Weichiang Pang

Associate Professor
Glenn Department of Civil Engineering
Clemson University
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Education

2001-2005
Ph.D., Civil Engineering
Michigan Technological University, Houghton, MI
Dissertation: Corrugated Wood Composite Panels for Structural Decking
Advisor: Dr. Bogue L. Sandberg

1999-2001
M.Sc., Civil Engineering
Michigan Technological University, Houghton, MI
Thesis: Analysis of Light-frame Wood Walls
Advisor: Dr. William M. Bulleit

1997-1999
B.Sc., Civil Engineering (Structural Engineering)
Michigan Technological University, Houghton, MI

1995-1997
Inti International College, Subang, Malaysia

Professional Experience

2014 - Present
Clemson University, Clemson, SC
Associate Professor in Civil Engineering

2008-2014
Clemson University, Clemson, SC
Assistant Professor in Civil Engineering

2005-2008
Texas A&M University, College Station, TX
Post-doctoral Research Associate
Supervisor: Dr. David Rosowsky

Professional Memberships

- Associate Member, **American Society of Civil Engineers**, ASCE (2007-)
- Associate Member, **Structural Engineering Institute**, SEI (2007-)
- Member, **Structural Engineers Association**, SEA (2008-)
- Member, **Earthquake Engineering Research Institute**, EERI (2010-)
- Member, **American Association for Wind Engineering**, AAWE (2013-)

Professional Activities

- Associate Editor, ASCE Journal of Structural Engineering (2015-present)
- Chair, ASCE Technical Committee on Design of Wood Structures, (2014-)
- Advisory Committee Member, South Carolina Department of Insurance and South Carolina Building Codes Council, Loss Mitigation Program, SC Safe Home (2015-present)
- Session Moderator**,** 12th International Conference on Applications of Statistics and Probability (ICASP) in Civil Engineering, Vancouver, Canada, (2015)
- Session Moderator, 2014 World Conference on Timber Engineering, Quebec City, Canada (Aug 2014)
- Member of the US ASCE reconnaissance team following the 2013 Typhoon Haiyan in Philippines (2014)
- Co-chair of a session, "Hurricane Risk Assessment and Mitigation," Structures Congress 2014, Boston, MA (2014)
- Co-chair of a session in a Mini Symposium on "Risk-based assessment and mitigation for multiple hazards – II," 11th International Conference on Structural Safety and Reliability (ICORSSAR), Columbia University, New York, NY (2013)
- Co-chair of a Mini-Symposium on "Multiple Hazards Assessment and Mitigation," Engineering Mechanics Institute (EMI) Conference, Northwestern University, Evanston, IL (2013)
- Session Moderator for the NEES & MCEER Annual Meeting (2011)
- Resilient Home Program, Stakeholder Group, (2010-2011)
- Post-doc Researcher, Design of 6-story Woodframe Capstone Building, NEESWood Project (2008-2010)
- Journal Reviewer: ASCE Journal of Structural Engineering, Structural Engineering International, Natural Hazards Review, Engineering Structures, Journal of Bridge Engineering, Advances in Structural Engineering, ASCE Journal of Performance of Constructed Facilities, Journal of Earthquake Engineering, Earthquake Engineering and Structural Dynamics

Current Research Activities

- Seismic design, retrofit and analysis of wood structures
- Seismic loss estimation
- Hurricane induced loss estimation
- Bamboo reinforced concrete as a sustainable alternative to steel reinforced concrete
- Tornado hazard modeling
- Mass timber / Cross-laminated timber
- Utilizing social media data to track natural disasters
- Catastrophic loss modeling - funded by American International Group (AIG)
- Culvert deterioration prediction model

Sponsored Research

[1] **"**Accelerated Bridge Construction: An Investigation of a Precast Alternative for Flat Slab Span," South Carolina Department of Transportation, Co-Investigator, $394,128, ($67,368), (2009-2013).

[2] **"**Predicting Building Envelope Failure of Residential Structures due to Atlantic Basin Hurricane Wind Hazard," South Carolina Sea Grant, Principal-Investigator, $120,850, ($60,425), (2010-2012).

[3] "Science Master's Program: Sustainable and Resilient Infrastructure," National Science Foundation, Co-Investigator, $700,000, ($87,500), (2010-2013).

[4] "Study of the Rate of Deterioration of Bridges and Pavements As Affected by Trucks," South Carolina Department of Transportation, Co-Investigator, $249,775, ($74,933), (2011-2013).

[5] "NEESR-CR: NEESsoft: Seismic Risk Reduction for Soft Story Woodframe Buildings," National Science Foundation through Colorado State University, Co-Investigator, $1,236,000, ($178,684), (2010-2014).

[6] "Building Resilient Residential Communities through Hurricane Mitigation Assessments: NSF Fellowship for James Michael Grayson," National Science Foundation, $121,500, ($121,500), (2011-2014).

[7] "Numerical Study of the Structural Performance of Large Diaphragms," FPInnovations, Canada, Principal-Investigator, $38,000 ($38,000), (2012-2014).

[8] "Engineering and Managing Sustainable and Resilience Infrastructure," GAANN (Graduate Assistance in Areas of National Needs), U.S. Department of Education, Co-Investigator, $799,596 ($159,919), (2012-2015).

[9] "Development of Solid and Hollow-core Cross-laminated Timber Systems for Low- and Mid-rise Construction," United States Department of Agriculture through North Carolina State University, Co-Investigator, $372,101 ($88,067), (2012-2015).

[10] "Effective Fastening of Structural Sheathing/Rigid Foam Insulation Panels in Light-frame Wood Construction to Maximize In-Plane Shear Resistance," Huber Engineered Woods, Co-Investigator, $81,109 ($32,444), (2014-2015).

[11] "Light-frame Performance Modeling Group – A Study of the Seismic Performance of Core-only versus Conventional Shear Wall Design Schemes for Light-frame Wood Buildings," co-funded by Structural Engineers Association of California (SEAOC), The Engineered Wood Association (APA), Simpson Strong-Tie and Mitek, Principal-Investigator, $20,000, (2014-2015).

[12] "Tornado Risk Assessment for BMW Spartanburg Plant in South Carolina," BMW Corp, Principal-Investigator, $55,000 (2014-2015).

[13] "Wind and Rain Resistant Design for Coastal Cross Laminated Timber Buildings," South Carolina Sea Grant, Principal-Investigator, $75,286 ($45,172), (2015-2016).

