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# Eric J. Steward, Ph.D., P.E.

Associate Dean of Undergraduate Affairs, College of Engineering Associate Professor, Department of Civil, Coast, and Environmental Engineering University of South Alabama 150 Student Services Dr. Rm. 2111 Mobile, AL 36688 (251) 460-6140 esteward@southalabama.edu

## **EDUCATION**

Louisiana Tech University Engineering (Geotechnical) Ph.D. 2011 Dissertation Title: A Deterministic Method of Predicting Long-Term Pile Capacity in Cohesive Soils after the Dissipation of Excess Pore Water Pressure

Louisiana Tech UniversityCivil EngineeringM.S.2011Practicum Title: Strength and Deformation Testing of Rigid Polyurethane Spray-on Coating<br/>under Internal PressureUniversityUniversity

University of Colorado at Colorado Springs Mechanical Engineering B.S.

# PROFESSIONAL EXPERIENCE

Registered Professional Engineer, Alabama License No. 35658, Colorado License No. 57242

5/2021 - Present	Associate Dean of Undergraduate Affairs	University of South Alabama, College of Engineering
8/2017 – Present	Associate Professor	University of South Alabama, Department of Civil, Coastal and Environmental Engineering
12/2019 -5/2021	Department Graduate Coordinator	University of South Alabama, Department of Civil, Coastal and Environmental Engineering
8/2011 - 7/2017	Assistant Professor	University of South Alabama, Department of Civil, Coastal and Environmental Engineering
10/2013 - Present	Consultant	Critical Path Thinking, Inc.
8/2007 - 8/2011	Research Engineer	Louisiana Tech University, Trenchless Technology Center
2/2008 - 8/2011	Technical Consultant	Hach Co. / ELE International, Loveland, CO
6/2003 - 8/2007	Technical Advisor	Hach Co. / ELE International, Loveland, CO
9/1996 - 6/2003	Field Services Supervisor	CTL/Thompson, Inc. Consulting Geotechnical and Materials Engineers, Colorado Springs, CO

# **PROFESSIONAL AFFILIATIONS**

American Society of Civil Engineers (ASCE) – Associate Member

- Member of the Committee on Student Members
- Member of the Deep Foundation Technical Committee
- Past-Chair of the Student Participation Committee for the GeoInstitute

American Society of Engineering Educators (ASEE)

North American Society for Trenchless Technology (NASTT)

United States Universities Council on Geotechnical Education and Research (USUCGER)

Tau Beta Pi (TBP) – Alabama Epsilon Chapter

American Society of Testing and Materials (ASTM)

#### HONORS AND AWARDS

- **Recipient of the College of Engineering Excellence in Teaching Award, 2020** Awarded to one COE Faculty Member annually by the USA College of Engineering
- Recipient of the Andy and Carol Denny Excellence in Teaching Award, 2018 Awarded to one Faculty Member annually by the USA National Alumni Association

**Recipient of the Barbara Shirvanian Advisor of the Year Award, 2016 – 2017** Awarded to one student organization advisor on campus for advising ASCE

# Recipient of the "Top Prof" Award by a student Member of the Mortar Board Society, 2015 & 2018

**Recipient of the PDCA Richard J. Stromness Award of Excellence, 2013** Awarded to one person at the Professors' Driven Pile Institute voted on by peers

#### Nominated for the College of Engineering Excellence in Teaching Award, 2012 - 2013

Recipient of the Louisiana Tech University Board of Regents Fellowship, 2007 - 2011 Awarded to a student in the College of Engineering and Science pursuing a Ph.D. providing full tuition, fees, and living funding for up to 4 years

#### Recipient of the Charles P. Lake/Rain for Rent Scholarship, 2009

Awarded to three students per year from many universities at the NASTT No-Dig Conference

# Recipient of Roy T. Sessums Outstanding Graduate Student Scholarship, 2008

Awarded to one student per year in the College of Engineering and Science at Louisiana Tech University

#### Nominated to the global Danaher Corporation Talent Pool, 2005

Nominated by the president of ELE International to develop and encourage a career develop plan to allow growth and opportunity within the Danaher Businesses.

