

## General Biographical Information

Dorothy Aubrey Reed, Ph.D., PE, F. ASCE, F. SEI  
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## Academic Background

Princeton University	Ph.D.	1980
Princeton University	MSE	1977
University of South Carolina	BSCE, <i>magna cum laude</i>	1976

## Registration

Washington State, Professional Engineer: Civil, License Number 43214.

## Professional History

- *Professor of Civil Engineering*, Sept. 1994-present; *Adjunct Professor of Industrial and Systems Engineering*, 2011-present; *Associate Dean for Academic Affairs*, College of Engineering, August 1994-97; *Associate Professor of Civil Engineering* (with tenure), September 1988-94; *Professor of Civil Engineering*, September 1983-1988; on leave from January-December, 1987; Department of Civil Engineering, University of Washington, Seattle, WA.
- *Visiting Assistant Professor of Civil Engineering*, January-December 1987; Department of Civil Engineering, Carnegie-Mellon University, Pittsburgh, PA.
- *Research Structural Engineer*, November 1982-August 1983; *NRC-NBS Postdoctoral Research Associate*, November 1980-82; National Bureau of Standards, Center for Building Technology, Gaithersburg, MD (now called the National Institute of Standards and Technology).
- *Research/Teaching Assistant*, Fall 1976-Summer 1980; Department of Civil Engineering, Princeton University, Princeton, NJ.
- *Technical Assistant*, Summer 1976; Design and Drafting Department, EXXON Company, Baytown, TX.
- *Laboratory Assistant*, Summer 1975; University of South Carolina, Columbia, SC.

## Recent Awards and Honors

- American Society of Civil Engineers, Fellow
- Structural Engineering Institute, Fellow
- Co-director, UW Computing for the Environment Initiative CS4Env, 2022-present.
- Michael Gauss Distinguished Service Award, American Association for Wind Engineering, 2022
- Steve & Sylvia Burges Endowed Lectureship: “Reducing Risk: Enhancing Energy Infrastructure Resiliency”, 2020
- President, American Association for Wind Engineering, 2020-2024
- SEI Wind Engineering Division, Chair, 2020-2023
- Invited lecture at Iowa State University: “Wind Effects and Power Infrastructure”, 2016
- Lehigh University Endowed Lectureship: “Building a Resilient Community with Green Infrastructure”, 2016

## Advisory Board Member

- NSF Natural Hazards Review Engineering Research Infrastructure (NHERI) Science Plan.

- NSF Mid-Scale RI-1: National Full-Scale Testing Infrastructure for Community Hardening in Extreme Wind, Surge, and Wave Events (NICHE).

#### Recent database publication

- With Arindam Chowdhury and Greg Lyman, “Field measurements of wind data on a low-rise building in sparse suburban terrain”, DesignSafe.org with doi 10.17603/ds2-e2av-nx29. December 2022.

#### Patent Activity

- Provisional Patent for Building Perma-Power Links, 2016, with Amy Kim, University of Washington.
- Patent Application for Modular Pressure Sensor, 2024, joint with Peter Irwin, Arindam Choudhury, Johnny Estephan and Prof. Greg Lyman.

#### Refereed Publications

- M. Kenawy, D. Roueche, D. Prevatt, J. Bennett, D. Kalliontzis, W. DJIMA, M. Nobahar, D. Reed, T. Kijewski-Correa, K. Gurley, T. Tomiczek, (2023) "StEER: Hurricane Idalia Preliminary Virtual Reconnaissance Report (PVRR)", in StEER - Hurricane Idalia. DesignSafe-CI. <https://doi.org/10.17603/ds2-0dax-sq27>.
- Cortes, M. Arora, P. Ceferino, L. Ibrahim, H. Istrati, D. Reed, D. Roueche, D. Safiey, A. Tomiczek, T. Zisis, I. Alam, M. Kijewski-Correa, T. Prevatt, D. Robertson, I. (2022) "StEER: Hurricane Ian Preliminary Virtual Reconnaissance Report (PVRR)", in *StEER - Hurricane Ian*. DesignSafe-CI. <https://doi.org/10.17603/ds2-kc9k-s242> v1
- Shuoqi Wang, Johnny Estephan, Peter Irwin, Arindam Chowdhury, Greg Lyman, and Dorothy Reed, “Examination of the gust factor through field measurements of wind speeds in sparse suburban terrain.” Under review by *Engineering Structures*, 2023.
- Kim, A.A. and D.A. Reed, “Interdisciplinary approach to building functionality for natural hazard events.” *Perspectives*, Society for Risk Analysis, 2020.
- Kim, A.A., S. Wang, Ji-Eun Kim, and D.A. Reed. “The mediating effect of indoor environmental quality on the relationship between outdoor environmental quality and window-opening behavior.” *Buildings*, 2019.
- Kim, A.A., D.A. Reed, Y. Choe, S. Wang and C. Recart. “New building cladding system using independent BIPV panels with battery storage capability.” *Sustainability*, 11, 2019, doi:10.3390/sul1205546.
- Reed, D.A. and S. Wang. “Chapter 25: The role of interdependencies in infrastructure modeling and community resilience.” *Routledge Handbook of Sustainable and Resilient Infrastructure*, Ed. by Paolo Gardoni, Taylor & Francis, 52 Vanderbilt Avenue, New York, NY 10017, ISBN 978-1-138-306687-5, pp. 459-486, 2019.
- Bender, W., D. Waytuck, S. Wang and D.A. Reed. “In-situ measurement of wind pressure loadings on pedestal rooftop photovoltaic panels.” *Engineering Structures*, 2018.
- Wang, Shuoqi and D.A. Reed. “Vulnerability and robustness of civil infrastructure systems to hurricanes.” *Frontiers in the Built Environment*. 2017.
- Reed, D.A., A. A. Kim and S. Wang. “Embedded Distribution Systems for Enhanced Energy Resilience.” *Journal of Solar Energy Engineering*, ASME, 2016.
- Reed, D.A., C.J. Friedland, S. Wang and C. Massarra. “Multi-Hazard System-Level Logit Fragility Functions.” *Engineering Structures*, 2016.
- Reed, D.A., S. Wang, K. Kapur and C. Zheng. “Systems-based approach to interdependent electric power delivery and telecommunications infrastructure resilience subject to weather-related hazards.” *Journal of Structural Engineering*, ASCE, 2015, DOI: 10.1061/(ASCE)ST.1943-541X.0001395.