[14] "Best Practices for Assessing Culvert Health and Determining Appropriate Rehabilitation Methods," South Carolina Department of Transportation, Co-Investigator; $199,968 ($39,994), (2015-2016).

[15] "Expanding the Use of Wood Building Products in South Carolina," USDA, Co-Investigator; $250,000 ($25,000), (2015-2018).

[16] "GAANN: Model Validation Analytics in Support of High-Consequence Decision Making," GAANN (Graduate Assistance in Areas of National Needs), U.S. Department of Education, Co-Investigator, $1,229,816 ($49,193), (2015-2018).

PUBLICATIONS

Refereed Journal Publications

[J1] Jennings, E., Ziaei, E., Pang, W., van de Lindt, J., Shao, X., and Bahmani, P., "Full-Scale Experimental Investigation of Second-Story Collapse Behavior in a Woodframe Building with an Over-Retrofitted First Story," *ASCE Journal of Performance of Constructed Facilities*, **published online** (2015). <Permalink>

[J2] Tian, J., Symans, M., Pang, W., Ziaei, E., and van de Lindt, J., "Application of Energy Dissipation Devices for Seismic Protection of Soft-story Woodframe Buildings in Accordance with FEMA P-807 Retrofit Philosophy," ASCE Journal of Structural Engineering, **published online** (2015). <Permalink>

[J3] Chen, S., Leeman, M., English, B., Kennedy, M., Masters, F., Pinelli, J., Pang, W., Rullan-Rodriguez, J., Satyanarayana, P., Calvo, J., Murugan, B., and Natarajan, C., "Basic Structure System Rating of Post-Hurricane Haiyan Structures in Tacloban and East Guiuan," *ASCE Journal of Performance of Constructed Facilities*, **accepted** (2015)

[J4] Shao, X., Pang, W., Griffith, C., Ziaei, E., and van de Lindt, J., "Development of a Hybrid Simulation Controller for Full-Scale Experimental Investigation of Seismic Retrofits for Soft-Story Wood Frame Buildings", *Earthquake Engineering and Structural Dynamics*, **accepted** (2015).

[J5] Gu, M., and Pang, W., "Rolling Shear Strengths of Southern Pine Cross-Laminated Timber," *Wood Design Focus, Special Issue on Cross-laminated Timber*, **in review** (2015).

[J6] Wang, J., Cao, S., and Pang, W., "Wind Load Characteristics of a Cooling Tower Exposed to a Translating Tornado," *Journal of Wind Engineering & Industrial Aerodynamics*, **in review** (2015).

[J7] Valamanesh, V., Myers, A., Arwade, S., Hajjar, J., Hines, E., and Pang, W., "Wind-wave Prediction Equations for Probabilistic Offshore Hurricane Hazard Analysis," *Natural Hazards* (Elsevier), **in review** (2015).

[J8] Wei, K., Arwade, S., Myers, A., Hollowell, S., Hajjar, J., Hines, E., and Pang, W., "Toward Performance-based Evaluation for Offshore Wind Turbine Jacket Support Structures," *Renewable Energy* (Elsevier), **in review** (2015).

[J9] Wei, K., Arwade, S., Myers, A., Valamanesh, V., and Pang, W., "Effect of Wind and Wave Directionality on the Structural Performance of Offshore Wind Turbines Supported by Jackets during Hurricanes," *Wind Energy* (Wiley), **in review** (2015).

[J10] Chen, S., English, B., Kennedy, A., Leeman, M., Masters, F., Pinelli, J., Pang, W., Rullan-Rodriguez, J., Calvo, J., Briones, F., "ASCE Hurricane Haiyan Disaster Investigation in the Philippines," *ASCE Journal of Performance of Constructed Facilities*, 29(4):02514003, (2015). <Permalink>

[J11] Huang, Y. and Pang, W., "Optimization of Resilient Biofuel Infrastructure System under Natural Hazards," ASCE *Journal of Energy Engineering*, 140(2), 04013017, (2015). <Permalink>

[J12] Jennings, E., van de Lindt, J.W., Ziaei, E., Bahmani, P, Park, S., Shao, X., Pang, W., Rammer, D., Mochizuki, G., and Gershfeld, M., "Full-scale Experimental Verification of Soft-Story-Only Retrofits using Hybrid Testing," *Journal of Earthquake Engineering*, 19(3): 410-430 (2015).<Permalink>

[J13] Pei, B., Pang, W., Testik, F., Ravichandran, N., and Liu, F., "Mapping of Joint Hurricane Wind and Storm Surge Hazards for Charleston County, South Carolina," *Natural Hazards*, 74(2), 375-403 (2014). <Permalink>

[J14] Jennings, E., van de Lindt, J.W., Ziaei, E., Mochizuki, G., Pang, W., and Shao, X., "Retrofit of a Soft-story Woodframe Building using SMA Devices with Full-Scale Hybrid Test Verification," *Engineering Structures*, 80(12) (2014). <Permalink>

[J15] Huang, Y., Parmelee, S., and Pang, W. "Optimal Retrofit Scheme for Highway Network under Seismic Hazards," *International journal of transportation science and technology*, 3(2), (2014). <Permalink>

[J16] Shao, X., van de Lindt, J., Bahmani, P., Pang, W, Ziaei, E., Symans, M., Tian, J., Dao, T., "Real-Time Hybrid Simulation of a Multi-Story Wood Shear Wall with Physical First-Story Incorporating Rate-Dependent Seismic Energy Dissipation Device," *Smart Structures and Systems*, 14(6):1031-1054 (2014). <Permalink>

[J17] Dey, K., Chowdhury, M., Pang, W., Putman, B., and Chen, L., "Estimation of Pavement and Bridge Damage Costs Due to Overweight Trucks," *Transportation Research Record*, 2411:62-71 (2014). <Permalink>

[J18] Pei, B., Pang, W., Testik, F., Ravichandran, N., "Error Quantification for Hurricane Storm Surge Simulations along Coasts of North Carolina, South Carolina, and Georgia", *Natural Hazards Review*, 14(2), 79-88 (2013). <Permalink>

[J19] Grayson, J.M, Pang, W., and Schiff, S., "Building Envelope Failure Assessment Framework for Residential Communities Subjected to Hurricanes," *Engineering Structures,* 51, 245-258 (2013). <Permalink>

