

MONIQUE HITE HEAD, PhD

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PROFILE

Monique Head, PhD, is a tenured Associate Professor and Associate Chair of the Department of Civil & Environmental Engineering at the University of Delaware. Dr. Head has more than 13 years of experience in higher education at both research and teaching-intensive institutions. Dr. Head specializes in bridge and earthquake engineering to solve problems related to: 1) seismic-resistant design and retrofit of reinforced concrete structures, 2) bridge load testing evaluation using digital image measurements, and 3) evaluating composite and advanced materials to enhance structural performance. Her technical contributions also include refining structural design methodologies validated by large-scale experimental testing with particular focus on concrete structures reinforced internally and strengthened externally with composite materials for strengthening and repair. She publishes in top-tier civil engineering and serves in leading roles within the Transportation Research Board (TRB) *Seismic Design and Performance of Bridges Committee* and on the editorial board for American Society of Civil Engineers (ASCE) *Practice Periodical of Structural Design and Construction*. She is also an affiliated member of the University's Center for Innovative Bridge Engineering (CIBrE) and Delaware Center for Transportation (DCT). She has received several awards including an *Outstanding Alumni Achievement Citation* from the University of Delaware, Department of Civil and Environmental Engineering and *Outstanding Educator of the Year*, American Society of Civil Engineers (ASCE), Maryland Section.

HIGHLIGHTS – Significant Accomplishments, Leadership and Recognition

University of Delaware, Newark, DE (2018-Present)

- **2020**—Nominated to serve as a Co-Chair for the 2021 Earthquake Engineering Research Institute (EERI) Virtual Annual Meeting, March 23-25, 2021.
- **2020**—Selected to serve on the American Society of Civil Engineers (ASCE) Structural Engineering Institute (SEI) Board of Governors Level Task Committee
- **2020**—Associate Chair, Department of Civil and Environmental Engineering (as of July 1, 2020)
- **2019**—Chair of the Civil Engineering Undergraduate Committee with the main charge of determining how to revamp the senior design capstone experience
- **2019**—Developed new co-curricular material with a colleague to restructure CIEG301/396 into 1 combined course as part of the new curriculum for civil, environmental and construction engineering and management students within the Department; received a mini-grant for this work and producing related publications
- **2018-2019**—Reinstated the structures graduate seminar course, CIEG865-010, and assisted with restructuring the CIEG865 with colleagues to provide all graduate students (~70) within the Department of Civil & Environmental Engineering with unique professional development and career preparation

Morgan State University, Baltimore, MD (2011-2018)

- **2017-2018**—Provided leadership and strategic planning for ~1400 students and more than 40 faculty as Associate Dean of Research and Graduate Studies to increase graduate enrollment and acquisition of external grants and contracts for research and training; NSF submissions increased from 8% to 44% in 2018 alone and initiated partnership for Morgan State University to become a GEM University
- **2014-2018**—Increased recruitment and retention of underserved populations in STEM (undergraduate and graduate students, postdoctoral associates and faculty), especially women in engineering, via scholarships obtained from competitive grants like the Thurgood Marshall College Fund and Clare Boothe Luce Program
- **2014**—Supervised and managed more than 3,000 sq. ft of structures laboratories with specialized equipment including a 6 degree-of-freedom (6DOF) shake table at Morgan State University
- **2014**—Awarded University of Delaware, Department of Civil & Environmental Engineering, Citation for Outstanding Alumni Achievement and American Society of Civil Engineers (ASCE), Maryland Section, *Outstanding Educator of the Year*

- **2012**—Established the Green Transportation Infrastructure Center (GTIC) at Morgan State University, which is part of a \$42.5M initiative for the Region 3 University Transportation Center (USDOT) with Penn State (lead institution) to improve the nation's infrastructure (USDOT funding, 2018-2023)

EDUCATION

Georgia Institute of Technology, Atlanta, Georgia

Ph.D. in Civil (Structural) Engineering, **May 2007**

Evaluation of the Performance of Bridges Elevated with Steel Pedestals

Minor: Seismology

University of Delaware, Newark, Delaware

M.S. in Civil Engineering, **May 2002**, *Modeling the Nonlinear Behavior of Woodframe Shear Walls*

University of Delaware, Newark, Delaware

B.S. Civil Engineering, **May 2000**

Universidad de Granada, Spain, Spanish Foreign Language Certificate (1998) – Proficient in Spanish

Chi Epsilon, Civil Engineering Honor Society (1998) & Engineer-in-Training (EIT), Delaware (2000)

Higher Education Resource Services (HERS) Leadership Institute for Women

Inclusive Excellence Scholarship Recipient/Luce Program Participant, Bryn Mawr, PA, **June 2017**

Associate Director of Luce Program, Denver, CO, **June 17-29, 2018**

HONORS AND AWARDS

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| Transportation Research Board (TRB) AKB50 Committee Chair, Seismic Design and Performance of Bridges, Nominee (results announced by January 2021) | 2020 |
| ADVANCE Women @UD Leadership Program | 2020 |
| Women of Promise Faculty Mentor, University of Delaware | 2019 |
| Outstanding Mentor Award, Washington Baltimore Hampton Roads Louis Stokes Alliance for Minority Participation (LSAMP), 2016 Summer Research Symposium | 2016 |
| Advisor of the Year Award, SOS Stars Awards Banquet, Morgan State University | 2016 |
| ASCE, SEI-MD, Speaker for September 1, 2015 Meeting | 2015 |
| Outstanding Alumni Achievement Citation, University of Delaware, Department of Civil and Environmental Engineering | 2014 |
| ASCE, Maryland Section, <i>Outstanding Educator of the Year</i> | 2014 |
| ASCE Annual Student/Faculty Banquet, Guest Speaker | 2013 |
| MSU Research and Economic Development, Faculty Researcher Highlight | 2013 |
| MSU Research and Economic Development, Faculty Researcher Special Recognition | 2013 |
| MSU <i>Morgan Innovation Day</i> , Presenter | 2012 |
| MSU <i>Online Course Development</i> , Certified Teacher (Quality Matters) | 2012 |
| ASEE DuPont Minorities in Engineering Award Nominee | 2012 |
| NEES/E-Defense Young Investigator Travel Incentive | 2007 |
| Georgia Tech Graduate Woman of Distinction Nominee | 2006 |
| Office of Naval Research (ONR) Doctoral Fellowship | 2004-2007 |
| NSF Facilitating Academic Careers in Engineering and Science (FACES) Fellowship | 2003-2007 |
| NSF Facilitating Academic Careers in Engineering and Science (FACES) Teaching Practicum | 2005 |
| National Consortium for Graduate Degrees for Minorities (GEM) in Engineering Fellowship | 2002-2003 |
| 4th Annual Georgia Tech Graduate Technical [GT] ² Symposium, 3rd place oral presentation | 2006 |
| Ford Fellowship for Minorities Honorable Mention | 2003 |
| Engineer-in-Training (EIT), Certified Engineer Intern, State of Delaware | 2000 |
| University of Delaware Presidential Fellowship, Graduate Assistant, Dean's List | 2000-2002 |
| University of Delaware Academic Award | 1996-2000 |