- Reed, D.A., Mark D. Powell and Julie Westerman, "Energy Infrastructure Damage for Hurricane Rita." *Natural Hazards Review* (ASCE), July 15, 2010, Vol. 11, No.3.
- Reed, D.A., Mark D. Powell and Julie Westerman, "Energy Supply System Performance for Hurricane Katrina," *Journal of Energy Engineering* (ASCE), Vol. 136, No. 4, December, 2010, pp. 95-103.
- Reed, D.A., K.C. Kapur and R.D. Christie, "Methodology for Assessing the Resilience of Networked Infrastructure," *IEEE System Journal*. Vol. 3. No. 2, June, pp. 174-180, 2009.
- McDaniels, T.L., S.E. Chang, and D.A. Reed, "Characterizing Infrastructure Failure Interdependencies to Inform System Risk," *Wiley Handbook of Science and Technology for Homeland Security*, Ed. By John G. Voeller, John Wiley and Sons, 2009.
- Reed, D.A., "Electric Utility Distribution Analysis for Winter Storms," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 96, 2008, pp. 123-140.
- McDaniels, T.L., S.E. Chang, K. Peterson, J. Mikawoz, and D.A. Reed, "Empirical Framework for Characterizing Infrastructure Failure Interdependencies," *Journal of Infrastructure Systems*, Vol.13, No.3, 2007, pp.175-184.
- Park, Jaewook, Nobuoto Nojima and D.A. Reed, "Nisqually Earthquake Utility Analysis," *Earthquake Spectra*, Vol. 22, No.2, 2006, pp. 491-510.
- Reed, D.A., J. Preuss and J. Park, "The Influence of Context on Lifeline Behavior: Local Policies under Windstorm and Earthquake Scenarios," *Natural Hazards Journal*, 2006, Vol. 39, 289-307.
- Reed, D.A., J. Preuss and J. Park, "Context and Resiliency: Influences on Electric Utility Lifeline Performance," *Infrastructure Risk Management Processes: Natural, Accidental and Deliberate Hazards*, Ed. by C. Taylor and Erik VanMarcke, ASCE Publications 2006, pp. 118-144.
- Chang, S.E., T.L. McDaniels and D.A. Reed, "Mitigation of Extreme Events: Electric Power Outage and Infrastructure Failure Interactions," *The Economic Impacts of Terrorist Attacks*. Ed. By Harry W. Richardson, Peter Gordon and James E. Moore II, Cheltenham, UK: Edward Elgar Publishing, 2005, pp. 70-90.
- Olson, D.E. and D.A. Reed, "A Nonlinear Numerical Model for Sloped-Bottom Tuned Liquid Dampers," *Earthquake Engineering and Structural Dynamics*, 2001, Vol. 30, pp. 731-743.
- Park, Jaewook and D.A. Reed, "Analysis of Uniformly and Linearly Distributed Mass Dampers," *Engineering Structures*, 2001, Vol. 23, pp. 802-814.
- Gardarsson, S., H. Yeh and D.A. Reed, "The Behavior of Sloped-Bottom Tuned Liquid Dampers," *Journal of Engineering Mechanics*, ASCE, Vol. 127, No. 3, March, 2001, pp. 266-271.
- Yu, Jin-kyu, Toshihiro Wakahara and D.A. Reed, "A Nonlinear Numerical Model of the Tuned Liquid Damper," *Earthquake Engineering and Structural Dynamics*, Vol. 28, 1999, pp. 671-686.
- Reed, D.A., H. Yeh, J. Yu, and S. Gardarsson, "Tuned Liquid Dampers Under Large Amplitude Excitation," *Journal of Wind Engineering and Industrial Aerodynamics*, 74-76, 1998, pp. 923-930.
- Reed, D.A., J. Yu, H. Yeh and S. Gardarsson, "Experimental and Theoretical Investigations of Tuned Liquid Dampers," *Journal of Engineering Mechanics*, ASCE, Vol. 124, No. 4, April, 1998, pp. 405-413.
- Turkiyyah, G.M., D.A. Reed and J. Yang, "Fast Vortex Methods for Predicting Wind-Induced Pressures on Buildings," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 58, 1995, pp. 51-79.
- Jones, N.P., D.A. Reed and J.E. Cermak, "A National Wind Hazards Reduction Program," *Journal of Professional Issues in Engineering Education and Practice*, ASCE, Vol. 121, No. 1, Jan, 1995, pp. 41-45.

- Naeher, F., D.A. Reed and S.J. Fenves, "An Object-Oriented Programming Approach to Wind Safety Analysis," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 48, 1993, pp. 63-77.
- Reed, D.A., "Influence of Non-Gaussian Local Pressures on Cladding Glass," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 48, 1993, pp. 51-61.
- Reed, D.A., "Treatment of Uncertainty in Structural Damage Assessment," *Reliability Engineering and System Safety*, Vol. 39, 1993, pp. 55-64.
- Snaebjornsson, J.T. and D.A. Reed, "Full-Scale Results for Wind-Induced Motion of Multi-Story Buildings," *Journal of Wind Engineering and Industrial Aerodynamics*, Oct., 1992, pp. 1113-1123.
- Reed, D.A. and C.B. Brown, "Reliability in the Context of Design," *Structural Safety*, Vol. 11, 1992, pp. 109-119.
- Reed, D.A. and W.M. Chen, "An Object-Oriented Approach to Structural System Safety," *Engineering Structures*, Vol. 13, Oct., 1991, pp. 351-356.
- Snaebjornsson, J.T. and D.A. Reed, "Wind-Induced Accelerations of a Building: A Case Study," *Engineering Structures*, Vol. 13, July, 1991, pp. 268-280.
- Chen, W.M. and D.A. Reed, "Structural Safety Assessment," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 36, 1990, pp. 1259-1268.
- Reed, D.A., "Reliability of Multi-Component Assemblages," *Reliability Engineering and System Safety*, Vol. 27, 1990, pp. 167-178.
- Reed, D.A., "Expert Systems in Wind Engineering," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 33, 1990, pp. 487-494.
- Reed, D.A., "The Use of Bayes Networks in Evaluating Structural Safety," *Civil Engineering Systems*, Vol. 5, No. 2, June, 1988, pp. 93-99.
- Reed, D.A., "Risk Assessment for Cladding Glass: An Expert Systems Approach," *U.S. Woman Engineer*, Jan.-Feb., 1988, pp. 12-13.
- Reed, D.A., "The Use of Field Parameters in Wind Engineering," *Journal of Structural Engineering*, Vol. 113, No. 7, July, 1987, pp. 1570-1585.
- Reed, D.A., "Damage Function Results for Glass Cladding," *Journal of Structural Engineering*, Technical Note, 1986.
- Reed, D.A. and F. Engelsen, "Load Capacities of Glass Panels," *Engineering Structures*, Vol. 8, Jan., 1986, pp. 64-69.
- Reed, D.A. and E.R. Fuller, Jr., "Glass Strength Degradation Under Fluctuating Load Conditions," *Journal of Structural Engineering*, Vol. 111, No. 7, July, 1985, pp. 1460-1467.
- Reed, D.A. and R.C. Bradt, "Fracture Mirror Results for Weathered and Unweathered Window Glass Panels," *Communications of the Journal of the American Ceramic Society*, Nov., 1984.
- Reed, D.A. and E. Simiu, "Wind Loading and Strength of Cladding Glass," *Journal of Structural Engineering*, Vol. 110, No. 4, April, 1984, pp. 715-729.
- Reed, D.A. and R.H. Scanlan, "Autoregressive Modeling of Longitudinal, Lateral and Vertical Turbulence Spectra," *Journal of Wind Engineering and Industrial Aerodynamics*, Vol. 17, 1984, pp. 199-214.
- Reed, D.A. and R.H. Scanlan, "Time Series Analysis of Cooling Tower Wind Loading," *Journal of Structural Engineering*, Vol. 109, No. 2, Feb., 1983, pp. 538-554.

