

# HARITHA MALLADI

## Curriculum Vitae

360A DuPont Hall, Newark, DE 19716 • +1 302.831.4559 • [malladi@udel.edu](mailto:malladi@udel.edu)

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### EDUCATION

- Ph.D., Civil Engineering, Minor in Statistics** 2015  
**North Carolina State University**, Raleigh, NC  
Dissertation: "Investigation of Warm Mix Asphalt Concrete Mixtures with Recycled Asphalt Pavement Material"
- M.S., Civil Engineering** 2012  
**North Carolina State University**, Raleigh, NC  
Thesis: "Laboratory Evaluation of Warm Mix Asphalt Technologies for Moisture and Rutting Susceptibility"
- Bachelor of Technology, First Division with Distinction, Civil Engineering** 2010  
**National Institute of Technology**, Warangal, India

### EMPLOYMENT

- University of Delaware, Newark, DE** 2020-Present  
Assistant Professor  
Civil and Environmental Engineering
- Lafayette College, Easton, PA** 2018-2020  
Visiting Assistant Professor  
Civil and Environmental Engineering
- North Carolina State University, Raleigh, NC**  
Civil, Construction, and Environmental Engineering
- Postdoctoral Research Scholar 2016-2018  
Graduate Teaching Assistant 2015  
Graduate Research Assistant 2010-2014

### PROFESSIONAL APPOINTMENTS

- Director of First-Year Engineering** 2020-Present  
College of Engineering  
University of Delaware, Newark, DE
- Affiliated Faculty** 2021-Present  
Delaware Environmental Institute (DENIN)  
University of Delaware, Newark, DE

### RESEARCH INTERESTS

Engineering education, K-12 teacher professional development, asphalt & bituminous materials, pavements, material characterization, multi-scale testing, asphalt emulsions, reclaimed asphalt pavements, warm-mix asphalt, performance measures, sustainable infrastructure, life cycle assessment, community engagement.

## PUBLICATIONS

### Full Papers at Peer-reviewed Conferences:

1. **Malladi, H.**, & Trauth, A., & Enszer, J. A., & Headley, M. G., & Buckley, J. (2021, July), *Transforming a Large-lecture FYE Course Structure into Virtual Collaborative Learning*, Paper presented at 2021 ASEE Virtual Annual Conference Content Access, Virtual Conference. <https://peer.asee.org/37929>
2. **Malladi, H.** & Roth, M., (2021, July), *Implementing Life Cycle Assessment Module in Introduction to Engineering in Different Modalities*, Paper presented at 2021 ASEE Virtual Annual Conference Content Access, Virtual Conference. <https://peer.asee.org/37302>
3. Buckley, J., & **Malladi, H.**, & Trauth, A., & Headley, M. G. (2021, July), *Novel Hands-on Product-design Module for Online, Large-enrollment FYE Courses*, Paper presented at 2021 ASEE Virtual Annual Conference Content Access, Virtual Conference. <https://peer.asee.org/37527>, (Second place, Best Paper Award, First-Year Programs Division)
4. Headley, M. G., & Trauth, A., & **Malladi, H.**, & Buckley, J. (2021, July), *Examining the Me in Team-based Projects: Students' Perceptions of Time and Tasks*, Paper presented at 2021 ASEE Virtual Annual Conference Content Access, Virtual Conference. <https://peer.asee.org/37122>
5. Roth, M., & **Malladi, H.** (2020, June), *Incorporating Life Cycle Assessment in an Introduction to Engineering Course*, Paper presented at 2020 ASEE Virtual Annual Conference Content Access, Virtual On line. 10.18260/1-2—34809, <https://peer.asee.org/34809>
6. **Malladi, H.**; Kusam, A.; & Tayebali, A.A. (2020). "Laboratory Evaluation of Recycled Asphalt Pavement Material in Warm-Mix Asphalt." In Raab C. (Ed.), *Proceedings of the 9<sup>th</sup> International Conference on Maintenance and Rehabilitation of Pavements—Mariepav9*, Lecture Notes in Civil Engineering, vol 76. Springer, Cham. [https://doi.org/10.1007/978-3-030-48679-2\\_24](https://doi.org/10.1007/978-3-030-48679-2_24)
7. Ayyala, D; **Malladi, H.**; Tayebali, A.A.; & Khosla, N.P. (2014). "Evaluation of Warm Mix Asphalt Technology for Surface Mixtures." In Y.R. Kim (Ed.), *Asphalt Pavements: Volume 1*. Paper presented at the 12<sup>th</sup> International Society for Asphalt Pavements (ISAP) Conference on Asphalt Pavements, Raleigh, North Carolina, 1-5 June (pp. 701-708). London, UK, CRC Press. <https://doi.org/10.1201/b17219>