Book Chapter

- **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

22. *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.
21. 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.
20. *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.
19. **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.
18. 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.
17. *Efe, S., **Shokouhian, M., **Head, M.**, and *Chinaka, E. (2017). "Numerical Study on the Cyclic Response of AFRP Reinforced Column with Externally Unbonded Energy Dissipaters," *Structure and Infrastructure Engineering*, 14(2), 2018: 218-231.
16. **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>.
15. *Pirayeh Gar, S., Mander, J., **Head, M.**, and Hurlebaus, S. (2014). "FRP Slab Capacity Using Yield Line Theory," *J. Compos. Constr.*, 18(6).
14. *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).
13. *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>.
12. *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).
11. *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>.
10. *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).
9. *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).
8. *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>.
7. *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).

6. *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.
5. *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.
4. *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.
3. *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.
2. *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.
1. **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

3. **Head, M.**, Pathak, R., Muthukumar, S., and Mackie, K. (2016). "Challenging Issues When Conducting Nonlinear Seismic Analysis," *Structure Magazine*, March.
2. **Head, M.**, Dennis, S.,* Muthukumar, S., Nielson, B., and Mackie, K. (2014). "Nonlinear Analysis in Modern Earthquake Engineering Practice," *Structure Magazine*, March.
1. 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

10. 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.
9. **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.
8. **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.
7. **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.
6. *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://d2dtl5nnlpfr0r.cloudfront.net/swutc.tamu.edu/publications/technicalreports/600451-00009-1.pdf>.
5. 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>.

4. 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>.
3. **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.
2. 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.
1. Faghri, A., **Hite, M.**, and Hehman, D. (1999). "Speed measurements and vehicle classification, Delaware Center for Transportation Project DTI #113, May 1999.

Conference Proceedings

32. 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 (Accepted)," *ASCE SEI Structures Congress 2019*, Orlando, Florida, April 25-27, 2019.
31. 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.
30. 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.
29. *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.s04pnZqf.dpuf>.
28. 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.
27. 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.
26. 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.
25. *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.
24. *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.
23. *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.
22. *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.
20. *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.
20. *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.
19. **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.
18. 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.

17. **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.
16. *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.
15. *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>.
14. *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.
13. **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.
12. *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.
11. *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.
10. 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.
9. *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.
8. *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.
7. *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.
6. *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.
5. 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>.
4. **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.
3. **Hite, M.** and *S. Srivastava (2008). "Assessment of Seismic Retrofit Measures for Bridge Bearings," *Proceedings*, ASCE Structures Congress 2008, Vancouver, British Columbia, April 2008.
2. *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.
1. *Tsai, Y. and **M. Hite** (2008). "Stopper-Bearing System: A Solution to Displacement Control of Bridge Decks," *Proceedings*, PCI NBC 2008, October 2008.

Oral Presentations

26. **Head, M.** (2018). "AFRP Reinforced Columns with Replaceable Structural Fuses as Energy Dissipaters under Cyclic Loading," *Chi Epsilon National Civil Engineering Honor Society Conclave*, March 15, 2018, University of Texas at Arlington, Arlington, TX.

