Justin D. Marshall, Ph.D., P.E.

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RESEARCH APPOINTMENTS

Associate Professor of Civil Engineering, Auburn University (08/14 – Present)

Assistant Professor of Civil Engineering, Auburn University (01/09 – 08/14)

Charles E. Via Research Fellow, Virginia Tech (08/04 – 05/05, 08/06 – 12/08)

PROFESSIONAL EXPERIENCE

Project Engineer, Delta Engineers, P.C., Binghamton, NY (04/00 – 08/04)
Responsibilities:

- Design of structural steel, precast concrete, reinforced concrete, masonry and timber buildings.
- Design of steel and concrete bridges.
- Analysis and rehabilitation of steel, masonry, timber and reinforced concrete structures.

MILITARY EXPERIENCE

Combat Engineer/ROTC Instructor - United States Army Reserve, 09/02 – 09/09

- Deployment to Iraq: 05/05 – 08/06

Infantry Rifleman - United States Marine Corps Reserve, 08/92 – 08/00

EDUCATION

Virginia Tech	Civil Engineering	PhD	2008
Brigham Young University	Civil Engineering	MS	2000
Brigham Young University	Civil Engineering	BS	2000

RESEARCH and PROFESSIONAL WORK

- Seismic protection of buildings with innovative control systems
- Performance-based seismic design
- Structural design for multi-hazard environments
- Seismic design and behavior of bridges
- Post-earthquake Reconnaissance
- Soil-foundation-structure interaction as it relates to structural design
- Design and behavior of precast concrete bridge components and three-sided arch bridges
- Active and experiential learning in engineering education

PUBLICATIONS

Peer Reviewed Journal:

Marshall, J.D., B. Saxey, and Z. Xie (2018). Quantifying Ductility and Axial Force Demands on Buckling Restrained Braces. *Engineering Journal*, American Institute of Steel Construction, 55, pp 209-229.

Zargar, H., K.L. Ryan, T.A. Rawlinson, and J.D. Marshall (2017). Evaluation of a passive gap damper to control displacments in a shaking test of a seismically isolated three-story frame. *Earthquake Engineering & Structural Dynamics*, **46**(1), pp 51-71.

Dupaquier, S.E., J.D. Marshall and J.M. Stallings (2016). Use of Intermediate Diaphragms and Temporary Bracing Alternatives in Precast Concrete Girder Bridges, *Practice Periodical on Structural Design and Construction*, **21**(2), 10.1061/(ASCE)SC.1943-5576.0000272, 04015019.

Eletrabi, H. and J.D. Marshall (2015) Catenary Action in Steel Framed Buildings with Buckling Restrained Braces, *Journal of Constructional Steel Research*, **113**, doi:10.1016/j.jcsr.2015.04.026.

Rawlinson, T.A, J.D. Marshall, K.L Ryan and H.Z. Shotorbani (2015). "Development and Experimental Evaluation of a Passive Gap Damper Device to Prevent Pounding in Base-Isolated Structures." *Earthquake Engineering and Structural Dynamics*, 10.1002/eqe.2542.

Marshall, J.D., J.B. Anderson, R. Luke Meadows and T.J. Jensen. (2014). "Full-Scale Testing of Three-Sided Precast Concrete Arch Sections. *ASCE Journal of Bridge Engineering* **19**(12), 04014051.

Rawlinson, T.A. and J.D. Marshall (2014). "Characterization of Multi-Phase Performance-Based Passive Control Systems." *Journal of Earthquake Engineering*, 18(4), 589-610.

Zargar, H., K.L. Ryan, and J.D. Marshall (2013). "Feasibility study of a gap damper to control seismic isolator displacements in extreme earthquakes." *Structural Control and Health Monitoring*, **20**(8), 1159-1175.

Marshall, J.D., K. Jaiswal, N. Gould, F. Turner, B. Lizundia and J.C. Barnes (2013). "Post-Earthquake Building Safety Inspection: Lessons from the Canterbury, New Zealand Earthquakes." *Earthquake Spectra* (Technical Note), **29**(3), 1-17.

Marshall, J.D. and P.J. Coulston, (2013) "Comparison of Bridge Earthquake Resisting System Design in a Moderate Hazard." *Practice Periodical on Structural Design and Construction*, **18**(2), 83-91.