[J20] Davis-McDaniel, C., Chowdhury, M., Pang, W., and Dey, K. "Fault-Tree Model for Identification of Causal Factors and Risk Assessment of Bridge Failure," *Journal of Infrastructure Systems*, 19(3), 326-34 (2013). <Permalink>

[J21] van de Lindt, J.W., Rosowsky, D.V., Pang, W., and Pei, S., "Performance-Based Seismic Design of Mid-Rise Woodframe Buildings", *ASCE Journal of Structural Engineering, Special issue NEES 2: Advances in Earthquake Engineering*, 139(8), 1294-1302 (2013). <Permalink>

[J22] Pang, W., and Shirazi, S.M.H., "Corotational Model for Cyclic Analysis of Light-frame Wood Shear Walls and Diaphragms", *ASCE Journal of Structural Engineering, Special issue NEES 2: Advances in Earthquake Engineering*, *139*(8), 1303-1317 (2013). <Permalink>

[J23] Pang, W., Shao, X., van de Lindt, J., Ziaei, E., and Jennings, E. "Hybrid Testing of a Soft-story Light-frame Wood Building with Seismic Retrofits," *Wood Design Focus,* 23(4), (2013).

[J24] Grayson, J.M., Pang, W., and Schiff, S., "Three-dimensional probabilistic wind-borne debris trajectory model for building envelope impact risk assessment," *Journal of Wind Engineering and Industrial Aerodynamics*, 102(3):22-35, (2012). <Permalink>
The American Association for Wind Engineering 2013 Best Journal Paper Award

[J25] van de Lindt, J.W., Pei, S., Pang, W., Shirazi, S.M.H., "Collapse Testing and Analysis of a Light-frame Wood Garage Wall," *ASCE Journal of Structural Engineering*, 138(4), 492-501(2012). <Permalink>

[J26] van de Lindt, J.W., Pei, S, Pang, W., and Rosowsky, D.V., "IDA Comparison of an IBC-Designed and DDD Six-Story Light-Frame Wood Building," *Journal of Performance of Constructed Facilities,* 25(2), 138-142 (2011). <Permalink>

[J27] Datin, P.L., Prevatt, D.O., and Pang, W., "Wind Uplift Capacity of Residential Wood Roof Sheathing Panels Retrofitted with Insulating Foam Adhesive," *ASCE Journal of Architectural Engineering,* 17(4), 121-171, (2011). <Permalink>

[J28] Pang, W., Rosowsky, D.V., Pei, S., and van de Lindt, J.W., "Simplified Direct Displacement Design of Six-Story Woodframe Building and Pre-test Performance Assessment," *ASCE Journal of Structural Engineering*, 136(7), 813-825, (2010). <Permalink>

[J29] Wang, Y., Rosowsky, D.V., and Pang, W., "Performance-based Procedure for Direct Displacement Design of Engineered Woodframe Structures," *ASCE Journal of Structural Engineering*, 136(8), 978-988, (2010). <Permalink>

[J30] Pang, W., and Rosowsky, D.V., "Beam-Spring Model for Timber Diaphragm and Shear Walls," *UK's Structures and Buildings Journal, Special Issue on Timber Structures,* 163(4), 227-244 (2010). <Permalink>

[J31] Pang, W., Rosowsky, D.V., Ellingwood, B.R., and Wang, Y., "Seismic Fragility Analysis and Retrofit of Conventional Residential Wood Frame Structures in the Central United States," *ASCE Journal of Structural Engineering*, 135(3), 262-271, (2009). <Permalink>

[J32] Pang, W., and Rosowsky, D.V., "Direct Displacement Procedure for Performance-based Seismic Design of Mid-rise Woodframe Structures," *Earthquake Spectra*, 25(3), 583-605 (2009). <Permalink>

[J33] van de Lindt, J.W., Rosowsky, D.V., Pei, S., and Pang, W. "Objectives of the NEESWood Capstone Test: Six Story Light-Frame Seismic Construction using PBSD," *Wood Design Focus – A Journal of Contemporary Wood Engineering*, 19(4), 3-6 (2009).

[J34] Ellingwood, B.R., Rosowsky, D.V., and Pang, W., "Performance of Light-frame Wood Residential Construction Subjected to Earthquake in Regions of Moderate Seismicity," *ASCE Journal of Structural Engineering*, 134(8), 1353-1363, (2008). <Permalink>

[J35] Pang, W., and Rosowsky, D.V., "Performance-based Seismic Design of Six-story Woodframe Structure," *Structural Engineering International SEI*, 18(2), 179-185 (2008).

[J36] Pang, W., Rosowsky, D.V., Pei, S., and van de Lindt, J.W., "Evolutionary Parameter Hysteretic Model for Wood Shearwalls," *ASCE Journal of Structural Engineering*, 133(8), 1118-1129 (2007). <Permalink>

[J37] Pang, W., Sandberg, L.B., Laks, P., and Forsman, J.W., "Corrugated Strandboard Structural Panels," *Forest Products Journal*, 57(3), 48-53, (2007). <link>

[J38] Bulleit, W.M., Pang, W., and Rosowsky, D.V., "Modeling Wood Walls Under Combined Axial and Transverse Loads," *ASCE Journal of Structural Engineering*, 131(5), 781-793 (2005). <Permalink>

Conference Proceedings (Reviewed)

[CR1] Rosowsky, D.V., Bulleit, W.M., Yu, G., and Pang, W., "System Reliability Analysis Model for Wood Walls Subject to Combined Loads," *International Conference on Structural Safety and Reliability ICOSSAR*, Newport Beach, CA (June 2001).

[CR2] Rosowsky, D.V., Pang, W., Wang, Y., and Ellingwood, B., "Fragility of Conventional Woodframe Structures Built in Regions of Low-to-Moderate Seismicity," International Conference on Structural Safety and Reliability (ICOSSAR), Osaka, Japan (September 2009).

[CR3] Wang, Y., Rosowsky, D.V., and Pang, W., "Modeling the Joint Wind-Surge Hazard due to Hurricanes in the Gulf of Mexico," International Conference on Structural Safety and Reliability (ICOSSAR), Osaka, Japan (September 2009).

[CR4] Pang, W., Testik, F.Y., Lee, K.H., "Development of a Synthetic Coastal Hurricane Storm Surge Database for South Carolina," Hurricane Hugo 20th Anniversary Symposium on Building Safer Communities, Charleston, SC (October 2009).