25. **Head, M.** (2015). "Stainless Steel Prestressing Strands and Reinforcing Bars for Use in Concrete Structural Elements," *Maryland State Highway Administration (SHA)*, October 8, 2015, Baltimore, MD.
24. **Head, M.** (2015). "Durability Assessment of Prefabricated Bridge Elements and Systems," *Maryland State Highway Administration (SHA)*, October 8, 2015, Baltimore, MD.
23. **Head, M.** (2015). "Experimental Performance of AFRP Concrete Bridge Deck Slab with Full-Depth Precast Prestressed Panels," *ASCE SEI-MD Meeting*, September 1, 2015, Baltimore, MD.
22. 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.
21. **Head, M.** (2014). "Earthquake Engineering Research Activities," *Annual TRB Meeting 2015*, Washington, DC, January 14, 2014.
20. **Head, M.** (2013). "STEM: Balls and Tracks," *Johns Hopkins University*, September 7, 2013, Baltimore, MD.
19. 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.
18. Bisadi, V., **Head, M.**, and Gardoni, P. (2013). "Effect of Modeling Assumptions on the Seismic Response of Concrete Bridges," *2013 Structures Congress*, May 2-4, 2013, Pittsburgh, PA.
17. **Head, M.** and Atnafou, R. (2013). "STEM Using Inquiry Methods and Fun to Ignite Science Interest and Build Skills," *Maryland Out-of-School Time (MOST)*, Annapolis, MD.
16. **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.
15. **Head, M.** (2011). "Reality Check: A Snapshot of Nonlinear Seismic Analysis in Practice," *ASCE Structures Congress 2011*, Las Vegas, Nevada, April 2011.
14. *Gar, S.P., **Head, M.** and Hurlebaus, S. (2011). "Experimental Evaluation of Deflection in Prestressed AFRP-reinforced concrete beams," *ASCE Structures Congress 2011*, Las Vegas, Nevada, April 2011.
13. *Mander, T., Mander, J. and **Hite Head, M.** (2010). "Strength Analysis and Design of Precast Bridge Decks with Full-Depth Precast Overhang Panels," *Proceedings*, 2010 International Bridge Engineering Conference (IBEC), San Antonio, Texas, December 2010.
12. *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.
11. **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.
10. *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.
9. 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.
8. *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.
7. **Hite, M.**, *Srivastava, S., DesRoches, R., and Leon, R. T. (2008). "Effects of Near-field Earthquakes on Bridges with Tall Bearings," *Proceedings of the 6th National Seismic Conferences on Bridges and Highways*, Charleston, SC, June 2008.
6. **Hite, M.** and *S. Srivastava (2008). "Assessment of Seismic Retrofit Measures for Bridge Bearings," *Proceedings*, ASCE Structures Congress 2008, Vancouver, British Columbia, April 2008.
5. **Hite, M.**, DesRoches, R., and Leon, R. T. (2006). "Evaluation of the Performance of Bridge Steel Pedestals under Seismic Loads," *ASCE Structures Congress 2006*, St. Louis, MO, May 2006.
4. **Hite, M.**, DesRoches, R., and Leon, R. T. (2006). "Seismic Performance of Bridge Steel Pedestals," *Georgia Tech Graduate Technical [GT]² Symposium*, Atlanta, GA, March 2006.
3. **Hite, M.**, DesRoches, R., and Leon, R. T. (2005). "Preliminary Investigation of Steel Bridge Pedestals under Low Seismic Loads," *Georgia Tech Graduate Technical [GT]² Symposium*, Atlanta, GA, March 2005.

2. **Hite, M.** and Shenton, III, H. (2002). "Modeling the Nonlinear Behavior of Wood Frame Shear Walls," *2002 Engineering Mechanics Conference*, Columbia University, New York, June 2002.
1. **Hite, M.**, Naito, C., and Mosalam, K. (1998). "Analysis of Spiral Reinforced Concrete Beam-column Joints," *SUPERB Program closing session*, Berkeley, CA, July 1998.

Poster Presentations

16. *Efe, S. and **Head, M.** (2014). "Structural Behavior and Response Analysis of Aramid Fiber-Reinforced Polymer Reinforced Bridge Columns under Combined Loading," *10th US National Conference on Earthquake Engineering*, Anchorage, Alaska, July 2014.
15. *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.
14. *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.
13. *Efe, S., *Grose, S., and **Head, M.** (2014). "PBES Beyond Design: A Case Study of Quality Assurance and Quality Control for Bridge Construction," *Maryland Quality Initiative Annual Conference*, Baltimore, Maryland, February 2014.
12. *Edmonds, K. and **Head, M.** (2014). "Stainless Steel Prestressing Strands and Bars for Use In Prestressed Concrete Slabs and Girders," *Maryland Quality Initiative Annual Conference*, Baltimore, Maryland, February 2014.
11. *Hansboro, T. and **Head, M.** (2013). "High-Performance Green Bridges," *Morgan State University, School of Engineering Open House*, April 3, 2013.
10. *Hansboro, T., *Edmonds, K., *Evans, E. and **Head, M.** (2013). "Enhancing Sustainability with High-Performance Green Bridges," *Morgan State University, 2013 Earth Day (3rd place-poster)*, April 22, 2013.
9. **Head, M.**, Owolabi, O. and James, P. (2013). "Comparative Assessment of Student Performance when Using Online Homework Tools in an Undergraduate Engineering Mechanics Course," *Proceedings*, 2012 ASEE Annual Conference & Exposition, Atlanta, GA, June 10-13, 2012.
8. *Medina, J., **Head, M.** and Hurlebaus, S. (2011). "Long-term Performance Evaluation of Beams Prestressed with Aramid Fiber Reinforced Polymers," *ASCE Structures Congress 2011*, Las Vegas, Nevada, April 2011.
7. *Bisadi, V. and **Head, M.** (2010). "Comparative Performance of Elastomeric Bearings and Steel Pedestals Subjected to Low Seismic Demands," *2010 EERI Annual Meeting*, 62nd Annual Meeting, San Francisco, California, February 2010.
6. *Hancock, B.L. and **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.
5. *Hancock, B.L. and **Head, M.** (2009). "Finite Element Analysis of Bridge Steel Pedestal Anchor Bolts in Reinforced Concrete," *TAMU USRG poster presentation*, August 2009.
4. **Hite, M.**, R. DesRoches, and R. Leon (2006). "Analysis of Bridges with Tall Steel Bearings," *ASCE Structures Congress 2007*, Long Beach, California, May 2007.
3. **Hite, M.**, R. DesRoches, and R. Leon (2006). "Performance-based Seismic Design Criteria for Bridge Steel Pedestals," *EERI 2007 Annual Meeting*, Los Angeles, California, February 2007.
2. **Hite, M.**, R. DesRoches, and R. Leon (2006). "Analytical Investigation of the Seismic Performance of Multi-span Bridges Rehabilitated with Steel Pedestals," *First European Conference for Earthquake Engineering and Seismology*, Geneva, Switzerland, September 2006.
1. **Hite, M.**, R. DesRoches, and R. Leon (2006). "Experimental Evaluation of Bridge Steel Pedestals under Seismic Loads," *8NCEE National Conference for Earthquake Engineering*, San Francisco, California, April 2006.

Invited Presentations

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), 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.

MEDIA COVERAGE

Head, M. (2017). *Infrastructure of the Future*. TEDxTowsonU. https://www.youtube.com/watch?v=dCh9D_h4lkw.