Marshall, J.D. and Charney, F.A. (2012). "Seismic Response of Steel Frame Structures with Hybrid Passive Control Systems." *Earthquake Engineering and Structural Dynamics*, **41**(4), 715-733, DOI: 10.1002/eqe.1153.

Marshall, J.D., A.F. Lang, S.M. Baldridge and D.R. Popp. (2011) "Recipe for Disaster: Construction Methods, Materials and Building Performance in the 2010 Haiti Earthquake." *Earthquake Spectra*, **27**(S1), S323-S343.

Lang, A.F and J.D. Marshall. (2011) "Devil in the Details: Success and Failure of Haiti's Nonengineered Structures." *Earthquake Spectra*, **27**(S1), S345-S372.

Marshall, J.D. and Charney, F.A. (2010). "A Hybrid Passive Control Device for Steel Structures I: Development and Analysis." *Journal of Constructional Steel Research*, **66(10)**, 1278-1286.

Marshall, J.D. and Charney, F.A. (2010). "A Hybrid Passive Control Device for Steel Structures II: Physical Testing." *Journal of Constructional Steel Research*, **66(10)**, 1287-1294.

Ibrahim, Y.E., Marshall, J.D. and Charney, F.A. (2007). "A Visco-Plastic Device for Seismic Protection of Structures." *Journal of Constructional Steel Research*, **63**(11): 1515-1528.

Charney, F.A. and Marshall, J.D. (2006). "A Comparison of the Krawinkler and Scissors Models for Including Beam-Column Joint Deformations in the Analysis of Moment-Resisting Steel Frames." *Engineering Journal*, **43**(1): 31-48.

Peer Reviewed Conference:

Wu, H.* and J.D. Marshall (2017). Effect of Vertical Accelerations on Steel Frame Structures, 16th World Conference on Earthquake Engineering, Santiago, Chile.

Marshall, J.D., Z. Xie and B.W. Saxey (2017). Ductility, Overstrength and Residual Drift in Buckling-Restrained Braced Frames, 16th World Conference on Earthquake Engineering, Santiago, Chile.

Langley, M. and J.D. Marshall (2017). Enhancing Seismic Response in Hard Wall Metal Buildings with Energy Dissipating Connections, 16th World Conference on Earthquake Engineering, Santiago, Chile.

Eletrabi, H. and J.D. Marshall (2014). Impact of Buckling Restrained Braces on Catenary Action in Steel Framed Structures, 10th US National Conference on Earthquake Engineering, Anchorage, AK, July 21-25, 2014.

Rawlinson, T.A., J.D. Marshall, K.L. Ryan and H. Zargar (2014). Design and Testing of a Gap Damper Device to Mitigate Rare Earthquake Pounding Response in Base-Isolated Buildings, 10th US National Conference on Earthquake Engineering, Anchorage, AK, July 21-25, 2014.

Zargar, H., K.L. Ryan, J.D. Marshall, and T.A. Rawlinson (2014). The Effect of Residual Displacement on Gap Damper Performance, 10th US National Conference on Earthquake Engineering, Anchorage, AK, July 21-25, 2014.

Marshall, J.D. and N.C. Gould (2012). The Performance of Low-Rise Industrial Facilities in the 2010 Haiti and 2011 Christchurch, New Zealand Earthquakes. 15th World Conference on Earthquake Engineering, Lisbon, Portugal, September 24-28, 2012.

Rawlinson, T.A. and J.D. Marshall (2012). Multi-Phase Passive Control Systems for Performance-Based Design. 15th World Conference on Earthquake Engineering, Lisbon, Portugal, September 24-28, 2012.

Zargar, H., K.L. Ryan, T. Rawlinson and J.D. Marshall (2012). Exploring the Gap Damper Concept to Control Seismic Isolator Displacement Demands. 15th World Conference on Earthquake Engineering, Lisbon, Portugal, September 24-28, 2012.

Marshall, J.D. (2010). Initial Parameter Development for Multi-Phase Performance-Based Passive Control Systems. 9th US National and 10th Canadian Conference on Earthquake Engineering. Toronto, Canada, July 25-29, 2010.

