

Mary Beth D. Hueste, Ph.D., P.E., F.ACI

Professor of Civil Engineering

<i>Office Address</i>	<i>E-mail and Web Addresses</i>
Zachry Department of Civil Engineering Texas A&M University, 3136 TAMU College Station, Texas 77843-3136 P 979-845-1940, F 979-845-6554	mhueste@tamu.edu http://ceprofs.tamu.edu/mHueste/

Biosketch

Dr. Mary Beth Hueste is a Professor in the Zachry Department of Civil Engineering at Texas A&M University. She joined Texas A&M University in 1998 where she is a member of the structural engineering faculty. Dr. Hueste is the Structures Program Manager and Acting Division Head for the Construction, Geotechnical and Structural (CGS) Division within the Texas A&M Transportation Institute. She is a Fellow of the American Concrete Institute (ACI) and Chair of ACI-ASCE Committee 352 (Joint and Connections in Monolithic Concrete Structures). Dr. Hueste conducts research focused on earthquake resistant design of reinforced concrete structures, structural rehabilitation and repair including seismic retrofitting, performance-based seismic design, probabilistic assessment of structural performance, and design and evaluation of prestressed concrete bridge structures. She has authored or co-authored over 70 technical papers and reports. Dr. Hueste teaches undergraduate and graduate courses in structural engineering, including statics, structural concrete design, prestressed concrete design and advanced reinforced concrete design, along with the undergraduate structural engineering capstone design course and the general civil engineering undergraduate capstone design course.

Professional Preparation

Ph.D. Civil Engineering, University of Michigan, 1997
M.S. Civil Engineering, University of Kansas, 1993
B.S. Civil Engineering, North Dakota State University, 1988, With Honor

Professional Engineering Registration

Kansas License Number 12774, Issued February 1993
Texas License Number 89660, Issued March 2002

Employment - Academic

2012 – present Professor, Zachry Department of Civil Engineering, Texas A&M University
2010 – present Interim Division Head; Construction, Geotechnical, and Structures Division; Texas A&M Transportation Institute (TTI), Texas A&M University
2010 – 2013 Division Head; Construction, Geotechnical, and Structures Division; Zachry Department of Civil Engineering, Texas A&M University
2005 – present Program Manager, Major Highway Structures, TTI, Texas A&M University
2005 – 2012 Associate Professor, Department of Civil Engineering, Texas A&M University
2005 – 2009 Assistant Division Head; Construction, Geotechnical, and Structures Division; Department of Civil Engineering, Texas A&M University
1998 – 2005 Assistant Professor, Department of Civil Engineering, Texas A&M University
1994 – 1997 Graduate Assistant, Department of Civil & Environmental Engineering, University of Michigan

Employment – Industry

1988 – 1993 Structural Engineer, Black & Veatch, Overland Park, Kansas
Summer 1987 Civil Engineering Technician, North Dakota Soil Conservation Service, Bismarck

Publications

(* indicates past or current student)

