March 2016
- Florida International University, Miami, Florida, September 2015
- Boise State University, Boise, Idaho, October 2014

- University of New Orleans, Louisiana, July 2014
- University of Texas at Arlington, Texas, May 2014

Engineering: Why Not?

Color of Leadership Conference for Middle School Girls, Arlington Public Schools Office of Minority Achievement, Arlington, Virginia, November 2014

Road Trip: A Guide to a Successful Life's Journey (Invited)

- Word of Life Restoration Ministries, Carrollton, Texas, October 2014
- College of Southern Maryland, La Plata, Maryland, September 2014
- Texas A&M University Galveston, Texas, February 2014

From Course-level Assessment to Program-level Evaluation: An Interactive Experience

ABET Symposium, Pittsburgh, Pennsylvania, April 2014 (With Dr. Lynn Peterson)

How to Flunk Out of School

UT Arlington, March 2011 (With Beth Isbell and Drs. Andrew Kruzic, Linda Barasch)

MEDIA (Partial Listing)

Media Planet: Business and Tech October 2020 - [Three Leaders in Engineering Explain Why We Need More Women in the Industry](#)

ASCE News June 2020 – [I Can't Breathe and This is Why](#)

The Ladder, ASCE News June 2020 – [I Can't Breathe and This is Why](#)

Medium February 2020 – [Engineering a Better World through Diversity, Equity, and Inclusion](#)

Voyage Houston January 2020 – [Meet Dr. Yvette E. Pearson of Rice University and The PEER Group in Sugar Land](#)

Rice Engineering October 2019 – [Yvette Pearson Works to Remove Barriers in STEM Education](#)

Diverse Issues in Higher Education August 2019 – [Three Houston Universities Receive Grant to Boost Minority STEM Faculty](#)

ABET July 2019 – [Announcing the 2019 ABET Award Recipients](#)

Houston Chronicle November 30 2018 – [Houston Water Project Breaking Ground – In More than One Way](#)

ASCE News August 2018 – [ASCE to Discuss Engineering Issues on a Global Stage](#)

Rice Engineering News July 2018 – [Pearson Honored by ASCE](#)

ASCE News March 2018 – [Bridging the Gender Wage Gap](#)

ASCE News January 2018 – [CE Roundtable: What Issue will Dominate the Civil Engineering Industry in 2018?](#)

Institution of Civil Engineers (UK) Global Engineering Congress – [Why is the Engineering Community So Important to Solving the UN SDGs?](#)

Auburn University Montgomery News July 2017 – Warhawk Spotlight: NSF Funds AUM-Rice Research for Logan Project

Houston Defender May 2017 – Achievement Through Leadership Foundation Scholarship Dinner

Houston Forward Times May 2017 – This Week in Houston’s Buzz

Rice Engineering News May 2017 – Engineering Hosts Showing of ‘Hidden Figures’

ASCE News November 2015 – STEM Grants Director at NSF, Top Texas Professor Named Fellow

UT Arlington News November 2015 – Two Civil Engineers Earn Top Honors in National Organization

ILSI Engineering 2015 – 10 Women Trailblazers in Civil Engineering

UT Arlington Civil Engineering News 2014 – CE Faculty Member Engages in National Conversation on Diversity and Inclusion in Engineering

University of Texas 2013 – Regents’ Outstanding Teaching Awards

UT Arlington News August 2013 – UT System Honors Nine UT Arlington Faculty for Teaching Excellence

UT Arlington Engineering News August 2013 – Three Faculty Earn UT System Teaching Awards

North Dallas Gazette August 2013 – Dr. Yvette Weatherton Receives Special Honor

UT Arlington Engineering News April 2012 – Spring Faculty Meeting Awards

UT Arlington Engineering News July 2009 – Engineering Students Learning to Address Sustainability

PROFESSIONAL SERVICE AND DEVELOPMENT ACTIVITIES

Professional Organizations (Current and Past)

