

HARITHA MALLADI

Curriculum Vitae

360A DuPont Hall, Newark, DE 19716 • +1 302.831.4559 • malladi@udel.edu

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
- Affiliated Researcher** 2023-Present
Department of Academic Programs
Winterthur Museum, Garden & Library, Wilmington, DE

RESEARCH INTERESTS

Engineering education, asphalt & bituminous materials, sustainable infrastructure, life cycle assessment, community engagement, K-12 teacher professional development.

AWARDS AND HONORS

First place, Best Paper Award, First-Year Programs Division, 2023 American Society for Engineering Education (ASEE) Annual Conference & Exposition, Baltimore, MD	2023
Green Hen Award—Faculty Award of Excellence in Sustainability by University of Delaware (UD) Sustainability Council in partnership with the Office of Sustainability	2023
First place, Best Paper Award, 2022 First-Year Engineering Experience Conference, East Lansing, MI	2022
Winner, Propagation Pitch Competition, Engineering for One Planet Scaling for Impact Workshop	2022
Nominee, Green Hen Award—Faculty Award of Excellence in Sustainability by UD Sustainability Council in partnership with the Office of Sustainability	2022
Second place, Best Paper Award, First-Year Programs Division, 2021 ASEE Annual Conference & Exposition, Virtual Conference	2021
Second place, Three Minute Thesis (3MT) competition, Conference of Southern Graduate Schools, Charlotte, NC	2016
First place, 1 st Annual 3MT competition, The Graduate School, North Carolina State University (NCSU)	2015
Freese and Nichols Outstanding Graduate Student Award, Civil Engineering, NCSU	2015
Best poster award, engineering category, Regional Graduate Research Symposium, University of North Carolina, Charlotte, NC	2015
Certification of Recognition for work as Chair of Teaching Effectiveness Committee, NCSU Graduate Student Association	2014
Preparing Future Leaders Ambassador, The Graduate School, NCSU	2012-2014

IN MEDIA

Featured on the Podcast ON Cultivating Student Engagement in Higher Ed, S5E1: The Poll Everywhere Chronicles: Lessons from the Lecture Hall (Part 1 , Part 2)	Nov 2023
UDaily Article, University of Delaware: “Three Blue Hens Honored for Green Efforts” (link)	Sep 2023
Featured on the Podcast ON Cultivating Student Engagement in Higher Ed, S4E4: Navigating a Sea of Students (Part 1 , Part 2 , Part 3)	Oct-Nov 2023
UDaily Article, University of Delaware: “How I Teach — Engineering” (link)	Jan 2022
UDaily Article, University of Delaware: “Post-Pandemic Classrooms” (link)	Oct 2021
Lafayette Teaching Excellence Newsletter, Center for the Integration of Teaching, Learning, and Scholarship (CITLS) “Featuring Professor Haritha Malladi, Civil & Environmental Engineering” (link)	Apr 2019
CCEE News, Department of Civil, Construction, and Environmental Engineering, NC State University “Departmental Three Minute Thesis (3MT) Competition” (link)	Apr 2018
Executive Vice Chancellor and Provost News, NC State University, “Postdoctoral Impact” (link)	Jan 2018
The Graduate School News, NC State University “Three Chosen as Winners for Three Minute Thesis” (link)	Nov 2017
NC State, The Magazine of NC State University: “An Epic Road Trip” (link)	Winter 2016
Think Magazine, The Graduate School, NC State University “Turning Black Roads Green” (link 1 , link 2)	Fall 2016
The Graduate School News, NC State University “Alumna Hits the Road, After Studying Roads” (link)	Apr 2016

The Graduate School News, NC State University “Graduate Alumna Takes 2nd Place in Regional 3MT” (link)	Feb 2016
CCEE News, Department of Civil, Construction, and Environmental Engineering, NC State University “Engineering students take top honors in Three Minute Thesis Competition” (link 1 , link 2)	Nov 2015
The Graduate School News, NC State University “Engineering Students Sweep NC State’s First 3 Minute Thesis” (link)	Oct 2015
Technician, The Official Student Newspaper of NC State University: “Sustainable roads thesis wins research competition” (link)	Oct 2015
The Graduate School News, NC State University “10 Finalists Will Compete in 3 Minute Thesis, Oct. 28” (link)	Oct 2015
NC State University News, “PFL Graduates Honored” (link)	May 2013
NC State University News, “Grad School Extends Honors” (link)	May 2012

PUBLICATIONS

Peer-reviewed Conference Research Papers (conference presenter indicated with *)