#### **RESEARCH INTERESTS**

- Scholarship and Leadership education for engineering students transferring from community colleges
- The development of predictive methods to determine the long-term bearing capacity of deep foundation elements.
- Laboratory investigation of the long-term behavior of the interaction of soil and common construction materials (ie. concrete, steel, timber, polymers, etc.).
- The short-term and long-term interactive frictional characteristics of soil and buried infrastructure.
- The development of the design criteria of the thickness of spray-on polymeric rehabilitation materials (polyurethane and polyurea) installed in pressure pipelines based on strength and deformation behavior.

## **GRADUATE STUDENTS**

#### **Doctoral Dissertation**

- Ana Silviera, Committee Member, (Chair H. Lester), Dec. 2020 "Influence of Extreme Events on Power System Resilience"
- Garland Pennison, Committee Member, (Chair B. Webb), Dec. 2020 "Predicting Coastal Road Failure using Dispersion Functions"

#### Master's Thesis

Dianabel Giron Gonzalez, Chair, May, 2021 "Driven pile setup and LRFD Resistance Factor Calibration in Mississippi soils"

Axel Yarahuaman, Chair, May, 2020 "Driven pile setup and LRFD Resistance Factor Calibration in Alabama soils"

Jackie Whitman, Committee Member, (Chair – B. Webb), *current* "Dynamic Cone Penetrometer Testing of Two Mississippi Barrier Beaches: Cat and West Ship Island"

Aaron Weatherford, Chair, May, 2019 "Driven Precast Prestressed Concrete (PPC) Pile Design and Construction Optimization"

#### Benjamin Pement, Chair, December 2017

"Analysis of the WBUZPILE Pile Driving Software Utilized by the Alabama Department of Transportation"

Marian Busca, Committee Member, (Chair – J. Cleary), May 2017 "The effects of concrete shrinkage on the prestress losses emphasizing humidity"

Marcus Shekouh, **Chair**, *December 2016 Project title: "Laboratory determination of the time-dependent interface frictional behavior between cohesive soil and construction materials"* 

# Elisa Prado, Chair, August 2015

"Determination of LRFD resistance factors utilizing setup for driven pile design in Alabama soils"

- Ashraf Mohamed, Committee Member, (Chair J. Cleary), August 2015 "Predicting Ground Vibrations from Driving Scaled Piles"
- Ronald Jones, **Chair**, May 2015 *"Evaluation of pile setup using dynamic restrike analysis in the State of Alabama"*
- Cody Salter, Committee Member, (Chair J. Richardson), February 2015 "Closed-form solution for couple-stress formulation of smoothly heterogeneous media"
- Kibum Kwon, Committee Member, (Chair A.V. Phan), Dec. 2014 "LaPlace-SGBEM analysis of the dynamic stress intensity factors and the dynamic T-stress for the interaction between a crack and auxetic inclusions"
- Matthew Tabor, Committee Member, (Chair A. Whelton), May 2014 "The Affect of Rehabilitated Stormwater Infrastructure on Water Quality and Daphnia magna Toxicity: A Field and Laboratory Investigation"
- Andrew Gillis, Committee Member, (Chair J. Cleary), May 2014 "Utilizing driven pile installation to predict ground vibration propagation"
- Thomas Hassall, Committee Member, (Chair K. White), Dec. 2012 "Biological Nitrogen Removal: Process Fundamentals, Kinetics & Configurations"

# Master's Coursework

AnnaMarie Smith, *current* Zachary Sherman, *current* Oskar Velasquez Flores, 2021 Benjamin Gravlee, 2015 David Teague, 2014 Jared Landry, 2014 Greg Mercer, 2013 Samuel Sternberg, 2012 Blake Betbeze, 2012

# **UNDERGRADUATE RESEARCH STUDENTS**

#### Nicolas Naylor, Fall 2018 - 2019

*"Pile Driving Load Testing Analysis in GIS Utilized by the Alabama Department of Transportation"* 

# Dillon Draughn, Summer 2018

"Organization and Analysis of Pile Driving Load Test Data by the Mississippi Department of Transportation"

# Brittany McMillan, Summer 2016

"Analysis of the WBUZPILE Pile Driving Software Utilized by the Alabama Department of Transportation"

# Brandon Smith, Fall 2013 - Spring 2014

"Organizing and evaluating pile setup using dynamic restrike analysis in the State of Alabama"

Raymond Buchanon, Jr., Summer 2013

"An experimental evaluation of the effects of eccentric loading on the compressive strength of concrete test specimens"

