

Monique Hite Head, Ph.D., P.E., F.ASCE

Professor | Department of Civil, Construction, and Environmental Engineering

Affiliate Faculty: Center for Innovative Bridge Engineering (CIBrE) | Center for Composite Materials (CCM)
Delaware Center for Transportation (DCT)

University of Delaware (UD)

Website: <https://sites.udel.edu/head> | Email: head@udel.edu

RESEARCH INTERESTS

Structural Monitoring and Evaluation

- Bridge evaluation using vision-based measurements
- Earthquake engineering and the impact of earthquakes on structures
- Flood load and salinity effects on infrastructure

EDUCATION

2007	Ph.D., Civil (Structural) Engineering	Georgia Institute of Technology
2002	Master of Civil Engineering (MCE)	University of Delaware
2000	Bachelor of Civil Engineering (BCE)	University of Delaware

PROFESSIONAL REGISTRATION AND CERTIFICATION

Registered Professional Engineer, Wyoming, 2020 – present (License No. PE18020)

Engineer-in-Training (EIT) Certification, State of Delaware, 2000

PROFESSIONAL APPOINTMENTS

University of Delaware

2024-present	Professor, Department of Civil, Construction, and Environmental Engineering
2018-2024	Associate Professor, Department of Civil and Environmental Engineering Associate Chair (AY2020-2023)

Morgan State University

2017-2018	Associate Dean of Research and Graduate Studies, School of Engineering
2014-2018	Associate Professor, Department of Civil Engineering
2011-2014	Assistant Professor, Department of Civil Engineering

Texas A&M University

2007-2011	Assistant Professor, Zachry Department of Civil Engineering
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ADMINISTRATIVE LEADERSHIP POSITIONS & TRAINING

- *Executive Leadership in Academic Technology, Engineering and Science (ELATES)*, Drexel University, Class of 2024-2025
- *Associate Chair*, Department of Civil & Environmental Engineering, University of Delaware, 2020-2023
- *Associate Dean of Research and Graduate Studies*, School of Engineering, Morgan State University, 2017-2018
- *HERS Leadership Academy*, Bryn Mawr, 2017

Book Chapters

- B2. **Head, M.** and *Aloqaily, W. (2022). *Machine learning for seismic assessment*. Seismic Evaluation, Damage and Mitigation in Structures, Elsevier.
- B1. **Head, M.** and *Pirayeh Gar, S. (2013). *Part III: Metaheuristic Applications in Bridge Infrastructure Maintenance Scheduling Consideration*. Metaheuristics in Water, Geotechnical, and Transportation Engineering, in collaboration with Dr. Manoj Jha, Morgan State University.

Refereed Journal Papers *=> denotes grad/student co-author; **=>postdoctoral researcher

- J34. *Abiona, Q. and **Head, M.** (2025). Determination of Bridge Elements' Weights Using the Random Forest Algorithm, *ASCE Journal of Performance of Constructed Facilities*, 39(1): 04024056.
- J33. *Olsen, K., **Ulus, H., **Head, M.**, and Advani, S. (2025). Effect of particle size and replacement ratio on mechanical performance of cementitious mortar containing ground recycled acrylonitrile butadiene styrene (GRABS) waste plastics, *Composites Part B: Engineering*, 289, 111914.
- J32. *Iqbal, W. and **Head, M.** (2024). Parametric study for shear failure of bearing pads due to hurricane-induced wave loadings, *Advances in Bridge Engineering*, 5(1): 30.
- J31. *Obayes, S. and **Head, M.** (2024). Evaluation of Flexural Performance of Slab Bridges in the Pacific Northwest Region Subjected to Long-Duration Earthquake Events, *International Journal of Civil Infrastructure*, Volume 7.
- J30. *Obayes, S. and **Head, M.** (2024). Evaluating In-Span Hinge Connections: Empirical Methods and Strut-and-Tie Analysis, *International Journal of Civil Infrastructure*, Volume 7.
- J29. *Safari, S., DuBose, T., **Head, M.**, Shenton III, H., Tatar, J., Chajes, M., Karam, J., and Hastings, J. (2024). "Diagnostic Load Testing and Assessment of a Corroded Corrugated Metal Pipe Culvert Before Rehabilitation," *Structure and Infrastructure Engineering*, 1-10.
- J28. Tatar, J., Viniarski, C.*, Harries, K.A., and **Head, M.** (2023). "Effect of U-Wrap Anchors on Flexural Behavior of Reinforced Concrete Beams Flexurally Strengthened with Externally Bonded CFRP," *ASCE Journal of Composites for Construction*, 27(1), 04022099.
- J27. *Ghyabi, M., *Timber, L., *Jahangiri, G., Lattanzi, D., Shenton, H., and Chajes, M., and **Head, M.** (2023). "Vision-Based Measurements to Quantify Bridge Deformations," *Journal of Bridge Engineering*, 28(1), 05022010.
- J26. **Oats, R., Dai, Q., and **Head, M.** (2022). "Digital Image Correlation Advances in Structural Evaluation Applications: A Review," Special Topics on **Recent Advances in Structural Health Monitoring Techniques and Applications** in *ASCE Practice Periodical on Structural Design and Construction*, 27(4), [https://doi.org/10.1061/\(ASCE\)SC.1943-5576.0000725](https://doi.org/10.1061/(ASCE)SC.1943-5576.0000725). (Guest editors: Mahmoud Bayat, Ph.D., Paul Ziehl, Ph.D., **Monique H. Head, Ph.D.**, and Amir H. Alavi, Ph.D.).
- J25. *Obayes, S., *Timber, L., **Head, M.**, and Sparks, E. (2022). "Evaluation of Brace Root Parameters and Its Effect on the Stiffness of Maize," in *silico Plants*, Volume 4, Issue 1, 2022, <https://doi.org/10.1093/insilicoplants/diac008>.
- J24. **Head, M.** and *Timber, L. (2022). "Live Load Distribution of Slab-on-Girder Bridge Using Vision-Based Measurements," *American Concrete Institute (ACI) Special Publication Live Load Distribution on Concrete Bridges: Design, Evaluation, Construction, Innovation*, 352, 68-77.
- J23. Bayat, M., **Head, M.**, Cveticanin, L., and Ziehl, P. (2022). "Nonlinear Analysis of Two-Degree of Freedom System with Nonlinear Springs," *Mechanical Systems and Signal Processing* (Elsevier), 171(3): 108891. DOI: 10.1016/j.ymssp.2022.108891.
- J22. *Zebarjad, L., Yahyai, M., **Head, M.**, and Shokouhian, M. (2020). "Toward Optimizing Dynamic Characteristics of non-conventional TMDs in multi degree of freedom systems," *Iranian Journal of Science and Technology Transactions of Civil Engineering*, doi:10.1007/s40996-019-00338-z.
- J21. Yahyai, M., *Zebarjad, L., **Head, M.**, and Shokouhian, M. (2019). "Optimum Parameters for Large Mass Ratio TMDs Using Frequency Response Function," *Journal of Earthquake Engineering*, 24(1): 1-20.
- J20. *Chinaka, E., Shokouhian, M., **Head, M.**, and Efe, S. (2019). "An Experimental Investigation of Bond Strength of AFRP Bars with Self-Consolidating Concrete," *Civil Engineering Design*, 1(5-6): 148-160.