Refereed Journal Publications

1. *Pillai, R., D. Trejo, P. Gardoni, M.D. Hueste, and K. Reinschmidt (2014), "Time-variant Flexural Reliability of Post-tensioned, Segmental Concrete Bridges Exposed to Corrosive Environments," *ASCE Journal of Structural Engineering*, 140, Special Issue: Computational Simulation in Structural Engineering.
2. *Pillai, R.G., K.F. Reinschmidt, D. Trejo, P. Gardoni, and M.D. Hueste (2014), "Predicting Residual Tensile Strength of 7-Wire Strands using that of Single Wires Exposed to Chloride Environments," *ASCE Journal of Materials in Civil Engineering*, 26(8).
3. *Bai, J.-W., M.D. Hueste, and P. Gardoni (2013), "Case Study: Scenario-Based Seismic Loss Estimation for Concrete Buildings in Mid-America," Technical Note, *Earthquake Spectra*, In Press.
4. *Kim, Y., D. Trejo, and M. Hueste (2012), "Bond Performance in Self-Consolidating Concrete Pretensioned Girders," *ACI Structural Journal*, 109(6), pp. 755-766.
5. *Kim, Y., D. Trejo, H. Atahan, and M. Hueste (2012), "Mechanical Property Prediction for High Early Strength Self-Consolidating Concrete," *ASCE Journal of Materials in Civil Engineering*, 24(12), pp. 1501-1512.
6. Duan, H. and M.D. Hueste (2012), "Seismic Performance of a Reinforced Concrete Frame Building in China," *Engineering Structures*, V. 41, pp. 77-89.
7. *Bai, J.-W., P. Gardoni, and M.D. Hueste (2011), "Story-specific Demand Models and Seismic Fragility Estimates for Multi-story Buildings," *Structural Safety*, 33 (2011), pp. 96-107.
8. *Kim, Y.-H., D. Trejo, M.D. Hueste, and J.J. Kim (2011), "Experimental Study on Creep and Durability of High Early Strength Self-Consolidating Concrete for Precast Elements," *ACI Materials Journal*, 108(2), pp. 128-138.
9. *Kim, Y.-H., D. Trejo, and M.D. Hueste (2010), "Characterization of High Early-Strength Self-Consolidating Concrete for Design of Pretensioned Bridge Elements," *Transportation Research Record: Journal of the Transportation Research Board*, No. 2200, Bridge Engineering 2010, Vol. 1, pp. 135-142.
10. *Pillai, R.G., P. Gardoni, D. Trejo, M.D. Hueste, K.F. Reinschmidt (2010), "Probabilistic Models for the Tensile Strength of Corroding Strands in Post-tensioned Segmental Concrete Bridges," *ASCE Journal of Materials in Civil Engineering*, 22(10), pp. 967-977.
11. *Pillai, R.G., M.D. Hueste, P. Gardoni, D. Trejo, K.F. Reinschmidt, (2010), "Time-variant Service Reliability of Post-tensioned, Segmental, Concrete Bridges Exposed to Corrosive Environments," *Engineering Structures*, 32(9), pp. 2596-2605.
12. *Kim, Y.-H., M.D. Hueste, D. Trejo, and D.B.H. Cline (2010), "Shear Characteristics and Design for High-Strength Self-Consolidating Concrete Prestressed Girders," *ASCE Journal of Structural Engineering*, 136(8), pp. 989-1000.
13. *Kueht, E. and M.D. Hueste (2009), "Impact of Code Requirements in the Central U.S.: Seismic Performance Assessment of a Reinforced Concrete Building," *ASCE Journal of Structural Engineering*, 135(4), pp. 404-413.