Marcus Shekouh, Summer 2013

"Laboratory determination of the time-dependent interface frictional behavior between soil and construction materials"

Thomas Dodd, Jr., Summer 2012

"Preliminary Study on the Compressive Strength of Saturated Concrete Resulting from Freeze-Thaw Conditions utilizing a Super Absorbent Polymer"

## FUNDED RESEARCH PROJECTS

Linking Community College Students to Engineering; National Science Foundation; Proj. No. DUE-1833985; Date: Sept. 2019 - Aug. 2024 Team: C. West, Eric Steward, T. Thomas, J. Richardson, N. Carr Awarded: \$1,000,000

Driven pile setup and LRFD in Mississippi soils; Mississippi Department of Transportation (MDOT); Proj. No. SPR-1(98)/107167-190000; Date: Jan. 2017 – Dec. 2020 Team: Eric Steward Awarded: \$143,282

Driven Precast Prestressed Concrete (PPC) Pile Design and Construction Optimization; Joint Project with University of Alabama; Alabama Department of Transportation (ALDoT) Research Bureau; Proj. # 930-929; Date: May 2017 – Feb. 2019 Team: Eric Steward and Sriram Aaleti (U of AL)

Verification of WBUZPILE Designed Methodolgy and the Development of a LRFD Driven Pile Resistance Factor Calibration for Alabama Soils; Alabama Department of Transportation (ALDoT) Research Council; Date: July 2016 – December 2019 Team: Eric Steward Awarded: \$248,267

Investigation of pile setup (freeze) in Alabama: Development of a setup prediction method and *implementation into LRFD driven pile design;* Alabama Department of Transportation (ALDoT) Research Council; Date: Feb. 2013 – June 2015 Team: Eric Steward and John Cleary

Standardized test method to quantify environmental impacts of stormwater pipe rehabilitation materials; Oct. 2012 – April 2014, Virginia Department of Transportation (VDOT), Team: Andrew Whelton (PI), Kevin White, Anne Boettcher, Eric Steward Awarded: \$146,761

*Oyster shell strength determination: The effects of rehabilitated shells with Polydora infiltration;* Dec. 2012 – Oct. 2013, Auburn University Dauphin Island Sea Lab. Team: Eric Steward Awarded: \$2633

An investigation of the time dependent increased interface frictional behavior between soil and construction materials April 2012 – September 2013 USA Faculty Development Council Grant Team: Eric Steward Awarded: \$7550

Awarded: \$159,987

Awarded: \$809,855

How freezing affects the compressive strength of partial saturation of SAP Concrete May – July 2012 USA University Council of Undergraduate Research Team: Eric Steward and Thomas Dodd, Jr. Awa

Awarded: \$2070

An experimental evaluation of the effects of eccentric loading on the compressive strength of concrete test specimens May – July 2013 USA University Council of Undergraduate Research Team: Eric Steward and Raymond Buchanon, Jr. Awarded: \$2000

Dielectric characterization of soils for GPR applicationsMay 15 - July 15, 2011Funded by Underground Imaging TechnologiesTeam: Arun Jaganathan (PI), Neven Simicevic, and Eric StewardAwarded: \$2500

# **REFEREED JOURNAL PUBLICATIONS**

Yarahuaman, A., **Steward, E.,** Cleary, J., *Comparing FOSM, FORM, and Monte Carlos Simulation methods for resistance factor calibration including setup for driven piles*, Deep Foundation Institute (DFI) Journal, (*in preparation*)

Cleary, J., Webb, B., Douglass, S., and **Steward, E**., *Assessment of Engineering Adaptations to Extreme Events and Climate Change for a Simply Supported Interstate Bridge over a Shallow Estuary*, ASCE Journal of Bridge Engineering, Vol. 23, Iss. 12, Dec. 2018

Cleary, J., **Steward, E.,** *Analysis of Ground Vibrations Induced by Pile Driving and a Comparison of Vibration Prediction Methods*, Deep Foundation Institute (DFI) Journal, Vol. 10, Iss. 3, Feb. 2017, pp. 125-134.