Books or Book Chapters:

Marshall, J.D., "Buckling Restrained Braces and Their Implementation in Structural Design of Steel Buildings", in Encyclopedia of Earthquake Engineering, Edited by: M. Beer, I.A. Kougioumtzoglou, E. Patelli and I.S.-K. Au (2015).

Conference or Workshop:

Marshall, J.D., B. Saxey, J. Johnson and Z. Xie (2014). A Comparison of Code-based and Analysis-based Ductility Demands on Buckling Restrained Braces, SEAOC 2014 83rd Annual Convention Proceedings, September 10-13, 2014, Indian Wells, CA.

Dupaquier, S.E., J.D. Marshall and J.M. Stallings. (2014) Evaluating the Variations in Use of Intermediate Diaphragms for Precast Concrete Girder Bridges Throughout the U.S. ASCE/SEI 2014 Structures Congress, Boston, MA, April 3-5, 2014.

Turner, F., K. Elwood, M. Griffith, J. Ingham and J. Marshall (2012). Performance of Retrofitted Unreinforced Masonry Buildings during the Christchurch Earthquake Sequence. ASCE/SEI 2012 Structures Congress, Chicago, IL, March 29-31, 2012.

Marshall, J.D., J.C. Barnes, N.C. Gould, K. Jaiswal, B. Lizundia, D.B. Swanson, and F. Turner (2012). Post-Earthquake Building Safety Assesments for the Canterbury Earthquakes. ASCE/SEI 2012 Structures Congress, Chicago, IL, March 29-31, 2012.

Gould, N.C. and J.D. Marshall (2012). Structural and Non-structural Damage to Industrial Facilities During the February 2011 Christchurch, New Zealand Earthquake. ASCE/SEI 2012 Structures Congress, Chicago, IL, March 29-31, 2012.

Coulston, P.J. and Marshall, J.D. (2011). Influence of the Guide Specifications for LRFD Seismic Bridge Design in Alabama. ASCE/SEI 2011 Structures Congress. Las Vegas, NV, April 14-16, 2011.

Baldridge, S.M. and Marshall, J.D. (2011). Performance of Structures in the January 2010 M_W 7.0 Haiti Earthquake. ASCE/SEI 2011 Structures Congress. Las Vegas, NV, April 14-16, 2011.

Marshall, J.D. and Charney, F.A. (2009). Dynamic Response of Steel Moment-Frame Structures with Hybrid Passive Control Systems. ATC-SEI Conference on Improving the Seismic Performance of Existing Buildings and Other Structures. San Francisco, CA, December 9-11, 2009.

Marshall, J.D. and Charney, F.A. (2008). Development and Analysis of a Hybrid Passive Control Device. The 14th World Conference on Earthquake Engineering. Beijing, China, October 12-17, 2008.

Marshall, J.D. and Jensen, D.W. (2000). Enhanced Damping of Hat-Stiffened Panels Using Continuous Wave Fiber Composites. Smart Structures and Materials 2000: Damping and Isolation. Newport Beach, CA, United States. Society of Photo-Optical Instrumentation Engineers. **3989**: 344 – 353.

Technical Reports:

Marshall, J.D., P.S. Koch, and C.L. Kerner (2017). Low-Slip Force Friction Connection for Early Phase Energy Dissipation in Steel Structures, American Institute of Steel Construction, September 2017.

Marshall, J.D., J.B. Anderson, J. Campbell, Z. Skinner, S.T. Hammett (2017). Experimental Validation of Analysis Methods and Design Procedures for Steel Pile Bridge Bents, Auburn University Highway Research Center, April 2017.

Marshall, J.D., J.B. Anderson, J.D. Law, J.L. Panzer, K.M. Kane (2014). Update of Bridge Design Standards in Alabama for AASHTO LRFD Seismic Design Requirements, Auburn University Highway Research Center, May 2014.

Marshall, J.D., J.B. Anderson, R.L. Meadows and T. Jared Jensen (2012). Experimental Testing and Design Evaluation of Precast Three-Sided Arch Bridges, Auburn University Highway Research Center, July 2012.

Coulston, P.J and J.D. Marshall, (2011). Influence of the LRFD Bridge Design Specifications on Seismic Design in Alabama, Auburn University Highway Research Center, Research Report IR-11-01, August 2011.