American Society of Civil Engineers

- 2020 – present ASCE Education Summit Working Group (National)
- 2019 – present Members of Society Advancing an Inclusive Culture (International)
 - Inaugural Chair
- 2019 – present Civil Engineering Program Criteria Task Committee (International)
- 2020 – present ABET EAC Commissioner (International)
- 2013 – 2020 ABET EAC Program Evaluator (PEV, International)
- 2015 – 2020 Formal Engineering Education Committee (National)
 - Chair, 2017 – 2019
 - Member, 2015 – 2020
- 2014 – 2019 Committee on Diversity & Inclusion (National)
 - Vice Chair, 2017 – 2019
 - Member, 2015 – 2019
 - Corresponding member, 2014 – 2015
- 2014 – 2015 Committee on Sustainability (National), Member
- 2006 – 2007 Assigned Branch Director, Louisiana Section Board of Directors (State)
- 2003 – 2007 Publications Committee Member, Louisiana Section (State)
- 2001 – 2007 Faculty Advisor, Southern University Student Chapter
- 2004 – 2006 Younger Members Chair, Louisiana Section (State)

- 2001 – 2002 Faculty Coordinator, Deep South Regional Conference

American Society for Engineering Education

- 2013 – 2020 Minorities in Engineering Division (MIND)
 - Secretary, 2018 – present
 - Member, 2013 – present
- 2017 – 2018 Co-Chair, Conference Planning Committee, First Annual Collaborative Network for Engineering and Computing Diversity (CoNECD) Conference
- 2016 – 2017 ASEE Diversity Committee (National), Delegate for MIND
 - Action Subcommittee
 - Communication Subcommittee
- 2014 – present Reviewer, Annual Conference (as requested)
 - Diversity Committee
 - Minorities in Engineering Division
 - Civil Engineering Division
 - Environmental Engineering Division
 - Community Engagement Division
- 2014 – present Annual Conference Session Moderator
 - Environmental Division
 - Civil Engineering Division
 - ASEE Headquarters

National Society of Black Engineers

- 2010, 2011 Professional Development Conference Committee Member (Dallas Metroplex Alumni Extension)
- 2008 Professional Development Conference Speaker (Dallas Metroplex Alumni Extension)

American Association for the Advancement of Science

Association of Environmental Engineering and Science Professors

Air & Waste Management Association

Society of Women Engineers

Professional Development Activities

June 2020	Annual Conference of the American Society for Engineering Education ASEE, Virtual Conference
April 2020	Breaking Down Barriers: Aiding Airport Travelers with Disabilities National Academy of Engineering, Transportation Research Board
December 2019	Impact Evaluation Essentials: Why, What, and How Evalu-ATE/Western Michigan University
December 2019	Three Ways to Improve Your Decision Making Academic Impressions
July 2019	How to Streamline Your Team’s Qualitative Research NVivo
June 2019	Four Leadership Practices for New or Aspiring Deans Academic Impressions

June 2019	Annual Conference of the American Society for Engineering Education ASEE, Tampa, Florida
May 2019	ASCE Education Summit Southern Methodist University, Dallas, Texas
April 2019	ABET Symposium ABET, Dallas, Texas
February 2019	Basic Principles of Survey Question Development ATE Central
June 2018	American Society for Engineering Education Annual Conference Salt Lake City, Utah
April 2018	Collaborative Network for Engineering and Computing Diversity, ASEE/WE/PAN/NAMEPA, Arlington, Virginia
April 2018	ABET Symposium ABET, San Diego, California
December 2017	Time Management: A Roles and Goals Approach ASCE Continuing Education
November 2017	World Engineering Forum/World Federation of Engineering Organizations General Assembly Rome, Italy
October 2017	International Conference on Sustainable Infrastructure American Society of Civil Engineer, New York, New York
July 2017	ABET Institutional Representatives Meeting ABET, Baltimore, Maryland
July 2017	Overcoming Unconscious Bias in the Workplace – Part I American Society of Civil Engineers
June 2017	Annual Conference of the American Society for Engineering Education ASEE, Columbus, Ohio
April 2017	ABET Symposium ABET, Baltimore, Maryland
April 2017	Transforming Undergraduate Education in Engineering Phase IV American Society for Engineering Education, Washington, DC
March 2017	Professional Ethics LA Professional Engineering and Land Surveying Board
March 2017	CSUN Assistive Technology Conference California State University Northridge, San Diego, California