14. Trejo, D., *R.G. Pillai, M.D. Hueste, K.F. Reinschmidt, and P. Gardoni (2009), "Parameters Influencing Corrosion and Tension Capacity of Post-Tensioning Strands," *ACI Materials Journal*, 106(2), pp. 144-153.
15. Gardoni, P., *R.G. Pillai, M.D. Hueste, K.F. Reinschmidt, and D. Trejo (2009), "Probabilistic Capacity Models for Post-Tensioning Strands Calibrated using Laboratory Results," *ASCE Journal of Engineering Mechanics*, 135(9), pp. 906-916.
16. *Bai, J.-W., M.D. Hueste, and P. Gardoni (2009), "Probabilistic Assessment of Structural Damage due to Earthquakes for Buildings in Mid-America," *ASCE Journal of Structural Engineering*, 135(10), pp. 1155-1163.
17. Trejo, D., *F. Moutassem, M.D. Hueste, C. Halmen, and D.B.H. Cline (2007), "Influence of Environmental Exposure Conditions on Mechanical Properties of High Strength Concrete," *ACI Materials Journal*, 104(6), pp. 303-312.
18. Atahan, H.N., D. Trejo, and M.D. Hueste (2007), "Applicability of Standard Equations for Predicting the Mechanical Properties of SCC," *SP-247 - Self-Consolidating Concrete for Precast Prestressed Applications*, American Concrete Institute, pp. 17-32.
19. *Kim, Y.H., D. Trejo, and M.D. Hueste (2007), "Shear Characteristics of Self-Consolidating Concrete for Precast Prestressed Concrete Members," *SP-247 - Self-Consolidating Concrete for Precast Prestressed Applications*, American Concrete Institute, pp. 53-66.
20. Hueste, M.D., J. Browning, A. Lepage, and J.W. Wallace (2007), "Seismic Design Criteria for Slab-Column Connections," *ACI Structural Journal*, 104(4), pp. 448-458.
21. Hueste, M.D. and *J.-W. Bai (2007), "Seismic Retrofit of a Reinforced Concrete Flat-Slab Structure: Part I – Seismic Performance Evaluation," *Engineering Structures*, 29(6), pp. 1165-1177.
22. Hueste, M.D. and *J.-W. Bai (2007), "Seismic Retrofit of a Reinforced Concrete Flat-Slab Structure: Part II – Seismic Fragility Analysis," *Engineering Structures*, 29(6), pp. 1178-1188.
23. *Peralta, D.F., J.M. Bracci and M.D. Hueste (2004), "Seismic Behavior of Wood Diaphragms in Pre-1950s Unreinforced Masonry Buildings," *ASCE Journal of Structural Engineering*, 130(12), pp. 2040-2050.
24. Hueste, M.D. and *G.G. Cuadros (2004), "Survey of Current Practice for Design of High Strength Concrete Prestressed Bridge Girders," *Transportation Research Record: Journal of the Transportation Research Board*, No. 1892, Design of Structures 2004, pp. 137-149.
25. *Barron, J.M. and M.D. Hueste (2004), "Diaphragm Effects in Rectangular Reinforced Concrete Buildings," *ACI Structural Journal*, 101(5), pp. 615-624.
26. Hueste, M.D., *P. Chompreda, D. Trejo, D.B.H. Cline and P.B. Keating (2004), "Mechanical Properties of High-Strength Concrete for Prestressed Members," *ACI Structural Journal*, 101(4), pp. 457-465.
27. *Young, B.S., J.M. Bracci, P.B. Keating and M.D. Hueste (2002), "Cracking in Reinforced Concrete Bent Caps," *ACI Structural Journal*, 99(4), pp. 488-498.
28. Hueste, M.D. and J.K. Wight (1999), "A Nonlinear Punching Shear Failure Model for Interior Slab-Column Connections," *ASCE Journal of Structural Engineering*, 125(9), pp. 997-1008.
29. Hueste, M.D. and J.K. Wight (1997), "Evaluation of a Four-Story Reinforced Concrete Building Damaged During the Northridge Earthquake," *Earthquake Spectra*, 13(3), pp. 387-414.

Conference and Workshop Publications

1. Hueste, M.D., J.B. Mander, *A.S. Parkar, *A. Parchure, *R. Baie (2013), “Prototype Design and Experimental Abstraction for Verifying Spliced Girder Performance of Continuous Prestressed Concrete Bridges,” *Proceedings*, 2013 PCI Convention and National Bridge Conference, September, Grapevine, TX.
2. *Bai, J.-W., M.D. Hueste, and P. Gardoni (2013), “Seismic Vulnerability Assessment for Tilt-Up Concrete Buildings in Mid-America,” *Proceedings*, 11th International Conference on Structural Safety and Reliability (ICOSSAR 2013), New York, NY.
3. *Parkar, A., M. Hueste, and J. Mander (2012), “Continuous Precast, Prestressed Concrete Bridge Systems,” *Proceedings*, Transportation Research Board (TRB) 91st Annual Meeting, Washington, D.C.
4. *Bai, J.-W., M. Hueste, and P. Gardoni (2011), “Scenario-based Seismic Loss Estimation for Concrete Buildings in the Central U.S.,” *Proceedings*, 11th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP11), Zurich, Switzerland, August.
5. Hueste, M.D., T.H-K. Kang, and I.N. Robertson (2009), “Lateral Drift Limits for Structural Concrete Slab-Column Connections, Including Shear Reinforcement Effects,” *Proceedings*, ASCE Structures Congress ‘09, May, Austin, TX.
6. *Bai, J.-W., M.D. Hueste, and P. Gardoni (2009), “Seismic Performance and Retrofit for Tilt-up Concrete Buildings in Mid-America,” *Proceedings*, ASCE Structures Congress ‘09, May, Austin, TX.
7. *Bai, J., P. Gardoni, and M. Hueste (2009), “Story-specific Demand Models and Seismic Fragility Estimates for Low-Rise Buildings,” *Safety, Reliability and Risk of Structures, Infrastructures and Engineering Systems, Proceedings*, 10th International Conference on Structural Safety and Reliability (ICOSSAR 2009), September, Osaka, Japan.
8. *Pillai, R., P. Gardoni, M. Hueste, K. Reinschmidt and D. Trejo (2009), “Flexural Reliability of Corroding Segmental, Post-tensioned Bridges,” *Safety, Reliability and Risk of Structures, Infrastructures and Engineering Systems, Proceedings of the 10th International Conference on Structural Safety and Reliability (ICOSSAR 2009)*, September, Osaka, Japan.
9. *Bai, J.-W., P. Gardoni, M.D. Hueste (2008), “Probabilistic Assessment of Structural Seismic Damage for Buildings in Mid-America,” *Proceedings*, MERCEA’08 International Conference, July, Messina, Italy.
10. *Kim, Y.H., D. Trejo, and M.D. Hueste (2008), “Flexural Behavior of a Full-Scale Self-Consolidating Concrete Prestressed Girder,” *Proceedings*, 2008 PCI-FHWA National Bridge Conference, October, Orlando, Florida.
11. *Kim, Y.H., M.D. Hueste, and D. Trejo (2008), “Structural Behavior of SCC Prestressed Girders,” *Proceedings*, SCC 2008: Challenges and Barriers to Application, The Third North American Conference on the Design and Use of Self-Consolidating Concrete, November, Chicago, Illinois.
12. *Pillai, R.G., P. Gardoni, M. Hueste, K. Reinschmidt, and D. Trejo (2007), “Probabilistic Capacity Models for Corroding Strands in Post-tensioned Bridges with Voided Tendons,” *Proceedings*, 10th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP10), July 31 – August 3, University of Tokyo, Tokyo, Japan.