#### **Abstract and Non-Refereed Conference Proceedings and Other Non-Journal Articles**

##### *Invited Papers Published in Proceedings:*

1. Turkiyyah, George and D.A. Reed, "3D Discrete Vortex Methods and Application of Parallel Computing Techniques," *Proc. of the International Symposium on Bridge Aerodynamics*, Technical University of Denmark, Lyngby, Denmark, May 10-13, 1998.

2. Reed, D.A., "Glass Cladding Design for Tall Buildings," *Proc. of the NSF Indo-U.S. Workshop on Wind Disaster Mitigation*, Madras, India, Dec. 16-20, 1985.
3. Reed, D.A., "Design Considerations for Wind Loadings," *Proc. of the Symposium on Concepts and Methods in Structural Safety Studies*, ASCE Spring Convention,

*Papers Published in Proceedings (Selection Based Upon Abstract Review):*

- Worthy, A., S. Wang, J. Estephan, G. Lyman, A. Chowdhury, D.A. Reed, "Field investigation of wind speeds in suburban terrain," *I4ACWE*, Texas Tech, May, 2022.
- Reed, D.A., Arindam Chowdhury, Greg Lyman, "Field Investigations of wind loadings and behavior of a rooftop PV array." *Structures Congress 2022*, Atlanta, GA, April, 2022.
- A. Kim, D.A. Reed and S. Wang, "Innovative Coupled BIPV Cladding and Battery Systems for Building Energy Resilience" *Lifelines 2021-22*, Feb. 2022 at UCLA, Online only.
- A. Kim, D.A. Reed and L. Medal. "Meeting Future Renewable Power Goals for Buildings," *Lifelines 2021-22*, Feb. 2022 at UCLA, Online only.
- A. Kim and D.A. Reed. "Performance-Based Design Approach to Building Functionality," *Mini-symposium 311: Advances in computational methods for uncertainty quantification and robust performance-based design of structures and systems exposed to natural and man-made hazards*, Engineering Mechanics Conference (EMI), Online only, May 26-28, 2021, Columbia University, NY, NY.
- Estephan, J, et al., "Experimental and numerical analyses of rooftop photovoltaic (PV) array performance for wind loadings", *6<sup>th</sup> AAWE Workshop*, online only, hosted by Clemson University, May 12-14, 2021.
- D.A. Reed, S. Wang, A. Kim. "Bottom-up approach to risk in building functionality", *7<sup>th</sup> Asian-Pacific Symposium on Structural Reliability and Its Applications (APSSRA2020)*, Tokyo, Japan, October 4-8, 2020. Online only.
- Reed, D.A. and S. Wang, "Numerical modeling of power delivery and telecommunications infrastructure for hurricanes Harvey, Irma and Maria," *Proc. Of the ASCE 5<sup>th</sup> Forensics Congress*, December, 2018.
- Reed, D.A., A.A. Kim, S. Wang, (2018), "Using Building Functionality Metrics for Performance and resilience Assessment of Energy Infrastructure," *EMI Conference 2018*, MIT, MA. doi: 10.13140/RG.2.2.25219.66087
- Reed, D.A., C. Friedland, S. Wang, and C. Massarra. "Multivariate Fragility Functions in Wind Engineering," *US-Japan Meeting Conference proceedings*, May 8-15, 2016, University of Tokyo, Japan.
- Reed, D.A., C. J. Friedland, X. Yu and S. Wang. "Multivariate Fragility Functions for Hurricane Hazards" *ICWE14*, June 20-27, 2015, Porto Alegre, Brazil.
- A.A. Kim, S. Wang and D. Reed (2015) "Thermal Comfort Assessment through Measurements in A Naturally Ventilated LEED Gold Building," *Proc. Of the 5<sup>th</sup> International/ 11<sup>th</sup> Construction Specialty Conference*, Vancouver, British, Columbia, Canada, June 8-10, 2015.
- Reed, D.A. and S. Wang, "Green-gray infrastructure considerations for urban centers," *Structures Congress 2015*, Portland, OR, April 2015.
- Bender, WJ, MJ Morrison, A. Morken and D. Reed (2013) "Full-Scale Measurement of Wind Loadings on Solar Panels," *12ACWE*, June 16-20, Seattle.
- Friedland, C.J., D. Reed, M.B. Shoraka, S. Jiang (2013), "Collection and Organization of Infrastructure Damage due to Hurricanes," *12ACWE*, June 16-20, Seattle.
- Reed, D.A. (2013) "Building a Resilient Community Through Improved Infrastructure," *Structures Congress 2013*, May 1-3, Pittsburgh, PA.
- Reed, D.A. and A. Gonzalez. "Hurricane-Related Infrastructure Damage." (2012). Session entitled "Assessment and Mitigation of Multi-Hazard Effects in Hurricanes", *ATC-SEI Advances in Hurricane Engineering Conference*, Miami, October 24-26, 2012.