February 2017	Small-Scale Evaluation Evalu-ATE/Western Michigan University/The Evaluation Center
December 2016	Project Team & People Management, Part I American Society of Civil Engineers
December 2016	Project Team & People Management, Part II American Society of Civil Engineers
December 2016	Mentoring: Guidance for Mentors, Protégés, and Organizations American Society of Civil Engineers
December 2016	Anatomy of a User-Friendly Evaluation Report Evalu-ATE/Western Michigan University/The Evaluation Center
October 2016	Who's Not at the Table? Building Research Capacity for Underserved Communities in Engineering. Clemson University/University of Washington, Clemson, South Carolina
October 2016	Annual Conference of the Society of Women Engineers SWE, Philadelphia, Pennsylvania
June 2016	Annual Conference of the American Society for Engineering Education ASEE, New Orleans, Louisiana
April 2016	Process-Driven Math: A Universal Design Approach for Teaching and Assessing Math for Students who are Blind or have Low Vision NSF, Arlington, Virginia
January 2016	AccessEngineering: Strategies to Support Individuals with Disabilities Pursuing Careers in Engineering - Part II University of Washington/Society of Women Engineers
January 2016	Sustainability Summit: Engineers in Partnerships Creating a Sustainable World ASCE, Herndon, Virginia
December 2015	An Introduction to Value Engineering Based Design Decision Making ASCE Continuing Education
December 2015	Sustainable Water Reuse & Recycling ASCE Continuing Education
December 2015	Supporting African American Men Pursuing STEM Degrees The White House Initiative on Educational Excellence for African Americans
December 2015	AccessEngineering: Strategies to Support Individuals with Disabilities Pursuing Careers in Engineering - Part I University of Washington/Society of Women Engineers
December 2015	Five Habits of Highly Effective Marketers ASCE Continuing Education

July 2015	Annual Conference of Adults Learning Mathematics ALM, Washington, DC
June 2015	Annual Conference of the American Society for Engineering Education ASEE, Seattle, Washington
June 2015	Transforming Undergraduate Education in Engineering Phase III: Voices on Women's Participation and Retention ASEE, Seattle, Washington
May 2015	Introduction to Logic Models: Tools for Programs and Evaluation NSF, Arlington, Virginia
April 2015	Transforming Undergraduate Education in Engineering Phase II: Insights from Tomorrow's Engineers ASEE, Arlington, Virginia
April 2015	Evidence-based Teaching and the Achievement Gap NSF, Arlington, Virginia
November 2014	International Conference on Sustainable Infrastructure ASCE, Long Beach, California
June 2014	Annual Conference of the Air & Waste Management Association A&WMA, Long Beach, California
June 2014	Annual Conference of the American Society for Engineering Education ASEE, Indianapolis, Indiana
February 2014	Disruptive Learning Technologies: From World of Warcraft to Fold.it NSF, Arlington, Virginia
January 2014	Common Guidelines Workshop NSF, Arlington, Virginia
August – December 2013	Merit Review Basics I, II, III and IV NSF, Arlington, Virginia
October 2013	The Future of Implementation Evaluation: Towards a Science of Continuous Improvement Research in Education NSF, Arlington, Virginia
March – June 2013	Program Evaluator (PEV) Candidate Training ABET, Baltimore, Maryland
October 2012	2012 S-STEM Projects Meeting ASEE/NSF, Arlington, Virginia
May 2012	Engineering Ethics UT Arlington/Construction Research Center, Arlington, Texas
January 2012	Communication and Conflict Resolution UT Arlington Human Resources, Arlington, Texas

November 2011	Harassment Issues in Higher Education UT Arlington Human Resources, Arlington, Texas
October 2011	Understanding Leadership in Higher Education UT Arlington Human Resources, Arlington, Texas
June 2011	Annual Conference of the American Society for Engineering Education ASEE, Vancouver, British Columbia
May 2011	Green Stormwater Management UT Arlington/Construction Research Center, Arlington, Texas
May 2011	Engineering Ethics UT Arlington/Construction Research Center, Arlington, Texas
November 2009	Effective College Teaching Workshop UT Arlington College of Engineering, Arlington, Texas
October 2008	Environmental Boot Camp for Engineers American Society of Civil Engineers, Dallas, Texas
October 2008	New Chapter 217 Rules on Design Criteria for Sewer Systems ASCE, Dallas, Texas
September 2008	LEED Exam Prep Green Building Seminar UT Arlington/Construction Research Center, Arlington, Texas
July 2008	ExCEED Teaching Workshop ASCE, Fayetteville, Arkansas
June 2008	Designing a Freshman Engineering Program Workshop ASEE, Pittsburgh, Pennsylvania