- J19. **Shokouhian, M., **Head, M.**, Seo, J., *Schaffer, W., and *Adams, G. (2019). "Hydrodynamic Response of a Semi-submersible Platform to Support a Wind Turbine," Elsevier, *Journal of Marine Engineering & Technology*, 1-16.
- J18. Seo, J., *Schaffer, W., **Head, M.**, **Shokouhian, M., and Choi, E. (2018). "Integrated FEM and CFD Simulation for Offshore Wind Turbine Structural Response," *International Journal of Steel Structures*, 1-13.
- J17. *Efe, S., **Shokouhian, M., **Head, M.**, and *Chinaka, E. (2018). "Numerical Study on the Cyclic Response of AFRP Reinforced Column with Externally Unbonded Energy Dissipaters," *Structure and Infrastructure Engineering*, 14(2), 2018: 218-231.
- J16. **Shokouhian, M., Shi, Y., **Head, M.** (2016). "Interactive Buckling Failure Modes of Hybrid Steel Flexural Members," Elsevier, *Engineering Structures*, 125:153-166, <https://www.sciencedirect.com/journal/engineering-structures/vol/125>.
- J15. *Pirayeh Gar, S., Mander, J., **Head, M.**, and Hurlebaus, S. (2014). "FRP Slab Capacity Using Yield Line Theory," *J. Compos. Constr.*, 18(6).
- J14. *Pirayeh Gar, S., **Head, M.**, Hurlebaus, S., and Mander, J. (2014). "Experimental Performance of AFRP Concrete Bridge Deck Slab with Full-Depth Precast Prestressed Panels," *ASCE Journal of Bridge Engineering*, 19(4), [http://ascelibrary.org/doi/abs/10.1061/\(ASCE\)BE.1943-5592.0000559](http://ascelibrary.org/doi/abs/10.1061/(ASCE)BE.1943-5592.0000559).
- J13. *Pirayeh Gar, S., **Head, M.**, and Hurlebaus, S. (2013). "Computational Modeling of the Flexural Performance of an AFRP Prestressed Girder with a Composite Bridge Deck," *ACI Structural Journal*, 110(6), <http://www.concrete.org/PUBS/JOURNALS/SJHOME.ASP>.
- J12. *Pirayeh Gar, S., **Head, M.**, Hurlebaus, S., and Mander, J. (2013). "Comparative Experimental Performance of Bridge Deck Slabs with AFRP and Steel Precast Panels," *ASCE Journal of Composites for Construction*, 17(6), [http://dx.doi.org/10.1061/\(ASCE\)CC.1943-5614.0000380](http://dx.doi.org/10.1061/(ASCE)CC.1943-5614.0000380).
- J11. *Bisadi, V., Gardoni, P., and **Head, M.** (2013). "Decision Analysis for Elevating Bridge Decks with Steel Pedestals," *Structure and Infrastructure Engineering*, 10(8), 1059-1067, <http://www.tandfonline.com/doi/abs/10.1080/15732479.2013.788523#.Ui5FHNLkVNo>.
- J10. *Bisadi, V., Gardoni, P., and **Head, M.** (2013). "Probabilistic Demand Models and Fragility Estimates for Bridges Elevated with Steel Pedestals," *ASCE Journal of Structural Engineering*, 139(9): 1515-1528, September 2013, [http://dx.doi.org/10.1061/\(ASCE\)ST.1943-541X.0000741](http://dx.doi.org/10.1061/(ASCE)ST.1943-541X.0000741).
- J9. *Pirayeh Gar, S., **Head, M.**, and Hurlebaus, S. (2012). "Tension Stiffening in Prestressed Concrete Beams Using Moment-Curvature Relationship," *ASCE Journal of Structural Engineering* (Technical Note), 138(8): 1075-1078, August 2012, [http://dx.doi.org/10.1061/\(ASCE\)ST.1943-541X.0000534](http://dx.doi.org/10.1061/(ASCE)ST.1943-541X.0000534).
- J8. *Bisadi, V., **Head, M.**, and Cline, D. (2011). "Seismic Effects of Elevating Bridges with Steel Pedestals in the Southeastern United States," *Engineering Structures*, 33(12): 3279-3289, December 2011, <http://www.sciencedirect.com/science/article/pii/S0141029611003415>.
- J7. *Bisadi, V. and **Head, M.** (2011). "Evaluation of Combination Rules for Orthogonal Seismic Demands in Nonlinear Time History Analysis of Bridges," *ASCE Journal of Bridge Engineering*, Special Issue: AASHTO-LRFD Bridge Design and Guide Specifications: Recent, Ongoing, and Future Refinements, 16(6): 711-717, March 2011, [http://dx.doi.org/10.1061/\(ASCE\)BE.1943-5592.0000241](http://dx.doi.org/10.1061/(ASCE)BE.1943-5592.0000241).
- J6. *Bisadi, V., Gardoni, P., and **Head, M.** (2011). "Probabilistic Capacity Models and Fragility Estimates for Steel Pedestals Used to Elevate Bridges," *ASCE Journal of Structural Engineering*, 137(12): 1583-1592, December 2011.
- J5. *Mander, T.J., Mander, J.B., and **Head, M.** (2010). "Strength Analysis of Precast Bridge Decks with Full-Depth Precast Overhang Panels," *Transportation Research Record: Journal of the Transportation Research Board*, No. 2202, Transportation Research Board of the National Academies, Washington, D.C., 2010, pp. 70-76.
- J4. *Mander, T., Mander, J., and **Hite Head, M.** (2010). "Modified Yield-Line Theory for Full-Depth Precast Concrete Bridge Deck Overhang Panels," *ASCE Journal of Bridge Engineering*, 16(1): 12-20, December 2010.
- J3. *Mander, T., Mander, J., and **Hite Head, M.** (2010). "Compound Shear-Flexural Capacity of Reinforced Concrete Topped Precast Prestressed Bridge Decks," *ASCE Journal of Bridge Engineering*, 16(1): 4-11, December 2010.
- J2. *Mander, T., *Henley, M. *Scott, R., **Hite Head, M.**, Mander, J., and Trejo, D. (2010). "Experimental Investigation of Full-Depth Precast Overhang Panels for Concrete Bridge Decks," *ASCE Journal of Bridge Engineering*, 15(5):503-510, September/October 2010.

- J1. **Hite, M.**, DesRoches, R., and Leon, R. T. (2008). "Full-scale Tests of Bridge Steel Pedestals," *ASCE Journal of Bridge Engineering*, 13(5): 483-491, September/October 2008.

Magazine Articles and Primers

- M3. **Head, M.**, Pathak, R., Muthukumar, S., and Mackie, K. (2016). "Challenging Issues When Conducting Nonlinear Seismic Analysis," *Structure Magazine*, March.
- M2. **Head, M.**, Dennis, S., * Muthukumar, S., Nielson, B., and Mackie, K. (2014). "Nonlinear Analysis in Modern Earthquake Engineering Practice," *Structure Magazine*, March.
- M1. Nakata, N., Dyke, S., Zhang, J., Mosqueda, G., Shao, X., Mahmoud, H., **Head, M.**, Bletzinger, M., Marshall, G., Ou, G., and Song, C. (2014). "Hybrid Simulation Primer and Dictionary," *George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES)*, U.S. National Science Foundation, <https://datacenterhub.org/resources/8102/supportingdocs>, Award Number: CMMI-0927178.

Technical Reports

- T15. **Head, M.**, Shenton, H.W., Tatar, J., Chajes, M., DuBose, T., and Safari, S. *Structural Performance Verification of Structural Pipe Liners for Corrugated Metal Pipes*, Delaware Department of Transportation (DelDOT), January 2023.
- T14. Tatar, J., **Head, M.**, Lafti, S., Okeola, A. *Bonding of Overlays to Ultra High Performance Concrete*, Delaware Department of Transportation (DelDOT), December 2022.
- T13. Dennis, T., Sundar, D., Chinaka, E., **Head, M.**, Rajapibour, F., and Mondal, P. *Optimized performance of UHPC bridge joints and overlays*, USDOT Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems (CIAMTIS): Region 3 University Transportation Center, August 2022.
- T12. Timber, L., **Head, M.**, Shenton, H.W., Chajes, M.J., Ghyabi, M., Lattanzi, D., Jahangiri, R., Graves, W.C. *Bridge Load Rating and Evaluation Using Digital Image Measurements*, USDOT Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems (CIAMTIS): Region 3 University Transportation Center, May 2022.
- T11. Viniarski, C., Tatar, J., and **Head, M.**, *Design of Anchors for Rapid and Durable Strengthening of Bridges with Externally Bonded Carbon Fiber Reinforced Polymers*, USDOT Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems (CIAMTIS): Region 3 University Transportation Center, November 2021.
- T10. Robertson, Ian; **Head, Monique**; Roueche, David; Wibowo, Hartanto; Kijewski-Correa, Tracy; Mosalam, Khalid; Prevatt, David, (2018), "STEER - SUNDA STRAIT TSUNAMI (INDONESIA): PRELIMINARY VIRTUAL ASSESSMENT TEAM (P-VAT) REPORT," DesignSafe-CI [publisher], Dataset, doi:10.17603/DS2Q98T; DOI: <https://doi.org/10.17603/DS2Q98T>, December 31, 2018.
- T9. **Head, M.**, Seo, J., Shokouhian, M., and *Schaffer, W., *Foundation Anchorages for Offshore Wind Turbines in Deep Water Using Composite Materials*, Maryland Energy Administration (MEA) and Maryland Higher Education Commission (MHEC), November 2016.
- T8. **Head, M.**, *Ashby-Bey, E., *Edmonds, K., *Efe, S., *Grose, S., and *Mason, I., *Stainless Steel Prestressing Strands and Bars for Use in Prestressed Concrete Girders and Slabs*, Maryland State Highway (SHA), Report No. MD-13-SP309B4G, August 2015, http://www.roads.maryland.gov/OPR_Research/MD-13_SP309B4G_Stainless-Steel-Prestressing-Strands_Report.pdf.
- T7. **Head, M.**, *Efe, S., *Grose, S., *Drumgoole, J., *Lajubutu, O., *Wright, R., and *Hansboro, Jr., T., *Durability Assessment of Prefabricated Bridge Elements and Systems*, Maryland State Highway Administration (SHA), Report No. MD-13-SP309B4E, August 2015, http://www.roads.maryland.gov/OPR_Research/MD-13_SP309B4E_Durability-Assessment-of-Prefabricated-Bridge-Elements-and-Systems_Report.pdf.
- T6. *Pirayeh Gar, S. Hurlebaus, S., Mander, J.B., *Cummings, W., *Prouty, M., and **Head, M.** *Sustainability of Transportation Structures Using Composite Materials to Support Trade and Growth*, Technical Report SWUTC 600451-00009-1, Texas A&M Transportation Institute, June 2014, <http://d2dtl5nnlpr0r.cloudfront.net/swutc.tamu.edu/publications/technicalreports/600451-00009-1.pdf>.
- T5. Trejo, D., **Hite, M.**, Mander, J., *Mander, T., *Henley, M., *Scott, R., Ley, T., and Patil, S., *Development of a Precast Bridge Deck Overhang System*, Technical Report 0-6100-1, Texas Transportation Institute (TTI), February 2011, <http://tti.tamu.edu/documents/0-6100-1.pdf>.

- T4. Trejo, D., **Hite, M.**, Mander, J., *Mander, T., *Henley, M., *Scott, R., Ley, T., and Patil, S., *Development of a Precast Bridge Deck Overhang System for the Rock Creek Bridge*, Technical Report 0-6100-2, Texas Transportation Institute (TTI), December 2008, <http://tti.tamu.edu/documents/0-6100-2.pdf>.
- T3. **Hite, M.** (2003). "The emergency manager of the future," Disasters Roundtable, National Research Council of the National Academies, National Academies Press, Washington, DC, June 2003.
- T2. Faghri, A., **Hite, M.**, and Hehman, D. (1999). "Application of global positioning systems (GPS) to travel time and delay measurements 1997 phase, Delaware Center for Transportation Project DTI #111, June 1999.
- T1. Faghri, A., **Hite, M.**, and Hehman, D. (1999). "Speed measurements and vehicle classification, Delaware Center for Transportation Project DTI #113, May 1999.