- P1. **Malladi, H. ***; Headley, M. G.; Lottero-Perdue, P. S.; & Buckley, J. (2023, June), *Experienced Teaching Assistants’ Perceptions of a Simulated Environment for Facilitating Discussions with Individual Student Avatars from a Design Team in Conflict*. Paper presented at 2023 ASEE Annual Conference & Exposition, Baltimore, Maryland. peer.asee.org/43545
(First place, Best Paper Award, First-Year Programs Division)
- P2. **Malladi, H. ***; & Buckley, J. (2022, July), *Full Paper: An Investigation of Team Conflicts in a Large-Enrollment Introductory Engineering Course*. Paper presented at 2022 First-Year Engineering Experience (FYEE) Conference, East Lansing, Michigan. peer.asee.org/42226
(First place, FYEE Conference Best Paper Award)
- P3. **Malladi, H. ***; Enszer, J.; & Buckley, J. (2022, August), *Work In Progress: Evolution of A Near-Peer Co-Instructional Model for A Large-Enrollment First-Year Engineering Course*, Paper presented at 2022 ASEE Annual Conference and Exposition, Minneapolis, Minnesota. peer.asee.org/41459
- P4. Headley, M. G.; Buckley, J.; & **Malladi, H. *** (2022, August). *Within-team Task Choices: Comparison of Team-based Design Project Engagement in Online and Face-to-face Instruction*, Paper presented at 2022 ASEE Annual Conference and Exposition, Minneapolis, Minnesota. peer.asee.org/40990
- P5. **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. peer.asee.org/37929
- P6. **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. peer.asee.org/37302
- P7. 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. peer.asee.org/37527
(Second place, Best Paper Award, First-Year Programs Division)
- P8. 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. peer.asee.org/37122

- P9. 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 Online. 10.18260/1-2—34809. peer.asee.org/34809
- P10. **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 9th International Conference on Maintenance and Rehabilitation of Pavements—Mariepav9*, Lecture Notes in Civil Engineering, vol 76. Springer, Cham. doi.org/10.1007/978-3-030-48679-2_24
- P11. 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 12th International Society for Asphalt Pavements (ISAP) Conference on Asphalt Pavements, Raleigh, North Carolina, 1-5 June (pp. 701-708). London, UK, CRC Press. doi.org/10.1201/b17219

Journal Articles:

- J1. Puleo, J. & **Malladi, H.** (2022). “Making Waves in the Classroom – Engaging Students in STEM through Hands-on Coastal Oceanography and Engineering.” *Continental Shelf Research*, vol. 245, p. 104793, August 2022, [doi: 10.1016/j.csr.2022.104793](https://doi.org/10.1016/j.csr.2022.104793).
- J2. **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. doi.org/10.1016/j.conbuildmat.2019.05.105
- J3. Fried, A.; **Malladi, H.**; & Castorena, C. (2019). “Impact of Crack Sealant on Pavement Skid Resistance.” *Transportation Research Record*, 2673(7), 362-370. doi.org/10.1177/0361198119849590
- J4. **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. doi.org/10.1177/0361198118791913
- J5. 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. [doi.org/10.1061/\(ASCE\)MT.1943-5533.0001825](https://doi.org/10.1061/(ASCE)MT.1943-5533.0001825)
- J6. **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. [doi.org/10.1061/\(ASCE\)MT.1943-5533.0001121](https://doi.org/10.1061/(ASCE)MT.1943-5533.0001121)

Other Conference Papers/Presentations

- C1. “Showcasing Interconnectedness of Engineering Disciplines in an Introductory Engineering Class through a Climate Change Module” 2023
- **Malladi, H.**, Great Ideas for Teaching and Talking with Students (GIFTS), 14th Annual First Year Engineering Experience Conference, Knoxville, TN. peer.asee.org/44841
- C2. “Making Waves: High School Coastal Processes Education Using Small-Scale Wave Flumes” 2022
- Puleo, J.A. and **Malladi, H.** AGU Ocean Sciences Meeting, Honolulu, HI
- C3. “Project-Based Learning Modules for Introductory Engineering Courses Scaled for Different Learning Modalities” 2021
- **Malladi, H.**, Buckley, J. Great Ideas for Teaching and Talking with Students (GIFTS), 12th Annual First Year Engineering Experience Conference, Virtual. peer.asee.org/38401
- C4. “High School STEM Engagement Using Portable Wave Flumes” 2021
- Puleo, J.A. and **Malladi, H.**, ASBPA National Conference, New Orleans, LA