### Journal Articles:

1. **Malladi, H.** & Castorena, C. (2019). "Field Measurements of Emulsion Application Rates and Pavement Emulsion Absorption in Tack Coats and Chip Seals." *Construction and Building Materials*, 218, 701-711. <https://doi.org/10.1016/j.conbuildmat.2019.05.105>
2. Fried, A.; **Malladi, H.**; & Castorena, C. (2019). "Impact of Crack Sealant on Pavement Skid Resistance." *Transportation Research Record*, Advance Online Publication. <https://doi.org/10.1177/0361198119849590>
3. **Malladi, H.**; Asnake, M.; LaCroix, A; & Castorena, C. (2018). "Low-Temperature Vacuum Drying Procedure for Rapid Asphalt Emulsion Residue Recovery." *Transportation Research Record*, 2672(28), 256-265. <https://doi.org/10.1177/0361198118791913>
4. Kusam, A.; **Malladi, H.**; Tayebali, A.A.; & Khosla, N.P. (2017). "Laboratory Evaluation of Workability and Moisture Susceptibility of Warm Mix Asphalt Technologies with Reclaimed Asphalt Pavements." *Journal of Materials in Civil Engineering*, 29(5), pp. 04016276-1-6. [https://doi.org/10.1061/\(ASCE\)MT.1943-5533.0001825](https://doi.org/10.1061/(ASCE)MT.1943-5533.0001825)
5. **Malladi, H.**; Ayyala, D.; Tayebali, A.A.; & Khosla, N.P. (2015) "Laboratory Evaluation of Warm-Mix Asphalt Mixtures for Moisture and Rutting Susceptibility", *Journal of Materials in Civil Engineering*, 27(5), pp. 04014162-1-6. [https://doi.org/10.1061/\(ASCE\)MT.1943-5533.0001121](https://doi.org/10.1061/(ASCE)MT.1943-5533.0001121)

## Manuscripts in Preparation or Review:

1. **Malladi, H.**; McDuell A.; Enszer, J. & Buckley, J. (2022). “Work In Progress: Evolution of A Near-Peer Co-Instructional Model for A Large-Enrollment First-Year Engineering Course.” *2022 ASEE Annual Conference and Exposition*. [under review]
2. Headley, M. G.; Trauth, A.; Buckley, J.; **Malladi, H.** (2022). “Online and face-to-face in contrast: Does instructional mode influence students’ engagement in a team-based design project?”. *2022 ASEE Annual Conference and Exposition*. [under review]
3. Puleo, J. & **Malladi, H.** (2022). “Making Waves in the Classroom – Engaging Students in STEM through Hands-on Coastal Oceanography and Engineering.” *Continental Shelf Research*. [under review]
4. Fried, A.; **Malladi, H.**; & Castorena, C. (2022). “Evaluation of Asphalt Pavement Emulsion Absorption Rates.” *Journal of Transportation Engineering, Part B: Pavements*. [in preparation]

## Technical Reports:

1. “Quantifying the Impact of Crack Sealant on Pavement Surface Friction”. C. Castorena, A. Fried, **H. Malladi**, Report No. FHWA/NC/2017-04, NCDOT, (Published June 2019).
2. “Implementation of the Tack Lifter”. C. Castorena and **H. Malladi**, Report No. FHWA/NC/2017-34, NCDOT (Published August 2018).
3. “Impact of WMA Technologies on the Use of RAP Mixtures in North Carolina”. A.A. Tayebali, N.P. Khosla, **H. Malladi**, A. Kusam, Report No. FHWA/NC/2013-05, NCDOT (Published December 2015).
4. “An Evaluation of Warm Mix Asphalt Technology for NCDOT Mixes”. N.P. Khosla, A.A. Tayebali, D. Ayyala, **H. Malladi**, Report No. FHWA/NC/2011-04, NCDOT (Published August 2015).