Conference Abstracts, Presentations, and Proceedings

- C48. Ala Uddin, M. Yoon, Y., **Head, M.**, and Abiona, Q. (2024). "Determination of Grouping Factors for Bridge Components Deterioration Analysis," *Construction Research Congress 2024*, Des Moines, Iowa, March 20-23, 2024.
- C47. **Head, M.** (2023). "Vision-based Measurements as Virtual Sensors for Bridge Monitoring and Evaluation," *ASNT 2023 Annual Conference*, Houston, TX, October 23-26, 2023.
- C46. **Head, M.**, Iqbal, W., Gac, M., Dorsett, A., and Albanese, M. (2023). "Assessment of Residential Construction due to Sea Level Rise and Saltwater Intrusion," *ASCE INSPIRE 2023*, Arlington, VA, November 16-18, 2023.
- C45. **Head, M.**, Safari, S., Aloqaily, W., and Obayes, S. (2023). "Non-Contact Structural Monitoring of a Railway Bridge," *NYC Bridge Conference*, New York, NY, August 21-22, 2023.
- C44. Abiona, Q., **Head, M.**, and Yoon, Y. (2023). "Determination of Bridge Element Weights Based on Data-Driven Models," *ASCE Structures Congress 2023*, New Orleans, LA, May 3-6, 2023.
- C43. Safari, S., **Head, M.**, and DuBose, T. (2023). "Vision-based Measurements for Monitoring a Rehabilitated CMP Culvert," *ASCE Structures Congress 2023*, New Orleans, LA, May 3-6, 2023.
- C42. Obayes, S. and **Head, M.** (2023). "Structural Evaluation of Ledges in Shiplap Hinge Joints," *ASCE Structures Congress 2023*, New Orleans, LA, May 3-6, 2023.
- C41. Aloqaily, W., **Head, M.** and Atttoh-Okine, N. (2022). "Estimating Peak Floor Acceleration Using Artificial Neural Networks," *Lifelines 2022: Advancing Lifeline Engineering for Community Resilience*, Edited by Craig A. Davis, Ph.D., P.E., G.E.; Kent Yu, Ph.D., P.E., S.E.; and Ertugrul Taciroglu, Ph.D., <https://doi.org/10.1061/9780784484449>.
- C40. **Head, M.**, Hanson, J., Jayne, A. and Aloupis, C. (2022). "Promoting Student Learning and Teaching in the Virtual Environment and In-Person," *ASCE 2022 Convention*, June 26-29, 2022, Minneapolis, Minnesota.
- C39. DuBose, T., Safari, S., **Head, M.**, Shenton, H., Tatar, J., Chajes, M., Karam, J., Hastings, J. (2022). "Diagnostic Load Testing and Assessment of a Rehabilitated Culvert and Spray Applied Pipe Liner," *11th International Conference on Bridge Maintenance, Safety and Management (IABMAS)*, Barcelona, Spain, July 11-15, 2022.
- C38. Aloqaily, W., **Head, M.**, Atttoh-Okine, N. (2022). "Estimating Peak Floor Acceleration Using Artificial Neural Networks," *ASCE Lifelines Conference 2021/2022*, UCLA, Los Angeles, CA, January 31-February 4, 2022.
- C37. **Head, M.** and L. Timber (2022). "Vision-based Measurement Techniques for Bridge Monitoring and Evaluation," *ASCE Structures Congress 2022*, Atlanta, GA, April 20-23, 2022.
- C36. Tatar J., Viniarski C., Harries K.A., **Head M.** (2021) Effectiveness of U-wrap Anchorage of Flexural CFRP Reinforcement in Strengthened Reinforced Concrete Beams. In: Ilki A., Ispir M., Inci P. (eds) *10th International Conference on FRP Composites in Civil Engineering. CICE 2021*. Lecture Notes in Civil Engineering, vol 198. Springer, Cham. https://doi.org/10.1007/978-3-030-88166-5_113.
- C35. **Head, M.** and L. Timber (2021). "Live Load Distribution of Slab-on-Girder Bridges Using Vision-Based Measurements," *ACI Fall 2021 Convention*, Atlanta, GA, October 17-21, 2021 (virtual).
- C34. Adegoke, M., Efe, S., Shokouhian, M., **Head, M.** (2021). "Rocking Response of AFRP Reinforced Concrete Columns with Unbonded Dissipaters," *8th International Conference on Advanced Composite Materials in Bridges and Structures (ACMBS-VIII)*, Sherbrooke, Quebec, Canada, August 5-7, 2021 (virtual).

- C33. **Head, M.**, Jayne, A., and Guidry, K. (2020). "Using Case Studies and Educational Technology to Teach Structural Analysis and Design to Construction Engineering and Management Undergraduates," *ASCE 2020 Convention*, June 21-24, 2020 (virtual).
- C32. Alanazi, A., Upton, G., Adegoke, M., Shokouhian, M., **Head, M.** (2019). "Experimental Investigation of Residual Compressive Strength of Partially Confined Concrete Column Retrofitted Using CFRP Wrap," *ASCE SEI Structures Congress 2019*, Orlando, Florida, April 25-27, 2019.
- C31. Grose, S., Shokouhian, M., **Head, M.** (2018). "Nonlinear Analysis of AFRP Connections of Reinforced Concrete Bridge Decks," *ASCE SEI Structures Congress 2018*, Fort Worth, Texas, April 18-21, 2018.
- C30. Efe, S., Shokouhian, M., **Head, M.**, (2018). "Numerical Analysis of AFRP Reinforced Concrete Columns with Replaceable Structural Fuses as Energy Dissipaters under Cyclic Loading," *ASCE SEI Structures Congress 2018*, Fort Worth, Texas, April 18-21, 2018.
- C29. *Chinaka, E., *Shokouhian, M., **Head, M.** and Efe, S. (2017). "Evaluation of bond strength for AFRP reinforcing bars in columns with self-consolidating concrete," *ASCE SEI Structures Congress*, Denver, Colorado, April 6-8, 2017, <http://dx.doi.org/10.1061/9780784480403.001#sthash.so4pnZqf.dpuf>.
- C28. Seo, J., *Schaffer, W., **Head, M.**, Shokouhian, M. (2016). "Soil-foundation interaction behavior of offshore wind turbines with monopile foundations using computational fluid dynamic analysis," *ISOPE 2016-TPC*, Rhodes, Greece, June 26-July 2, 2016.
- C27. Ladeji-Osias, J., Partlow, L., Head, M., Paudel, R., Farley, J., Muhammed, D. (2015). "Verizon Minority Male Maker Program: Encouraging STEM Interest and Creativity in Middle School Boys, ASEE Middle Atlantic Section Conference, Bucknell University.
- C26. Seo, J. and **Head, M.** (2015). "Study of Foundation Anchorages of Offshore Wind Turbines under Severe Environmental Condition," *ISOPE 2015-TPC*, Kona, Hawaii, June 21-26, 2015.
- C25. *Amine, M., *Tanks, J., Harris, D. and **Head, M.** (2015). "Environmental Effects on Material and Bond Durability of CFRP and AFRP for Prestressed Concrete Bridge Applications," *ASCE Structures Congress 2015*, Portland, Oregon, April 23-25, 2015.
- C24. *Efe, S. and **Head, M.** (2015). "Response of a Controlled-Rocking AFRP Column with Replaceable Fuses Subjected to Cyclic Loading," *ASCE Structures Congress 2015*, Portland, Oregon, April 23-25, 2015.
- C23. *Efe, S. and **Head, M.** (2014). "Structural Response of Reduced Scale Columns Pretensioned with AFRP Bars and Subjected to Combined Loading," *7th International Conference on Fiber Reinforced Polymer (FRP) Composites*, Vancouver, British Columbia, August 2014.
- C22. *Efe, S. and **Head, M.** (2014). "Structural Behavior and Response Analysis of Aramid Fiber-Reinforced Polymer Reinforced Bridge Columns under Combined Loading," *Proceedings*, 2014 10th U.S. National Conference on Earthquake Engineering, Anchorage, Alaska, July 21-25, 2014.
- C21. *Efe, S. and **Head, M.** (2014). "Structural Behavior and Response Analysis of Aramid Fiber-Reinforced Polymer Reinforced Bridge Column under Combined Loading," *ASCE Structures Congress 2014*, Boston, Massachusetts, April 2014.
- C20. *Wright, R.O. and **Head, M.** (2014). "Evaluation of Concrete Columns Reinforced with Aramid Fiber-Reinforced Polymer Bars using Damage Avoidance Design," *ASCE Structures Congress 2014*, Boston, Massachusetts, April 2014.
- C19. **Head, M.** and Owolabi, O. (2013). "Comparative Assessment of Student Performance on Exams when Using Online Homework Tools in an Undergraduate Engineering Mechanics Course," *Proceedings*, 2013 ASEE Annual Conference & Exposition, Atlanta, GA, June 23-26, 2013.
- C18. Bisadi, V., Gardoni, P., and **Head, M.** (2013). "Multi-hazard Life-cycle Cost Analysis for Bridges Elevated with Steel Pedestals," *11th International Conference on Structural Safety & Reliability (ICOSSAR 2013)*, June 16-20, 2013, New York, NY.
- C17. **Head, M.** (2012). "Using Wikis to Facilitate Writing Research Abstracts in a Civil Engineering Graduate Course," *Proceedings*, 2012 ASEE Annual Conference & Exposition, San Antonio, Texas, June 10-13, 2012.
- C16. *Bisadi, V., **Head, M.**, Gardoni, P., Hurlebaus, S., and Escobedo, D. (2011). "Fragility Estimates for the Fabela Bridge in Mexico Incorporating Vibration Field Data," *Proceedings*, 11th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP11), Zurich, Switzerland, August 1-4, 2011.
- C15. *Bisadi, V. **Head, M.**, and Gardoni, P. (2011). "Seismic Fragility Estimates and Optimization of Retrofit Strategies for Reinforced Concrete Bridges: Case Study of the Fabela Bridge in Toluca, Mexico,"

Proceedings, ASCE Structures Congress 2011, Las Vegas, Nevada, April 13-16, 2011. <http://link.aip.org/link/?ASC/401/2>.