Reviewer Service

National Science Foundation (Spring 2007 – present, multiple panels and ad hoc reviews)

- Directorate for Education and Human Resources (CCLI, TUES, IUSE:EHR, S-STEM, WIDER, Science Masters, ECR, CAREER, INCLUDES, AGEP, NRT)
- Directorate for Engineering (RET, REU, ERC, IUSE/PFE:RED)

American Society of Civil Engineers

- Associate Editor: Journal of Professional Issues in Engineering Education and Practice (2019 – 2020)
- Guest Editor: Journal of Professional Issues in Engineering Education and Practice Special Collection on Diversity and Inclusion (2016 – 2018)
- Journal of Professional Issues in Engineering Education and Practice (Fall 2010 – present)

American Society for Engineering Education

- Annual Conference, Minorities in Engineering Division, Environmental Engineering Division, Civil Engineering Division, Diversity Committee, Community Engagement Division (Fall 2014 - present)
- Advances in Engineering Education (Spring 2010 – present)
- Gulf Southwest Regional Conference (Spring 2006)

University Service

Rice University

- Member, Accessibility Advisory Committee for Disability Resource Center
- Member, Steering Committee for Accessibility/ADA Improvements
- Chair, School of Engineering Committee on Diversity, Equity, and Inclusion
- At-large Member, Rice Council on Diversity and Inclusion

UT Arlington Department of Civil Engineering

- Undergraduate Advisor
- ABET Representative
- ABET Task Team Member for Outcomes (f) and (g)
- Strategic Planning Committee

UT Arlington College of Engineering

- Freshman Interest Group (FIG) Mentor, FORCES FIG
- COE ABET Committee
- First Year Seminar Task Force

Southern University Department of Civil & Environmental Engineering

- ASCE Student Chapter Faculty Advisor
- Undergraduate Advisor
- Department Council
- Catalog and Curriculum Committee
- Graduate Program Committee
- Assessment and Evaluation Committee (Chair)
- ABET Planning Committee
- ABET Self-Study Committee
- Awards and Special Events Committee (Chair)
- Fellowships and Scholarships Committee
- LAMP Coordinator and Mentor

RESEARCH SUPERVISION

Rice University

Torrie Cropps, Ph.D.

Postdoctoral Research Associate, August 2020 – present

Project: The AGEP Data Engineering and Science Alliance Model: Training and Resources to Advance Minority Graduate Students and Postdoctoral Researchers into Faculty Careers (NSF)

Canek Moises Luna Phillips, Ph.D.

Research Scientist, September 2019 – present

Project: The AGEP Data Engineering and Science Alliance Model: Training and Resources to Advance Minority Graduate Students and Postdoctoral Researchers into Faculty Careers (NSF)

Postdoctoral Research Associate, August 2017 – August 2019

Project: Solving Problems of Mathematics Accessibility with Process-Driven Math (NSF)

Samara R. Boyle

Research Assistant, September 2019 - present

Projects: The AGEP Data Engineering and Science Alliance Model: Training and Resources to Advance Minority Graduate Students and Postdoctoral Researchers into Faculty Careers and Capacity Building for Competitive S-STEM Proposals (NSF)

UT Arlington

Amber Davis (Committee Member, 2018 Graduate)

Dissertation: The Toxicological Effects of Lead-Contaminated Superfund Sites on Children in Dallas County

Sahar Mansour (Committee Member, 2014 Graduate)

Dissertation: Indoor Air Quality in Schools: An Investigation of the Impact of Outdoor Air Quality, School Layout and Room Type

Southern University

Alison Ford (Committee Chair 2006-07/Member 2013, 2013 Graduate)

Master's Thesis: Assessment of Cancer Risks Associated with the Operation of Gasoline Service Stations in East Baton Rouge Parish, Louisiana

Mark Fleet (Committee Chair, 2005 Graduate)

Master's Thesis: Volatile Organic Compound Source Apportionment using the Chemical Mass Balance Model

Flozelle Roberts (Committee Member, 2005 Graduate)

Master's Thesis: Evaluation of BOD and TSS Trends at the North Wastewater Treatment Plant for Compliance with NPDES Requirements

Shelita Smith-Williams (Committee Chair, 2004 Graduate)