## FUNDED GRANTS

### Establishing an Engineering Education Ecosystem (E<sup>3</sup>):

#### A Sustainable, Research-Aligned University-High School Partnership

Jun 2021 – May 2022

\$92,536, Principal Investigator

Funded by UD College of Engineering Intellectual Neighborhood Accelerator Program for Scholarship in Engineering Education

## UNFUNDED GRANTS

### Quantifying Durability of Re-Recycled Asphalt Mixtures

2020

Co-PI with Dr. Nii Attoh-Okine

Agency: Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems

## AWARDS AND RECOGNITION

Provost Teaching Fellow, 2020-21 Participant in STRIDE (foundational course initiative),

Center for Teaching and Assessment of Learning (CTAL), University of Delaware

2021

Second prize, Best Paper Award, First-Year Programs Division, American Society for Engineering Education (ASEE) Annual Conference & Exposition, Virtual Conference

2021

Recipient, Travel Awards for Postdocs and House Officers, NC State University

2017

Second prize, Three Minute Thesis (3MT) competition, Conference of Southern Graduate Schools

2016

First prize, 1<sup>st</sup> Annual 3MT competition, The Graduate School, NC State University

2015

Freese and Nichols Outstanding Graduate Student Award, Civil Engineering, NC State University

2015

Certificate of Accomplishment in Teaching, NC State University

2015

Best poster award, engineering category, Graduate Research Symposium, UNC Charlotte	2015
Preparing the Professoriate Fellowship, The Graduate School, NC State University	2014
Certification of Recognition for work as Chair of Teaching Effectiveness Committee, NC State University Graduate Student Association	2014
Preparing Future Leaders Ambassador, The Graduate School, NC State University	2012-2014

## TEACHING EXPERIENCE

<b>University of Delaware, Newark, DE—Assistant Professor</b>	2020-Present
<ul style="list-style-type: none"> <li>- Introduction to Engineering [undergraduate, ~650 students] Fall 2020: Co-instructor, online-only course modality Fall 2021: Sole instructor, hybrid course modality</li> <li>- Sustainability Applications in Infrastructure [undergraduate, ~35 students] Spring 2021: online-only course modality Spring 2022: in-person course modality (upcoming)</li> </ul>	
<b>Lafayette College, Easton, PA—Visiting Assistant Professor</b>	2018-2020
<ul style="list-style-type: none"> <li>- Introduction to Engineering (Fall 2019) [undergraduate, ~20 students per section, 2 sub-sections total]</li> <li>- Statics (Fall 2018, Spring 2019, Spring 2020) [undergraduate, ~30 students per section, 5 sections total]</li> <li>- Strength of Materials (Fall 2018, Spring 2019, Fall 2019) [undergraduate, ~30 students per section, 5 sections total]</li> <li>- Envisioning a Sustainable World (Spring 2020) [undergraduate, ~20 students per section, 1 section]</li> <li>- Independent Study (Spring 2019) [undergraduate, 1 student, one-on-one mentoring]</li> </ul>	
<b>Broadreach, Inc., Raleigh, NC—Academic Program Collaborator</b>	2017
<ul style="list-style-type: none"> <li>- Nicaragua Technology and Development [high school summer class (3 college credits)] <ul style="list-style-type: none"> <li>- Worked with program coordinator to build an experiential-learning course based in Nicaragua.</li> <li>- Designed syllabus and lesson plans on water filtration, appropriate technology, and sustainable development.</li> </ul> </li> </ul>	
<b>North Carolina State University, Raleigh, NC</b>	
<b>Instructor of Record</b>	2016-2018
<ul style="list-style-type: none"> <li>- Mechanics of Solids (Spring 2018) [undergraduate, ~70 students, 1 section]</li> <li>- Engineering Mechanics – Statics (Fall 2016, Spring 2017, Summer 2017, Fall 2017) [undergraduate, ~60 students per section, 4 sections total]</li> </ul>	
<b>Graduate Teaching Assistant</b>	2015
<ul style="list-style-type: none"> <li>- Materials of Construction Lab (Spring 2015, Fall 2015) [undergraduate, ~20 students per section, 2 sections total]</li> </ul>	
<b>Preparing the Professoriate Fellow</b>	2013-2014
<ul style="list-style-type: none"> <li>- Materials of Construction (Spring 2014): guest-instructor for asphalt concrete [undergraduate, ~60 students, 1 section]</li> </ul>	