- C14. *Gar, S.P., **Head, M.**, and Hurlebaus, S. (2010). "Enhancing Bridge Sustainability Using Prestressed Aramid Fiber Reinforced Polymer Tendons," *Presentation*, ACI Fall 2010 Convention, Pittsburgh, PA, October 24-28, 2010.
- C13. **Head, M.** (2010). "Use of Clickers for Real-time Assessment in an Introduction to the Civil Engineering Profession Course," *Proceedings*, 2010 ASEE Annual Conference & Exposition, Louisville, Kentucky, June 20-23, 2010.
- C12. *Bisadi, V. and **Hite Head, M.** (2010). "Orthogonal Effects and Critical Response of Bridges to Multicomponent Earthquake Excitation," *Proceedings*, ASCE Structures Congress 2010, Orlando, Florida, May 11-14, 2010.
- C11. *Bisadi, V. and **Hite Head, M.** (2010). "Comparative Performance of Elastomeric Bearings and Steel Pedestals Subjected to Low Seismic Demands," *Proceedings*, 2010 EERI Annual Meeting, 62nd Annual Meeting, San Francisco, California, February 2010.
- C10. Scott, R., *Mander, T., Mander, J., and **Hite Head, M.** (2010). "High-performance Grout Materials and Applications for Full-Depth Precast Overhang Bridge Deck Panels," *TRB 2010 Annual Meeting*, Washington, DC, January 10-14, 2010.
- C9. *Mander, T., **Hite Head, M.**, and Mander, J. (2010). "Constructability of Full-Depth Precast Concrete Bridge Deck Overhang," *TRB 2010 Annual Meeting*, Washington, DC, January 10-14, 2010.
- C8. *Hancock, B.L. and **Hite Head, M.** (2009). "Finite element analysis of bridge steel pedestal anchor bolts in reinforced concrete," Texas Sections of the American Physical Society, American Association of Physics Teachers, and Society of Physics Students poster presentation, October 2009.
- C7. *Hancock, B.L. and **Hite Head, M.** (2009). "Finite element analysis of bridge steel pedestal anchor bolts in reinforced concrete," TAMU USRG poster presentation, August 2009.
- C6. *Mander, T., *Henley, M., *Scott, R., **Hite, M.**, Mander, J. and D. Trejo (2009). "Experimental Investigation of Full-Depth Precast Overhang Panels for Concrete Bridge Decks," *Proceedings*, ASCE Structures Congress 2009, Vancouver, Austin, Texas, April 2009.
- C5. Trejo, D., **Hite, M.**, Mander, J., *Mander, T., *Henley, M., *Scott, R., Ley, T., and Patil, S. (2009). *Development of a Precast Bridge Deck Overhang System for the Rock Creek Bridge*, Technical Report 0-6100-2, Texas Transportation Institute (TTI), December 2008, <http://tti.tamu.edu/documents/0-6100-2.pdf>.
- C4. **Hite, M.**, R. DesRoches, and R. Leon (2008). "Effects of Near-field Earthquakes on Bridges with Tall Bearings," *Proceedings*, 6th National Seismic Conference on Bridges and Highways (6NSC), Charleston, South Carolina, June 2008.
- C3. **Hite, M.** and *S. Srivastava (2008). "Assessment of Seismic Retrofit Measures for Bridge Bearings," *Proceedings*, ASCE Structures Congress 2008, Vancouver, British Columbia, April 2008.
- C2. *Srivastava, S. and **Hite, M.** (2008). "Effect of Lightweight Concrete on the Seismic Behavior of Bridge with Tall Bearings," *Proceedings*, PCI NBC 2008, October 2008.
- C1. *Tsai, Y. and **M. Hite** (2008). "Stopper-Bearing System: A Solution to Displacement Control of Bridge Decks," *Proceedings*, PCI NBC 2008, October 2008.

Invited Presentations

- 28. Head, M. (2023). "Why UHPC and its Future," UHPC Symposium, Wilmington, DE, June 4-7, 2023.
- 27. Head, M. (2023). "AASHTO Annual Meeting," *T-3 (Seismic) Committee Meeting*, Kansas City, MO, May 22, 2023.
- 26. Head, M. (2023). "UD 1st Annual Presidential Symposium and Teach-In on Climate Change and Sustainability," *Panelist: Coastal Flooding*, April 18, 2023, Newark, DE.
- 25. Head, M. (2023). "Engaging in Technical Activities as a TRB Volunteer," Spring 2023 ACI Convention, April 1-4, 2023, San Francisco, CA.
- 24. Head, M. (2022). "Vision-Based Measurements for Structural Evaluation and Condition Assessment," *92nd Anniversary*, Universidad Michoacana de San Nicolas de Hidalgo (Mexico), Department of Civil Engineering, February 15, 2022 (virtual).
- 23. Head, M. (2021). "How to Choose a Mentor," *McNair Scholars Program*, University of Delaware, July 26, 2021 (virtual).

22. Head, M. (2021). "Bridge Load Testing and Evaluation Using Digital Technologies," *The Scientist*, GSCAEE2021, Barcelona, Spain, July 22, 2021 (virtual).
21. Head, M. (2021). "Bridges and Corn: When Two Worlds Collide," *College of Engineering Coffee Talk*, University of Delaware, May 7, 2021 (virtual).
20. Head, M. (2021). "Load Testing and Evaluation of Bridges Using Digital Image Measurements," *University of Wisconsin-Madison*, April 30, 2021 (virtual).
19. Head, M. (2021). "Structural Engineering: My Nonlinear Career Path and Cool Research Projects," *University of Virginia*, April 22, 2021 (virtual).
18. Head, M. (2021). "Load Testing of Bridges Using Digital Image Correlation," *University of Michigan, Structures Graduate Seminar*, April 20, 2021 (virtual).
17. Head, M. (2020). "Finding an Undergraduate Research Mentor," *McNair Scholars Program*, University of Delaware, November 11, 2020 (virtual).
16. Head, M. (2020). "Choosing a Mentor for Graduate School," *McNair Scholars Program*, University of Delaware, July 15, 2020 (virtual).
15. Head, M. (2019). "Oh, the Places You Will Go...as a STEM Professional," *Springfield Technical Community College*, March 1, 2019, Springfield, Massachusetts.
14. Head, M. (2019). "Controlling Seismic Damage of Concrete Bridge Columns Using Energy Dissipation Devices," *Eastern PA & Delaware ACI Chapter Meeting*, February 21, 2019, King of Prussia, Pennsylvania.
13. Head, M. (2017). "The Importance of Diversity...Beyond the Surface," *University of Illinois, Urbana-Champaign*, Graduate Diversity Conference, April 13, 2017, December 1, 2016, Urbana-Champaign, Illinois.
12. Head, M. (2016). "Enhancing Bridge Performance Using Prestressed and Reinforced FRP Bars," *Johns Hopkins University*, Graduate Seminar, December 1, 2016, Baltimore, Maryland.
11. Head, M. (2015). "Experimental Performance of AFRP Concrete Bridge Deck Slab with Full-Depth Prestressed Precast Panels," *American Society of Civil Engineers (ASCE/SEI-MD), Structural Engineering Institute (SEI)*, September 1, 2016, Baltimore, Maryland.
10. Head, M. (2013). "Comparative Experimental Performance of Bridge Decks with AFRP and Steel Prestressed Precast Panels," *UNSMH*, January 30, 2013, Morelia, Mexico.
9. Head, M. (2013). "Comparative Experimental Performance of Bridge Decks with AFRP and Steel Prestressed Precast Panels," *UNAM*, February 1, 2013, Mexico City, Mexico.
8. Head, M. (2011). "Enhancing bridge performance," *Morgan State University*, May 2011, Baltimore, Maryland.
7. Hite, M. (2008). "Seismic effects of bridges with tall steel bearings," *University of Nevada, Reno, Nevada*, April 2008.
6. Hite, M. (2007). "Performance assessment of bridges with steel pedestals," *Network for Earthquake Engineering Simulation (NEES/E-Defense)*, Miki City, Japan, October 2007.
5. Hite, M. (2006). "Evaluation of tall steel bearings," *University of Delaware, Newark, Delaware*, November 2006.
4. Hite, M. (2006). "The PhD Journey," *NSF Facilitating Academic Careers in Engineering and Science (FACES)*, Georgia Institute of Technology, October 2006.
3. Hite, M. (2006). "Seismic assessment of bridge steel pedestals," *Texas A&M University, College Station, Texas*, October 2006.
2. Hite, M. (2006). "Seismic performance evaluation of bridges rehabilitated with steel pedestals," *University of Texas, Austin, Texas*, October 2006.
1. Hite, M. (2006). "Make, quake, and shake," *Center for Education Integrating Science, Mathematics, and Computing (CEISMC)*, Georgia Institute of Technology, February 2006.