Master's Thesis: Weekday/Weekend Behavior of Atmospheric Ozone in Baton Rouge

COURSES TAUGHT

UT Arlington

- CE 1105 Introduction to Civil Engineering
- CE 3131 Environmental Analysis
- CE 3334 Principles of Environmental Engineering
- CE 5321 Engineering for Environmental Scientists

Southern University and A&M College (Partial Listing)

- CIEN 130 Application Programs and Technical Communication
- CIEN 224 Statics
- CIEN 311 Computer Methods in Civil Engineering/CAD in Civil Engineering
- CIEN 325 Introduction to Environmental Engineering
- CIEN 421 Water & Wastewater Analysis
- CIEN 463 Air Pollution Control
- CIEN 516 Atmospheric Dispersion Modeling

Descriptions of Courses Developed (Southern University and A&M College)

CIEN 311 Computer Aided Design in Civil Engineering

Introduction to AutoCAD and the computerized approach to civil engineering design. Students will be exposed to using various software packages in the design of civil engineering systems.

CIEN 463 Air Pollution Control

Sources and effects of air pollutants; air quality standards; introduction to the design of particulate emission control devices; introduction to air pollution meteorology and atmospheric dispersion modeling.

CIEN 516 Atmospheric Dispersion Modeling

Fundamentals of air pollution meteorology and atmospheric dispersion of pollutants; dispersion models, with emphasis on the Gaussian plume model; use of computer dispersion models to predict ambient concentrations of pollutants; regulatory aspects of modeling.

Course Modules Developed (UT Arlington)

Introduction to Civil Engineering (CE 1105)

- Sustainability: What Does it Mean for Civil Engineers?
- What is Critical Thinking and Why is it Important for Good Decision Making?

Principles of Environmental Engineering (CE 3334)

- Waste as a Resource
- Critical Thinking in Environmental Engineering

COMMUNITY SERVICE AND OUTREACH (Partial Listing)

- Co-Organizer, Rice STEM Summer Seminar Series, Virtual Seminars
- Co-Organizer, Can We Talk? Film Screening, Rice University, Houston, Texas
- Co-Organizer, Rice Soccer STEM Night, Rice University, Houston, Texas
- Judge, San Jacinto College Undergraduate Research Symposium, Houston, Texas.
- Organizer, Engineers: Invent Amazing Middle School Outreach, Rice University, Houston, Texas
- Judge, Science Fair, George Bush High School, Richmond, Texas
- Guest Speaker, Design Connect Create Physics Camp for Girls, Rice University, Houston, Texas
- Guest Speaker, Rice/Texas Diversity Council Summer College Prep and Writing Workshop, Rice University, Houston, Texas
- Keynote Speaker, Achievement Through Leadership Foundation Scholarship Banquet, Houston, Texas
- Organizer, Hidden Figures Private Educational Screening Middle School Outreach, Rice University, Houston, Texas
- Organizer/Activity Leader, Engineer Big - Dream Big - Lead Big Middle School Outreach, Rice University, Houston, Texas
- Volunteer, Shalom Outreach, Woodbridge, Virginia
- Volunteer, Swanson Middle School, Arlington, Virginia
- Guest Speaker, TexPrep Academic Summer Camp, University of Texas at Arlington, Texas
- Guest Speaker, Brazil Science Mobility Program Academic Training, University of New Orleans, Louisiana
- Guest Speaker, College of Southern Maryland, La Plata, Maryland
- Guest Speaker, Texas A&M Galveston, Texas
- Career/College Day Exhibitor, Juan Seguin High School, Arlington, Texas
- Guest Speaker, Juan Seguin High School, Arlington, Texas
- Coordinator, All Star Students Recognition Program, Word of Life Restoration, Carrollton, Texas
- Guest Speaker, Janet Brockett Elementary School, Mansfield, Texas
- Career Event Guest Speaker, Friendship Baptist Church of The Colony, Texas
- Science Fair Judge, Scotlandville Magnet High School, Baton Rouge, Louisiana
- Science Fair Judge, Charity Christian Academy, Baton Rouge, Louisiana
- Volunteer, Habitat for Humanity, Baton Rouge, Louisiana
- Career Day Speaker, Northeast High School, Zachary, Louisiana
- Coordinator, Adventures in Civil Engineering, Southern University, Baton Rouge, Louisiana