The M6.3 Christchurch, New Zealand Earthquake of February 22, 2011 (2011). Earthquake Engineering Research Institute Newsletter, EERI Special Earthquake Report, May 2011. (Contributing Author)

Eberhard, M.O., S.M. Baldridge, J.D. Marshall, W. Mooney and G. Rix (2010). The MW 7.0 Haiti Earthquake of January 12, 2010: USGS/EERI Advance Reconnaissance Team: Team Report.

Pratt, W.F., Marshall, J.D. and Steurer K.A. (1999). Lightweight Composites with Integrated Damping. Phillips Air Force Research Lab, Kirkland AFB, NM. AFRL-VS-TR-1999-1064.

Invited Lectures:

"Energy Dissipation, Protective Devices and Systems." PREEMPTIVE Workshop 2016, Christchurch, New Zealand, August 29, 2016.

"CIVL 4690 Structural Design Project – Auburn University." MBMA Capstone Workshop, Atlanta, GA, June 15, 2016.

"Dynamics and Seismic Performance of Hard Wall Metal Buildings." 2016 MBMA Research Symposium, Nashville, TN, February 10, 2016.

"Experimental Testing and Modeling of Steel Pile Bridge Bents." 59th Annual Transportation Conference, Montgomery, AL, February 9, 2016.

"Dynamics and Seismic Performance of Hard Wall Metal Buildings." Annual MBMA Research Symposium, Huntsville, AL, February 26, 2015.

"Dynamics and Seismic Performance of Hard Wall Metal Buildings." 2014 NCI Building Systems Continuing Education Seminar, October 17, 2014, Houston, TX.

"Resilient Connections for Hard Wall Metal Buildings." Annual MBMA Research Symposium, Nashville, TN, February 26, 2014.

"Performance of Metal Buildings in the Port-au-Prince Haiti and Christchurch, New Zealand Earthquakes." MBMA Research Symposium, Atlanta, GA, March 6, 2013.

"The Performance of Industrial Buildings in the 2010 Haiti and 2011 Christchurch, New Zealand Earthquakes." 2012 NCI Building Systems Continuing Education Seminar, October 4, 2012, Houston, TX.

"Structural Details for Seismic Design of Bridges in Alabama." Bridge Construction Association of Alabama Meeting, October 2, 2012, Prattville, AL.

"Full-Scale Load Testing of Foley Arch Bottomless Culverts." 2012 Alabama Section ASCE Summery Meeting, August 1-3, 2012, Orange Beach, AL.

"Workshop on Deploying Post-Disaster Quick-Response Reconnaissance Teams," National Science Foundation Civil, Mechanical and Manufacturing Innovation and Network for Earthquake Engineering Simulation Conference, July 9-12, 2012, Boston, MA.

"Lessons from Christchurch New Zealand: Damage to Main Street Buildings with and without Retrofits." South Main Retrofit and Historic Restoration Demonstration Project, National Earthquake Conference, April 10-13, 2012, Memphis, TN.

"AASHTO Guide Specification for Seismic Design – Alabama Bridges." 55th Annual Transportation Conference, February 23-24, 2012, Montgomery, AL.

"Comparison of the LRFD and Guide Specifications for Seismic Bridge Design in a Moderate Hazard." Transportation Research Board Annual Meeting, January 25, 2012, Washington D.C.

"USGS/EERI Advance Earthquake Reconnaissance Team Report
M_W 7.0 Haiti Earthquake – 01/12/2010." Washington and Lee University, December 9, 2010.

"Initial parameter development for multi-phase performance-based passive control systems." *9th US National and 10th Canadian Conference on Earthquake Engineering*. Toronto, Canada, July 25-29, 2010.

"USGS/EERI Advance Earthquake Reconnaissance Team Report
M_W 7.0 Haiti Earthquake – 01/12/2010." ASCE Alabama Section Summer Meeting, Orange Beach, AL, July 22, 2010.

Marshall, J.D. & R.A. Greene. "Earthquake Reconnaissance Mission to Haiti: Damage Assessment, Lessons Learned, and Recovery Efforts." Virginia Tech, March 16, 2010.

"Impact of Seismic Design Requirements on Bridges in Alabama." *53rd Annual Alabama Transportation Conference*. Montgomery, AL, February 22-23, 2010.