13. Hueste, M., J. Bracci, P. Gould, and S. Menke (2006), "Development of an Institute for Multi-Disciplinary Graduate Student Education," *Proceedings*, 9th International Conference on Engineering Education, San Juan, Puerto Rico, July.
14. *Adil, M.S., M.D. Hueste and P.B. Keating (2006), "Impact of AASHTO LRFD Specifications on Design of Prestressed Concrete Bridge Girders," *Proceedings*, 2006 Concrete Bridge Conference: HPC: Build Fast, Build to Last, National Concrete Bridge Council, Reno, Nevada, May.
15. *Bai, J.-W. and M.D. Hueste (2006), "Seismic Fragility of a Tilt-Up Concrete Building in the Central United States," *Proceedings*, Eighth National Conference on Earthquake Engineering (8NCEE), San Francisco, California, April.
16. Hueste, M.D., J. Bracci and P. Gould (2006), "Designing an Institute for Collaborative Instruction and Learning," *Proceedings*, Eighth National Conference on Earthquake Engineering (8NCEE), San Francisco, California, April.
17. *Johnson, C.F., T.R. Slawson, T.K. Cummins, J.L. Davis, L. Beason, and M.D. Hueste (2004), "Concrete Masonry Unit Walls Retrofitted with Fiber Reinforced Elastomeric Systems for Blast Loads," *Proceedings*, 74th Shock and Vibration Conference, San Diego, California, October.
18. Hueste, M.D. and *J.-W. Bai (2004), "Impact of Retrofit on the Seismic Fragility of a Reinforced Concrete Structure," *Proceedings*, 13th World Conference on Earthquake Engineering (13WCEE), Vancouver, British Columbia, August.
19. Hueste, M.D. and *G.G. Cuadros (2004), "Survey of Current Practice for Design of High Strength Concrete Prestressed Bridge Girders," *Proceedings*, Transportation Research Board, 83rd Annual Meeting, Washington, D.C., January.
20. *Johnson, C.F., T.R. Slawson, T.K. Cummins, M.D. Hueste and L. Beason (2003), "Concrete Masonry Unit (CMU) Static and Dynamic Wall Experiments with Elastomeric Retrofits," *Proceedings*, 74th Shock and Vibration Conference, San Diego, California, October.
21. Hueste, M.D. and *J.-W. Bai (2003), "Predicting the Seismic Performance of a RC Building in the Central U.S.," *Proceedings*, Fifth US-Japan Workshop on Performance-Based Seismic Design Methodology for Concrete Buildings, Hakone, Japan, September.
22. *Peralta, D.F., M.D. Hueste and J.M. Bracci (2002), "Seismic Performance of Rehabilitated Floor and Roof Diaphragms in Pre-1950's Unreinforced Masonry Buildings," *Proceedings*, Seventh National Conference on Earthquake Engineering (7NCEE), Boston, Massachusetts, July.
23. Hueste, M.D., C. Aubeny, J.-L. Briaud, Y.-S. Kim and J.M. Roesset (2002), "Dynamic Stiffness and Damping Characteristics for Micro-Pile Retrofitted Foundations," *Proceedings*, Seventh National Conference on Earthquake Engineering (7NCEE), Boston, Massachusetts, July.
24. Bracci, J.M., M.D. Hueste and J.M. Roesset (2001), "Requirements for Performance-Based Design of Buildings," *Proceedings*, Third International Conference on Earthquake Resistant Engineering Structures (ERES 2001), Malaga, Spain, September.
25. Hueste, M.D., J.-L. Briaud, *S.Y. Gameros, *J.L. Buchanan and *V.F. Fratinaro (2001), "Dynamic Behavior of Micro-Pile Retrofitted Foundations for Non-Liquefied and Liquefied Soil Conditions," *Proceedings*, Transportation Research Board, 80th Annual Meeting, Washington, D.C., January.