Wang, Jay; Verma, Neha; and **Steward, Eric,** *Estimating Pile Set-up Using 24-h Restrike Resistance and Computed Static Capacity for PPC Piles Driven in Soft Louisiana Coastal Deposits,* Geotechnical and Geological Engineering, Vol.34, Iss. 1, Feb. 2016, pp. 267-283

**Steward, E.**, Mishra, N., Alam, S., Allouche, E., *Determination of the Design Thickness of Spray-on Polymeric Coatings used for Rehabilitation of Pressure Pipes*, Tunneling and Underground Space Technology. (Under review)

# **REFEREED SPECIAL PUBLICATIONS**

**Steward, E.** and N Haque *Evaluation of Pile Set-up Phenomenon for Driven Piles in Alabama,* Geotechnical Special Publication, (GeoCongress 2020), ASCE Geo-Institute, Minneapolis

**Steward, E.**, Jones, R., and Rausche, F. *Comparison of Axial Resistance of Driven Piles Determined using Automatic Signal Matching Software, iCAP and CAPWAP,* Geotechnical Special Publication, GSP #294, (IFCEE 2018), ASCE Geo-Institute, Orlando, FL, pp. 541-549.

Jones, R. and **Steward, E.** *Evaluation of Pile Set-up using iCAP Dynamic Restrike Software Analysis in the State of Alabama*, Geotechnical Special Publication, GSP #256, (IFCEE 2015), ASCE Geo-Institute, San Antonio, TX, pp. 980-989

**Steward, E.** and Shekouh, M. *Laboratory determination of the time-dependent interface frictional behavior between cohesive soil and construction materials,* Geotechnical Special Publication, GSP #256, (IFCEE 2015), ASCE Geo-Institute, San Antonio, TX, pp.1861-1869

**Steward, E**. A laboratory process to determine the time-dependent increased interface frictional behavior between soil and construction materials, GeoCongress 2012: State of the Art and Practice in Geotechnical Engineering GSP #225, ASCE, Oakland, pp. 175-184.

**Steward, E.** and Wang,X. *Predicting Pile Setup (Freeze): A new approach considering soil aging and pore pressure dissipation,* Geo-Frontiers 2011: Advances in Geotechnical Engineering GSP #211, ASCE, Proceedings of the 2011 Geo-Frontiers Conference, Dallas, pp. 11-19.

Wang, X. and **Steward, E**. *Predictions of pile setup and its resistance factors for South Louisiana*, Deep Foundations and Geotechnical In situ Testing GSP #205, ASCE, Proceedings of the 2010 GeoShanghai International Conference, Shanghai, China, pp.129-134.

# **CONFERENCE PROCEEDING**

West, C, Carr, N., Thomas, T., Richardson, J., **Steward, E. J.** *Streamlining the path from community college to engineering degree completion*. American Society for Engineering Education (ASEE), 2021 ASEE Annual Conference and Exposition, Virtual 2021

**Steward, E. J.** and N. Haque. *Load Testing Program on Two Different Pile Types to Study Pile Setup.* The Transportation Research Board (TRB), 99<sup>th</sup> Annual Meeting, Washington D.C. 2020

**Steward, E. J.,** Cleary, J. C., Gillis, A., Jones, R., Prado, E. *Investigation of Pile Setup (Freeze) in Alabama* (vol. Research Project 930-839R). National Transportation Library of United States Department of Transportation. June 2015.

Cleary, J., Gillis, A, and Steward, E. A Case Study of Ground Vibrations Due to Pile Driving in Mobile, Alabama. 7<sup>th</sup> ASCE Forensics Congress, Miami, Nov. 2015.

Whelton, A., Tabor, M., Boettcher, A., White, K., Newman, D., **Steward, E.** *Standardized test method to quantify environmental impacts of stormwater pipe rehabilitation materials.* Technical Report for Virginia Center for Transportation Innovation and Research, VCTIR # 15-R11. November 2014.

**Steward, E.**, Allouche, E., Baumert, M. and Gordon, J. *Strength Testing of Rigid Polyurethane Spray-on Coating Under Internal Pressure*. Pipelines 2009: Infrastructures Hidden Assets, ASCE, Proceedings of the 2009 Pipelines Conference, August 2009, pp. 751-764.