SPONSORED RESEARCH AND GRANTS

Experimental Determination of Braking Force Distribution in Steel Pile Bent Bridges, Alabama Department of Transportation, $147,405, January 2017 – July 2018, PI – Justin D. Marshall, Co-PI – J. Brian Anderson and Robert W. Barnes

Simplified and Standardized Seismic Design and Detailing for Alabama Bridges, Alabama Department of Transportation, $129,239, August 2016 – July 2018, PI – Justin D. Marshall

Resilient Connections Between Hard Walls and Steel Frames in Metal Buildings, National Science Foundation, $191,323, September 2013 – August 2016, PI – Justin D. Marshall.

Low-Slip Force Friction Connections for Early Phase Energy Dissipation in Steel Structures, American Institute of Steel Construction, $75,690, August 2013-July 2015, PI – Justin D. Marshall.

Experimental Validation of Analysis Methods and Design Procedures for Steel Pile Bridge Bents, Alabama Department of Transportation, $218,852 (+$30,000 from AU Highway Research Center), July 2013 – June 2015, PI – Justin Marshall, Co-PI – J. Brian Anderson.

Prefabricated Diaphragms for Prestressed Concrete Girder Bridges, Auburn University Highway Research Center, $34,490, January 2013-May 2014, PI – Justin Marshall, Co-PI – J. Michael Stallings.

REU Supplement for Collaborative Research: An Innovative Gap Damper to Control Seismic Isolator Displacements in Extreme Earthquakes, National Science Foundation, $6,000.

Collaborative Research: An Innovative Gap Damper to Control Seismic Isolator Displacements in Extreme Earthquakes, National Science Foundation, $159,977 (Total Budget: $354, 972), 36 Months, PI – Keri Ryan (University of Nevada, Reno), Co-PI Justin Marshall

Update of Bridge Design Standards for AASHTO LRFD Seismic Design Requirements, Alabama Department of Transportation, $229,630, 24 Months, PI-Justin Marshall, Co-PI – J. Brian Anderson

Foley Arch Bottomless Precast Bridge Validation: Testing, Analysis and Design, Foley Arch, $90,799, September 2010 – May 2012, PI – Justin Marshall, Co-PI – J. Brian Anderson

Structural Details for Seismic Design of Bridges, Auburn University Highway Research Center, $34,870, October 2009 – May 2011, PI – Justin Marshall

DISSERTATIONS, THESES AND PROJECTS

Doctoral Dissertations Directed

Name	Dissertation Title	Month/Year Completed/ Expected
Haitham Eletrabi	Catenary Action in Steel Framed Structures with Autoclaved Aerated Concrete Infill & Buckling Restrained Braces	December 2014
Taylor A. Rawlinson	Design and Testing of a Gap Damper for Base Isolated Buildings in Extreme Earthquakes	May 2015
Michael Langley	Development, Testing and Analysis of a Rotational Friction Connection for Improving the Seismic Performance of Metal Building Systems with Hard Walls	Summer 2018

Master's Theses and Projects Directed

Name	Thesis/Project Title	Month/Year Completed/ Expected
Paul J. Coulston	Influence of the LRFD Bridge Design Specifications On Seismic Design in Alabama	April 2011
Taylor A. Rawlinson	Characterization of Multi-Phase Performance-Based Passive Control Systems	August 2011
Richard L. Meadows	Experimental Testing of Foley Arch Precast Three-Sided Bridge	May 2012
Timothy J. Jensen	Behavior and Design of Foley Arch Precast Three-Sided Bridge	May 2012
Jordan D. Law	Development of Connections and Design Procedures for Seismic Bridge Design in Alabama	May 2013
Jordan L. Panzer	Displacement-Based Design of Critical Bridges in Alabama	August 2013
Blake Webster	Design of Benchmark Steel Frame Buildings (MCE Project)	December 2013
Samantha Dupaquier	Steel Intermediate Cross-frames for Precast Girder Bridges	May 2014