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

- University of Delaware Research Foundation (UDRF), *Dynamic plant monitoring to inform structural design models*, PI: E. Sparks and **M. Head**, co-PI, **\$45,000**, 01/01/20 – 12/31/20.
- University of Delaware, Center for Teaching and Assessment of Learning, *Development of practical case studies into an existing structural analysis course*, PI: **M. Head**, 06/01/2019 – 05/31/2020, Instructional Grant, **\$5,000**.
- 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**, 02/01/20 – 1/31/2021.
- Delaware Department of Transportation (DelDOT), *Bonding of Overlays to Ultra-High Performance Concrete*, PI: J. Tatar and co-PIs: P. Mondal and **M. Head**, **\$98,743**, 02/01/20 – 01/31/2021.
- 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**, 02/01/20 – 01/31/2021.
- USDOT, *Center for Integrated Asset Management for Multi-modal Transportation Infrastructure Systems (CIAMTIS): Region 3 University Transportation Center*, University Core Funding at the University of Delaware, Awarded March 2019, "Design of Fiber Anchors for Rapid and Durable Strengthening of

Bridges with Externally Bonded Carbon Fiber Reinforced Polymers," **PI: M. Head** and co-PI: J. Tatar, **\$69,446**, 02/01/2019 – 07/31/2020.

- 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: P. Mondal (UD), **co-PI: M. Head (UD)**, and co-PI: F. Rajabipour (Penn State), **\$116,668**, 03/18/2019 – 03/18/2021.
- 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-PIs: H. Shenton and M. Chajes (UD), and co-PI: D. Lattanzi (George Mason University), **\$110,747**, 03/18/2019 – 03/18/2021.

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

- NIST PREP, Collaboration with Johns Hopkins 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 now 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 now 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), *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.
- NSF ARRA-BRIGE, *Performance-based Design of Concrete Beams and Slabs Prestressed with Aramid Fiber Reinforced Polymer Tendons*, Awarded September 2009-August 2012, PI: **M. Head**, \$175K.
- 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 Roesset (Co-PI), and Stefan Hurlebaus (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.

ADMINISTRATIVE AND FULL-TIME ACADEMIC APPOINTMENTS

Associate Chair, University of Delaware (UD), Department of Civil & Environmental Engineering, Newark, DE, August 2018 – Present

- Lead the Undergraduate Committee overseeing curriculum revision, undergraduate recruiting, and advising.
- Serve as the point of contact for interaction with other undergraduate programs in the University and the College of Engineering, and for the College and University for matters involving the Civil and Environmental Engineering undergraduate programs.
- Enhance alumni relations.

Associate Professor, University of Delaware (UD), Department of Civil & Environmental Engineering, Newark, DE, August 2018 – Present

- Lead research projects and advise researchers as a faculty member affiliated with the *Center for Innovative Bridge Engineering* (CIBrE) and University Transportation Center (UTC), Region 3 (US DOT): Mid-Atlantic Center for Integrated Asset Management for Multi-Modal Transportation Infrastructure Systems (CIAMTIS), Consortium of seven universities based in the Mid-Atlantic region including: Penn State Altoona, Lehigh University, George Mason University, Morgan State University, University of Delaware, Virginia Tech, and West Virginia University
- Teach undergraduate and graduate courses in structural and bridge engineering using active learning techniques and problem-based learning approaches to engage students

Associate Dean of Research and Graduate Studies, Morgan State University, School of Engineering (SOE), Baltimore, MD, January 2017 – August 2018

- Transformed underutilized space to create an Ideation Space (Phase I) and working with University Innovation Fellows (students) to design and implement a Makerspace (Phase II) housed within the School of Engineering, Clarence M. Mitchell Engineering Building
- Instituted a School of Engineering Lecture Series for 2017-2018 to promote faculty interaction, support dissemination of research, encourage collaboration and external partnerships
- Collaborated with industry to negotiate funding opportunities for research as well as student internship partnerships
- Streamlined efforts to reinstate Morgan State University as a GEM participating university, and serve as the official GEM University Representative
- Spearheaded and organized 1st GEM Grad Lab to be held at Morgan State from March 2-3, 2018
- Increased funding (more than \$300K) for University-wide scholarships secured through grant writing efforts to financially support more women in science and engineering at Morgan State University
- Organized and supported professional development activities for engineering students, especially women, to increase retention and graduation rates
- Nominated to serve on the Board of Directors for the Engineering Research Council (ERC) within the American Society for Engineering Education (ASEE), 2018

Associate Professor, Morgan State University, Department of Civil Engineering, Baltimore, MD, July 2014 – August 2018

- Assisted civil engineering students to charter a Chi Epsilon Civil Engineering Honor Society Chapter, making Morgan State to be the 1st and only HBCU to have a chapter
- Built a community of undergraduate and graduate scholars/researchers who are fully funded to partake in cutting-edge research to solve hard structural engineering problems

- Trained and taught students how to utilize laboratory equipment including a 6 degree-of-freedom (DOF) seismic simulator and other Instron equipment
- Managed and facilitated research projects related to bridge engineering and large-scale experimental testing of bridge elements using advanced materials
- Published high quality technical papers appearing in leading journals and conference proceedings
- Directed and served as primary advisor on senior projects, thesis and dissertation committees
- Disseminated research findings on a national and international level
- Advised undergraduate students on which classes to take, future outlook and career paths
- Assisted civil engineering students with finding internships, co-ops and other service learning opportunities via Blackboard (Bb)
- Taught undergraduate and graduate courses in structural and bridge engineering
- Led and managed search committees for staff and contractual positions within the Department
- Served on tenure and promotion committees for the Department of Civil Engineering and the School of Architecture and Planning at Morgan State University
- Appointed to serve on University search committee to hire a new Vice President for Research

Assistant Professor, Morgan State University, Department of Civil Engineering, Baltimore, MD, August 2011-June 2014