[CR5] Wang, Y., Rosowsky, D.V. and Pang, W., "Performance-based Direct Displacement Design of Engineered Timber Building in Seismic Regions," 11th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP), Zurich, Switzerland, August 1-4, (2011).

[CR6] Liu, F., and Pang, W., "A Statistical Model for Simulating the Decay of Atlantic Basin Hurricanes after Landfall," 11th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP), Zurich, Switzerland, August 1-4, (2011)

[CR7] Grayson, M., Pang, W., and Schiff, S., "Probabilistic Wind-borne Debris Trajectory Model for Building Envelope Impact Risk Assessment," 11th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP), Zurich, Switzerland , August 1-4, (2011).

[CR8] Shirazi, S.M.H. and Pang, W., "Propagation of Modeling Uncertainty in Light-frame Wood Structures," 11th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP), Zurich, Switzerland, August 1-4, (2011).

[CR9] Davis-McDaniel, C., Chowdhury, M., and Pang, W., "Identification of Causal Factors of Bridge Failure Through Fault-tree Analysis and Intelligent Sensor Solutions," 18th Intelligent Transportation Society (ITS) World Congress, Orlando, FL, October 16-20, (2011).

[CR10] Chandra, K., Pang, W., and Chowdhury, M., "Bridge and Pavement Deterioration due to Repeated Overweight Trucks – A Framework for Technology and Policy Solutions," 18th Intelligent Transportation Society (ITS) World Congress, Orlando, FL, October 16-20, (2011).

[CR11] Davis-McDaniel, C., Dey, K., Pang, W. and Chowdhury, M., "Identification of Causal Factors of Bridge Failure Through Fault-tree Analysis," *Transportation Research Board Annual Meeting*, January 22-26, (2012).

[CR12] Pei, B., Pang, W., Testik, F.Y., and Ravichandran, N., "Loss Estimation Considering Joint Probability of Hurricane Wind and Storm Surge for the County of Charleston, SC," *12th Americas Conference on Wind Engineering*, Seattle, WA, Jun 16-20 (2013).

[CR13] Liu, F., and Pang, W., "Projection of Future US Design Wind Speeds due to Change in Hurricane Activity: Storm Genesis and Sea Surface Temperature" *12th Americas Conference on Wind Engineering*, Seattle, WA, Jun 16-20 (2013).

[CR14] Grayson, M., Pang, W., and Schiff, S., "Accounting for Exogenous Wind-borne Debris in Building Envelope Failure Assessment Models" *12th Americas Conference on Wind Engineering*, Seattle, WA, Jun 16-20 (2013).

[CR15] Pei, S. and Pang, W., "Multi-hazard Performance-based Design of Mid-rise Wood-frame Buildings for Hurricanes and Earthquakes," *11th International Conference on Structural Safety and Reliability*, New York, NY, Jun 16-20 (2013).

[CR16] Pang, W., Pei, B., Testik, F., and Ravichandran, N. "Loss Estimation for Combined Hurricane Wind and Storm Surge for the County of Charleston in South Carolina," *11th International Conference on Structural Safety and Reliability*, New York, NY, Jun 16-20 (2013).

[CR17] Grayson, M., Pang, W., and Schiff, S. "Statistical Development of An Exogenous Wind-Borne Debris Generator for Building Envelope Failure Assessment Models," *11th International Conference on Structural Safety and Reliability*, New York, NY, Jun 16-20 (2013).

[CR18] Dey, K., Chowdhury, M., Pang, W., Putman, B., and Chen, L., "Transportation Infrastructure Damage Costs Due to Overweight Trucks and Cost Recovery," *Transportation Research Board Annual Meeting*, Jan 12-14 (2014).

[CR19] Huang, Y., Parmelee, S., and Pang, W., "Optimal Retrofit Strategy Design for Highway Bridges under Seismic Hazards," *Transportation Research Board Annual Meeting*, Jan 12-14 (2014).

[CR20] Pang, W., Pant, S., Ni, C., Lawson, J., "Examining the Applicability of Design Methods for Large Panelized All-Wood Roof Diaphragms under Seismic Loading," *10th US National Conference on Earthquake Engineering*, July 21-25, (2014).

[CR21] Pang, W., Ziaei, E., Shao, X., van de Lindt, J., Gershfeld, M., and Symans, M., "A Three-dimensional Model for Slow Hybrid Testing of Retrofits for Soft-story Wood-frame Buildings," *10th US National Conference on Earthquake Engineering*, July 21-25, (2014).

[CR22] Gershfeld, M., Chadwell, C., van de Lindt, J., Pang, W., and Ziaei, E., "Distributed Knee-Brace (DKB) System As a Complete or Supplemental Retrofit for Soft-Story Woodframe Buildings," *10th US National Conference on Earthquake Engineering*, July 21-25, (2014).

[CR23] van de Lindt, J., Bahmani, P., Pryor, S., Jennings, E., Mochizuki, G., Shao, X., Gershfeld, M., Pang, W., and Symans, M., "Full-scale Testing of Soft-story Woodframe Buildings with Stiffness-based Retrofits," *10th US National Conference on Earthquake Engineering*, July 21-25, (2014).

[CR24] Tian, J., Symans, P., Bahmani, P., van de Lindt, J., Ziaei, E., Pang, W., Shao, X., and Gershfeld, M., "Seismic Performance of a Full-Scale Soft-Story Woodframed Building with Energy Dissipation Retrofit," *10th US National Conference on Earthquake Engineering*, July 21-25, (2014).

[CR25] Shao, X., van de Lindt, J., Bahmani, P., Pang, W., Ziaei, E., Symans, M., Tian, J., Jennings, E., Dao, T., "Real-time Hybrid Simulation of a Stacked Wood Frame Shear Wall with Viscous Damper," *10th US National Conference on Earthquake Engineering*, July 21-25, (2014).

[CR26] Jennings, E., van de Lindt, J., Shao, Xiaoyun, Pang, W., and Ziaei, E., "Full-Scale Hybrid Testing of a Soft-Story Woodframe Building Seismically Retrofitted using Shape Memory Alloy Devices in Scissor-Jack Braces," *10th US National Conference on Earthquake Engineering,* July 21-25, (2014).

[CR27] Valamanesh, V., Wei. K., Myers, A.T., Arwade, S.R., and Pang, W., "Hurricane Risk Considerations for Offshore Wind Turbines on the Atlantic Coast," Proceeding of the ASME 2015 International Conference on Ocean, Offshore and Arctic Engineering (OMAE), May 31-June-5, (2015).