26. Hueste, M.D. and J.K. Wight (1997), "Evaluation of a Reinforced Concrete Building Damaged During the Northridge Earthquake," *Proceedings*, Northridge Earthquake Research Conference, California Universities for Research in Earthquake Engineering (CUREe), Los Angeles, California, August.

Reports

1. Hueste, M.D., *E. Puls, S. Hurlebaus, I. Damnjanovic, *K. McCoy, *L. Ortiz, and J. Crawford (2013), "A Framework for Historic Bridge Preservation in Tarrant County," *Research Report No. TX-13/409139-1*, Texas A&M Transportation Institute and Texas Department of Transportation, 300 pages.
2. Hueste, M.D., J.B. Mander, and *A.S. Parkar (2012), "Continuous Prestressed Concrete Girder Bridges Volume 1: Literature Review and Preliminary Designs," *Research Report No. 0-6651-1*, Texas Transportation Institute and Texas Department of Transportation, 176 pages.
3. Trejo, D., M.D. Hueste, P. Gardoni, *R.G. Pillai, K. Reinschmidt, *S.-B. Im, *S. Kataria, S. Hurlebaus, *M. Gamble, and *T.T. Ngo (2009), "Effect of Voids in Grouted, Post-Tensioned Concrete Bridge Construction: Volume 1 - Electrochemical Testing and Reliability Assessment," *Research Report No. 0-4588-1 Vol. 1*, Texas Transportation Institute and Texas Department of Transportation, 366 pages.
4. Trejo, D., M.D. Hueste, P. Gardoni, *R.G. Pillai, K. Reinschmidt, *S.-B. Im, *S. Kataria, S. Hurlebaus, *M. Gamble, and *T.T. Ngo (2009), "Effect of Voids in Grouted, Post-Tensioned, Concrete Bridge Construction: Volume 2 - Inspection, Repair, Materials, and Risks," *Research Report No. 0-4588-1 Vol. 2*, Texas Transportation Institute and Texas Department of Transportation, 342 pages.
5. Trejo, D., *S.-B. Im, *R.G. Pillai, M.D. Hueste, P. Gardoni, S. Hurlebaus, and *M. Gamble (2009), "Effect of Voids in Grouted, Post-Tensioned, Concrete Bridge Construction: Inspection and Repair Manual for External Tendons in Segmental, Post-Tensioned Bridges," *Research Report No. 0-4588-2*, Texas Transportation Institute and Texas Department of Transportation, 62 pages.
6. Trejo, D., M.D. Hueste, *Y.H. Kim, H. Atahan (2008), "Characterization of Self-Consolidating Concrete for Design of Precast, Prestressed Bridge Girders," *Research Report 0-5134-2*, Texas Transportation Institute and Texas Department of Transportation, 384 pages.
7. *Grubbs, A.J., M.D. Hueste, and J.M. Bracci (2007), "Seismic Rehabilitation of Wood Diaphragms in Unreinforced Masonry Buildings," Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, 186 pages.
8. *Bai, J.-W. and M.D. Hueste (2007), "Deterministic and Probabilistic Evaluation of Retrofit Alternatives for a Five-Story Flat-Slab RC Building," Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, 284 pages.
9. Hueste, M.D., *M.S. Adil, *M. Adnan and P.B. Keating (2006), "Impact of LRFD Specifications on Design of Texas Bridges, Volume 1: Parametric Study," *Research Report 0-4751-1 Vol. 1*, Texas Transportation Institute and Texas Department of Transportation, 390 pages.
10. Hueste, M.D., *M.S. Adil, *M. Adnan and P.B. Keating (2006), "Impact of LRFD Specifications on Design of Texas Bridges, Volume 2: Prestressed Concrete Bridge Girder Design Examples," *Research Report 0-4751-1 Vol. 2*, Texas Transportation Institute and Texas Department of Transportation, 360 pages.
11. Bracci, J.M., *L.A. Brown, M.D. Hueste and J.D. Murff (2003), "Assessment of Seismic Risk for Subsea Production Systems in the Gulf of Mexico," *Project Report*, Offshore Technology Research Center, Texas A&M University, College Station, Texas, 152 pages.