- Taught CEGR 749 – *Earthquake Engineering* (graduate), CEGR 628 – *Bridge Engineering* (graduate), CEGR 631 – *Structural Dynamics* (graduate), CEGR 304 – *Engineering Mechanics* (undergraduate) and CEGR 106 (team-taught) – *Introduction to Civil Engineering* (undergraduate)
- Developed a cross-listed undergraduate and graduate course under CEGR 498/790 – *Introduction to Research in Civil Engineering* to engage students in research and build a community of researchers
- Advised a community of undergraduate and graduate scholars/researchers to foster and promote "research as a culture" at Morgan State University
- Led state and federal funding opportunities by writing transformative and innovative research proposals and forming strong collaborations with state and federal agencies (secured >\$0.5M in 2 years)
- Managed and facilitated research projects in the area of bridge engineering and large-scale experimental testing of bridge elements using prestressed with aramid fiber reinforced polymer (AFRP) bars
- Published high quality technical papers appearing in leading journals and conference proceedings
- Directed and served as primary advisor on senior projects, thesis and dissertation committees (CEGR 490, 491, 492, 493, 795, 796, 997, and 998)

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

- Conducted cutting-edge research in the areas of earthquake and bridge engineering, innovative experimental testing of structures complemented by performance-based design and analysis, and seismic retrofitting of bridges, resulting in high quality technical papers
- Competitively secured research grants to manage more than \$0.5M of funded research projects within just 2 years from both state and federal agencies
- Led research projects and supervised students as principal investigator for projects such as NSF Project 0927333: *Performance-Based Design of Concrete Beams and Slabs Prestressed with Aramid Fiber Reinforced Polymer Tendons*, and a TAMU-CONACYT project on *Applying Optimal Decision-making Using Risk and Reliability-based Criteria for Bridge Maintenance in Mexico and United States*
- Developed graduate course materials for CVEN 656 – *Bridge Engineering* and implemented clicker technology for CVEN 207 – *Introduction to the Civil Engineering Profession* course to engage students and promote active learning
- Taught CVEN 207 – *Introduction to the Civil Engineering Profession* (undergraduate), CVEN 345 – *Theory of Structures* (undergraduate), CVEN 444 – *Structural Concrete Design* (undergraduate), CVEN 656 – *Bridge Engineering* (graduate)

Graduate Research Assistant, Georgia Institute of Technology, School of Civil & Environmental Engineering, Atlanta, Georgia, August 2002-May 2007

- Conducted component tests and full-scale quasi-static lateral load tests to evaluate the seismic performance of steel bridge pedestals that are used to increase the clearance height of bridges in Georgia

- Developed analytical model using experimental test results to provide best practices and recommendations for use of steel pedestals in regions of low-to-moderate seismicity for the Georgia Department of Transportation

ASEE Summer Faculty, US Naval Research Laboratory, Multifunctional Materials Branch, Washington, DC, May-August 2005 & January 2005

- Conducted modal hammer impact tests and blast analyses for a surrogate thoracic model used to measure the response of simulated bone and tissue stimulant
- Processed and analyzed data in MatLab to generate spectrograms and interpret responses in thoracic model that will assist medical personnel with diagnosis and treatment for blast injury mechanisms

Graduate Research Assistant, University of Delaware, Department of Civil & Environmental Engineering, Newark, Delaware, September 2000-May 2002

- Conducted experimental tests of nailed wood connections to define nonlinear behavior of connections
- Created finite element model to analytically investigate and define the nonlinear behavior of connections in wood frame shear walls subjected to lateral and vertical load using ANSYS

TEACHING INNOVATION

- CIEG 396 – Structural Analysis and Design: restructuring junior-level course to include both analysis and design using active learning classroom assessment techniques and unique case studies to enhance student learning and mastery of basic concepts based on practical structural design scenarios; awarded a grant by CTAL titled, "Development of practical case studies into an existing structural analysis course," to measure the effectiveness and document best demonstrated practices via evidence-based learning. **PI: M. Head, \$5,000, 07/01/2019 – 06/30/2020.**
- 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-present), University of Delaware, Department of Civil & Environmental Engineering, Newark, DE

- CIEG 301 – Structural Analysis and Design (Spring 2020)*, newly integrated analysis and design course for ALL civil engineering majors based on curricular development secured from a CTAL grant
- CIEG 396 – Structural Analysis and Design (Fall 2019), for construction engineering students only
- CIEG 865 – Civil Engineering Seminar: Structures (Spring 2019 and Fall 2019)
- 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

Associate Professor (2014-2018) and 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

Adjunct Assistant Professor (2012-Present), University of Maryland University College, Mathematics & Statistics

- MATH 009 – Introductory Algebra (Fall 2013, Spring 2014, Spring 2015, Fall 2015, Fall 2016, Spring 2017, Spring 2018, and Fall 2018)
- MATH 012 – Intermediate Algebra (Fall 2014 and Spring 2015)
- MATH 108 – Trigonometry & Analytical Geometry (Spring 2016)

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

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| National Science Foundation Panelist Reviewer (REU and CMMI Panels) | 2007-Present |
| Ford Foundation Fellowship, Panelist, <i>The National Academies of Sciences, Engineering, and Medicine</i> | 2019-Present |
| American Concrete Institute (ACI), Committee 440: <i>Fiber-Reinforced Polymer Reinforcement</i> , 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 |

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| 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 |
| Transportation Research Board, National Research Council, Committee on Seismic Design and Performance of Bridges, AFF50, Secretary 2013-Present | 2009-Present |
| American Society of Engineering Education (ASEE), Civil Engineering Division | 2010-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 |
| ASCE SEC Emerging Analysis Methods in Earthquake Engineering | 2008-2017 |
| Transportation Research Board, National Research Council, Committee on Structural Fiber Reinforced Polymers, AFF80, Member | 2011-2016 |
| American Society of Civil Engineers (ASCE) SEI Seismic Effects Committee (SEC) | 2007-2016 |
| ASCE SEC Large Scale Testing Subcommittee, 2007-08 Secretary | 2007-2009 |

EDITORIAL BOARDS AND AD-HOC JOURNAL REVIEWER

Associate and Review Editor

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| ASCE Practice Periodical of Structural Design and Construction, Associate Editor | 2019-Present |
| Frontiers in Built Environment (Bridge Engineering section), Review Editor | 2019-Present |

Ad-hoc Reviewer

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|---|--------------|
| 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 |
| Computer-Aided Civil and Infrastructure Engineering | 2007-Present |
| ASCE Journal of Structural Engineering | 2007-Present |

UNIVERSITY SERVICE

University of Delaware (2018-Present)

- Bill Anderson Fund Mentor, September 2019 – present
- Civil Engineering Undergraduate Committee Chair, September 2019 – present
- Undergraduate Diversity Committee, College of Engineering, September 2019 - present
- 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-Present.
- MSU *Department of Civil Engineering*, University Council Representative, Chair of Search Committee for Instructional Laboratory Associate and 2 Tenure-Track Faculty Positions, 2014-Present.
- Campus Advisor, Civil Engineering Honor Society (CEHS), 2013-Present.