[CR28] Pei, B., Pang, W., Testik, F.Y., and Ravichandran, N., "An Agent-based Framework for Modeling the Effectiveness of Hurricane Mitigation Incentives," *Proceeding of 12th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP12),* Vancouver, Canada, July 12-15, (2015).

[CR29] Grayson, J.M., and Pang, W., "Analytical damage quantification method for residential developments subjected to hurricane wind hazards," *Proceeding of 12th International Conference on Applications of Statistics and Probability in Civil Engineering (ICASP12),* Vancouver, Canada, July 12-15, (2015).

Conference Proceedings (Unreviewed)

[CU1] Pang, W., Pei, S., van de Lindt, J.W., and Rosowsky, D.V., "Formulation of Evolutionary Parameter Hysteretic Models for Woodframe Shearwalls," *9th World Conference on Timber Engineering*, Portland, OR (August 2006).

[CU2] Pei, S., van de Lindt, J.W., Rosowsky, D.V., and Pang, W., "Next Generation Hysteretic Models for Development of A Performance-based Seismic Design Philosophy for Woodframe Construction," *8th U.S. National Conference on Earthquake Engineering*, San Francisco, CA (April 2006).

[CU3] Bulleit, W.M., Rosowsky, D.V., Pang, W., and Yu, G., "Behavior and Reliability of Light-Frame Wood Wall Systems," *Structures Congress ASCE*, Denver, CO (April 2002).

[CU4] Pang, W., and Rosowsky, D.V., "Direct Displacement Procedure for Performance-based Seismic Design of Multistory Woodframe Structures," *9th Canadian Conference on Earthquake Engineering*, Ottawa, ON, Canada (June 2007).

[CU5] Pang, W., Pei, S., Liu, H., van de Lindt, J.W., and Rosowsky, D.V., "Tiered Approach to Performance-based Seismic Design of Wood Frame Buildings," *Structures Congress ASCE*, Vancouver BC, Canada (April 2008).

[CU6] Rosowsky, D.V. and Pang, W., "Direct Displacement Design for Multistory Woodframe Structures in Seismic Regions," *10th World Conference on Timber Engineering*, Miyazaki, Japan (June 2008).

[CU7] Rosowsky, D.V., Pang, W., Wang, Y., and Ellingwood, B.R., "Fragility of Residential Wood Structures Built in Regions of Low-to-Moderate Seismicity," *10th World Conference on Timber Engineering*, Miyazaki, Japan (June 2008).

[CU8] Shinde, J.K., Symans, M.D., Pang, W., and Rosowsky, D.V., "Displacement-based Design of Woodframed Structures with Toggle-braced Dampers," *14th World Conference on Earthquake Engineering*, Beijing, China (October 2008).

[CU9] Pang, W., Rosowsky, D.V., van de Lindt, J.W., and Pei, S., "Performance-based Shear Wall Design of Six-Story Capstone Building via Simplified Direct Displacement Design Procedure," *Structures Congress ASCE,* Kissimmee, FL (2010).

[CU10] Pang, W., and Shirazi, S.M.H., "Next Generation Numerical Model for Non-linear In-plane Analysis of Wood-frame Shear Walls," 11th World Conference on Timber Engineering, Trentino, Italy, June 20-24, (2010)

[CU11] Pang, W., and Rosowsky, D.V., "A Beam-Spring Analog Model for Seismic Analysis of Semi-Rigid Wood Diaphragms," 11th World Conference on Timber Engineering, Trentino, Italy, June 20-24, (2010)

[CU12] Pang, W., Rosowsky, D.V., van de Lindt, J.W., and Pei, S. "Simplified Direct Displacement Design of Six-story NEESWood Capstone Building and Pre-test Seismic Performance Assessment," 11th World Conference on Timber Engineering, Trentino, Italy, June 20-24, (2010)

[CU13] Wang, Y., Rosowsky, D.V. and Pang, W. "Toward a Performance-based Procedure for Direct Displacement Design of Engineered Woodframe Structures," 11th World Conference on Timber Engineering, Trentino, Italy, June 20-24, (2010)

[CU14] Pang, W., Rosowsky, D.V., van de Lindt, J.W., and Pei, S. "Simplified Performance-based Seismic Design of NEESWood Capstone Building and Pre-Test Performance Evaluation," *9th US National and 10th Canadian Conference on Earthquake Engineering*, (2010).

[CU15] Pang, W., Shirazi, S.M.H., van de Lindt, J.W., and Pei, S. "Structural Collapse Analysis of Light-frame Wood Shear Walls Under Earthquake Motions," *8th International Conference on Urban Earthquake Engineering*, Tokyo, Japan, March 7-8 (2011)

[CU16] Nielson, B.G. and Pang, W. "Effect of Ground Motion Suite Size on Uncertainty Estimation in Seismic Bridge Fragility Modeling," *Structures Congress, ASCE,* Las Vegas, NV, April 14-16 (2011)

[CU17] Shirazi, S.M.H., and Pang, W. "Seismic Performance Variability of Wood-frame Shear Walls Designed In Accordance to the National Design Specification (NDS)," *Structures Congress, ASCE*, Chicago, IL, March 29-31 (2012)

[CU18] Pang, W., and Ziaei, E., "An Efficient 3D Model for Nonlinear Dynamic Analysis of Soft-story Light-frame Wood Buildings," *Structures Congress, ASCE*, Chicago, IL. March 29-31 (2012)

[CU19] Pang, W., Liu, F., Fang, S., and Yue, L., "Spatial Correlation and Wind Speed Uncertainties of Hurricane Wind Field Model," *2012 Joint Conference of the Engineering Mechanics Institute and the11th ASCE Joint Specialty Conference*

on Probabilistic Mechanics and Structural Reliability, Notre Dame, IN (Jun 2012)

[CU20] van de Lindt, J.W., Symans, M.D., Pang, W., Shao, X. and Gershfeld, M. "Seismic Risk Reduction for Soft-story Woodframe Buildings: The NEES-Soft Project," *World Conference on Timber Engineering*, Auckland, New Zealand (Jul 2012)

[CU21] Pang, W., and Shirazi, S.M.H., "Stochastic Response of Light-frame Wood Buildings under Earthquake Loading," *World Conference on Timber Engineering*, Auckland, New Zealand (Jul 2012)

[CU22] van de Lindt, J.W., Rosowsky, D.V., Pang, W., and Pei, S., "Method and Example for Performance-based Seismic Design of Mid-rise Light-frame Wood Buildings," *World Conference on Timber Engineering*, Auckland, New Zealand (Jul 2012)

[CU23] Pang, W., Ziaei, E., and Filiatrault, A., "A 3D Model for Collapse Analysis of Soft-story Light-frame Wood Buildings," *World Conference on Timber Engineering*, Auckland, New Zealand (Jul 2012)

[CU24] Fang, S., Yue, L., Pang, W., and Liu, F., "An Examination of Spatial Correlation in Hurricane Wind Fields," *2012 Joint Statistical Meetings*, San Diego, FL (July 2012).