12. Hueste, M.D., *P. Chompreda, D. Trejo, D.B.H. Cline and P.B. Keating (2003), “Mechanical Properties of High Strength Concrete Produced for Prestressed Bridge Girders,” *Research Report 0-2101-2*, Texas Transportation Institute and Texas Department of Transportation, 326 pages.
13. Hueste, M. D. and *G.G. Cuadros (2003), “Flexural Design of High Strength Concrete Prestressed Bridge Girders – Review of Current Practice and Parametric Study,” *Research Report 0-2101-3*, Texas Transportation Institute and Texas Department of Transportation, 280 pages.
14. Hueste, M.D., *F. Moutassem, D. Trejo and D.B.H. Cline (2003), “Impact of Field Exposure Conditions on High Strength Concrete Produced for Prestressed Bridge Girders,” *Research Report 0-2101-4*, Texas Transportation Institute and Texas Department of Transportation, 194 pages.
15. *Peralta, D.F., J.M. Bracci and M.D. Hueste (2003), “Seismic Performance of Rehabilitated Wood Diaphragms,” Mid-America Earthquake Center, University of Illinois at Urbana-Champaign, CD Release 03-01, 290 pages.
16. Bracci, J.M., P.B. Keating and M.D. Hueste (2002), “Cracking in RC Bent Caps,” *Research Report 1851-1*, Texas Transportation Institute and Texas Dept. of Transportation, 270 pages.
17. *Jimenez, L.M. and M.D. Hueste (1999), “Seismic Rehabilitation of a Reinforced Concrete Flat-Slab Structure,” *Technical Report CBDC-99-03*, Walter P. Moore Center for Building Design and Construction, Department of Civil Engineering, Texas A&M University, 247 pages.

Research Projects

Activity as an investigator on externally funded research projects since joining TAMU.

- “Condition Assessment of Bridge Post-Tensioning and Stay Cable Systems Using NDE Methods,” – sponsored by the National Corporate Highway Research Program (NCHRP), (Co-PI; November 2012 – May 2015)
- “Spread Slab Beams” – sponsored by the Texas Department of Transportation (PI; September 2011 – August 2014)
- “Historic Bridges of Tarrant County” - sponsored by the Texas Department of Transportation (PI; September 2011 – August 2013)
- “Continuous Prestressed Concrete Girder Bridges” - sponsored by the Texas Department of Transportation (PI; September 2010 – August 2014)
- “Vulnerability Functions” - sponsored by NSF through the Mid-America Earthquake Center (PI; October 2005 – August 2008)
- “Self-Consolidating Concrete for Precast Structural Applications” – sponsored by the Texas Department of Transportation (Co-PI; September 2004 – December 2007)
- “Effects of Voids in Grouted, Post-Tensioned Concrete Bridge Construction” - sponsored by the Texas Department of Transportation (Co-PI; September 2003 – August 2008)
- “Impact of LRFD Specifications on the Design of Texas Bridges” - sponsored by the Texas Department of Transportation (PI; September 2003 – August 2005)
- “Structure Retrofit Strategies” - sponsored by NSF through the Mid-America Earthquake Center (PI; January 2002 – September 2005)
- “Assessment of Seismic Risk for Sub-Sea Production Systems in the Gulf of Mexico” - sponsored by the Minerals Management Service through the Offshore Technology Research Center (Co-PI; September 2001 – August 2003)
- “Allowable Stresses and Resistance Factors for High Strength Concrete” - sponsored by the Texas Department of Transportation (PI; January 2000 – May 2003)
- “Study of Flexural Cracking in Cantilever Standard Design Interior Bent Caps” - sponsored by the Texas Department of Transportation (Investigator; September 1998 – August 2000)