- Campus Advisor, American Society of Civil Engineers (ASHE), 2014-Present
- MSU *School of Engineering*, University Council Representative, Chair of Ad-hoc Committee for Indirect Cost Rate Return, 2013-Present.
- 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-present.
- TAMU, *Engineering Living Learning Community (ELLC)* Seminar, November 28, 2007.

PROFESSIONAL ORGANIZATIONS

| | |
|---|--------------|
| ACI Committee 440, <i>Fiber-Reinforced Polymer Reinforcement</i> , Associate Member | 2019-Present |
| ACI Committee 440-0H, <i>Fiber-Reinforced Polymer Reinforcement</i> , Voting Member | 2019-Present |
| ACI Committee 343, <i>Concrete Bridge Design</i> , Associate Member | 2009-Present |
| V-LINC Board of Directors, Baltimore, MD, Board Member | 2018-2019 |
| American Society of Civil Engineers (ASCE), SEI Member | 1996-Present |
| American Society for Engineering Education (ASEE), Member | 2007-Present |
| <i>Nominated for Board of Directors, Engineering Research Council (ERC), 2018</i> | |
| ACI International – American Concrete Institute (ACI), Member | 2003-Present |
| National Association of Professional Women (NAPW) | 2015-2017 |
| 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 |
| American Institute of Steel Construction, Inc., Student Member | 2006-2007 |
| Georgia Tech Civil Engineering Graduate Women | 2006-2007 |
| Georgia Tech Black Graduate Student Association, 2003-04 Secretary, Member | 2002-2007 |
| Chi Epsilon, Civil Engineering Honor Society, 1999-2000 Marshall, Member | 1998-2000 |
| Delta Sigma Theta Sorority, Inc., Mu Pi Chapter, 1999-2000 President, Member | 1998-Present |
| National Society of Black Engineers (NSBE), Torchbearer, Member | 1996-Present |
| University of Delaware, Resources to Insure Successful Engineers (RISE) Program | 1996-2000 |

STUDENT ADVISING

University of Delaware (2018-Present)

A. Doctoral Committee Chairperson

1. Wael Aloqaily, began Fall 2019, *MS, University of Delaware*, 2019
2. Shaymaa Obayes, began Spring 2020, *MS, University of Delaware*, 2017
3. Sajjad Safari, beginning Spring 2021, *MS, University of Tehran*, 2018

B. Doctoral Committees

1. Muritala Adegoke (Chair: M. Shokouhian), Morgan State University, defended October 2020
2. Jubair Musazay (Chair: A. Zarembski), University of Delaware
3. Christos Aloupis (Co-chairs: H. Shenton and M. Chajes), University of Delaware

C. Master of Civil Engineering Chairperson

1. Tyler Dennis, began Summer 2019, *BCE, University of Delaware*, 2017
2. Luke Timber, began Fall 2019, *BS, Lafayette College*, 2017
3. Tyler DuBose, began Summer 2020, *BCE, University of Delaware*, 2020

D. Undergraduate Researchers & Visiting Scholars

1. Andrew Margulis, Fall 2018 – Spring 2019, *BCE, University of Delaware*, 2019
2. David Bydalek, Summer 2019 – Spring 2020, *BCE, University of Delaware*, 2020
3. Jesus David Martinez, Summer 2019, visiting scholar from Colombia
4. Laurie Metzler, Fall 2019 – Spring 2020, *BCE, University of Delaware*, 2020
5. Drew Huffer, Summer 2020, *UD Summer Scholars Program*

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

A. Doctoral Committee Chairperson

1. Siafa Grose, *Connection Design of Prefabricated Bridge Elements and Systems Using AFRP Bars*, Civil Engineering (CE), MSU, D. Eng. **Graduated**: Fall 2017, **M. Head** (Chair); Adjunct Lecturer at Morgan State University.
2. Isaac Mason, *Modeling and Design of Bridge Piles Reinforced with Aramid Fiber Reinforced Polymer (AFRP) Bars and Subjected to Simulated Seismic and Wave Loads*, Civil Engineering (CE), MSU, D. Eng. **Graduated**: Spring 2017, **M. Head** (Chair); employed at a structural engineering firm in Maryland.
3. Steve Efe, *Seismic Response of a Controlled-Rocking AFRP Column with Replaceable Fuse under Quasi-static and Pseudo-Dynamic Load*, Civil Engineering (CE), MSU, D. Eng. **Graduated**: Spring 2016, **M. Head** (Chair); Tenure-track Assistant Professor at Morgan State University.
4. Shobeir Pirayeh Gar, PhD, *Structural Performance of a Full-depth Precast Bridge Deck System Prestressed and Reinforced with AFRP Bars*, Civil Engineering (CE), TAMU, **Graduated**: Spring 2012, **M. Head** (Chair); Currently employed at Houston Offshore Engineering, Houston, Texas.
5. Vahid Bisadi, PhD, *Structural Reliability of Bridges Elevated with Steel Pedestals*, Civil Engineering (CE), TAMU, **Graduated**: Fall 2012, **M. Head** (Chair); Completed post-doc at Rice University in the Department of Civil Engineering; currently employed at a structural engineering firm on the west coast.