## STEM and Writing Annual Partnership

2013

- Academic Writing and Research (Fall 2013)  
[mixed undergraduate/graduate, ~20 students]  
Prepared Writing to Learn (WTL) activities for science and engineering classrooms.  
Created lesson plan and guest-lectured in two sections about the role of writing in civil engineering.

## STUDENT ADVISING

### Current Graduate Advising

- Babatunde Onase (M.S.), primary advisor, expected graduation: Spring 2023

### Past Undergraduate Advising

- Alexis Owens, B.S. Civil Engineering, Virginia Tech (part of REU at UD) Summer 2021
- Danielle Mullan, B.S. Mechanical Engineering, Lafayette College Summer 2020
- Pierrette Dushime Umwali, B.S., Civil Engineering, Lafayette College Spring 2019

## WORKSHOP DEVELOPMENT & FACILITATION

College of Engineering Faculty Mentoring Workshops, University of Delaware Upcoming (2022)  
**“How to Get Started in the Scholarship of Teaching and Learning”**

- Workshop for faculty members on establishing research studies in engineering education  
(co-facilitator with Dr. Jenni Buckley)

CTAL Roundtable, University of Delaware, Newark, DE 2021

### **“Small Teaching for Large Classes: Lessons Learned from Three Semesters of Teaching Foundational Courses Online”**

- Workshop for faculty members on teaching strategies for large-enrollment classes  
(co-facilitator with Dr. Lauren Genova)

CIAMTIS REU, University of Delaware, Newark, DE 2021

### **“Preparing and Delivering Technical Presentations”**

- Workshop for undergraduate student participants in an REU site funded by CIAMTIS  
(Center for Integrated Asset Management for Multimodal Transportation Infrastructure Systems), hosted in Civil & Environmental Engineering Department, UD

Summer Institute of Teaching, CTAL, University of Delaware, Newark, DE 2021

### **“Instructional Innovations for High-Enrollment Undergraduate Courses from Pandemic Teaching Experiences: Small Teaching for Large Classes”**

- Workshop for faculty members on teaching strategies for large-enrollment classes  
(co-facilitator with Drs. Jay Lunden, Stef De Vito, & Lauren Genova)

Governor’s School for Excellence, University of Delaware 2021

### **“Engineering Field Trip: An Interactive Virtual Workshop”**

- Workshop for high school students on engineering design process  
(co-facilitator with Dr. Jenni Buckley)

Structural Engineers Association of North Carolina Conference, Raleigh, NC 2018

### **“Create Your Professional Pitch”**

- Invited speaker for a session on communication essentials for engineers

Women in the Sciences, Lafayette College, Easton, PA 2018  
**“Let’s Communicate Our Science”**  
- Workshop on science communication essentials for undergraduates

Peer Scholars Workshop, North Carolina State University, Raleigh, NC 2018  
**“Communicate Your Science: How to Pitch Your Research to the World”**  
- Workshop on creating research pitches for undergraduate & graduate students, postdocs

## INVOLVEMENT IN PUBLIC SCIENCE & OUTREACH

### Three Minute Thesis (3MT)

- Judge, Final Round, 3MT at North Carolina State University 2021
- Judge, 3MT in Department of Civil, Construction, and Environmental Engineering, NCSU. 2017
- Judge, Preliminary Round, 3MT at North Carolina State University 2017

### SciREN Triangle, Raleigh, NC 2014-16

- Created lesson plan on elastic, plastic and viscoelastic material properties for elementary and middle school in accordance with national and state educational standards.
- Worked with SciREN team to assemble lesson plan kits with materials for classroom instruction.
- Networked with local K-12 teachers to coordinate lesson plan implementation.