FUNDING – GRANTS (@University of Delaware, 2018 – Present)

Summary:

Total grant funding: \$24,307,325
Head's share: \$ 4,674,642

- G19. Federal Railroad Administration (FRA), CRISI: *Center for Hands-On Training and Learning Environment for the Next Generation Railroad Technical Workforce - HTL Center*, PI: **M. Head**, co-PIs: A. Zarembski and J. Palese, \$14,483,892, 09/2025 – 08/2028. [Head's share ~10%]
- G18. Federal Railroad Administration (FRA), *Advanced Imaging for Roadbed Condition Monitoring and Assessment*, PI: **M. Head**, **\$290,376**, 09/2023 – 08/2026. [Head's share ~98%]
- G17. Delaware Department of Transportation (DelDOT), *Life-Cycle Assessment Sustainability Framework for Transportation Infrastructure in Delaware*, PI: **M. Head** and co-PI: K. Brinson, **\$120,567**, 09/01/23 – 08/31/2024. [Head's share ~91%]
- G16. Delaware Department of Transportation (DelDOT), *Effects of Saltwater Intrusion on DelDOT's Concrete Infrastructure*, PI: J. McConnell and co-PIs: S. Dong, **M. Head**, H. Malladi, J. Maresca, C. Meehan, K. Messer, H. Michael, and J. Tatar, ~**\$100K**, 09/01/23 – 08/31/2024. [Head's share ~<5%]
- G15. USDOT, *Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems (CIAMTIS): Region 3 University Transportation Center*, "Integrating Image Analysis into Civil Engineering Education and Workforce Development," PI: D. Lattanzi (GMU) and co-PI: **M. Head** (UD), \$199,999, 07/2023 – 06/2024. [Head's share 50%]
- G14. Department of Defense (DoD), *Developing Engineering Practices Using Ecosystem Design Solutions for Future Army (DEEDS)*, PI: J. Bruck/J. Puleo, co-PIs: **M. Head**, Y. Hu, E. Hale, and E. Bardenhagen, \$2,701,775, 07/2022 – 12/2025. [Head's share ~59%]
- G13. Federal Railroad Administration (FRA), CRISI: *Development and Implementation of HBCU Based Railroad Engineering Workforce Development Program for Underrepresented Communities*, PI: A. Zarembski, co-PIs: **M. Head** and J. Palese, \$5,548,804, 09/2022 – 08/2026. [Head's share ~6%]
- G12. University of Delaware, *Sustainability Council Green Grant Initiative*, "Net-Zero Concrete Using Recycled Materials," PI: **M. Head** and co-PI: S. Advani, \$4,120, 08/2022 – 7/2023. [Head's share ~90%]
- G11. USDOT, *Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems (CIAMTIS): Region 3 University Transportation Center*, "Multi-robot Teaming for Inspection of Hydraulic Structures," PI: D. Lattanzi (GMU) and co-PI: **M. Head** (UD), **\$141,696**, 06/2022 – 12/2023. [Head's share 100%]
- G10. USDOT, *Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems (CIAMTIS): Region 3 University Transportation Center*, "Determination of Bridge Element Weights Based on Data-driven Models," PI: Y. Yoon (WVU) and co-PI: **M. Head** (UD), **\$112,434**, 06/2022 – 12/2023. [Head's share 100%]
- G9. Advanced Research Projects Agency-Energy (ARPA-E), *TuFF Internal Wrap for Rapid Pipeline Repair (TuFF iWRAP)*, Total: \$6,616,264, PI: J. Gillespie, Jr. (Lead PI); co-PIs: H. Shenton, J. Tatar, and **M. Head**, 10/2020 – 09/2022. [Head's share <0.05%]
- G8. Delaware Department of Transportation (DelDOT), *Bonding of Overlays to Ultra-High Performance Concrete*, PI: J. Tatar; co-PIs: **M. Head** and P. Mondal, **\$118,743**, 02/2020 – 06/2022. [Head's share ~30%]
- G7. Delaware Department of Transportation (DelDOT), *Structural Performance Verification of Structural Pipe Liners for Corrugated Metal Pipes*, PI: **M. Head** and co-PIs: H. Shenton, J. Tatar, and M. Chajes, **\$108,304**, 02/21/20 – 12/31/2022. [Head's share ~90%]
- G6. Delaware Department of Transportation (DelDOT), *Synthesis Study of Jointless Bridge Design and Details*, PI: H. Shenton and co-PIs: **M. Head** and M. Chajes, **\$59,917**, 02/21/20 – 12/31/2022. [Head's share ~33%]
- G5. USDOT, *Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems (CIAMTIS): Region 3 University Transportation Center*, Awarded March 2019, "Optimized Performance of UHPC Bridge Joints and Overlays," PI: **M. Head** (UD) and co-PI: F. Rajabipour (Penn State), **\$116,668**, 03/18/2019 – 12/31/2021. [Head's share ~68%]
- G4. USDOT, *Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems (CIAMTIS): Region 3 University Transportation Center*, Awarded March 2019, "Design of Anchors for

- Rapid and Durable Strengthening of Bridges with Externally Bonded Carbon Fiber Reinforced Polymers," **PI: M. Head (UD)** and co-PI: J. Tatar, **\$69,583**, 03/11/2019 – 08/31/2021. [Head's share ~50%]
- G3. USDOT, *Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems (CIAMTIS): Region 3 University Transportation Center*, Awarded March 2019, "Bridge Load Rating and Evaluation Using Digital Image Measurements," **PI: M. Head (UD)**, co-PI: H. Shenton and M. Chajes (UD), and co-PI: D. Lattanzi (George Mason University), **\$110,747**, 03/18/2019 – 12/31/2021. [Head's share ~90%]
- G2. University of Delaware Research Foundation (UDRF), *Dynamic plant monitoring to inform structural design models*, PI: E. Sparks and **M. Head**, co-PI, **\$45,000**, 11/01/19 – 10/31/22. [Head's share ~67%]
- G1. University of Delaware, Center for Teaching and Assessment of Learning, *Development of practical case studies into an existing structural analysis course*, **PI: M. Head**, Instructional Grant, **\$5,000**, 06/03/2019 – 06/15/2020. [Head's share 100%]

FUNDING – GRANTS (@Morgan State University and Texas A&M University)

Summary:

Total grant funding: \$6,772,500
Head's share: \$1,773,400

- NIST PREP, Collaboration with Johns Hopkins University and NY Binghamton University (SUNY), Morgan State University PI: **M. Head** (\$5M over 5 years for Morgan State University), total=\$30M over 5 years (awarded; M. Spencer, PI as of July 2018, Morgan State University).
- USDOT, Tier 1, Urban Mobility & Equity Center, *Sustainable Design of Concrete Bus Pads to Improve Mobility in Baltimore City*, Awarded February 2018, June 2018-May 2019, co-PIs: **M. Head** and M. Shokouhian, \$50K (PI: K. Aslan as of July 2018, Morgan State University).
- USDOT, University Transportation Center (UTC) Region 3 with The Pennsylvania State University (prime), *Improving the Durability and Extending the Life of Transportation Infrastructure*, Awarded June 2018, PI (Morgan State): **M. Head**, \$150K/year; total grant/Year 1=\$2.5M, (PI: K. Aslan as of July 2018).
- NSF NHERI Ambassador Award, *Supplemental Award* to University of Texas at San Antonio, Awarded March 2017-March 2019, PI: **M. Head**, \$42K.
- Apple/Thurgood Marshall College Fund, Awarded November 2016, PI: **M. Head**, \$100K.
- Clare Booth Luce Scholarship Foundation, *Henry Luce Foundation*, Awarded May 2016, PI: **M. Head**, ~\$297K.
- Lockheed Martin, funds secured to provide professional development to female engineering students at Morgan State University, Awarded October 2015, PI: **M. Head**, ~\$13K.
- Maryland Higher Education Commission, Maryland Offshore Wind Energy Research Challenge Grant (MOWER) and Maryland Energy Administration (MEA), *Foundation Anchorages for Offshore Wind Turbines in Deep Water using Composite Materials*, Awarded September 2014-November 2016, PI: **M. Head**, \$265K.
- NSF NEES Administrative Award, Awarded May 2014-April 2015, PI: **M. Head**, \$7.5K.
- NSF NEESR-CR: NEESsoft, *Supplemental Award* to Colorado State University: *Seismic Risk Reduction for Soft-Story Woodframe Buildings*, Awarded September 2013-August 2014, PI: **M. Head**, \$60,925.
- NSF HBCU-UP, *Supplemental Award: High-Performance Green Bridges*, Awarded June 2013-August 2015, PI: **M. Head**, \$40K.
- Maryland State Highway Administration, *Stainless Steel Prestressing Strands and Reinforcing Bars for Use in Prestressed Concrete Girders and Slabs*, Awarded February 2013-September 2015, PI: **M. Head**, \$60K.
- Maryland State Highway Administration, *Durability Assessment of Prefabricated Bridge Elements and Systems*, Awarded February 2013-September 2015, PI: **M. Head**, \$100K.
- Mid-Atlantic Universities Transportation Center (MAUTC), *Structural Health Monitoring to Determine Long-term Behavior of AFRP Composite Bars in Prestressed Concrete Panels for Field Deployment*, Awarded June 2012-December 2014, PI: **M. Head (MSU)**, Co-PI: D. Harris (UVA), \$186K.
- NSF HBCU-UP, *Research Initiation Award: High-Performance Green Bridges*, Awarded September 2012-August 2015, PI: **M. Head**, \$200K.

- NSF ADVANCE-PAID Prairie View A&M University, *Seismic-Resistant Design of Fiber Reinforced Polymer Bridge Columns*, Awarded May 2012-April 2013, PI: **M. Head**, \$10K.
- MSU Academic Affairs Summer Research Grant, *Seismic-Resistant Design of Nonmetallic Connection Elements in a Bridge*, Awarded May 2012-August 2012, PI: **M. Head**, \$3K.
- TAMU-CONACYT, *Risk and Reliability-Based Criteria Applied to Optimal Decision-Making for Bridge Maintenance*, Collaborators: **M. Head** (TAMU-PI), David de Leon (Mexico-PI), Paolo Gardoni (Co-PI), Jose Roeset (Co-PI), and Stefan Hurlbaas (Co-PI), Awarded September 2009-September 2010, \$24K.
- Texas Department of Transportation (TxDOT) Project No. 0-6100, *Development of a Precast Bridge Deck Overhang System*, Collaborators: PI: David Trejo, Co-PIs: **M. Head** and John Mander, Texas Transportation Institute, Awarded August 2008-May 2010, \$275K.
- NSF Facilitating Academic Careers in Engineering and Science (FACES) Career Initiation Grant, Georgia Institute of Technology, Awarded May 2007, **PI: M. Hite**, \$30K.
- GE Faculty of the Future Honoree and Grant Recipient, Georgia Institute of Technology, Awarded May 2007, **PI: M. Hite**, \$10K.