- C5. “Making Waves In The Classroom; Engaging High School STEM Students In Coastal Dynamics Using Portable Wave Flumes” 2021
- Puleo, J.A., **Malladi, H.**, Rumaker, K., Noe, E. Coastal Dynamics '21, Delft, The Netherlands
- C6. “Field Measurements of EAR and Pavement Absorption Rates in Tack Coats and Chip Seals” 2019
- **Malladi, H.**, Castorena. C. Annual Meeting of the Transportation Research Board (TRB), Washington, D.C.
- C7. “Sustainable Asphalt Pavements” 2018
- **Malladi, H.** Immersive 270° Presentation, Postdoc Pop Talks, NC State University
- C8. “Blacktops to Greenways: How to Build and Maintain Our Roads” 2017
Malladi, H. Postdoctoral Research Symposium, NC State University
- C9. “Sustainable Pavements: How to Turn Our Black Roads Green” 2017
- **Malladi, H.**, Bite-Sized Research Series by NCSU Libraries, NC State University
- C10. “Moisture Susceptibility of Warm Mix Asphalt with Recycled Asphalt Pavement Material” 2017
- **Malladi, H.**, Kusam, A., Tayebali, A.A., Khosla, N.P.,
Annual Meeting of the Transportation Research Board (TRB), Washington, D.C.
- C11. “Reduce and Recycle: Painting our Pavements Green with WMA-RAP” 2015
- **Malladi, H.**, Kusam, A., Tayebali, A.A., Graduate Research Symposium, UNC Charlotte
- C12. “Laboratory Evaluation of Warm Mix Asphalt Concrete Mixtures with RAP Material” 2015
- **Malladi, H.**, Kusam, A., Tayebali, A.A., Khosla, N.P.
10th Annual Graduate Research Symposium, NC State University
- C13. “Laboratory Evaluation of Warm Mix Asphalt for Moisture and Rutting Susceptibility” 2014
- **Malladi, H.**, Kusam, A., Tayebali, A.A., Khosla, N.P.
9th Annual Graduate Research Symposium, NC State University
- C14. “Laboratory Evaluation of Warm Mix Asphalt Mixtures for Moisture Susceptibility” 2013
- **Malladi, H.**; Ayyala, D.; Tayebali, A.A.; Khosla, N.P.
Institute of Transportation Engineers, Student-Led Meeting, NC A&T University
- C15. “Warm Mix Asphalt Technology for NCDOT Materials” 2012
- **Malladi, H.**; Ayyala, D.; Tayebali, A.A.; Khosla, N.P.
Institute of Transportation Engineers, Student-Led Meeting, NC State University

Manuscripts in Preparation or Review: (student advisees denoted with †)

- M1. Lottero-Perdue, P. S.; **Malladi, H.**; & Headley, G. (2024). *Near-Peer Mentors' Discussions with a Student Avatar Experiencing Logistical Issues on a First-Year Design Team*. [**in review** with First-Year Programs Division for the 2024 ASEE Annual Meeting & Exposition]
- M2. Headley, M. G.; Lottero-Perdue, P. S.; & **Malladi, H.** (2024). *Designing Mixed Methods Research around Mixed Reality Simulation: An Exemplar Exploring Conversations about Team Conflict*. [**accepted** for the 2024 American Education Research Association (AERA) Annual Meeting]
- M3. Headley, M. G.; Lottero-Perdue, P. S.; & **Malladi, H.** (2024). *Mixed Methods Mixed Reality Research: An Exemplar Using Simulation to Explore Teaching Assistants' Interactions with Students on Engineering Design Teams Experiencing Conflict*. [**in preparation** for International Journal of Multiple Research Approaches (IJMRA)]
- M4. Onase, B.†; & Malladi, H. (2024). *Laboratory Evaluation and Digital Image Processing Techniques in Determining Moisture Susceptibility of Reclaimed Asphalt Pavement Mixtures*. [**in preparation** for Construction and Building Materials]

Technical Reports:

- R1. “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).
- R2. “Implementation of the Tack Lifter”. C. Castorena and **H. Malladi**, Report No. FHWA/NC/2017-34, NCDOT (Published August 2018).
- R3. “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).
- R4. “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 RESEARCH GRANTS

Effects of Saltwater Intrusion on DelDOT’s Concrete Infrastructure (\$99,321) 2023-24
PI: McConnell; **Co-PIs:** Dong, Head, **Malladi**, Maresca, Meehan, Messer, Michael, Tatar
Granting Institution: Delaware Department of Transportation (DelDOT)