- “Performance of Rehabilitated Floor and Roof Diaphragms” - sponsored by NSF through the Mid-America Earthquake Center (Co-PI; April 1998 – December 2001; funding \$265,000 including TAMU match)

Education Projects

- “Consequence Based Engineering (CBE) Institute” - sponsored by NSF through the Mid-America Earthquake Center (PI; 2002-2005)

Courses Taught

- ENGR 111 – Foundations of Engineering I
- CVEN 221 – Engineering Mechanics: Statics
- CVEN 400 – Design Problems in Civil Engineering
- CVEN 444 – Structural Concrete Design
- CVEN 446 – Structural Steel Design
- CVEN 483 – Analysis and Design of Structures
- CVEN 621 – Advanced Reinforced Concrete Design
- CVEN 671 – Behavior and Design of Prestressed Concrete Structures
- CVEN 681 – Seminar in Constructed Facilities

Synergistic Activities

- Professional Affiliations:
 - American Concrete Institute (ACI), Member, 1995 – present, Fellow of the Institute, 2010 – present.
 - ACI-ASCE Committee 352 (Joints and Connections in Monolithic Concrete Structures), Chair, March 2009 – present, Voting Member, February 2004 – present.
 - ACI Committee 374 (Performance-Based Seismic Design of Concrete Buildings), Voting Member, 1999 – present
 - ACI Committee 375 (Performance-Based Design of Concrete Buildings for Wind Loads), Associate Member, 2000 – present
 - Secretary, Reinforced Concrete Research Council of ACI, 1999 – 2001
 - American Society of Civil Engineers (ASCE), Member, 1993 – present
 - Member, 2009 Structures Congress Steering Committee, 2008 – 2009
 - American Society of Engineering Education (ASEE), Member, 1999 - present
 - Consortium of Universities for Research in Earthquake Engineering (CUREE), Member, 2002 – present
 - Earthquake Engineering Research Institute (EERI), 1995 – present
 - Member, Ad Hoc Committee on Seismic Safety of Schools, 2010 – present
 - NEES Consortium, Member, 2003 – present
 - Precast/Prestressed Concrete Institute (PCI), Member, 2003 – present
 - Member, Advisory Board to the PCI Education Foundation, 2002
 - Structural Engineers Association of Texas (SEAoT), Structural Engineering Educator Member, 1998 – present
 - Member, Student Affairs Committee, SEAoT - Houston/Gulf Coast Chapter, 1998 – 2001
- Member, Editorial Board, *Engineering Structures*, 2008 – present
- TAMU Representative, Mid-America Earthquake Center Leadership Team, 2001 – 2008
- Member, Technical Activities Panel for Texas Department of Transportation Research Management Committee 5, 2003 – 2012
- Member, Historic Bridge Alliance, 2011 – present
- Graduate Teaching Fellow Mentor, 2010 – 2011, Graduate Teaching Academy organized by

Center for Teaching Excellence, Texas A&M University

- **Diversity Initiatives**

- 2013 Women's Leadership Forum, Texas A&M University, planning committee member
- Department Mini-Grant Subcommittee, ADVANCE Center for Women Faculty, Texas A&M University, Sponsored by the National Science Foundation, 2011 – 2012
- Women's Faculty Network Executive Committee, Texas A&M University, College of Engineering Representative, 2010 – present (Chair of Awards Committee, 2013 – present)
- Texas Transportation Institute (TTI) Diversity Council, member, 2010 – present
- Civil Engineering Women Student Mentoring Group, Faculty Steering Committee, Texas A&M University, 2004 – present
- Diversity Coordinator for Mid-America Earthquake Center (an NSF-sponsored Engineering Research Center headquartered at the University of Illinois), 2004 – 2008