Allouche, E., **Steward, E**. Organic "High-Build" Spray-in-Place Liners – An Emerging Class of Rehabilitation Methods, Underground Construction Magazine, June 2009, pp. 28-32 Wang, X., **Steward, E.,** Virma, N. Estimating setup of driven piles into Louisiana clayey soils, Technical Report for Louisiana Department of Transportation and Development, LTRC Project Number: 04-1GT, Report # FHWA/LA.09/46, November 2009

# **CONTRACTED WORKSHOPS**

**Steward, E. J**. "*ALDOT Drillers Soil Mechanics Workshop*," Sponsored by Alabama Department of Transportation (ALDOT), State, \$8,300 (Aug. 12 - 14, 2019).

**Steward, E. J.**, McMillan, B. (Supporting), "*ALDOT Soil Mechanics Workshop*," Sponsored by Alabama Department of Transportation (ALDOT), State, \$14,000.00. (May 14, 2018 - May 18, 2018).

**Steward, E. J.** "University of South Alabama Student Organization Leadership Workshop," Sponsored by Tau Beta Pi, Alabama Epsilon Chapter. (April and Aug. 26, 2017, Sept. 2018, Sept. 2019, Sept. 2020).

**Steward, E. J.**, McMillan, B. (Supporting), "*ALDOT Soil Mechanics Workshop*," Sponsored by Alabama Department of Transportation (ALDOT), State, \$12,000.00. (May 16, 2016 - May 20, 2016).

## **INVITED PRESENTATIONS**

ASCE Practitioner and Faculty Advisors Workshop (PFATW), San Francisco, CA, Presenter and Organizer, Jan. 2020

ASCE Practitioner and Faculty Advisors Workshop (PFATW), Orlando, FL, Co-Host and Organizer, Feb. 2019

6<sup>th</sup> Annual Alabama ASCE Student Leadership Workshop, Auburn, AL, Feb. 11, 2017, Title: *You're an ASCE Officer, now what?*?

47<sup>th</sup> Southeastern Transportation Geotechnical Engineering Conference (STGEC), Biloxi, MS, Nov. 10, 2016, Title: *Investigation of Signal Matching Software iCAP on Driven Piles in Alabama* 

ASCE Mississippi Section Meeting, *Economical LRFD Driven Pile Design*, ASCE Mississippi State Section, Biloxi, MS. October 18, 2016.

Society of Women Engineers (SWE) Student Chapter Monthly Meeting, *The Importance of Community Service*, Society of Women Engineers (SWE), USA Campus. February 4, 2016.

45<sup>th</sup> Southeastern Transportation Geotechnical Engineering Conference (STGEC), Mobile, AL, Oct. 27 – 30, 2014, Title: *Evaluation of pile setup using dynamic restrike analysis in the state of Alabama* 

Invited Speaker to ASCE Mississippi Gulf Coast Branch Meeting, *Title: Utilizing setup in the design of safe and economical driven piles*, Apr. 2013.

Invited Speaker to ASCE Mobile Branch Meeting, *Title: Utilizing setup in the design of safe and economical driven piles*, June 2012.

55<sup>th</sup> Annual Alabama Transportation Conference, Montgomery, AL, Feb. 24, 2012 Title: *Predicting Pile Setup (Freeze) for Driven Pile Foundations* 

#### COURSES TAUGHT

Semester	Course Number	Course Name	Enrollment
Fall 2011	CE 443	Geotechnical Engineering	31
	CE 441	Geotechnical Eng. Lab (2 sections)	30
	CE 315	CE Materials Lab	20