Design and Evaluation of Instructional Coaching Strategies to Address Social Loafing on Engineering Student Teams (\$14,988) 2022-24
PI: Malladi; Co-PIs: Buckley, Lottero-Perdue (Towson University); Senior Personnel: Headley
Granting Institution: University of Delaware General University Research (GUR) Grant

Using a Simulated Environment to Practice Diagnosing Perceived Social Loafing in Design Teams (\$5,985) 2022-23
PI: Lottero-Perdue (Towson University); **Co-PI: Malladi**
Granting Institution: Towson University Faculty Development & Research Committee

Establishing an Engineering Education Ecosystem (E³): A Sustainable, Research-Aligned University-High School Partnership (\$92,536) 2021-22
PI: Malladi; Co-PIs: Buckley, Trauth, Headley; Investigators: Enszer, Rooney, Hewlett
Granting Institution: UD College of Engineering Intellectual Neighborhood Accelerator Program for Scholarship in Engineering Education

PENDING GRANTS & SUBMITTED GRANTS NOT FUNDED

Research Initiation: Strategies to Coach Near-Peer Mentors to Support First-Year Engineering Students Experiencing Team Conflicts (\$200,000, Pending) 2023
PI: Malladi; Co-PIs: Headley, Lottero-Perdue (Towson University)
Granting Institution: National Science Foundation (NSF)

Development of Performance-Based Specifications for Overlays on Concrete Bridge Decks (\$137,015, Pending) 2023
PI: Tatar; **Co-PI: Malladi**
Granting Institution: Delaware Department of Transportation (DelDOT)

Quantifying Durability of Re-Recycled Asphalt Mixtures (\$188,797, Not Funded) 2020
PI: Malladi; Co-PI: Atttoh-Okine (previously at UD)
Granting Institution: Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems (CIAMTIS), U.S. DOT Region 3 University Transportation Center

TEACHING FELLOWSHIPS & COURSE GRANTS

Provost Teaching Fellow, Foundational Course Initiative, Center for Teaching and Assessment of Learning (CTAL), University of Delaware (\$7,500)	2021-24
Faculty Course Development Grant for EGGG 101: Introduction to Engineering, Gerald J. Mangone Climate Change Science & Policy Hub, University of Delaware (\$2,500)	2022
Certificate of Accomplishment in Teaching, The Graduate School, NC State University	2015
Preparing the Professoriate Fellowship, The Graduate School, NC State University (\$1,000)	2014
STEM and Writing Annual Partnership, The Graduate School, NC State University	2013

TEACHING EXPERIENCE

University of Delaware, Newark, DE—Assistant Professor 2020-Present

Semester	Course Number: Title (Credits Taught), and Sections (All courses are at the undergraduate level)	Total Enrollment	Course Modality
Fall 2023	EGGG 101: Introduction to Engineering (2 x 2 = 4) - 2 Lecture Sections - 14 Discussion Sections	640	In-person
Spring 2023	CIEG 403: Sustainability Applications in Infrastructure (3) - 1 Section	38	In-person
Fall 2022	EGGG 101: Introduction to Engineering (2 x 2 = 4) - 2 Lecture Sections - 14 Discussion Sections	697	In-person
Spring 2022	CIEG 403: Sustainability Applications in Infrastructure (3) - 1 Section	39	In-person
Fall 2021	EGGG 101: Introduction to Engineering (2 x 2 = 4) - 2 Lecture Sections (online) - 14 Discussion Sections (in-person)	656	Hybrid
Spring 2021	CIEG 403: Sustainability Applications in Infrastructure (3) - 1 Section	34	Online
Fall 2020	EGGG 101: Introduction to Engineering (1* x 2 = 2) <i>*co-instructor with Dr. Jenni Buckley</i> - 2 Sections	655	Online

Lafayette College, Easton, PA—Visiting Assistant Professor 2018-2020

Semester	Course Number: Title (Credits Taught), and Sections (All courses are at the undergraduate level)	Total Enrollment	Course Modality
Spring 2020	ES 226: Statics (4 x 2 = 8) - 2 Sections	44	Online*
	CE 203: Envisioning a Sustainable World (4 x 1 = 4) - 1 Section	20	Online*
Fall 2019	ES 101: Introduction to Engineering (2 x 2 = 4) - 2 Modules (7 weeks long)	38	In-person
	ES 230: Strength of Materials (4 x 2 = 8) - 2 Sections	48	In-person
Spring 2019	ES 226: Statics (4 x 2 = 8) - 2 Sections	51	In-person
	ES 230: Strength of Materials (4) - 1 Section	10	In-person
Fall 2018	ES 226: Statics (4) - 1 Section	10	In-person
	ES 230: Strength of Materials (4 x 2 = 8)- 2 Sections	56	In-person

* In-person class shifted online in the middle of the semester due to the COVID-19 pandemic.