Basima Abdulrahman	Multi-degree of Freedom Study of Multi-Phase Passive Control Systems	December 2014
Zhongliang Xie	Earthquake Induced Demands on Buckling Restrained Braces	August 2015
Jonathon Campbell	Experimental Testing and Analytical Modeling of Driven Steel Pile Bridge Bents	December 2015
Patrick Koch	Low-Slip Force Friction Connections for Early Phase Energy Dissipation in Steel Structures	December 2015
Hongyang Wu	Impact of Vertical Ground Motion on Seismic Response of Steel Frame Structures	May 2016
Michael Langley	3-D Model Development of Metal Building Systems with Hard Walls and Steel Frames	May 2016
Stephen Hammett	Theoretical Moment-Rotation Curve for Steel Piles Embedded in Concrete	Summer 2017
Vince Sellers	Experimental Testing of a Rotation Friction Connection for Use with Precast Concrete Cladding Panels in Metal Building Systems	Fall 2017
Joseph Broderick	Investigation of Seismic Design of Slab-on-Girder Bridge Details in Alabama	Summer 2018

Doctoral Dissertation, Master's Theses and Project Committees

Name	**Thesis/Project Title**	**Month/Year Completed/ Expected**
Charles Newberry	Finite Element Simulation and Assessment of Single-Degree-of-Freedom Prediction Methodology for Insulated Concrete Sandwich Panels Subjected to Blast Loads	January 2011
Samuel Keske	Assessment of Stability Methods for Self-Consolidating Concrete	April 2011
Bryan Ellis	Torsion of Wide Flange Steel Shapes (MCE Project)	May 2011
Thomas Hadzor	Acoustic Emission Testing of Repaired Prestressed Concrete Bridge Girders	May 2011
Wesley Bullock	Behavior of Damaged Prestressed Concrete Bridge Repaired with Fiber-Reinforced Polymer Reinforcement	August 2011

Eric Bertolotti	Near-Surface-Mounted Fiber-Reinforced Polymer Strips for Strengthening of Reinforced Concrete Girders	January 2012
George Kantrales	Factors Influencing Catenary Behavior in Ductile Steel-Framed Structures	August 2012
Mary Schambeau	Stability of Timber Bridges Subject to Scour	August 2012
Daniel Brannon	Breaching of Concrete Masonry Unit Walls Due to Direct Shear When Subjected to Blast Loading	Spring 2012
Brandon Johnson	Time-Dependent Deformations in Precast, Prestressed Bridge Girders	Summer 2012
Jonas Kamgang	Compliance of Self-consolidating Concrete for Prestressed Applications (MCE Project)	Fall 2012
Brett Perkins	Design of a Rapid-Erect, Man-Portable Structure for Airbase Asset Protection (MCE Project)	Spring 2013
Kevin Kane	Response of Deep Foundations to Seismic Loads in Alabama	Fall 2013
Levent Isbiliroglu	Predicting Time-Dependent Deformations in Prestressed Concrete Girders	Fall 2014
Samuel Keske	Use of Self-Consolidating Concrete for Prestressed Bridge Girders(PhD)	Spring 2014
Joseph Nickerson	Finite Element Simulation of Precast/Prestressed Insulated Sandwich Panels Optimized for Consruction of Government Facilities	Spring 2014
Anthony Consunji	Connection Demand Prediction for the Design of Concrete Wall Panels Subjected to Blast Loads	Spring 2015
Sayed H. Ghasemi	Target Reliability Analysis for Structures (PhD)	Fall 2014
Fengtao Bai	Development of Composite Beam Theory and its Application in Composite and Prestressed Concrete Structures	Spring 2016
Marek Kolodziejczyk	System Reliability Model for a Long Span Arch Bridge	Spring 2018

COURSES TAUGHT

- ENGR 2050 – Statics (3 Credit Hours) – Engineering mechanics, statics of rigid bodies

- CIVL 3610 – Structural Analysis (3 Credit Hours) – Basic determinate and indeterminate structural analysis course.
- CIVL 3610 – Structural Analysis Lab (1 Credit Hour) – Lab component of basic structural analysis course including important topics from structural analysis and mechanics of materials.
- CIVL 4960 – Structural Senior Design Project (3 Credit Hours) – Capstone experience using a structural steel and metal building to provide a significant design experience.
- CIVL 5670/6670 – Advanced Structural Analysis (3 Credit Hours) – Second course in structural analysis using matrix methods.
- CIVL 5700/6700 – Design for Lateral Loads (3 Credit Hours) – Design courses focusing on design for wind and seismic loads in accordance with ASCE 7.
- CIVL 7610 – Structural Dynamics (3 Credit Hours) – Graduate course in structural dynamics including single and multi-degree of freedom structural systems and both classical and numerical solution methods.
- CIVL 7720 – Earthquake Engineering (3 Credit Hours) – Graduate course in earthquake engineering which covers the method of ASCE 7 as well as design and detailing requirements for common structural steel and reinforced concrete lateral systems.