	CE 340	Soil Mechanics	40
Spring 2012	CE 490/590	Infrastructure Management and Sustainability*#	35
5pring 2012	CE 592	Pile Foundation Design*#	1
	CE 443	Geotechnical Engineering	39
Fall 2012	CE 441	Geotechnical Eng. Lab (3 sections)	38
1 411 2012	CE 590	Advanced Geotechnical Topics*#	4
	CE 340	Soil Mechanics	35
Spring 2013	CE 441	Geotechnical Engineering Lab (3 sections)	36
~pring zore	CE 590	Pile Foundation Design*	6
Summer 2013	CE 592	Pile Foundation Design*	2
F 11 404 4	CE 443	Geotechnical Engineering	38
Fall 2013	EG 283	Statics	36
	CE 340	Soil Mechanics	25
Spring 2014	CE 341	Soil Mechanics Lab (2 sections)	24
	CE 442/542	Foundation Engineering *# (Taught at UAH & UAB)	46
Eall 2014	CE 443	Geotechnical Engineering	25
Fall 2014	CE 490/590	Management and Sustainability of Civil Infrastructure*	12
	CE 340	Soil Mechanics	38
Spring 2015	CE 341	Soil Mechanics Lab (2 sections)	39
	CE 442/542	Foundation Engineering* (Also taught at UAB)	16
	CE 443	Geotechnical Engineering	12
Summer 2015	CE 590	Advanced Geotechnical Topics*	2
	CE 591	Pile Foundation Design*	2
Fall 2015	CE 443	Geotechnical Engineering	21
Faii 2013	CE 490/590	Management and Sustainability of Civil Infrastructure*	18
	CE 340	Soil Mechanics	39
Spring 2016	CE 341	Soil Mechanics Lab (2 sections)	38
	CE 442/542	Foundation Engineering* (Taught at UAB)	26
Fall 2016	CE 443	Geotechnical Engineering	39
1 un 2010	CE 412/512	Management and Sustainability of Civil Infrastructure*	21
	CE 340	Soil Mechanics	38
Spring 2017	CE 341	Soil Mechanics Lab (2 sections)	37
	CE 442/542	Foundation Engineering*	14
Summer 2017	CE 443	Geotechnical Engineering	2
	CE 591	Pile Foundation Design*	2
Fall 2017	CE 443	Geotechnical Engineering	35
	CE 340	Soil Mechanics	36
Spring 2018	CE 341	Soil Mechanics Lab (2 sections)	35
	CE 490/590	Geotechnical Case Histories (Co-Taught w/ Dr. Laier)	9
Fall 2018	CE 443	Geotechnical Engineering	36
	CE 412/512	Management and Sustainability of Civil Infrastructure*	30
Spring 2010	CE 340 CE 341	Soil Mechanics Soil Mechanics Lab (4 sections)	71 70
Spring 2019	CE 341 CE 442/542	Foundation Engineering*	13
	CE 442/342 CE 443	Geotechnical Engineering	70
Fall 2019	CE 443 CE 412/512	Management and Sustainability of Civil Infrastructure*	20
	CE 412/312 CE 340	Soil Mechanics	42
Spring 2020	CE 340	Soil Mechanics Lab (2 sections)	42
J			72

	CE 442/542	Foundation Engineering*	19
Fall 2020	CE 443	Geotechnical Engineering	36
Faii 2020	CE 412/512	Management and Sustainability of Civil Infrastructure*	9

\*Indicates a Graduate Course #Indicates newly developed course

# TRAINING, WORKSHOPS, AND EDUCATION

Strategic Course Design Mini-Course, Innovative Learning Center, USA, (December 2020)

Geotechnical Engineering Educators Workshop, NSF Funded, Minneapolis, MN, (Feb. 24, 2020)

ASCE Civil Engineering Education Summit, Dallas, TX (May 2019)

Workshop, "2017 International Geosynthetics Society Educate the Educator about Geosynthetics", Kingston, ON, Canada. (December 2017)

Conference Attendance, "Geotechnical Frontiers 2017", Geo-Institute and Geosynthetic Materials Institute of ASCE, Orlando, FL. (March 12, 2017 – March 15, 2017).

Workshop, "2016 Civil Engineering Faculty Drilled Shaft Workshop", Association of Drilled Shaft Contractors, Chattanooga, TN. (June 2016).

Conference Attendance, "Geotechnical & Structural Engineering Congress", Geo-Institute and Structural Institute of ASCE, Phoenix, AZ. (February 14, 2016 - February 17, 2016).

Conference Attendance, "IFCEE 2015", Geo-Institute of ASCE, Atlanta, GA. (March 16, 2015 - March 22, 2015).

Workshop, "Excellence in Civil Engineering Education (**ExCEED**)", American Society of Civil Engineering (ASCE), Ft. Myers, FL. (June 22, 2014 - June 27, 2014).

Conference Attendance, "GeoCongress 2014", Geo-Institute of ASCE, Atlanta, GA. (February 23, 2014 - February 26, 2014).

Workshop, "Professor Pile Driving Institute", Pile Driving Contractors Association, Logan, UT. (June 2013).

Conference Attendance, "GeoCongress 2013", Geo-Institute of ASCE, San Diego, CA. (March 2, 2013 - March 6, 2013).