- Reed, D.A. “Wind Damage to Civil Infrastructure.” (2011). ICWE 13, Amsterdam, July 10-15.
- Reed, D.A., Z.B. Zabinsky and L.B. Ng. (2011). “A Framework for Optimizing Civil Infrastructure Resiliency.” Structures Congress 2011. Las Vegas, NV, April 13-16.
- Reed, D.A. “Hurricane Damage to Civil Infrastructure.” (2010). Fifth US-Japan Workshop on Wind Engineering, Chicago, IL, July. (Participation by invitation only).
- Reed, D.A., Z.B. Zabinsky and L.N. Boyle. (2010). “Rule-Based Methods for Infrastructure Risk Analysis.” Society for Risk Analysis (SRA) Conference, Salt Lake City, UT, December.
- Reed, D.A. “Empirical Model of Interdependence across Critical Lifeline Systems.” (2011). EERI-TCLEE [Technical Council on Lifeline Earthquake Engineering] Workshop on Challenges and Opportunities for Lifeline Systems Engineering, La Jolla, CA, Feb. 9.
- Reed, D.A., Z.B. Zabinsky and L.N. Boyle. (2011). “A Framework for Optimizing Civil Infrastructure Resiliency.” Structures Congress 2011. Las Vegas, NV, April 13-16. Available online at [http://ascelibrary.org/proceedings/resource/2/ascecp/401/41171/183\\_1?isAuthorized=no](http://ascelibrary.org/proceedings/resource/2/ascecp/401/41171/183_1?isAuthorized=no).
- Reed, D.A. “Wind Damage to Civil Infrastructure.” (2011). ICWE 13, Amsterdam, July 10-15.
- Elaine Oneil, Joyce Cooper and Dorothy Reed. “Design Systems for Sustainability.” 3<sup>rd</sup> Annual Conservation Colloquium, UW, March 2010.
- Reed, D.A., “Performance of Power Delivery Systems during Winter Storms.” Pacific Northwest Weather Workshop, Pacific Northwest Chapter of the American Meteorological Society, Seattle, March 2010.
- Reed, D.A. “Multi-Hazard Analysis of Electric Power Delivery Systems.” TCLEE [Technical Council on Lifeline Earthquake Engineering] Conference, Oakland, CA, June 2009.
- Reed, D.A. and N. Nojima “Interdependence between Power Delivery and Other Lifelines.” TCLEE Conference, Oakland, CA, June 2009.
- Reed, D.A. “Wind-Induced Lifeline Damage.” 11ACWE [Americas Conference on Wind Engineering], Puerto Rico, June 2009.
- Reed, D.A., “Networked Infrastructure Performance for the 2006 Hanukkah Eve Storm,” Proc. of the ASCE Structures Congress 2008, Vancouver, BC, April 2008.
- Reed, D.A., “Pacific Northwest Infrastructure Damage for the Hanukkah Eve Storm 2006,” 4<sup>th</sup> Annual Canadian Risk and Hazards Network [CHRNNet] Symposium, Nov 6-8, 2007, Richmond, BC, <http://www.jibc.ca/crhnet/abstracts/abstracts.htm>.
- Reed, D.A. “Electric Power Delivery System Damage for Hurricanes Rita and Katrina,” ICWE12 Proceedings, Cairns, Australia, July 2-6, 2007.
- Reed, D.A., S.E. Chang, T.L. McDaniels and H. Longstaff, “Modeling of Interdependent Lifeline System Behavior for Hurricane Scenarios,” ICWE12 Proceedings, Cairns, Australia, July 2-6, 2007.
- Reed, D.A. “Electric Power Delivery Damage for Hurricanes Katrina and Rita,” Proceedings of the Katrina Research Symposium, New Orleans, LA, Nov. 3-4, 2006. <http://www.transpol.uncc.edu/disaster/NSFpage.htm>
- Reed, D.A., S.E. Chang and T.L. McDaniels, “Modeling of Infrastructure Interdependencies,” CRIS: Proc. of the Third International Conference on Critical Infrastructure, Alexandria, VA. Sept. 2006.
- Reed, D.A., “An Overview of Electric Power Delivery System Damage for Hurricane Rita,” CRIS: Proc. of the Third International Conference on Critical Infrastructure, Alexandria, VA. Sept. 2006.
- Reed, D.A., S.E. Chang, T.L. McDaniels, K. Peterson, “Infrastructure Failure Interactions,” 10<sup>th</sup> Americas Conference on Wind Engineering, Baton Rouge, May 30-June 6, 2005.
- Reed, D.A., “The Capacity Paradox,” Hazards 2004, Hyderabad, India, Dec. 1-4, 2004.

- Reed, D.A., Chang, S. and T. McDaniel, "Infrastructure Failure Interactions," Hazards 2004, Hyderabad, India, Dec. 1-4, 2004.
- Reed, D.A. and J. Park, "Lifeline Performance Evaluation," Proc. of the 13 World Conference on Earthquake Engineering, Vancouver, BC, August 2-6, 2004.
- Park, J. and D.A. Reed, "Utility Performance for Seismic Loadings," Proc. of Structures Congress 2004, ASCE, Nashville, TN, May 24-26, 2004.
- Reed, D.A., N. Nojima and J. Park, "Performance Assessment for Lifelines," Proc. of EM 2003, ASCE, Seattle, July, 2003.
- Reed, D.A., J. Preuss, and J. Park, "Empirical Investigation of Utility Lifeline Restoration for Earthquake and Wind Hazards," Proc. Of Hazards 2002, Antalya, Turkey, Oct. 2-6, 2002.
- Reed, D.A., J. Preuss and J. Park, "Distribution System Disruption and Recovery for Natural Hazards," Proc. of Power Systems and Communications Infrastructures for the Future, Beijing, PRC, Sept. 2002.
- Reed, D.A. and Jane Preuss, "Assessment of the Influence of Regulatory Constraints upon Utility Performance," Proc. of the CRIS DRM IIIT NSF Workshop: Mitigating the Vulnerability of Critical Infrastructures to Catastrophic Failures, Alexandria, VA, Sept 10-11, 2001. available at ([www.ari.vt.edu/workshop](http://www.ari.vt.edu/workshop))
- Olson, D.E. and D.A. Reed, "A Nonlinear Numerical Model for Sloped-Bottom Tuned Liquid Dampers," Proc. of the PMC Probabilistic Mechanics Conference, Univ. of Notre Dame, IN, July, 2000.
- Park, Jaewook and D.A. Reed, "Analysis of Uniformly and Linearly Distributed Mass Dampers," Proc. of the PMC Probabilistic Mechanics Conference, Univ. of Notre Dame, IN, July, 2000.
- Hardan, K., D.A. Reed, and C. Brown, "Gust Factor Analysis for Lake Conditions," Proc. of the PMC Probabilistic Mechanics Conference, Univ. of Notre Dame, IN, July, 2000.
- Reed, D.A. and Carolyn Cook, "Multi-Hazard Analysis of Utility Lifeline Systems," Proc. of the 5th US Conference on Lifeline Earthquake Engineering, Seattle, WA, August, 1999.
- Reed, D.A. and Carolyn Cook, "Multi-Hazard Analysis of Utility Lifelines," Proc. of the 10th International Conference on Wind Engineering, June, 1999, Copenhagen, Denmark.
- Mabuchi, T., H. Sato, D.A. Reed, G. Turkiyyah and H. Yeh, "Development of Computational Models for Bridge Deck Motion, Proc. of the 2<sup>nd</sup> US-Japan Workshop on Design for Wind and Wind Hazard Mitigation, Tsukuba, Japan, May, 1999.
- Gardarsson, S., H. Yeh and D.A. Reed "An Investigation of Sloped Bottom Liquid Dampers," Proc. of the 2nd World Conference on Structural Control, Kyoto, Japan, June, 1998, pp. 155-164.
- Yu, Jinkyu and D.A. Reed, "An Empirically-Based Nonlinear Mechanical Model of the Tuned Liquid Damper," Proc. of the 2nd European and African Conference on Wind Engineering, Genova, Italy, June 22-26, 1997.
- Reed, D.A., H. Yeh, J. Yu and S. Gardarsson, "Tuned Liquid Dampers Under Large Amplitude Excitation," Proc. of the 2nd European and African Conference on Wind Engineering, Genova, Italy, June 22-26, 1997.
- Reed, D.A., H. Yeh, J. Yu and S. Gardarsson, "An Investigation of Tuned Liquid Dampers for Structural Control," Proc. of the UJNR Workshop, Tsukuba, Japan, May 1997.
- Yeh, H., D.A. Reed, J. Yu and S. Gardarsson, "Performance of Tuned Liquid Dampers for Large Amplitude Excitation," Proc. of the 2nd International Workshop on Structural Control, Hong Kong, Dec., 1996.
- Reed, D.A., H. Yeh, J. Yu and S. Gardarsson, "Experimental Investigation of Tuned Liquid Dampers," Proc. of the ASCE International Conference on Natural Disaster Reduction, Washington, DC, Dec., 1996.
- Kalonji, G. and D.A. Reed, "Challenges to Sustaining Engineering Educational Reform: Engineering 'Core' Courses at the University of Washington," Proc. of the IV Interamerican