B. Doctoral Committee Member

1. Muritala Adegoke, *Experimental and Numerical Investigation of AFRP Reinforced Column with External Fuses*, Civil Engineering (CE), MSU, D. Eng. Expected Graduation Date: Fall 2019, **M. Head** (formerly Chair; now committee member).
2. Ruel Sabellano, *Asset Management System for the National Bridge Inventory*, Civil Engineering (CE), MSU, D. Eng. Expected Graduation Date: Fall 2019, **M. Head** (formerly Chair; now committee member).
3. Gareth Adams, *Hydrodynamic Response of SSP/TLP/SPAR for 6MW Floating Wind Turbine*, Civil Engineering (CE), MSU, D. Eng. Expected Graduation Date: Spring 2020, **M. Head**.
4. Mountasser Rahman, *Evaluation and Validation of FHWA's TNM using an Updated Automobile Fitted Model*, Civil Engineering (CE), MSU, **Graduated**: Spring 2017, I. Goswami (Chair), R. Reed, M. Jha, F. Wilson, **M. Head**, and A. Alexander from FHWA (Committee members).
5. Hrishikesh Sharma, *Probabilistic Assessment of Failure of Columns Subjected to Vehicle Impact*, Civil

Engineering (CE), TAMU, **Graduated**: 2012. S. Hurlebaus (Chair), J. Mander, and **M. Hite Head** (proposal only); Currently faculty member at the Indian Institute of Technology Guwahati.

6. Charles Lively, III, *Using Hierarchical Models to Analyze the Performance of Scientific Applications on Large-Scale Multicore Systems*, Computer Science and Engineering (CSE), TAMU, **Graduated**: May 2012. V. Taylor (Chair), T. Williams, and **M. Hite Head** (proposal only).
7. Osman Ozbulut, *Smart Base Isolation Systems Using Shape Memory Alloys and Piezoelectric Materials Against Near-Field Earthquakes*, Civil Engineering (CE), TAMU, **Graduated**: May 2010. S. Hurlebaus (Chair), **M. Hite Head**, J. Roessel, and I. Karaman (Committee Members); Currently employed as faculty member at the University of Virginia.
8. Fabian Marcel, *Multicore Simulation of AC-Radial Shipboard Power Systems*, Electrical Engineering (EE), TAMU, **Graduated**: December 2010. K. Butler-Purry (Chair), S. Khatri, C. Singh, C. Malave, and **M. Hite Head** (Committee Members).
9. Bertha Alejandra Olmos Navarette, *Nonlinear Seismic Response of Mexican Bridges with Base Isolation Accounting for Soil Structure Interaction Effects*, Civil Engineering (CE), TAMU, **Graduated**: Summer 2008. J. Roessel (Chair), J.N. Reddy, G. Biscontin, and **M. Hite** (Committee Members); Currently faculty member at the University of Michoacan, Mexico.

C. Master of Science Chairperson

1. Jose C. Medina, MS, CE, **Graduated**: Fall 2011, *Evaluation of Short-Term and Long-term Characteristics of AFRP Bars for Prestressing Applications*, Currently employed at INTECSEA Worley Parsons Group.
2. Hai Nguyen, MS, CE, **Graduated**: May 2010, *Nonlinear Effects of Woodframe Shear Walls*, Employed with Hanoi Transportation, Vietnam.
3. Yi-Te Tsai, MS, CE, **Graduated**: Summer 2009, *Stopper Bearing System – A Solution to Displacement Control of Bridge Decks*, Currently PhD Student at UT Austin.
4. Thomas Mander, MS, CE, **Graduated**: Summer 2009, *Structural Performance of a Full-Depth Precast Concrete Bridge Deck System*, Formerly employed with Baker Engineering and Risk Consultants, Texas, and now a PhD Candidate at the University of Texas at San Antonio (UTSA).
5. Jinseok Kim, ME, CE, **M. Hite Head** (Co-Chair) and S. Hurlebaus (Co-Chair), **Graduated**: Spring 2009, Currently PhD Student in the TAMU ME Department.
6. Matthew Henley, MS, CE, J. Mander (Chair), **M. Hite Head** (Co-Chair), A. Muliana (Committee Member), **Graduated**: Fall 2008, *Shear Connections for the Development of a Full-Depth Precast Concrete Deck System*, formerly employed with Civil Engineering School for the Air Force Institute of Technology (AFIT), Ohio.
7. Siddharth Srivastava, MS, CE, **Graduated**: Fall 2008, *Assessment of Critical Parameters that Affect the Seismic Performance of Bridge Steel Pedestals*, Currently employed with Moffat & Nichol, Inc., California.

D. Master of Science Committee Member

1. Pankaj Deshmukh, MS, Civil Engineering (CE), **Graduated**: May 2011, *Nonlinear Dynamic Analysis of Multi-Story Buildings*, Currently employed with Jyoti Americas LLC, Texas.
2. Robert Brey, MS, Civil Engineering (CE), **Graduated**: May 2010, *A Systematic Investigation of Shear Connections Between Full-Depth Precast Panels and Precast Prestressed Bridge Girders*. Currently employed with Holland Engineering, Texas.
3. Madhu Reddiar, MS, Civil Engineering (CE), **Graduated**: December 2009, *Stress-Strain Model of Unconfined and Confined Concrete and Stress-Block Parameters*.
4. Arian, Vistamehr, MS, Mechanical Engineering (ME), **Graduated**: Summer 2009, *Analysis of Automotive Turbocharger Nonlinear Vibrations Including Bifurcations*.
5. Yaying Niu, MS, Mechanical Engineering (ME), **Graduated**: Summer 2009, *Dynamic Response of a Rotor-Air Bearing System due to Base Induced Periodic Motions*.