AWARDS/HONORS/FELLOWSHIPS

- Undergraduate Research Fellowship Mentor, May 2017-May 2018
- MBMA Faculty Fellowship, 2015
- Chi Epsilon Excellence in Teaching Award, Southeast District, 2015
- Outstanding Civil Engineering Faculty Member, 2014
- Outstanding Young Alumni, Virginia Tech, 2012-2013
- Auburn University Chi-Epsilon Chapter Nominee for James M. Robbins Excellence in Teaching Award, Academic Year 2012-2013
- Charles E. Via, Jr. Doctoral Fellowship, 08/04 – 12/08, Virginia Polytechnic Institute and State University, Blacksburg, VA.
- ACI Graduate Scholarship, 08/99 – 04/00, Brigham Young University, Provo, UT.
- Office of Research and Creative Activities (ORCA) Graduate Scholarship, 08/99 – 04/00, Brigham Young University, Provo, UT.

LICENSES\CERTIFICATIONS\SPECIAL SKILLS

- Licensed Professional Engineer (CE), January 2002 - Present, California, USA
- ATC-20 Post Earthquake Safety Evaluation of Buildings Course (Certified Trainer)
- Future Professoriate Graduate Certificate, December 2008, Virginia Tech, Blacksburg, VA
- Qualified Combat Engineer, June 2003, United States Army
- Speak, Write and Read French Fluently

TECHNICAL ACTIVITIES

- ASCE Guided Online Courses – Earthquake Engineering for Structures, Seismic Loads and Seismic Analysis
- ASCE 7-22 Seismic Subcommittee, Technical Committees TC-2N Nonlinear Analysis Procedures, TC-6 Steel, TC-12 Seismic Isolation and Supplemental Damping
-
- NHERI RAPID Facility Community Workshop, Invited Participant, January 2017
- NSF PREEMPTIVE-SAVI Workshop Participant – Sendai, Japan; Christchurch, New Zealand and Santiago, Chile
- ASCE/SEI Seismic Effects Committee (Committee Chair)
- USGS/EERI Advance Reconnaissance Team – Haiti (January 2010)
- EERI Reconnaissance Team – Christchurch, New Zealand (March 2011)
- NSF Undergraduate Earthquake Reconnaissance Team Leader
- NSF Workshop on Quick Response Reconnaissance Research – June 2012 (Member of Steering Committee)
- South Main Retrofit Demonstration Project – 2012 National Earthquake Conference, April 10-13, Memphis, TN (Member of Steering Committee)
- Committee on Seismic Design and Performance of Bridges, AFF50, Transportation Research Board (Committee Research Coordinator)
- ASCE 7-16 Subcommittee for Seismic Loads, Technical Committee(TC)-2N – Seismic Response History, TC-6 – Steel and Composite Structures and TC-12 – Seismic Isolation and Damping (Associate Member)
- EERI Learning From Earthquakes Committee

INVITED REVIEWER/PANELIST

- Earthquake Spectra (Special Edition on Haiti and Christchurch, New Zealand Earthquakes)
- Journal of Structural Engineering
- Journal of Constructional Steel Research
- Canadian Journal of Civil Engineering
- Engineering Structures
- NSF Hazard Mitigation and Structural Engineering Review Panel
- NSF Network for Earthquake Engineering Simulation Review Panel
- NSF Structural and Architectural Engineering CAREER Review Panel

PROFESSIONAL SOCIETIES

- American Society of Civil Engineers (ASCE)
- American Institute of Steel Construction (AISC)
- Earthquake Engineering Research Institute (EERI)
- American Society for Engineering Education (ASEE)

- Central United States Earthquake Consortium (CUSEC)
- Structural Engineers Association of Alabama