- Conference on Engineering and Technology Education: Intertech '96, Valencia, Venezuela, Sep, 22-25, 1996.
- Turkiyyah, G., D.A. Reed, C. Viozat and C. Lin, "Parallel Performance on a 3-Dimensional Grid-free Vortex Method for Wind Engineering Simulations," Proc. of the 2nd International Symposium on Computational Wind Engineering, Colorado State University, Ft. Collins, CO, Aug., 1996.
  - Reed, D.A., T. English, and K.C. Mehta, "An Expert System for Building Vulnerability Assessment in Windstorms," Proc. of the NSF Workshop on Natural Hazard Mitigation, Lake Tahoe, Nevada, April 27-28, 1995.
  - Viozat, Cecile, D.A. Reed and G.M. Turkiyyah, "Parallel Implementations of Vortex Methods for Wind Engineering Simulation," Proc. of the Robert Harris Scanlan 80th Birthday Symposium, Dept. of Civil Engineering, Whiting School of Engineering, The Johns Hopkins University, Baltimore, MD, Oct. 28-29, 1994.
  - Reed, D.A. and H. Yeh, "Structural Control Systems: Tuned Liquid Dampers," Proc. of the NSF Structural Control Workshop, Pasadena, CA, Aug., 1994.
  - Turkiyyah, G.M., D.A. Reed and K.C. Long, "Random Vortex Models in Wind Engineering," Proc. of the First Congress on Computing in Civil Engineering, ASCE, Washington, DC, Jun. 20-22, 1994.
  - Turkiyyah, G.M. and D.A. Reed, "Computational Models in Wind Engineering," Proc. of the 7th U.S. National Conference on Wind Engineering, UCLA, Jun. 27-30, 1993.
  - Jones, N.P., D.A. Reed and J.E. Cermak, "Wind Hazards Reduction Program," Proc. of the ASCE Structures Congress, Irvine, CA, April, 1993.
  - Reed, D.A., "An Object-Oriented Approach to Wind Safety Analysis," Session on Expert Systems II, Proc. of the ASCE Seventh Conference on Computing in Civil Engineering and Symposium on Databases, Washington, DC, May 6-8, 1991.
  - Reed, D.A., "Safety Assessment of Existing Structures," Session on multicriterion decision-making with ordinal criteria and non-probabilistic analysis, Proc. of the PSAM Conference, Los Angeles, CA, Feb., 1991.
  - Chen, W. and D.A. Reed, "Structural Safety Assessment," Proc. of the Sixth U.S. National Conference on Wind Engineering, Houston, TX, Mar. 8-10, 1989.
  - Reed, D.A., "An Expert System for Glass Cladding Risk Assessment," Proc. of the Structural Engineering Congress '87, Orlando, FL, Aug., 1987.
  - Reed, D.A. and J. Hinze, "A Study of Construction Safety in Washington State, USA," Proc. of the IABSE Symposium, Tokyo, Japan, Sep. 4-6, 1986, pp. 345-350.
  - Reed, D.A., "Cladding Design for Tall Buildings," Proc. of the 3rd ASCE Engineering Mechanics Specialty Conference, UCLA, Los Angeles, CA, Apr., 1986.
  - Reed, D.A., "Influence of Parameters Upon Reliability Calculations," Proc. of the 5th U.S. National Conference on Wind Engineering, Texas Tech University, Lubbock, TX, Nov. 6-8, 1985.
  - Reed, D.A., "The Use of Field Parameters in Wind Load Estimation," Proc. of the Structural Engineering Congress '85, Chicago, IL, Sep., 1985, p 155.
  - Reed, D.A. and E. Simiu, "Procedure for Estimating Load Capacity of Cladding Panels from Small Test Samples," Proc. of the Structural Engineering Congress 85, Chicago, IL, Sep., 1985, p. 175.
  - Reed, D.A., "Glass Cladding Design for Wind," Proc. of the ICOSSAR 1985 4th International Conference on Structural Safety and Reliability, Kobe, Japan, May, 1985.
  - Reed, D.A., "Damage Function Results for Glass Cladding," Proc. of the Third Council Meeting of the Council on Tall Building and Urban Habitat, New Orleans, LA, Oct. 11-12, 1984.