## RESEARCH EXPERIENCE

### Establishing an Engineering Education Ecosystem (E<sup>3</sup>): A Sustainable, Research-Aligned University-High School Partnership Ongoing *University of Delaware, Newark, DE*

Principal Investigator for project funded by UD College of Engineering INAccelerator Grant

Research Objective: To develop an Engineering Education Ecosystem (E<sup>3</sup>) that houses all necessary programmatic, logistical, and educational research infrastructure for UD COE to partner effectively with in-state and regional high schools.

### Quantifying Durability of Re-Recycled Asphalt Mixtures Ongoing *University of Delaware, Newark, DE*

Mentored graduate project, funded by Dept. of Civil & Environmental Engineering

Research Objective: To develop laboratory simulation of re-recycling of asphalt mixtures and quantify the durability of asphalt mixtures with recycled asphalt by using a Colorimeter to quantify cracking resistance and moisture susceptibility.

### Quantifying Durability of Asphalt Concrete & Asphalt Emulsion Mixtures 2021 *University of Delaware, Newark, DE*

Mentored undergraduate project, funded by Center for Integrated Asset Management for Multimodal Transportation Infrastructure Systems, US DOT Region 3 University Transportation Center

Research Objective: To quantify durability of asphalt concrete and asphalt emulsion mixtures using a colorimeter device and compare results with tensile strength ratio and aggregate compatibility tests.

### Life Cycle Assessment of Bio-binders from Various Biomass Sources 2020 *Lafayette College, Easton, PA*

Mentored undergraduate project, funded by Lafayette College EXCEL Scholars Program

Research Objective: To compare the environment impacts of bio-binders from different biomass sources including manure, woodchips, and cooking oil using life cycle assessment.

- Investigation of Energy Generation from Pavements** 2019  
*Lafayette College, Easton, PA*  
 Mentored undergraduate project  
Research Objective: To explore the use of photovoltaic, piezoelectric, electromagnetic and thermoelectric systems for electricity generation from pavement structures.
- Exploration of Long-Term Pavement Performance (LTPP) Sections in Pennsylvania** 2019  
*Lafayette College, Easton, PA*  
 Mentored senior independent study project  
Research Objective: To explore the information available in the LTPP database for Pennsylvania sections and perform case studies at the local level.
- Field Measurements of Emulsion Application Rates** 2017 – 2018  
*North Carolina State University, Raleigh, NC*  
 Funded by North Carolina Department of Transportation, Research Project Nos. 2017-34 & 2018-15  
Research Objective: To develop simple and practical test frameworks for field measurements of Emulsion Application Rates (EARs) in chip seal and tack coat applications.
- Renewable Paving Binders from Top-lit Updraft Kilning of Biomass** 2017 – 2018  
*North Carolina State University, Raleigh, NC*  
 Funded by the National Science Foundation (NSF)  
Research Objective: To develop a sustainable bio-binder alternative to asphalt binder using thermo-chemical conversion of biomass.
- Quantifying the Impact of Crack Sealant on Pavement Surface Friction** 2016 – 2018  
*North Carolina State University, Raleigh, NC*  
 Funded by North Carolina Department of Transportation, Research Project No. 2017-04  
Research Objective: To develop guidelines for the application of crack sealants on pavement surfaces to avoid loss of skid resistance.
- Rapid Low-Temperature Asphalt Emulsion Residue Recovery** 2016 – 2017  
*North Carolina State University, Raleigh, NC*  
 Supported by InstroTek Inc., Raleigh, NC  
Research Objective: To evaluate vacuum-drying technology for rapid, low temperature recovery of residues from asphalt emulsions.
- Evaluation of Warm Mix Technologies and Recycled Asphalt Pavement Material** 2012 – 2015  
*North Carolina State University, Raleigh, NC*  
 Funded by North Carolina Department of Transportation, Research Project No. 2013-05  
Research Objective: To evaluate material performance characteristics of asphalt mixtures that combine Warm Mix Asphalt (WMA) technologies and Recycled Asphalt Pavement (RAP) material.
- Study of Warm Mix Technologies for NC Department of Transportation Mixes** 2010 – 2012  
*North Carolina State University, Raleigh, NC*  
 Funded by North Carolina Department of Transportation, Research Project No. 2011-04  
Research Objective: To evaluate material performance characteristics of different Warm Mix Asphalt technologies.