Honors and Awards

- Preservation Achievement Award, Board of Historic Fort Worth, 2014. Recognizing the Tarrant County bridge preservation program created by Texas A&M Transportation Institute and Texas Department of Transportation, PI – Mary Beth Hueste.
- TTI/Trinity Senior Researcher Award, Texas A&M Transportation Institute, 2014
- Leadership Impact Award, 2013, Zachry Department of Civil Engineering, Texas A&M University
- Fellow of the Institute, American Concrete Institute, October 2010 – present
- Williams Brothers Construction Company Fellow, 2011, College of Engineering, Texas A&M University
- Holder, E.B. Snead '25 Development Professorship II, Zachry Department of Civil Engineering, Texas A&M University, February 2007-present
- Ruth and William Neely '52/Dow Chemical Faculty Fellow, 2004-2005, for outstanding performance and overall contributions to the Texas A&M Engineering Program.
- PCI Precast/Prestressed Concrete Institute (PCI) Award of Excellence, 2004, for the PCI Engineering Design Competition – 2004 Big Beam Contest
- Mid-America Earthquake Center Award of Recognition, 2003, for leadership in successfully implementing the Mid-America Earthquake Center's first Consequence-Based Engineering Institute.
- Zachry Award for Excellence in Teaching, 2001 - 2002, established by the Zachry Foundation and awarded through the TAMU Department of Civil Engineering.
- PCI Precast/Prestressed Concrete Institute (PCI) Award of Excellence, 2002, for the PCI Engineering Design Competition – 2002 Big Beam Contest
- Certificate of Appreciation from the American Concrete Institute (ACI), 2000
- American Society of Civil Engineers B. Charles Tiney Scholarship, 1987
- Member of the following honor societies: Blue Key National Honor Fraternity, Chi Epsilon National Civil Engineering Honor Society, Mortar Board National College Senior Honor Society, Phi Eta Sigma National Honor Society, Tau Beta Pi Engineering Honor Society

Graduate Students, Postgraduate Scholars, and Graduate Advisors

Graduate Students (current) [4 total]

Chair: Tevfik Terzioglu (PhD)

Co-Chair: Reza Baie (PhD), Dongqi Jiang (PhD), Casey Jones (MS)

Graduate Students (completed) [34 total]

Chair: Jennifer Michelle Prouty (MS '14), Carol Johnson (PhD '13), Joel Petersen-Gauthier (MS '13), Eric Puls (MS '13), Akshay Parchure (MS '13), Laura Ortiz (MS '13), Mahmood Ettehad (PhD '13), Ajay Shastri (MS '10), Ahsanuddin Kamran Syed (ME '09), Muhammad Usman (ME '09), Najla Issaq (ME '08), Erin Kueht (MS '07), Safiuddin Adil Mohammed (MS '05), Mohsin Adnan (MS '05), Jong Wha Bai (MS '04), Gladys Cuadros (MS '03), Fayez Moutassem (MS '03), Refik Sahin (ME '01), Joel Barron (MS '01), Samuel Young Gamos (ME '00), Jennifer Buchanan (MS '00), Vincent Fratinardo (ME '00), Laila Jimenez (MS '99), Rebecca Fischer (ME '99)

Co-Chair: Katlyn McCoy (MS '14), Ardeshir Tehrani (PhD '13), Anagha Parkar (ME '13), Jong Wha Bai (PhD '12), Radhakrishna Pillai (PhD '09), Young Hoon Kim (PhD '08), David Peralta-Gonzalez (PhD '03), Laura Brown (MS '03), Amber Grubbs (MS '02), Praveen Chomprea (MS '01)

Postgraduate-Scholars

- Hakan N. Atahan, Istanbul Technical University (with D. Trejo)
- Haijuan Duan, Shanghai Jiatong University

Graduate Advisors

- MS: Professor Steven L. McCabe, University of Kansas
- PhD: Professor James K. Wight, University of Michigan