- Simiu, E. and D.A. Reed, "Ring-on-Ring Tests and the Modeling of Cladding Glass Strength by the Weibull Distribution," Proc. of the Weibull Symposium on Probabilistic Methods in the Mechanics of Solids and Structures, Stockholm, Sweden, Jun 19-21, 1984.
- Reed, D.A. and C.Y. Yancey, "Statistical Analysis of Glass Strength and Behavior," Proc. of the ASCE Specialty Conference on Probabilistic Mechanics and Structural Reliability, Jan., 1984, pp. 248-251.
- Ellingwood, B, D.A. Reed and M.E. Batts, "Stochastic Models of Earthquakes for Probability-Based Design of Nuclear Structures," Proc. of the International Conference on Structural Mechanics in Reactor Technology, Chicago, IL, Aug., 1983.
- Simiu, E. and D.A. Reed, "Probabilistic Design of Cladding Glass Subjected to Wind Loads," Proc. of the 4th International Conference on Applications of Statistics and Probability in Soil and Structural Engineering, Florence, Italy, Jun. 13-17, 1983.
- Reed, D.A. and E. Simiu, "Glass Cladding Design for Wind," Proc. of the ASCE Engineering Mechanics Division Specialty Conference, Purdue University, May 23-25, 1983, pp. 729-734.
- Reed, D.A. and R.H. Scanlan, "Cooling Tower Wind Loading," Proc. of the 4th U.S. National Conference on Wind Engineering Research, Seattle, WA, Jul. 26-29, 1981, Vol. 1.
- Reed, D.A. and R.H. Scanlan, "ARIMA Representation of Turbulence Spectra and Longitudinal Integral Scales," Proc. of the U.S.-Japan Cooperative Program in Natural Resources, Tokyo, Japan, May, 1981.

#### Posters

Wang, S., A.H. Kim, D.A. Reed and Y. Choe, "Risk Reduction Through Building Energy Resiliency" 2018 Lloyd's Day at Rice University: The Future Smart and Resilient City, October 11, 2018, Rice University, Houston, Texas. doi: 10.13140/RG.2.2.13471.00163.

#### Books

##### *Chapters in Books and Reviewed Reports:*

- "Lifeline Performance," Donald Ballantyne, Dorothy Reed, Jaewook Park, Jane Preuss, in *Scenario for a Magnitude 6.7 Earthquake on the Seattle Fault*, EERI Report, 2004.
- "Design of Cladding for Earthquakes," (with Marcy Li Wang), Chapter 4 of *Cladding: A Monograph on Tall Building Systems and Concepts*, Council on Tall Buildings and Urban Habitat Committee 12A, McGraw-Hill, New York, NY, 1992, pp. 71-87.
- "Cooling Tower Wind Loading," *Wind Loadings and Wind-Induced Structural Response*, ASCE Publications, New York, NY, Nov., 1987.

#### Editing and Other Scholarly Publications

##### *Editor:*

- Co-editor with Dr. Anurag Jain, of the Special Issue of *Wind Engineering and Industrial Aerodynamics*, 2014.
- Co-editor with Prof. George Turkiyyah, of a special section of *Engineering Structures* dedicated to Computational Wind Engineering, Vol. 18, No. 11, Nov., 1996.
- Editor, *Proceedings of the Symposium on Engineering Education in the 21st Century*, University of Washington, Seattle, WA, May, 1996.

##### *Other Publications:*

- Reed, D.A., "Structural Control Research: Tuned Liquid Dampers," *Research Abstracts and Project Summaries: Industry/Innovation Workshop*, Civil Engineering Research Foundation, ASCE, Oct. 19-20, 1997.
- Reed, D.A., "Structural Control," *Proc. of the UJNR Workshop*, Task Committee E on Wind Effects, Honolulu, HI, Oct. 7-9, 1997.

- Commentary on the Wind Loading Provisions of the 1991 Uniform Building Code, International Conference of Building Officials-Structural Engineers Association of Washington Committee on Wind Effects [Member of the Committee], 1993.

### **Sponsored Research**

#### Funded:

2023-2025

NEWRITE [Design of Full-scale Tornado Simulation Facility], PI is Prof. Partha Sarkar of Iowa State; \$14 million; UW portion is approximately \$150,000.

2022-2023

- Machine Learning for Building Energy Usage with Prof. S. Patel, UW, \$50,000.

2018-2022

- Collaborative Research: Hybrid Experimental Numerical Methodology and Field Calibration for Prediction of Peak Wind Effects on Low-Rise Buildings and Their Appurtenances; UW portion \$349,008, joint with FIU (Arindam Chowdhury). Supplement 2022.

2015-2020

- NIST Center of Excellence: Center for Risk-Based Community Resilience Planning; Subcontract to Colorado State University; PI is Prof. John van de Lindt; \$20 million; UW portion is approximately \$100,000 per year.

2014-2015

- Green Seed Fund: Indoor Environment Quality. UW. \$75000. With Amy Kim.

2012-2014

- Green and Gray Infrastructure Models. NSF. \$63,771 (PI)
- Travel Funds for the 12<sup>th</sup> Americas Conference on Wind Engineering, NSF, \$43,500 (PI).
- Rapid Collaborative Hurricane Isaac, NSF, \$25,000 UW, co-PI.
- Rapid Collaborative Hurricane Sandy, NSF, \$9954 UW, co-PI.

2011-2013

- Host of the 12ACWE Meeting held in Seattle, June 16-20, 2013, with Dr. Anurag Jain of Weidlinger and Associates

2007-2009

- Natural Hazards and the Built Environment Course Development, One Graduate RA, joint with Berman and Kramer.

2005-2007

- Travel to the 12<sup>th</sup> ICWE, July 2-6,2007, NSF Travel Grant, \$31,000.
- Electric Utility Failure Investigation for Hurricane Katrina, NSF Small Grants for Exploratory Research, \$9719.

2003-2008

- Mitigation of Extreme Event Risks: The Case of Electric Power, NSF \$427,905. Joint with Profs. Stephanie Chang and Timothy McDaniels (Univ. of British Columbia).

2001-2003

- Performance of Utility Lifelines in Urban Centers for Earthquake Hazards, NSF, \$247,195. Joint with Jane Preuss. REU Supplement \$16,000.

1997-98

- Investigation of the Pacific Northwest Storm 1996, NSF, \$50,000.

1996-98

- International Travel Grant to Support U.S. Involvement in the 2nd European and African Regional Conference on Wind Engineering, NSF, \$27,780.

1996-97

- Co-PI for the University of Washington, College of Engineering in the NSF Engineering Coalition of Schools for Excellence in Education and Leadership (ECSEL), Years 6-7; annual UW budget approximately \$500,000.

1993-97

- Structural Control Research: Tuned Liquid Dampers, NSF, Oct. 1993-Jan. 1996, \$260,000 (with Yeh).

1993-95

- Microzonation for Wind Engineering, Washington State Department of Transportation, \$78,000.

1993-94

- Fundamentals of Wind Engineering, NSF Undergraduate Instrumentation and Laboratory Improvement Program, NSF, \$5,787 (Equipment only; with Prof. Timothy D. Larson).

1993-96

- Mitigation of Hurricane Damage to Constructed Facilities, NSF, joint with Texas Tech University, \$103,993 (for the University of Washington).

1991-93

- An Emergency Response Plan for WSDOT Bridge Management, Washington State Department of Transportation, \$75,000.