Workshop, "Geotechnical Foundation Systems Course", Georgia Institute of Technology, Atlanta, GA. (December 2012).

Workshop, "Practitioner and Faculty Advisor Workshop (**PFATW**)", American Society of Civil Engineering (ASCE), Reston, VA. (August 2012).

Conference Attendance, "20th VGS Symposium on Soft Ground Engineering", Vancouver Geotechnical Society, Section of the Canadian Geotechnical Society, Vancouver, BC. (June 2012).

Workshop, "Designing Effective Instruction in the classroom", Innovations in Learning (ILC) at USA, Mobile, AL. (March 2012).

Conference Attendance, "GeoCongress 2012", Geo-Institute of ASCE, Oakland, CA. (March 25, 2012 - March 29, 2012).

Workshop, "Active and Collaborative Learning in the classroom", Innovations in Learning (ILC) at USA, Mobile, AL. (February 2012).

Workshop, "Assessment and Evaluation in the classroom", Innovations in Learning (ILC) at USA, Mobile, AL. (November 2011).

# **SERVICE**

## Service at the University of South Alabama

- American Society of Civil Engineers Student Chapter, Faculty Advisor, 2012 present
- Community Outreach for Mathematics, Engineering, and Technology (COMET), Faculty Advisor, 2015 2018
- Tau Beta Pi Alabama Epsilon Chapter, Civil Engineering Faculty Advisor, 2015 present
- University General Education Committee, College of Engineering Representative, 2013 present
  - o Gen. Ed. Subcommittee on university oral communication requirements
  - Gen. Ed. Subcommittee on University-wide Quantitative Reasoning course requirements
- University Undergraduate Curriculum Committee, 2014 2019
- Commencement Faculty Marshall, College of Engineering Representative, 2013 present
- College of Engineering Faculty Affairs Committee, 2019 present
- College of Engineering Graduate Committee, 2018 present
- College of Engineering Scholarship Committee, 2014 2018
- College of Engineering Undergraduate Curriculum Committee, 2015 2018
- E-week Experimentation presentation "Quicksand" to Middle school visitors, 2013, 2014
- Academic advisor for 20-30 Civil Engineering students each semester, 2011 present
- University Freshman Orientation Dinner. Civil Engineering Representative, 2012, 2013
- Fundamentals of Engineering (FE) Exam Review, College of Engineering, 2011 2014
- Mobile Area Science Fair, Lead Engineering Judge, 2014

# **External Professional Service**

- ASCE Committee on Student Members, National Committee, 2018 present
- ASCE Geo-Institute Student Participation Committee
  - Chair of the committee, 2020
  - GeoWall Student National Competition Judge, 2018 present
  - GeoPoster Student National Competition Judge, 2013 present
  - o GeoPrediction Student National Competition Judge, 2013-2017
  - Chair of the Student GeoPrediction Competition, 2014 2017
- ASCE Geo-Institute Deep Foundations Committee

- ASCE Alabama Section Winter Meeting 2013 Speaker Organizing Committee
- ASTM Voting Member of Committee D18 on Soil and Rock, 2015 present
- Peer reviewer, ASTM Journal of Testing and Evaluation, 2014
- Peer reviewer, ASCE Journal of Bridge Engineering, 2015 present
- Peer reviewer, Journal of Rock Mechanics and Geotechnical Engineering, 2016
- Peer reviewer, 2017 Geotechnical Frontiers Congress, 2016 2017
- Peer reviewer, American Society for Engineering Education (ASEE), 2014 present
  Annual Conference: Construction Division, Civil Engineering Division
- Peer review, Journal of Ocean Engineering, 2012
- 2<sup>nd</sup> grade rock and soil presentations, Rockwell Elementary School, 2012 and 2013
- 5<sup>th</sup> grade rocks and minerals presentation, Rockwell Elementary School, 2014
- Spanish Fort High School Engineering Advisory Board, 2016 present

#### **Community Service**

- "Christmas Adam" Food Project, developed and organized, 2014 current
- Flood relief for residential houses in Baton Rouge, 2016
- MLK Day of Service, Engineering project, 2013, 2014
- Volunteer with the Mobile Family Promise Homeless shelter, Nov. 2013 2016
- Organized Mobile Exploreum service project, Sept. 2013
- Habitat for Humanity Projects, 2012 present