MEDIA COVERAGE

- UDaily featured (2024). [Sustainable Concrete](#).
- UDaily featured (2024). [For the Record--Awards](#).
- ASCE Civil Engineering Source (2023). [ASCE elevates Delaware professor to fellow status](#).
- UDaily featured (2023). [Assessing living shorelines](#).
- UDaily featured (2023). [FRA CRISI Grant: Workforce Development](#).
- ASCE Civil Engineering Source (2023). [Conducting bridge load testing by comparing video measurements](#).
- UDaily featured (2023). [2022 UD Sustainability Grant Recipient](#).
- UDaily article (2022). [Engineering with Nature](#).
- UDaily article (2021). [Ag-inspired Engineering](#).
- UDaily article (2021). [Peer Mentoring for Engineering Students](#).
- Head, M. (2017). *Infrastructure of the Future*. [TEDxTowsonU](#).

HONORS AND AWARDS

In Recognition of Research and Technical Contributions

American Society of Civil Engineers (ASCE), Fellow Grade (F. ASCE) Awardee	2023
National Academies of Sciences, Engineering and Medicine, <i>Transportation Research Board (TRB) AKB50 Standing Committee on Seismic Design and Performance of Bridges</i> , Blue Ribbon Award, Research Category	2023
Outstanding Research Mentor Award, Washington Baltimore Hampton Roads Louis Stokes Alliance for Minority Participation (LSAMP), Summer Research Symposium	2016
Research Advisor of the Year Award, SOS Stars Awards Banquet, Morgan State University	2016
Outstanding Alumni Achievement Citation, University of Delaware, Department of Civil and Environmental Engineering	2014
MSU Research and Economic Development, Faculty Researcher Highlight	2013
MSU Research and Economic Development, Faculty Researcher Special Recognition	2013

In Recognition of Teaching and Professional Service

UD College of Engineering, <i>Faculty Excellence in Advising and Mentoring</i> , Awardee	2024
UD College of Engineering, <i>Faculty Excellence in Advising and Mentoring</i> , Nominee	2023
ASCE, Maryland Section, <i>Outstanding Educator of the Year</i>	2014
ASCE Annual Student/Faculty Banquet, Guest Speaker	2013
ASEE DuPont Minorities in Engineering Award Nominee	2012
NEES/E-Defense Young Investigator Travel Incentive Award	2007

TEACHING INNOVATION

- CIEG 810 – Earthquake Engineering: developed a service-learning project for students to conduct a structural evaluation and assessment of an historic American Legion building in Havre de Grace. Students constructed as-built plans for the building and adjacent structures and analyzed vibrations induced on the building from nearby freight and passenger trains crossing the Susquehanna River Rail Bridge using low-cost sensors and computer vision techniques to quantify vibrations on a nearby building.
- CIEG 865 – Civil Engineering Seminar: reorganized and restructured course to be a multiple-section course for all graduate students in their respective sub-disciplines within the Department of Civil & Environmental Engineering. Five (5) sections are merged into 1 master course via Canvas to enable graduate student engagement and assist with the dissemination of information related to professional development, job opportunities and events on campus.

TEACHING EXPERIENCE & CURRICULAR DEVELOPMENT

Associate Professor (2018-2024), University of Delaware, Department of Civil & Environmental Engineering, Newark, DE

- CIEG 301 – Structural Analysis and Design (Spring 2020 and Fall 2020), newly integrated analysis and design course for all civil engineering and construction engineering and management majors based on curricular development secured from a CTAL grant
- CIEG 396 – Structural Analysis and Design (Fall 2019), for construction engineering students only
- CIEG 608 – Highway Bridge Engineering (Spring 2020 and Spring 2022)
- CIEG 611 – Structural Dynamics Design (Spring 2019), included 5 professional master's students who connected virtually via UD Capture and online content uploaded to Canvas
- CIEG 810 – Earthquake Engineering (Spring 2021 and Spring 2023)
- CIEG 865 – Civil Engineering Seminar: Structures (Spring 2019 and Fall 2019)

Associate Professor (2014-2018), Morgan State University, Department of Civil Engineering, Baltimore, MD

- CEGR 202 – Statics
- CEGR 304 – Engineering Mechanics
- CEGR 450 – Structural Analysis II
- CEGR 498/790 – Introduction to Research in Civil Engineering
- CEGR 631 – Structural Dynamics
- CEGR 628 – Bridge Engineering
- CEGR 749 – Earthquake Engineering
- CEGR 795 – Project Report I
- CEGR 796 – Project Report II
- CEGR 997 – Dissertation Guidance
- CEGR 998 – Dissertation Seminar

Assistant Professor (2011-2014), Morgan State University, Department of Civil Engineering, Baltimore, MD

- CEGR 106 – Introduction to Civil Engineering (team-taught)
- CEGR 202 – Statics
- CEGR 304 – Engineering Mechanics
- CEGR 450 – Structural Analysis II
- CEGR 498/790 – Introduction to Research in Civil Engineering
- CEGR 631 – Structural Dynamics
- CEGR 628 – Bridge Engineering
- CEGR 749 – Earthquake Engineering
- CEGR 795 – Project Report I
- CEGR 796 – Project Report II
- CEGR 997 – Dissertation Guidance
- CEGR 998 – Dissertation Seminar

Assistant Professor, Texas A&M University, Zachry Department of Civil Engineering, College Station, TX,
August 2007-March 2011

- CVEN 207 – Introduction to the Civil Engineering Profession: Fall 2007, Fall 2008 and Fall 2009
- CVEN 345 – Theory of Structures: Fall 2009, Spring 2010, and Fall 2010
- CVEN 444 – Structural Concrete Design: Fall 2008 and Spring 2009
- CVEN 656 – Bridge Engineering: Spring 2008 (reinstated) and Fall 2010

Graduate Teaching Associate, Georgia Institute of Technology, School of Civil & Environmental Engineering,
Atlanta, Georgia, August-December 2005

- Served as co-instructor for CEE 3055 Structural Analysis for 35 upper-level undergraduate students
- Created and presented lectures on shear and moment functions and diagrams, conjugate beam method, and principles of virtual work
- Developed and graded exam problems, and facilitated office hours and conducted exam review sessions

Graduate Teaching Assistant, Georgia Institute of Technology, School of Civil & Environmental Engineering,
Atlanta, Georgia, August-December 2003

- Instructed upper-level undergraduate students during office hours for CEE 3055 Structural Analysis
- Conducted weekly problem sessions to provide supplemental instruction and assessed all assignments

Graduate Teaching Assistant, University of Delaware, Department of Civil & Environmental Engineering,
Newark, Delaware, September-December 2000 and February-May 2001

- Taught fundamentals of Dynamics at weekly problem sessions
- Assessed student performance on homework assignments for both Dynamics and Civil Engineering Analysis courses

PROFESSIONAL EXPERIENCE

Intern, The National Academies Science & Technology Internship Program, Washington, DC, May-Aug 2003

- Helped organize "Disasters Roundtable Workshop" consisting of researchers, policy makers and practitioners
- Identified and analyzed the current state of knowledge and critical issues that arise from natural and manmade disasters to merge the interaction of science and technology policy

NATIONAL SERVICE

Transportation Research Board, Transit Cooperative Research Program (TCRP)

Panel Reviewer, Project D-24: *Determination of Actual Derailment Loads on Transit Bridges*
2023-Present

Transportation Research Board, National Academies, Standing Committee on *Seismic Design and Performance of Bridges* (AKB50), Secretary 2013-2020; Chair 2021-Present 2009-Present

International Association for Bridge Maintenance and Safety (IABMAS-USA), Member 2022-Present

Bridge Engineering Institute (BEI), Diversity, Equity, and Inclusion (DEI) Committee Member 2022-Present

American Concrete Institute (ACI), Committee 341D: *Earthquake-Resistant Bridges—Performance-Based Seismic Design*, Associate Member 2022-Present

Earthquake Engineering Research Institute (EERI) Virtual Annual Meeting,
Organizing Committee Co-Chair, March 23-25, 2021 2021

American Society of Civil Engineers (ASCE), Structural Engineering Institute (SEI)
Board of Governors Level Task Committee, *Building Structural Engineering Leaders* 2020-2023

National Science Foundation Panelist Reviewer 2007-Present

Ford Foundation Fellowship, Panelist, *The National Academies of Sciences, Engineering, and Medicine* 2019-Present

American Concrete Institute (ACI), Committee 440H: *Fiber-Reinforced Polymer Reinforcement*,
Associate Member 2019-Present