1987-90

- Expert Systems for Wind-Induced Damage Assessment, NSF; Sept. 1, 1987-89, \$176,000.

1987-88

- Expert Systems for Wind Engineering, NSF Visiting Professorship at Carnegie-Mellon University, \$176,000.

1984-86

- Local Pressure Fluctuations, NSF Research Initiation Grant, \$48,500.

1984

- Development of Design Criteria for Glass Cladding, Graduate School Research Fund, \$6,142.

### **Project Reports**

- Kappayil, Shila and D.A. Reed, *Microzonation for Temperature and Wind for the State of Washington*, WSDOT Research Report, WA-RD 402-1, Sept. 1996.
- Reed, D.A. and J. Wang, *An Emergency Response Plan for WSDOT Bridge Management*, WSDOT Research Report, WA-RD 289.1, Dec. 1993.
- Mannering, F.L., Louie, M.L., and D.A. Reed, *Emergency Response Guide for Highway Maintenance Managers*, WSDOT Research Report, Nov. 1992.

### **Other Research-Related Activities**

- The Seattle Fault Scenario project, coordinated by EERI, 2004. Predicted damage to the electric utility system.

### **Invited Lectures and Seminars**

- Enhancing energy infrastructure resiliency, SUNY Buffalo, March 4, 2022.
- Sustainability in Design, UW Conservation Colloquium, with Elaine Oneil and Joyce Cooper, March 3, 2010.
- Resiliency of Civil Infrastructure Systems, UW Industrial and Systems Engineering Seminar Series, Feb. 23, 2010.
- Impacts of Windstorms. UW Water and Environmental Seminar Series, Feb. 12, 2009.
- Hurricane Katrina Infrastructure Recovery, Energy and the Environment Seminar Series, University of Washington, Electrical Engineering, October 24, 2007.
- Northwest Workshop on Academic Careers for Women in Science and Engineering, University of Washington, March 31, 1996.
- Seminar on Wind Engineering (Short Course), University of Washington, Nov. 7, 1992.
- Cooperative Wind Engineering Research Program at Texas Tech University, Lubbock, Texas, January, 1992.

- Engineering Research Institute, Reykjavik, Iceland, September, 1991.
- Seminar on Wind Engineering (Short Course), University of Washington, March 18, 1989.

### **Professional Society Memberships**

International Society for the Prevention and Mitigation of Natural Hazards, 2004-2007.

American Association for Wind Engineering (formerly WERC); President 2020-present; Newsletter Editor, 2020-present; Board of Directors 2011-present; Member, 1988-present.

American Society of Civil Engineers, Fellow

- Chair, Ernest Howard Award, 2016-2019.
- Member, Wind Engineering Division, Chair, 2017-2021, Executive Committee, 2016-present.
- Structural Wind Engineering Committee
  - Chair, 2011-2017.
  - Secretary, 2008-2011; Structural Division, Technical Committee on Wind Effects; 2005; previously, 1981-1984; August 1988-94.
  - National Control Group Member, May 1990-94.
  - Chair and Charter Member, Subcommittee on Computer-Aided Wind Engineering, 1989-94.
  - Member, Task Committee on Wind-Induced Motion Perception Criteria for Tall Buildings, 1990-94.
  - Member, Subcommittee on Structural Damping Systems, 1992-94.
- Structural Division, Technical Committee on Fracture and Fatigue Reliability;
- Engineering Mechanics Division, Technical Committee on Probabilistic Methods; Member, 1983-1988.

Committee on Hazards Mitigation Engineering (CHME), of the Board on Natural Disasters, National Research Council, 1992-1995 (membership by invitation only).

International Conference of Building Officials-Structural Engineers Association of Washington Committee on Wind Effects, Member, 1989-1994.

American Association for Engineering Education, Member, 1994-99.

### **Professional Society and Other Service**

1995

- Trilateral Workshop on Natural Hazard Risk Assessment, NAFTA Invitational Meeting, Ottawa, Canada
- NSF-US Dept. of Education Joining Forces Invitational Conference on Systemic Change in Science and Engineering Education
- Women in Engineering Keynote Panel

1996

- Dean's Roundtable, Intertech Meeting, Venezuela
- International Association for Structural Control, Hong Kong, Codes and Standards

1997

- UJNR Panel Member, Tsukuba, Japan (by invitation only)
- NSF Workshop on Large-Scale Wind Tunnel Modeling (by invitation only)
- NSF Structural Control Workshop Session Chair, Reno, Nevada
- UJNR Task Committee E Workshop on Wind Effects, Honolulu, Hawaii (by invitation only)

1998

- Symposium on Long-Span Bridges, Kobe, Japan
- Session Chair, Symposium on Bridge Aerodynamics, Copenhagen, Denmark.
- EERI Session Chair on Structural Control for Earthquake Engineering, Seattle.  
1999  
Session Chair, 10th International Conference on Wind Engineering, Copenhagen, Denmark.  
2000-01  
Member of Scientific & Organizing Committees for the following Conferences:
  - ASCE Probabilistic Mechanics (PMC-2000), July, 2000, University of Notre Dame
  - Americas Conference on Wind Engineering, June, 2001, Clemson University
  - Participant (invited) in the First Annual Conference on Infrastructure Priorities: A National Infrastructure Research Agenda: Oct. 24-26,2001, Washington, DC.
  - Participant (invited) & presenter for US-Japan Workshop on Urban Earthquake Hazard Mitigation, Kyoto, Japan, October 21-22.
- 2004 Presenter at the EERI Seattle Fault Scenario Workshop, Seattle, April 22.
- 2005 Steering Committee, 10th America's Conference on Wind Engineering, Baton Rouge, LA, May30-June 6, 2005.
- 2007 NSF Workshop on Frontier Research Directions in Civil and Environmental Engineering, Arlington, VA, June 3-5 (Invited participant).
- 2008 NSF CMMI Grantees Conference, January, Knoxville, TN.  
Session Organizer, Structures Congress 2008, Vancouver, BC, April 28,  
Networked Infrastructure Performance for Extreme Winds.
- 2017 Member of Scientific Review Committee, NHERI, NSF

#### **Awards and Honors**

- Michael Gaus Distinguished Service Award, AAWE, 2022.
- Academic Engineer of the Year 2014, Puget Sound Engineering Council.
- U.S.-Japan Cooperative Program in Natural Resources Panel Member, 1996-2001 (membership by invitation only).
- NSF Visiting Professorship at Carnegie Mellon University, 1987.
- National Research Council - National Bureau of Standards Postdoctoral Research Associateship, 1980-1982.

#### **Teaching**

Funding for participation in the Carnegie-Mellon Center for Sustainable Design Workshop in Pittsburgh, PA, July 13-14, 2009.