## TECHNICAL PRESENTATIONS

### Oral Presentations:

- “Implementing Life Cycle Assessment Module in Introduction to Engineering in Different Modalities” 2021  
- 2021 ASEE Virtual Conference
- “Transforming a Large-lecture FYE Course Structure into Virtual Collaborative Learning” 2021  
- 2021 ASEE Virtual Conference
- “Incorporating Life Cycle Assessment in an Introduction to Engineering Course” 2020  
- 2020 ASEE Virtual Conference
- “Laboratory Evaluation of Recycled Asphalt Pavement Material in Warm-Mix” 2020  
- 9th International Conference on Maintenance and Rehabilitation of Pavements—Mairepav9
- “Field Measurements of EAR and Pavement Absorption Rates in Tack Coats and Chip Seals” 2019  
- Annual Meeting of the Transportation Research Board, Washington, D.C.
- “Sustainable Asphalt Pavements” 2018  
- Immersive 270° Presentation for Postdoc Pop Talks, NC State University
- “Sustainable Pavements: How to Turn Our Black Roads Green” 2017  
- Inaugural Presenter, Bite-Sized Research Series by NCSU Libraries, NC State University
- “Laboratory Evaluation of Warm Mix Asphalt Mixtures for Moisture Susceptibility” 2013  
- Institute of Transportation Engineers, Student-Led Meeting, NC A&T University
- “Warm Mix Asphalt Technology for NCDOT Materials” 2012  
- Institute of Transportation Engineers, Student-Led Meeting, NC State University

### Poster Presentations:

- “GIFTS: Project-Based Learning Modules for Introductory Engineering Courses Scaled for Different Learning Modalities” 2021  
- First-Year Engineering Experience (FYEE), 12<sup>th</sup> Annual Conference
- “Impact of Crack Sealant on Pavement Skid Resistance” 2019  
- Annual Meeting of the Transportation Research Board, Washington, D.C.
- “Low-Temperature Vacuum Drying Procedure for Rapid Asphalt Emulsion Residue Recovery” 2018  
- Annual Meeting of the Transportation Research Board, Washington, D.C.
- “Blacktops to Greenways: How to Build and Maintain Our Roads” 2017  
- Postdoctoral Research Symposium, NC State University
- “Moisture Susceptibility of Warm Mix Asphalt with Recycled Asphalt Pavement Material” 2017  
- Annual Meeting of the Transportation Research Board, Washington, D.C.
- “Reduce and Recycle: Painting our Pavements Green with WMA-RAP” 2015  
- Graduate Research Symposium, UNC Charlotte
- “Laboratory Evaluation of Warm Mix Asphalt Concrete Mixtures with RAP Material” 2015  
- 10<sup>th</sup> Annual Graduate Research Symposium, NC State University
- “Laboratory Evaluation of Warm Mix Asphalt for Moisture and Rutting Susceptibility” 2014  
- 9<sup>th</sup> Annual Graduate Research Symposium, NC State University

## UNIVERSITY SERVICE

### University of Delaware

- Member, Coalition Team, University of Delaware Student Success Council 2022
- Host, Write on Site, UD Faculty Achievement Program 2021-22
- Member, Blue Hen Success Leadership Team 2020-22
- Member, Showcase and Recruitment Committee, Civil & Environmental Engineering 2020-22
- Faculty Workshop Facilitator, Center for Teaching & Assessment of Learning (CTAL) Roundtable 2021



Workshop Facilitator, Delaware Governor’s School for Excellence	2021
Faculty Workshop Facilitator, Summer Institute of Teaching, CTAL	2021
Member, Student Success Subcommittee on Prioritizing and Expanding Student Success in the Post-Pandemic Era, President’s Strategic Plan Working Group	2021
Panelist, Womxn of Color Discussion Series, the Graduate College	2021
Project Leader, College of Engineering Strategic Plan	2021
Presenter, COE International Student Recruitment	2021