[CU25] van de Lindt, J.W., Symans, M.D., Pang, W., Shao, X. and Gershfeld, M. "NEES-Soft Project: Seismic Risk Reduction for Soft-story Woodframe Buildings," *15th World Conference on Earthquake Engineering*, Lisbon, Portugal (Sep 2012)

[CU26] Pei, B., Pang, W., Testik, F.Y., and Ravichandran, N., "Joint Distributions of Hurricane Wind and Storm Surge for the City of Charleston in South Carolina," ATC-SEI Advanced in Hurricane Engineering Conference, Miami, FL (Oct 2012)

[CU27] Liu, F., and Pang, W., "Influence of Climate Change on the Future Hurricane Wind Hazards along the US Eastern Coast and Gulf of Mexico," ATC-SEI Advanced in Hurricane Engineering Conference, Miami, FL (Oct 2012)

[CU28] Grayson, J.M., Pang, W., and Schiff, S., "Framework for the Assessment of Building Envelope Failures due to Hurricane Wind Hazards," ATC-SEI Advanced in Hurricane Engineering Conference, Miami, FL (Oct 2012)

[CU29] Pang, W., Chen, Z., Liu, F., and Holmes, R. "Failure Risk of 230kV Electricity Transmission Lines in South Carolina under Hurricane Wind Hazard," ATC-SEI Advanced in Hurricane Engineering Conference, Miami, FL (Oct 2012)

[CU30] van de Lindt, J.W., Bahmani, P., Gershfeld, M., Shao, X., Pang, W., and Symans, M., and Mochizuki, G., "Performance-based Seismic Retrofit of Soft-story Light-frame Wood Buildings," *10th International Conference on Urban Earthquake Engineering*, Mar 1-2, Tokyo, Japan (2013).

[CU31] Griffith, C., Shao, X., van de Lindt, J., Bahmani, P., Pang, W., Ziaei, E., and Dao, T., "Hybrid Simulation of a Wood Shear Wall Frame," *Structures Congress, ASCE,* Pittsburgh, PA. May 2-4 (2013).

[CU32] Schneider, N., Pang, W., and Gu, M. "Bamboo Reinforced Concrete for Seismic Design," *Structures Congress, ASCE,* Boston, MA, April 3-5 (2014).

[CU33] Ziaei, E., Pang, W., Gershfeld, M., and Chadwell, C., "Distributed Knee-brace (DKB) Retrofit for Collapse Prevention of Soft-story Wood-frame Buildings using a Direct Displacement-based Design Procedure," *Structures Congress, ASCE,* Boston, MA., April 3-5 (2014).

[CU34] van de Lindt, J., Bahmani, P., Jennings, E., Shao, X., Pang, W., Symans, M., and Gershfeld, M., "Overview of the NEES-Soft Experimental Program for Seismic Risk Reduction of Soft-story Woodframe Buildings," *Structures Congress, ASCE,* Boston, MA., April 3-5 (2014).

[CU35] Gershfeld, M., Chadwell, C., van de Lindt, J., Pang, W., Ziaei, E., Ferguson, J., Au, J., Savage, J., and Gordon, S., "Distributed Knee-Braced (DKB) System as a Complete or Supplemental Retrofit for Soft-Story Low-rise Woodframe Buildings," *Structures Congress, ASCE,* Boston, MA., April 3-5 (2014).

[CU36] Shao, X., van de Lindt, J., Bahmani, P., Pang, W., Ziaei, E., Symans, M., Tian, J., Jennings, E., and Dao, T., "Real-time Hybrid Simulation of Wood Shear Wall Frame with Viscous Damper," *Structures Congress, ASCE,* Boston, MA., April 3-5 (2014).

[CU37] Pang, W., Ziaei, E., Shao, X., van de Lindt, J. "Collapse Modeling and Hybrid Simulation of a Three-story Light-frame Wood Building," *Structures Congress, ASCE,* Boston, MA., April 3-5 (2014).

[CU38] Grayson, J.M., and Pang, W., "The Effect of Subdivision Layout on Coastal Community Resilience to Hurricane Wind Hazards," *Structures Congress, ASCE,* Boston, MA., April 3-5 (2014).

[CU39] Pei, B., Pang, W., Testik, F., and Ravichandran, N., "Regional Hurricane Wind and Surge Hazards Mitigation Planning – A FEMA HAZUS-MH Implementation," *Structures Congress, ASCE,* Boston, MA., April 3-5 (2014).

[CU40] Gershfeld, M. Chadwell, C., Jennings, E., Ziaei, E., Pang, W., and Shao, X., van de Lindt, J., "Seismic Performance of Distributed Knee-brace (DKB) System as a Retrofit for Soft-story Wood-frame Buildings," *World Conference on Timber Engineering*, Quebec City, Canada, (Aug 2014).

[CU41] van de Lindt, J., Bahmani, P., Gershfeld, M. Mochizuki, G., Shao, X., Pryor, S.E., Pang, W., Symans, M.D., Tian, J., Ziaei, E., Jennings, E., and Rammer, D., "Seismic Risk Reduction for Soft-story Wood-frame Buildiings: Test Results and Retrofit Recommendations from the NEES-Soft Project," *World Conference on Timber Engineering*, Quebec City, Canada, (Aug 2014).

[CU42] Pang, W., Ziaei, E., Jennings, E., Shao, X., van de Lindt, J., Gershfeld, M., and Pryor, S., "Numerical Model for Hybrid Simulation of a Three-story Wood-

frame Building," *World Conference on Timber Engineering*, Quebec City, Canada, (Aug 2014).

[CU43] Pang, W., Ni, C., Lawson, J., and Pant, S., "Distribution of Chord Forces in Large Panelized Wood Roof Diaphragm," *World Conference on Timber Engineering*, Quebec City, Canada, (Aug 2014).