Semester	Course Number: Title (Credits Taught), and Sections (All courses are at the undergraduate level)	Total Enrollment	Course Modality
Spring 2018	CE 313: Mechanics of Solids (3) - 1 Section	73	In-person
Fall 2017	CE 214: Engineering Mechanics – Statics (3) - 1 Section	68	In-person
Summer 2017	CE 214: Engineering Mechanics – Statics (3) - 1 Section	35	In-person
Spring 2017	CE 214: Engineering Mechanics – Statics (3) - 1 Section	59	In-person
Fall 2016	CE 214: Engineering Mechanics – Statics (3) - 1 Section	60	In-person

Broadreach, Inc., Raleigh, NC—Academic Program Collaborator

2017

Nicaragua Technology and Development [high school summer class with 3 college credits]

- Designed syllabus and lesson plans on water filtration, appropriate technology, and sustainable development for an experiential-learning course based in Nicaragua.

STUDENT ADVISING**Graduate Research Advising at UD****Prince Aminu Musa****Fall 2023 – Present**

Research Project: An Investigation into Fracturing of Asphalt Pavement Surfaces Using Tillage Radishes

Babatunde Onase (M.S.)**Fall 2021 – Spring 2023**

Thesis: Laboratory Evaluation and Digital Image Processing Techniques in Determining Moisture Susceptibility of Reclaimed Asphalt Pavement Mixtures

Undergraduate Research Advising*Funded by CIAMTIS REU Site at UD***Semon Rezkalla, B.S. Civil Engineering, UD****Summer 2023**

Research Project: Evaluation of the Bond Strength of Tack Coat

Najmah Baldwin, B.S. Construction Engineering and Management, UD**Summer 2022**

Research Project: Investigation of LTPP Pavement Life Extension Through Pavement Rehabilitation

Alexis Owens, B.S. Civil Engineering, Virginia Tech**Summer 2021**

Research Project: Quantifying Durability of Asphalt Concrete & Asphalt Emulsion Mixtures

Mentored Research & Independent Study at Lafayette College**Danielle Mullan, B.S. Mechanical Engineering, Lafayette College****Summer 2020**

Research Project: Life Cycle Assessment of Bio-binders from Various Biomass Sources

Pierrette Dushime Umwali, B.S., Civil Engineering, Lafayette College**Spring 2019**

Research Project: Exploration of Long-Term Pavement Performance (LTPP) Sections in Pennsylvania

WORKSHOP DEVELOPMENT & FACILITATION**W1. “Engineering Field Trip”**

2021-22, 24

- Workshop for high school students (co-facilitator: Dr. Jenni Buckley)
Governor’s School for Excellence, UD

W2. “Sustainable Applications in Transportation Infrastructure”

2023

- In-person workshop for undergraduate participants
NSF & CIAMTIS REU sites, Civil & Environmental Engineering Department, UD

W3. “Life Cycle Assessment”

2022, 2023

- Virtual workshop for undergraduate participants
City of Los Angeles HBCU Internship, Los Angeles, CA