### **North Carolina State University**

Reviewer, Undergraduate Research Grant Proposals	2018
Diversity Committee Member, NCSU Postdoc Association	2017-18
College of Engineering Representative, NCSU Postdoc Association	2017-18
Orientation and Small Pack Leader, Office of International Services	2015-17
President, Civil Engineering Graduate Student Association	2014-15
Vice President, Tau Beta Pi Engineering Honor Society, NC A Chapter	2014-15
Chair, Teaching Effectiveness Committee, University Graduate School Association	2013-14
Preparing Future Leaders Ambassador, The Graduate College	2012-14
Graduate Student Representative, University Standing Committee on Physical Environment	2012-13
Preparing Future Leaders, Advisory Board Member	2011-12
Secretary, Institute of Transportation Engineers, Student Chapter at NC State University	2010-13

## **PROFESSIONAL SERVICE**

### ***Conference Organization***

Moderator, First-Year Engineering Experience (FYEE) Conference	2021
Moderator, American Society for Engineering Education (ASEE) Annual Conference & Exposition	2021
Rapporteur, First-Year Engineering Experience (FYEE) Unconference	2020
Moderator, ASEE Annual Conference & Exposition	2020
Volunteer, International Society of Asphalt Pavements, 12th Annual Conference, Raleigh, NC	2014
Organizer, NC Institute of Transportation Engineers, Student-Led Meeting, NC State University	2012

### ***Reviewer***

American Society for Engineering Education (ASEE)
ASCE Journal of Materials in Civil Engineering
ASTM Journal of Testing and Evaluation
International Journal of Pavement Engineering
Transportation Research Board

## **PROFESSIONAL AFFILIATIONS**

American Society for Engineering Education (ASEE)
American Society of Civil Engineers (ASCE)
Tau Beta Pi – The Engineering Honor Society

## PROFESSIONAL DEVELOPMENT

### External Programs

Innovating Curriculum with Entrepreneurial Mindset, KEEN Faculty Development Workshop, Milwaukee, WI	2019
Making with Purpose - Teaching with Impact, KEEN Faculty Development Workshop, Youngstown, OH	2019
LVAIC Teagle Universal Design Keynote & Workshop, Lehigh University, Bethlehem, PA	2018

### Internal Programs at University of Delaware

STRIDE: Transforming Foundational Courses in STEM	2021
Keep Calm and Teach On (KCTO): Common Reader Book Club, Perusall	2021
Course Design Institute (CDI)	2021
Summer Institute of Teaching (SIT)	2021
Professional Learning Community (PLC): Innovations for a Post-COVID High-Enrollment Course	2021
Virtual Friday Roundtables, Center for Teaching and Assessment of Learning (CTAL)	2020-22
UD Faculty Achievement Program: Small Group Mentoring	2020
Delivering Learning Experiences Online (DLEO), Academic Technology Services	2020
Teaching Online Together: Self-Paced Option for Teaching Online Now (SPOT-ON)	2020

### Internal Programs at Lafayette College

Scholarship of Teaching and Learning Community of Practice	2019-20
Visiting and Adjunct Faculty Community of Practice	2019-20
Lafayette Teaching Squares Program	2019
Center for the Integration of Teaching, Learning, and Scholarship Workshops	2018-20

### Internal Programs at North Carolina State University

Academic "Packways": Gearing up for Faculty	2018
Office of Postdoctoral Affairs Workshops	2016-18
TA Training, College of Engineering	2015
Certificate of Achievement in Teaching	2015
Preparing the Professoriate Fellowship	2013-14
Graduate Student Leadership Workshop, University Graduate Student Association	2013
STEM and Writing Annual Partnership	2013
Certificate in Career Development	2012-13
Business Etiquette and Protocol Workshop, General Hugh Shelton Leadership Center	2012
Graduate Leadership Development Series (GLDS)	2012
Responsible Conduct of Research Seminars, Preparing Future Leaders Workshops & Seminars	2010-13
Professional Development Seminars, Preparing Future Leaders Workshops & Seminars	2010-13
Fundamentals in Teaching Series, Preparing Future Leaders Workshops & Seminars	2010-13

### Conference Attendance

First-Year Engineering Experience	2020-21
American Society for Engineering Education, Annual Conference & Exposition	2018-21

The Summit on Engineering Unleashed Faculty Development (invited attendance), Virtual	2021
KEEN National Conference, Virtual	2019-21
Transportation Research Board Annual Meeting	2011-21
9 <sup>th</sup> International Conference on Maintenance and Rehabilitation of Pavements (MAIREPAV9)	2020