[CU44] Montgomery, W.G., Schiff, S., and Pang, W., "Hollow Massive Timber Panels: A High Performance, Long-Span Alternative to Cross Laminated Timber," *World Conference on Timber Engineering*, Quebec City, Canada, (Aug 2014).

[CU45] Gu, M., Pang, W., and Schiff, S., "Displacement Design Procedure for Cross Laminated Timber (CLT) Rocking Walls with Sacrificial Dampers," *Proceeding of Structures Congress*, ASCE, Portland, OR, April 23-25(2015).

[CU46] Wei, K., Arwade, S., Myers, A., Valamanesh, V. and Pang, W., "Impact of Hurricane Wind/Wave Misalignment on the Analyses of Fixed-Bottom Jacket Type Offshore Wind Turbine," North American Wind Energy Academy, June 9-11, (2015).

[CU47] Wang, J., Cao, S., Pang, W., and Cao, J. "The Effects of Ground Roughness on the Characteristics of Tornado-like Vortices," International Conference on Wind Engineering, June 21-26, (2015).

Technical Reports

[T1] Pang, W., Pant, S., Ni, C., and Lawson, J., "Evaluation of Chord Design Methods for Large Panelized All-Wood Roof Diaphragms," submitted to FPInnovations and Canadian Forest Service, (2015).

[T2] Gu, M, and Pang, W., "Shear Strength of Light-frame Wood Walls Sheathed with Thermo-ply Red Sheathing," a report submitted to The Engineered Wood Association (APA), Tacoma, WA, (2015).

[T3] Sheng, H., Nielson, B.G., Schiff, S.D., Pang, W., (2013). "South Carolina Department of Transportation Research Project No. 682: Precast Alternative for Flat Slab Bridges", Final Report, South Carolina Department of Transportation, Columbia, SC.

[T4] Pang, W., and Rosowsky, D.V., "Direct Displacement Procedure for Performance-based Seismic Design of Multistory Woodframe Structures," Texas A&M University, *NEESWood Report NW-02*, *MCEER-10-0001*, (2010).

[T5] Pang, W., Rosowsky, D.V., van de Lindt, J.W., and Pei, S., "Simplified Direct Displacement Design of Six-story NEESWood Capstone Building and Pre-Test Seismic Performance Assessment," Clemson University, *NEESWood Report NW-05*, *MCEER-10-0002*, (2010).

Presentations

[P1] Pang, W., and Sandberg, L.B., "Corrugated Wood Composite Panels for Structural Decking," *Forest Products Society 58th Annual Meeting*, Grand Rapids, MI (June 2004).

[P2] Pang, W. "Seismic Retrofit of Wood-framed Structures," *Structural Engineers Association of South Carolina 6th Annual Meeting*, Columbia, SC (June-24 2011).

[P3] Pang, W., Grayson, J.M., and Schiff, S., "Development of Debris Impact Fragility Curves for Light-frame Wood Construction Subjected to Hurricanes," *2012 Joint Conference of the Engineering Mechanics Institute and the11th ASCE Joint Specialty Conference on Probabilistic Mechanics and Structural Reliability*, Notre Dame, IN (Jun 2012)

[P4] Pang, W, "Steps Toward Multi-hazard Mitigation," US-Vietnam Workshop on Multiple Natural Hazards Assessment and Mitigation under the Impact of Climate Change, Dec 9-12, Hanoi, Vietnam (2012).

[P5] Nielson, B., Schiff, S., Sheng, H., and W. Pang, "Identifying a Durable and Rapid Pre-Cast Alternative to Short Span Flat Slab Concrete Bridges," *2012 SASHTO Conference*, Charleston, SC (Aug 2012)

[P6] Pang, W., Pei, B., Liu, F., Testik, F.Y. and Ravichandran, N., "Hurricane Selection for Joint Wind and Storm Surge Risk Assessment," *Engineering Mechanics Institute Conference*, Evanston, IL (Aug 2013)

[P7] Andrus, R., Aziz, N., Chowdhury, M., Heine, U., Klotz, L., Lee, C., Pang, W., Pickett, G. and Rangaraju, P., "Science Master's Program in Sustainable and Resilient Infrastructure at Clemson University," *Engineering Mechanics Institute Conference*, Evanston, IL (Aug 2013)

[P8] Horvath, M. Dick, B., Peralta, P., Mitchell, P., Peszlen, I., Pang, W., Schiff, S., and White, R., "Fire Performance and Diffusion Coefficient of Adhesives Used for Southern Pine Cross-Laminated Timber," *Society of Wood Science and Technology Convention*, Zvolen, Slovakia (June 2014).

[P9] Pang, W., and Grayson, J.M., "Hurricane Wind Hazard Mitigation Retrofits and Community Resilience," *2014 Engineering Mechanics Institute Conference*, McMaster University, Hamilton, Canada Aug5-8 (2014).

Honors and Awards

- **American Association for Wind Engineering (AAWE) 2013 Best Journal Paper Award** - Paper entitled "Three-dimensional probabilistic wind-borne debris trajectory model for building envelope impact risk assessment," by Grayson, J.M., Pang, W., and Schiff, S., published in *Journal of Wind Engineering and Industrial Aerodynamics*, 102(3), 22-35 (2012).
- **AASHTO 2014 National High Value Research Project** - SCDOT/FHWA sponsored study "Rate of Deterioration of Bridges and Pavements as Affected by Trucks" – PI Chowdhury, Co-PIs Pang and Putman - was selected by the American Association of State Highway and Transportation Officials (AASHTO) as the top

ranked high value research projects for the AASHTO Region 2 (Southeast) and was selected as one of the 16 AASHTO National High Value Research Projects for 2014.