- W4. **“Preparing and Delivering Technical Presentations”** 2021-23
- In-person workshop for undergraduate participants
NSF & CIAMTIS REU sites, Civil & Environmental Engineering Department, UD
 - In-person workshop for high school students
College of Engineering High School Engineering Internship & RISE Academy, UD
- W5. **“How to Craft your 3-Minute Thesis (3MT)”** 2022
- Virtual workshop for undergraduate students
Jaypee University of Information Technology, Himachal Pradesh, India
- W6. **“How to Get Started (or Become More Active) in Scholarship of Teaching and Learning”** 2022
- Virtual workshop for faculty members (co-facilitator: Dr. Jenni Buckley)
College of Engineering Faculty & Post-Doc Mentoring Workshops, UD
- W7. **“Incorporating Undergraduate Peer Facilitators in Your Large-Enrollment Courses”** 2022
- Virtual workshop for faculty members (co-facilitators: Drs. Stefanie DeVito, Lauren Genova, & Christopher Trimby)
Summer Institute of Teaching, CTAL, UD
- W8. **“Small Teaching for Large Classes: Lessons Learned from Three Semesters of Teaching Foundational Courses Online”** 2021
- Workshop for faculty members (co-facilitator: Dr. Lauren Genova)
CTAL Roundtable, UD
- W9. **“Instructional Innovations for High-Enrollment Undergraduate Courses from Pandemic Teaching Experiences: Small Teaching for Large Classes”** 2021
- Workshop for faculty members (co-facilitators: Drs. Jay Lunden, Stefanie DeVito, & Lauren Genova)
Summer Institute of Teaching, CTAL, UD
- W10. **“Create Your Professional Pitch”** 2018
- Invited speaker; workshop for professional engineers
Structural Engineers Association of North Carolina Conference, Raleigh, NC
- W11. **“Let’s Communicate Our Science”** 2018
- Workshop for undergraduate students
Women in the Sciences, Lafayette College, Easton, PA
- W12. **“Communicate Your Science: How to Pitch Your Research to the World”** 2018
- Workshop for student research assistants and postdoctoral fellows
Peer Scholars Workshop, North Carolina State University, Raleigh, NC

PUBLIC SCIENCE & OUTREACH

E3: Engineering Education Ecosystem Program at the UD College of Engineering

- Organizer: one-day professional development workshops in engineering for high school teachers 2022-23
- Organizer & Judge: annual engineering design poster showcase for high school students 2021-23

Delaware High Schools

- Panelist, Sustainability Education in College, Youth Environmental Summit, Newark, DE 2023
- Panelist, Career Paths in Sustainability, Newark High School, The Newark Partnership 2022-23

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 plans on material properties for elementary and middle school in accordance with national and state educational standards and assembled associated lesson plan kits.

PROFESSIONAL SERVICE

Leadership

Program Chair, First-Year Engineering Experience (FYEE) Conference, Northeastern University, Boston, MA, American Society for Engineering Education (ASEE) 2023-24

Program Co-Chair, First-Year Engineering Experience (FYEE) Conference, University of Tennessee, Knoxville, TN, American Society for Engineering Education (ASEE) 2022-23

Conference and Society Service

Moderator, FYEE Conference 2021-24

Moderator, ASEE Annual Conference & Exposition 2020-24

Moderator, Association of Asphalt Paving Technologists (AAPT) Webinar—Data Science Applications in Pavement Engineering 2023

Rapporteur, First-Year Engineering Experience Unconference 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)

- Annual Conference & Exposition
- Mid-Atlantic Section Conference
- Zone 1 Conference
- First-Year Engineering Experience Conference

ASCE Journal of Materials in Civil Engineering

ASTM Journal of Testing and Evaluation

International Journal of Pavement Engineering

International Journal of Pavement Research and Technology

Transportation Research Board

UNIVERSITY SERVICE

University of Delaware

University- or College-Level Committees

Ad Hoc Committee on Continuing-Track Searches, CT Caucus 2023

First-Year Experience Working Group, University of Delaware Student Success Council 2022-23

Blue Hen Success Leadership Team 2020-23

Search Committee, Continuing Track Faculty Position in Mechanical Engineering 2021-22

Search Committee, Educational Development Specialist, Center for Teaching and Assessment of Learning (CTAL) 2021-22

Student Success Subcommittee on Prioritizing and Expanding Student Success in the Post-Pandemic Era, President's Strategic Plan Working Group 2021

Department-Level Committees

BRACE – Civil Engineering Curriculum Revision Committee, Civil & Environmental Engineering 2022-24

Search Committee, Director, Construction Engineering and Management Program	2023-24
Showcase and Recruitment Committee, Civil & Environmental Engineering	2020-24
Distinguished Graduate Scholars Award Committee, Civil & Environmental Engineering	2021-23

Other

Reviewer for 2- & 4-year Appraisal Workshop, UD Faculty Achievement Program	2022-23
Host, Session for Engineering Undeclared Admitted Students, Decision Day Open House	2022-23
Faculty & Post-Doc Mentoring Workshop Facilitator, College of Engineering	2022
Judge, DENIN Environmental Research Symposium	2022
Judge, Switch Pitch and Innovation Sprint, Ratcliffe Eco-Entrepreneurship Fellows	2022
Host, Write on Site, UD Faculty Achievement Program	2021-22
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

CERTIFICATION

Delaware Master Naturalist	2023
Certification in Adult Mental Health First Aid USA	2022

PROFESSIONAL AFFILIATIONS

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