Transportation Research Board, National Cooperative Highway Research Program (NCHRP) Panel Reviewer, Project 12-119, FY 2020, <i>Bridge Deck Overhangs with MASH Compliant Railings</i>	2019-Present
Transportation Research Board, National Cooperative Highway Research Program (NCHRP), Panel Reviewer, Project 22-41, FY 2019, <i>Improvement and Reorganization of Section 13 of the AASHTO LRFD Bridge Design Specifications to Address MASH Loading</i>	2019-Present
Transportation Research Board, National Cooperative Highway Research Program (NCHRP) Panel Reviewer, Project 22-35, FY 2018, <i>Evaluation of Bridge Rail Systems to Confirm AASHTO MASH Compliance</i>	2018-Present
Transportation Research Board, National Cooperative Highway Research Program (NCHRP), Panel Reviewer, Project 22-36, FY 2018, <i>Development of the Next Generation, MASH, Portable Concrete</i>	2018-Present
American Society for Engineering Education (ASEE), Member (Civil Engineering Division), <i>Nominated for Board of Directors, Engineering Research Council (ERC), 2018</i>	2007-Present
American Concrete Institute (ACI), Associate Member, Faculty Network	2010-Present
American Concrete Institute (ACI), Committee 343: <i>Concrete Bridge Design</i> , Associate Member	2008-Present
Transportation Research Board, National Research Council, Committee on Structural Fiber Reinforced Polymers, AFF80, Member	2011-2016
ASCE SEC Emerging Analysis Methods in Earthquake Engineering	2008-2017
ASCE SEI Seismic Effects Committee (SEC)	2007-2017
ASCE SEC Large Scale Testing Subcommittee, 2007-08 Secretary	2007-2009

EDITORIAL BOARDS AND AD-HOC JOURNAL REVIEWER

Associate and Review Editor

Springer Innovative Infrastructure Solutions, Associate Editor	2022-Present
ASCE Journal of Bridge Engineering, Associate Editor	2021-Present
ASCE Practice Periodical on Structural Design and Construction, Associate Editor	2019-Present
Frontiers in Built Environment (Bridge Engineering Section), Review Editor	2019-Present

Ad-hoc Reviewer

Construction and Building Materials (Elsevier)	2019-Present
ASEE Experimentation & Lab-Oriented Studies (DELOS) Division	2011-Present
Elsevier Engineering Structures	2011-Present
Transportation Research Record, Transportation Research Board (TRB)	2010-Present
Bulletin of Earthquake Engineering	2010-Present
ASEE Engineering Ethics Division	2009-Present
ACI Structural Journal	2009-Present
ASCE Journal of Bridge Engineering	2008-Present
ASCE Journal of Structural Engineering	2007-Present

UNIVERSITY SERVICE

University of Delaware (2018-Present)

- Department of Civil and Environmental Engineering, Construction Engineering and Management Program, Faculty Search Committee, Spring 2023
- Bill Anderson Fund Mentor, September 2019 – August 2021
- Civil Engineering Undergraduate Committee Chair, September 2019 – Spring 2020
- Undergraduate Diversity Committee, College of Engineering, September 2019
- Society of Women Engineers (SWE) Convention Recruiter, College of Engineering, November 6-8, 2019
- Society of Women Engineers (SWE) College of Engineering Faculty Panel, November 5, 2019
- Sister-to-Sister Graduate Workshop with Dr. LaShanda Korley, College of Engineering, May 8, 2019
- George W. Laird Fellowship Selection Committee, College of Engineering, April 15, 2019
- STEM Outreach with URM Middle and High School Females, October 20, 2018
- FE Review Prep Lecture on Dynamics, sponsored by Chi Epsilon, October 23, 2018 & October 2019

- *Engineering Your Tomorrow*, STEM Outreach for 6th-8th grade young ladies, February 23, 2019. Panel speaker and UD representative, Sussex County

Morgan State University (2011-2018)

- MSU *Department of Civil Engineering*, Tenure and Promotion Committee, 2014-218
- MSU *Department of Civil Engineering*, University Council Representative, Chair of Search Committee for Instructional Laboratory Associate and 2 Tenure-Track Faculty Positions, 2014-2018
- Campus Advisor, Civil Engineering Honor Society (CEHS), 2013-2018
- Campus Advisor, American Society of Civil Engineers (ASHE), 2014-2018
- MSU *School of Engineering*, University Council Representative, Chair of Ad-hoc Committee for Indirect Cost Rate Return, 2013-2018
- Faculty Focus Group, *President Wilson's New Service Excellence Initiative for the Campus*, 2012-Present
- ABET Committee, *Department of Civil Engineering*, 2011-Present
- Strategic Planning Committee, *School of Engineering (SOE)*, 2011-Present
- Science, Engineering and Mathematics (SEM) Faculty Mentor, *School of Engineering/LSAMP*, 2011-Present
- ASCE Concrete Canoe Faculty Mentor, *Department of Civil Engineering*, 2011-Present.
- Academic Advisor, *Department of Civil Engineering*, 2011-Present
- MSU School of Engineering (SOE) Formal Lecture Series Speaker, February 2, 2012, *Enhancing Bridge Performance*
- *Introduce a Girl to Engineering*, Opening Speaker, February 23, 2012
- Mathematics Engineering Science Achievement (MESA), *MD Bridge Competition Judge*, March 23, 2012

Texas A&M University (2007-2011)

- TAMU Louis Stokes Alliance for Minority Participation (LSAMP), Faculty Mentor, 2008 - 2011
- Dwight Look College of Engineering, *Engineering Living Learning Community (ELLC)*, Faculty Associate, August 2010 – December 2010
- Texas Transportation Institute (TTI) Diversity Council, October 2009 – December 2010
- TAMU, Zachry Department of Civil Engineering, PhD Qualifying Exam Committee, December 2009 – December 2010
- TAMU Zachry Department of Civil Engineering, Undergraduate Scholarships Committee, 2009-2010
- TAMU Dwight Look College of Engineering, Marshal at Civil Engineering Undergraduates Convocation, December 13, 2008
- TAMU Louis Stokes Alliance for Minority Participation (LSAMP), Faculty Speaker, November 12, 2007; September 24, 2008; and February 28, 2008
- Civil Engineering Graduate Women's Mentoring Group, 2007-2018
- TAMU, *Engineering Living Learning Community (ELLC)* Seminar, November 28, 2007

BOARD INVOLVEMENT AND LEADERSHIP

Harford County Public Libraries, <i>Board of Trustees</i>	2020-Present
Villanova University, <i>External Advisory Council</i>	2020-Present
V-LINC, Baltimore, MD, <i>Board Member</i>	2018-2019

PROFESSIONAL ORGANIZATIONS

Consortium of Universities for Research in Earthquake Engineering (CUREE), Member	2008-2010
Network for Earthquake Engineering Simulation (NEES) Consortium, Inc., Member	2007-2010
Earthquake Engineering Research Institute, Georgia Tech Chapter (2003-04 Secretary), Member	2002-2010
Georgia Tech Black Graduate Student Association, 2003-04 Secretary, Member	2002-2007
Chi Epsilon, Civil Engineering Honor Society, 1999-2000 Marshall, Member	1998-2000
American Society of Civil Engineers (ASCE), Member	1996-Present
Delta Sigma Theta Sorority, Inc., Mu Pi Chapter, 1999-2000 President, Member	1998-Present
National Society of Black Engineers (NSBE), Torchbearer, Member	1996-2002
University of Delaware, Resources to Insure Successful Engineers (RISE) Program	1996-2000

GRADUATE ADVISING & MENTORING

University of Delaware (2018-Present)

A. Post-doctoral Research Associates

1. Hasan Ulus, PhD, March 2023–March 2024, co-mentored with S. Advani, Dept. of Mechanical Engineering
2. Alemu Legese, PhD, October 2024 – present

B. Doctoral (PhD) Advisees & Graduates

1. Wael Aloqaily, MCE, University of Delaware, 2019; Graduated: August 2023
2. Shaymaa Obayes, MCE, University of Delaware, 2017; Graduated: August 2024
3. Sajjad Safari, MS, University of Tehran, 2018; Expected Graduation: August 2025
4. Piero Caputo, MS, Utah State University, 2018; Expected Graduation: August 2026

C. Master's Thesis Advisees & Graduates

1. Tyler Dennis, BCE, University of Delaware, 2017; Graduated: August 2022
2. Luke Timber, BS, Lafayette College, 2017; Graduated: August 2022
3. Tyler DuBose, BCE, University of Delaware, 2020; Graduated: August 2022
4. Qozeem Abiona, BS, University of Ilorin, Nigeria; Graduated: May 2024
5. Waqas Iqbal, MS, National University of Sciences & Technology (NUST), 2016; Graduated: August 2024
6. Kenneth "KJ" Olsen, BCE, University of Delaware, 2023; Expected Graduation: May 2025
7. Jeremiah Dzeble, BS, Kwame Nkrumah University of Science & Technology (KNUST), 2021; Expected Graduation: August 2026

Morgan State University [MSU] & Texas A&M University [TAMU] (2007-2018)

A. Post-doctoral Research Associates (MSU)

1. Mehdi Shokouhian, PhD, June 2015 – January 2018 (now tenured Associate Professor at Morgan State University as of March 2023).
2. Renee Oats, PhD, January 2018 – May 2018.