#### **Chaired Doctoral Degrees**

1997 Jin-Kyu Yu; Principal, Seattle Structural  
2005 Jaewook Park; Construction Engineer; Kiewitt Construction, Seattle, WA.  
2017 Stanley Wang  
2016-present Richard Lewis  
2020-2023 Amanda Worthy  
2023-present Tommy Li

#### **Chaired master's degrees**

1983 Tom Bostrom  
1984 Antoun Ayoub  
1985 Frode Engelsen  
1986 Tzong-Shing Lin  
1987 Dean Tracy  
1988 Dan Booth

1989 Howard Burton  
 1989 Jonas Snaebjornsson  
 1989 Willy Chen  
 1989 Bjorn Christensen  
 1990 Friedrich Naeher  
 1992 Matthew Gunawan  
 1993 Harry Kye  
 1995 Cecile Viozat  
 1995 Shila Kappayil  
 1997 Steve Barham  
 1997 Jaewook Park  
 1999 Carolyn Cook (Jewett)  
 1999 Doug Olsen  
 2008 Hiram Mechling  
 2011 Cecelia Guess  
 2020 Amanda Worthy

**Other Student Supervision**

PhD Committees

Mohamed Mohamed (Architecture, 2024); Theresa Barker (IE), Carlos Diaz (IE), Carlos Solari (IE), Derrick Booth, Sigurdur Gardarsson, Sherry Yin, Michael Rucki, Duane Castenada, Thomas Boothby

Master's Committees

Amanda Worthy, Danielle De Castro, Joshua Martin, Nathan Wheldon, Kris Long, Joe Galusha, Paul Barr, Andrew Ewing, Cyra Cain, Dave Slater, Jiang Yang, Lisa Renahan, Sigardar Gardarsson, Eric Thomas, Timothy Rogers, Eysteinn Einarsson, Kare Hjorteset, Brian Trapp, Samir Chudgar, Laurel Harrington, Pascale Favre, Dushyantha Jayawardena, Troy Feller, Toan Nguyen

**Selected Teaching Evaluations 2010-2020**

Year	Quarter	Course Name & Number	Evaluation Numbers				Enrollment
			Q1	Q2	Q3	Q4	
2010	Autumn	CEE518: Reliability & Design	3.5	3.7	3.7	3.5	14
2010	Autumn	CEE454: Design of Timber Structures	3.9	4.0	3.9	3.8	39
2010	Spring	CEE517: Design for Wind	3.0	3.0	3.0	2.3	21
2011	Autumn	CEE518: Reliability & Design	3.8	3.9	4.0	3.8	20
2011	Summer	CEE452: Reinforced Concrete Design	3.2	4.0	3.6	3.0	15
2012	Autumn	CEE518: Reliability & Design	3.3	3.9	3.2	3.1	13
2012	Winter	CEE220: Mechanics of Materials	4.0	4.0	3.6	3.5	137
2012	Spring	CEE517: Design for Wind	3.2	3.1	3.4	3.0	18
2013	Autumn	CEE518: Reliability & Design	3.9	3.6	3.6	3.4	12
2013	Winter	CEE220: Mechanics of Materials	3.5	3.6	3.2	3.0	109
2013	Spring	CEE517: Design for Wind	3.5	3.5	4.0	3.5	13
2014	Autumn	CEE518: Reliability & Design	3.0	3.0	3.2	2.9	12
2014	Winter	CEE454: Design of Timber Structures	3.3	3.2	3.3	3.1	37
2014	Summer	CEE517: Design for Wind	3.3	3.3	3.5	3.1	11
2015	Autumn	CEE518: Reliability & Design	3.6	3.7	3.8	3.6	14
2015	Winter	CEE454: Design of Timber Structures	4.0	4.0	4.1	3.8	35

2016	Winter	CEE454: Design of Timber Structures	3.1	3.1	3.1	3.1	41
2016	Spring	CEE599: Special Topics (Wind)	4.0	3.2	4.0	4.0	3
2017	Autumn	CESG509: Reliability & Design	3.5	3.5	3.8	3.2	7
2017	Winter	CEE454: Design of Timber Structures	3.2	3.2	3.5	3.2	38
2017	Spring	CEE599: Special Topics (in Wood Design)	4.0	4.0	3.5	4.0	2
2018	Autumn	CESG509: Reliability & Design	3.9	3.7	3.7	3.2	24
2018	Winter	CEE454: Design of Timber Structures	3.8	3.8	3.7	3.4	30
2018	Spring	CESG528: Wind Engineering Design	3.5	3.5	4.2	3.8	15
2019	Autumn	CESG509: Reliability & Design	3.9	3.7	3.7	3.2	24
2019	Spring	CESG528: Wind Engineering Design	4.8	4.8	5.0	5.0	4
2020	Autumn	CESG509: Reliability & Design	3.0	3.1	3.1	3.1	24
2020	Winter	CEE454: Design of Timber Structures	3.3	3.2	3.2	3.1	46
2020	Spring	CEE441: Capstone (with Mahoney & Kaminsky)	4.2	4.0	3.8	3.8	15
2020	Autumn	CESG509: Reliability & Design	4.8	4.9	4.8	4.8	18
2021	Winter	CEE454: Design of Timber Structures	3.7	4.2	4.1	3.4	46
2021	Spring	CEE441: Capstone with Amy Kim	4.7	4.2	4.2	4.3	9
2021	Spring	CESG528: Wind Engineering Design	4.0	4.5	5.0	5.0	2
2022	Winter	CEE454: Design of Timber Structures	3.3	3.6	3.1	3.2	37
2022	Spring	CESI599: Building Energy & Resiliency	4.2	4.2	4.5	4.5	4
2022	Autumn	CESG509: Reliability & Design	3.4	3.7	3.6	3.2	17
2023	Winter	CEE454: Design of Timber Structures	4.2	4.2	4.1	4.0	34

**Department of Civil and Environmental Engineering Service**

2020-2023 Graduate Education Committee, Coordinator for CESI Program  
 2017-2018 Departmental Affairs Committee  
 2016-2017 Graduate Affairs Committee  
 2012-2015 Chair, Undergraduate Education Committee  
 2012-2013 ABET Departmental Representative  
 Autumn 2012 College Promotion and Tenure Committee (Member)  
 2005 Member, Search Committee, CEE  
 2010-2015 Member, Scholarship Committee

**College of Engineering Service**

2022-present College Promotion & Tenure Committee (Member)  
 2013 Chair, College Council, Engineering  
 2010-2014 Member, College Council  
 2003 Member, ABET Review Committee

**University Service**

2017 Chair, Review of the Department of Construction Management, University of Washington  
 for The Graduate School