E. Master of Engineering Chairperson

1. Derek Riley, MEN, CE, MSU, **Expected Graduation**: December 2018. Project topic: *Evaluating the Effect of Moving Loads on the Strength and Durability of the Verda Welcome Bridge*. **M. Head** (Chair), Currently employed as a full-time civil engineer with Maryland State Highway Administration (SHA).
2. Monique Hart, MEN, CE, MSU, **Expected Graduation**: December 2018. Project topic: *Impacts of Building Information Modeling in the Modern Industry*. **M. Head** (Chair), Currently employed as STEM educator in

the Baltimore County School District.

3. Akeem Stephenson, MEN, CE, MSU, **Graduated**: May 2018. Project topic: *Development of a Project-Based Value Formula to Predict Schedule Progression*. **M. Head** (Chair), Currently employed as a structural/construction engineer.
4. Nathaniel Gant, MEN, CE, MSU, **Graduated**: May 2017. Project topic: *Impacts of Building Information Modeling in the Modern Industry*. **M. Head** (Chair), Currently employed as a design engineer at Johnson, Mirmiran & Thompson.
5. Krystal Payton, MEN, CE, MSU, **Graduated**: May 2017. Project topic: *Analysis of Cross-frames to Resist Lateral Torsional Buckling in I-Girder Bridges*. **M. Head** (Chair), Currently employed with the National Security Administration (NSA).
6. Dwight Higgs, MEN, CE, MSU, **Graduated**: May 2017. Project topic: *Design and Analysis of Low-Rise Residential Wood Buildings*. **M. Head** (Chair), Currently employed with Maryland SHA.
7. Chante' Nelson, MEN, CE, MSU, **Graduated**: May 2015. Project topic: *Design and Analysis of Low-Rise Residential Wood Buildings*. **M. Head** (Chair), Currently employed with Maryland SHA.
8. Ryan Wright, MEN, CE, MSU, **Graduated**: December 2013. Project topic: *Evaluation of Concrete Columns Reinforced with Aramid Fiber-Reinforced Polymer Bars using Damage Avoidance Design*. **M. Head** (Chair), Currently employed with HDR (Arizona).
9. Gareth Adams, MEN, CE, MSU, **Graduated**: Spring 2012. Project topic: *Self-Anchored Suspension Span*; **M. Head** (Chair). Previously employed with Barton Malow Company, Essex Commercial Construction LLC, Division of Public Utilities and Infrastructure and currently a Doctoral Candidate.
10. Robert Matthew Miller, MEN, CE, MSU, **Graduated**: Fall 2012. Project topic: *Structural Design of Timber Superstructure Bridge No. S-0002, Stewart Neck Road Bridge over King's Creek*. **M. Head** (Chair).
11. Anil Chunchu, MEN, CE, TAMU, **Graduated**: Spring 2009. Project topic: *Comparing the Performance of Prestressed Concrete Beams using Analytical and Finite Element Methods*.
12. Paul Mostella, MEN, CE, TAMU, **Graduated**: Spring 2009. Project topic: *Multi-Degree of Freedom Analysis of a Steel Frame*, Employed with Burns & McDonnell, Houston, Texas.

F. Master of Engineering Committee Member

1. Long Nguyen, ME, Computer Science (CSE), TAMU, **Graduated**: Spring 2010; Currently employed with Amazon, Washington.
2. Tenisha Green, ME, Industrial and Systems Engineering (ISEN), **Graduated**: Spring 2008.
3. Ariana Amberg, ME, Electrical and Computer Engineering (ECE), **Graduated**: Spring 2009.

G. Undergraduate Researchers

1. Gabriel Upton, Graduating Senior, *Morgan State University*, Fall 2016-Fall 2018.
2. Matthew Thompson, Graduating Senior, *Morgan State University*, Summer 2018-Fall 2018.
3. William McLennan, Graduating Senior, *Morgan State University*, Fall 2014-Fall 2016.
4. Emmanuel Chinaka, Graduating Senior, *Morgan State University*, Fall 2014-Fall 2016.
5. Jerrell Drumgoole, Graduated May 2015, *Morgan State University*, Spring 2014 – Summer 2014.
6. Oladapo Lajubutu, Graduated Spring 2014, *Morgan State University*, Fall 2013.
7. Ebony Ashby-Bey, Graduated Fall 2013, *Morgan State University*, Spring 2013-Fall 2013.
8. Ajibola Dehinbo, Graduated May 2015, *Morgan State University*, Summer 2013 – 2014.
9. Emani Evans, Graduated May 2015, *Morgan State University*, Fall 2012 – Spring 2015.
10. Akeem Stephenson, Graduated May 2016, *Morgan State University*, Fall 2012 – Spring 2016.
11. Monique Hart, Graduated May 2016, *Morgan State University*, Fall 2012 – Spring 2016.
12. Kyle Edmonds, Graduated December 2014, *Morgan State University*, Fall 2012 – 2014.
13. Tyrone Hansboro, Jr., Graduated Spring 2014, *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, Graduated: Spring 2013, *Morgan State University*, Fall 2012 – Spring 2013.
17. Rodney Price, Graduated: Spring 2013, *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.

H. Visiting Scholars from the Universidad Michoacana de San Nicolas de Hidalgo, Mexico

1. Bertha Olmos-Navarette, PhD, January 2016 (professor; visiting scholar).
2. Gustavo Raya Paniagua, MS Student, July – August 2013.
3. Betsy Cortes Mondragon, MS Student, July – September 2013.
4. Heriberto Puga Juarez, MS Student, July – September 2013.

I. Post-doctoral Research Associates

1. Mehdi Shokouhian, PhD, June 2015 – January 2018 (now tenure-track Assistant Professor at Morgan State University).
2. Renee Oats, PhD, January 2018 – May 2018.

PROFESSIONAL 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 (ExCEEEd) 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

- *ufNHERI Workshop*, Opportunities in Natural Hazards Research, University of Florida, NSF Workshop at the University of Florida, Gainesville, FL, December 13, 2018.
- *NHERI RAPID Workshop*, Virginia Tech Research, Virginia.
- *NEES Quake Summit 2013*, Hybrid Simulation Workshop, August 5-7, 2013, Reno, Nevada.
- *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.