B. Doctoral Advisees (MSU & TAMU)

1. Siafa Grose, D. Eng., Graduated: Fall 2017, Morgan State University
2. Isaac Mason, D. Eng., Graduated: Spring 2017, Morgan State University
3. Steve Efe, D. Eng., Graduated: Spring 2016, Morgan State University
4. Shobeir Pirayeh Gar, PhD, Graduated: Spring 2012, Texas A&M University
5. Vahid Bisadi, PhD, Graduated: Fall 2012, Texas A&M University

C. Master of Science (MS) Thesis Advisees (TAMU)

1. Jose C. Medina, MS, CE, Graduated: Fall 2011
2. Hai Nguyen, MS, CE, Graduated: May 2010
3. Yi-Te Tsai, MS, CE, Graduated: Summer 2009
4. Thomas Mander, MS, CE, Graduated: Summer 2009
5. Siddharth Srivastava, MS, CE, Graduated: Fall 2008

D. Master of Engineering (MEN) Advisees (Non-Thesis; MSU & TAMU)

1. Derek Riley, MEN, CE, MSU, Graduated: December 2018
2. Monique Hart, MEN, CE, MSU, Graduated: December 2018
3. Akeem Stephenson, MEN, CE, MSU, Graduated: May 2018
4. Nathaniel Gant, MEN, CE, MSU, Graduated: May 2017
5. Krystal Payton, MEN, CE, MSU, Graduated: May 2017
6. Dwight Higgs, MEN, CE, MSU, Graduated: May 2017
7. Chante' Nelson, MEN, CE, MSU, Graduated: May 2015
8. Ryan Wright, MEN, CE, MSU, Graduated: December 2013

9. Gareth Adams, MEN, CE, MSU, Graduated: Spring 2012
10. Robert Matthew Miller, MEN, CE, MSU, Graduated: Fall 2012
11. Anil Chunchu, MEN, CE, TAMU, Graduated: Spring 2009
12. Paul Mostella, MEN, CE, TAMU, Graduated: Spring 2009

UNDERGRADUATE ADVISING & MENTORING

University of Delaware (2018-Present)

1. Andrew Margulis, Fall 2018 – Spring 2019, *BCE, University of Delaware*, 2019
2. Laurie Metzler, Fall 2019 – Spring 2020, *BCE, University of Delaware*, 2020
3. Jesus David Martinez, Summer 2019, visiting scholar from Colombia
4. David Bydalek, Summer 2019 – Spring 2020, *BCE, University of Delaware*, 2020
5. Victoria Dada, Summer 2020-present, *Visiting Scholar from Morgan State University*, 2021
6. Drew Huffer, Summer 2020, *UD Summer Scholars Program and Chair's Undergraduate Fellow*, 2021-2022; *BCE, University of Delaware*, 2022
7. Catherine "Catie" Carton, Fall 2021, *Chair's Undergraduate Fellow*, 2021-2022, *University of Delaware*, 2022
8. Chris Metzler, Spring 2022, *Chair's Undergraduate Fellow*, Spring 2022
9. Kenneth "KJ" Olsen, *CIAMTIS REU Program (Summer 2021) and Chair's Undergraduate Fellow*, 2021-present, *BCE, University of Delaware*, 2023
10. Madison Gac, *UD Summer Scholars Program (Summer 2021) and Chair's Undergraduate Fellow*, 2021-present, *BCE, University of Delaware*, 2023
11. UD Honors Senior Thesis, 3rd Reader: Yin Zou, Katie Buell-Fleming, and Lily Peterson (College of Engineering), 2022
12. Spencer Toth, *Chair's Undergraduate Fellow*, Summer and Fall 2022
13. Jonathan Rosado, Summer 2022, *RISE Summer Undergraduate Experiential Learning Opportunity, Bachelor of Mechanical Engineering, University of Delaware*
14. Matthew Albanese, Spring 2023, *Undergraduate Researcher, BCE, University of Delaware*
15. Adriana Mercado Cruz, *NSF REU UD Program (Summer 2023), BS, University of Puerto Rico-Mayagüez*
16. Annabelle Dorsett, Spring 2023 & Spring 2024, *Chair's Undergraduate Fellow, BCE, University of Delaware*
17. Ryan McMahon, Winter 2024-Spring 2024, *Chair's Undergraduate Fellow, BCE, University of Delaware, UD Honors Senior Thesis, 3rd Reader*
18. Seth Reynolds, Fall 2024 & Spring 2025, *Chair's Undergraduate Fellow (24F), BCE, University of Delaware*
19. Collin Nolan, Winter 2025-Spring 2025, *Chair's Undergraduate Fellow (25W), BCE, University of Delaware*
20. Ella Vandervort, Winter 2025, *Undergraduate Researcher, BEE, University of Delaware*

Morgan State University [MSU] & Texas A&M University [TAMU] (2007-2018)

1. Gabriel Upton, *Morgan State University*, Fall 2016-Fall 2018
2. Matthew Thompson, *Morgan State University*, Summer 2018-Fall 2018
3. William McLennan, *Morgan State University*, Fall 2014-Fall 2016
4. Emmanuel Chinaka, *Morgan State University*, Fall 2014-Fall 2016
5. Jerrell Drumgoole, *Morgan State University*, Spring 2014 – Summer 2014
6. Oladapo Lajubutu, *Morgan State University*, Fall 2013
7. Ebony Ashby-Bey, *Morgan State University*, Spring 2013-Fall 2013
8. Ajibola Dehinbo, *Morgan State University*, Summer 2013 – 2014
9. Emani Evans, *Morgan State University*, Fall 2012 – Spring 2015
10. Akeem Stephenson, *Morgan State University*, Fall 2012 – Spring 2016
11. Monique Hart, *Morgan State University*, Fall 2012 – Spring 2016
12. Kyle Edmonds, *Morgan State University*, Fall 2012 – 2014
13. Tyrone Hansboro, Jr., *Morgan State University*, Fall 2012 – 2014
14. Oluseyi Emiola, *Morgan State University*, Spring 2013
15. Alemante DeJane, *Morgan State University*, Spring 2013
16. Camille Smith, *Morgan State University*, Fall 2012 – Spring 2013

17. Rodney Price, *Morgan State University*, Fall 2012 – Spring 2013
18. Adebawale Adegboyega, *Morgan State University*, Spring 2012 – Fall 2012
19. Ronecia Bell, *Morgan State University*, Spring 2012
20. Huy Nguyen, *Texas A&M University*, Fall 2010 – Spring 2011
21. Kosieme Okafor, *Texas A&M University*, Spring 2009 – Fall 2011
22. Bobby Logan Hancock, *Angelo State University*, Summer 2009

Visiting Scholars from the Universidad Michoacana de San Nicolas de Hidalgo, México

1. Gustavo Raya Paniagua, MS Student, July – August 2013
2. Betsy Cortes Mondragon, MS Student, July – September 2013
3. Heriberto Puga Juarez, MS Student, July – September 2013

PROFESSIONAL RESEARCH AND TEACHING DEVELOPMENT WORKSHOPS

- Winter 2011 Online Course Development Design Workshop, *Morgan State University*, Academic Affairs, December 2011-January 2012, Baltimore, MD.
- TransOvation 2011, *American Road and Transportation Builders Association (ARTBA)*, September 6-9, 2011, Lansdowne Resort & Conference Center, Leesburg, VA.
- Center for Teaching Excellence (CTE) *Teaching Portfolio* by Jean Layne on February 2, 2010.
- *Texas A&M University*, Writing Syllabi that Engage and Motivate Students, Center for Teaching Excellence (CTE), January 13, 2010.
- *reBOOT Camp 2009*, Instructional Technology Services, TAMU, Hands-on Open Lab Day 4, August 13, 2009, 004 Heldenfels Hall, College Station, TX.
- *reBOOT Camp 2009*, Instructional Technology Services, TAMU, Student Response Systems aka Clickers, August 13, 2009, 004 Heldenfels Hall, College Station, TX.
- *National Science Foundation*, CAREER Grant Writing Workshop, March 11-13, 2009, Arlington, VA.
- *American Society of Civil Engineers (ASCE)*, Excellence in Civil Engineering Education (ExCEED) Teaching Workshop 2008, July 23-28, 2008, West Point, NY.
- *National Science Foundation*, Grant Writing Workshop 2, February 25-26, 2008, Arlington, VA.
- *Texas A&M University*, Inspiration 103: The Faculty Teaching Academy, Center for Teaching Excellence, September 2007 - March 2008.
- *Texas A&M University*, Center for Teaching Excellence: One-Week Program on Research and Teaching, January 3-10, 2008.
- *Texas A&M University*, Semester-long Craft of Grant Writing Workshop, Office of Proposal Development, September-December 2007.
- *Texas A&M University*, The Craft of Grant Writing, Office of Proposal Development, August 17, 2007.
- *Texas A&M University*, Writing Syllabi that Engage and Motivate Students, Center for Teaching Excellence (CTE), August 7, 2007.

LABORATORY TRAINING & TECHNICAL WORKSHOPS

- *NSF NHERI RAPID Workshop*, University of Washington, Washington, July 25-29, 2022.
- *2021 Joint NSF NHERI Wall of Wind and Lehigh RTMD Experimental Facility User Zoom Workshop* (virtual), February 25-26, 2021.
- *NSF ufnHERI Workshop*, Opportunities in Natural Hazards Research, University of Florida, NSF Workshop at the University of Florida, Gainesville, FL, December 13, 2018.
- *NSF NHERI RAPID Workshop*, Virginia Tech Research, Virginia, April 17, 2018.
- *NSF NHERI Researchers Workshop*, Advanced Simulation for Natural Hazards Mitigation, Lehigh University, December 5-6, 2016.
- *NSF NEES Quake Summit 2013*, Hybrid Simulation Workshop, Reno, Nevada, August 5-7, 2013.
- *Portland Cement Association (PCA)*, 2007 Bridge Professors' Seminar, August 2-3, 2007.
- *Georgia Institute of Technology*, Mentoring Undergraduate Researchers: A Workshop for Faculty, Post-Docs, and Graduate Students, January 23, 2007.

- *University of Minnesota*, George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) Program of NSF, *NEES@MAST* Proposal Writer's Workshop, January 4, 2007.
- *NEES@UTexas On-line Workshop*, George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) Program of the National Science Foundation (NSF), On-line Training Workshop on Dynamic Field Testing using Large-scale Shakers, November 2, 2006.
- *Highway Bridge Seismic Retrofitting Workshop*, sponsored by MCEER and the Federal Highway Administration, San Mateo, CA, September 17, 2006.
- *University of Illinois at Urbana Champaign*, George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) Program of NSF, Training Day on Practical Multi-Platform Hybrid Simulation, April 3-4, 2006.
- *University of California at Berkeley*, George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES) Program of the National Science Foundation (NSF), Hybrid Simulation Training using the nees@berkeley hardware and OpenSees software, April 24-25, 2006.