Other Sponsored Activity

- Travel Grant, Japan NEESWood Test, National Science Foundation, $2,400, (2009)
- Invitational Workshop on Improving Nonlinear Seismic Modeling of Light-frame Wood Buildings, Tuscaloosa, AL, Co-sponsored by Forest Products Laboratory and University of Alabama (2011).
- Travel Grant, 8th International Conference on Urban Earthquake Engineering (8CUEE), Tokyo Japan, Tokyo Institute of Technology (2011).
- Clemson Creative Inquiry, Bamboo Reinforced Concrete, $4500 (2013-2014)

Graduate Student Advising

- Supervised/co-supervised: 1 Post-doctoral fellow, 5 Ph.D. dissertations, 12 M.Sc. Theses, 1 visiting scholar
- Currently advising/co-advising: 10 Ph.D., 1 M.Sc. and 1 Post-doctoral fellow

Doctoral Graduates

[1] Seyed Masood Hassanzadeh Shirazi, (PhD Civil), "Propagation of Uncertainty in Light-frame Wood Buildings," (Aug-2012).
Current: Associate at Englekirk Structural Engineers / Englekirk Institutional (MBE)

[2] James Michael Grayson, (PhD Civil), "Building Envelope Failure Assessment of Residential Developments Subjected to Hurricane Wind Hazards," (Aug-2014).
Current: Assistant Professor, The Citadel, The Military College of South Carolina

[3] Fangqian (Abby) Liu, (PhD Civil), "Projections of Future US Design Wind Speeds due to Climate Change for Estimating Hurricane Losses," (Aug-2014).
Current: Wind Engineer at Intra Risk, Applied Research Associate (ARA), North Carolina.

[4] Huan Sheng (PhD Civil, Co-advise), "Modified NEXT-D Beam Bridge – Experimental and Simulation Evaluation of Shear Key Performance and Development of a Design Strategy of the Superstructure", (Aug-2014)

[5] Bin Pei, (PhD Civil), "Hazard Quantification and Loss Estimation for Combined Hurricane Wind and Flood," (May 2015).
Current: AON Risk Solutions, Chicago

Masters Graduates

[1] Muxing Ding (MS Civil), "Exploring the use of bamboo reinforced rubberized concrete (BRRC) as a sustainable structural system", (Aug-2015)

[2] Ross Phillips (MS Civil), "Investigation of Shear Capacity for Light-frame Wood Walls Constructed with Insulated Oriented Strand Board Panels," (May-2015)

[3] Nathan Schneider (MS Civil), "Application of Bamboo for Flexural and Shear Reinforcement in Concrete Beams," (Aug-2014)

[4] Shawn Parmelee (MS Civil, Co-advise), "Optimal Retrofit Strategy Design for Highway Bridges under Seismic Hazards: A Case Study of Charleston, SC," Co-advisor (Dec-2013).

[5] Mengyu Yang (MS Civil), "Structural Reliability of Flexural Members Constructed using Visually Graded Southern Pine Dimension Lumber," (Aug-2013)

[6] Linbo Chen (MS Civil), "Quantifying Annual Bridge Cost by Overweight Trucks in South Carolina", (May-2013)

[7] Sami Pant (MS Civil), "Numerical Study of the Structural Performance of Large Panelized All-Wood Roof Diaphragms," (May-2013)

[8] Bin Pei, (MS Civil), "An Error Quantification Methodology for Hurricane Storm Surge Simulations," (Dec-2012).

[9] Joshua Caron (MS Civil), "3D Reconstruction for Post-Disaster Analysis of Civil Infrastructure," (Dec-2012)

[10] Fangqian (Abby) Liu, (MS Civil), "Development and Calibration of Central Pressure Filling Rate Models for Hurricane Simulation," (May-2012).

[11] James Michael Grayson, (MS Civil), "Development and Application of a Three-Dimensional Probabilistic Wind-borne Debris Trajectory Model," (Dec-2011).

[12] Caitlyn E. Davis-McDaniel (MS Civil, Co-advise), "Fault-tree Model for Bridge Collapse Risk Analysis," Co-advisor (Dec-2011)

Current Graduate Advising

[1] Ershad Ziaei (PhD Civil), "Topic: Seismic Risk Reduction for Soft Story Woodframe Buildings", (Est. May-2016)

[2] Mengzhe Gu (PhD Civil), "Topic: Development and Testing of Southern Pine Cross-laminated Timber", (Est. Dec-2016).

[3] Fanfu Fan (PhD Civil), "Topic: Stochastic Simulation of Tornado Track," (Est. Dec-2017).

[4] Christopher Cornett (PhD Civil), "Topic: Storm Surge Hazard Modeling," (Est. Dec-2017).

[5] Jean Elmelki (PhD Civil), "Topic: Real-time Natural Disaster Tracking using Social Media Data," (Est. Dec-2018).

[6] William Ashman (PhD Civil), "Topic: Wind and Rain Water Resistant Design for Cross-laminated Timber Structures" (Est. May-2017).

[7] Prashant Rawal (PhD Civil), "Topic: US Hurricane Rain Model," (Est. Dec-2019)

[8] Sri Harshitha Polamuri (MS Civil), "Topic: Southeast Asia Typhoon Model," (Est. Dec-2019)

[9] Amir Safiey (PhD Civil), "Topic: Seismic Loss Estimation Framework," (Est. Dec-2018)

[10] Wang Jin (PhD Civil), "Topic: Tornado Windfield Modeling and Tornado Risk Assessment for Residential Buildings," (Est. May-2017)

[11] Michael Stoner (PhD Civil), "Topic: Design of Tornado Resilient Housing using Cross-laminated Timber," (Est. Dec-2019)

Teaching Activities

Undergraduate:

- Structural Engineering II (Michigan Tech)
- Design of Steel and Reinforced Concrete Structures (Michigan Tech)
- Statics
- Reinforced Concrete Design
- Wood Design

Graduate Teaching:

- Wood Design (Graduate Level)
- Earthquake Engineering
- Risk Assessment

University and Public Service

Committees

Professional: Member, ASCE Technical Committee on Wood (2010-)
Chair, ASCE Technical Committee on Design of Wood Structures, (2014-)

Professional: Member, ASCE Technical Committee on Multiple Hazards (2012-)
Professional: Member, ASCE Technical Committee on Environmental Wind Effect (2012-)
Professional: Member, ASCE Technical Committee on Structural Wind Engineering (2013-)
Clemson University: Member, Wood Utilization + Design Institute, (2014 -)
Clemson University, Civil Engineering Department: Member, Scholarship & Awards Committee (2008-)
Clemson University, Civil Engineering Department: Member, Structures Faculty Search Committee (Spring 2009; Spring 2012)
Clemson University, Civil Engineering Department: Member, Advisory Committee (2012-2013)
Clemson University, Civil Engineering Department: Member, Graduate Program Committee (2013-)
Clemson University, Civil Engineering Department: Member, Science Masters Program in Sustainable and Resilient Steering Committee (2010-2013)

Editorial Board

Associate Editor, ASCE Journal of Structural Engineering (2015-present)

01/07/2016.