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Director of the Newmark Structural Engineering Laboratory
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EDUCATION

Ph.D. in Civil (Structural) Engineering (1997)
University of Michigan, Ann Arbor, MI
M.S. in Civil Engineering (1987)
B.S. in Civil Engineering (1986)
University of Illinois, Urbana, IL

RESEARCH INTERESTS

Experimental behavior and analytical modeling of connections and joints for reinforced concrete, brick veneer, timber, GFRP, aluminum, and elastomeric components of buildings and other structural systems subjected to wind and earthquakes. Structural performance of infrastructure – seismic assessment of buildings and bridges; thermal and live load behavior of integral abutment bridges, stub abutment bridges, and approach slabs; fiber-reinforced concrete effects; concrete fatigue, etc. Cross-cultural engineering communication.

ACADEMIC POSITIONS AND PROFESSIONAL EXPERIENCE

Director, Newmark Structural Engineering Lab, Dept. of Civ. & Envir. Engrng. (2025-)
University of Illinois, Urbana, IL
Assoc. Dean for Facilities & Capital Planning, Grainger College of Engrng. (2020-21)
University of Illinois, Urbana, IL
Director of CEE Educ. Programs at ZJUI, Dept. of Civ. & Envir. Engrng. (2018-20)
University of Illinois, Urbana, IL / ZJU (Zhejiang University) – UIUC Institute (ZJUI)
Assoc. Head & Dir. Undergrad. Studies, Dept. of Civ. & Envir. Engrng. (2016-20)
University of Illinois, Urbana, IL
Professor, Department of Civil & Environmental Engineering (2013-present)
University of Illinois, Urbana, IL
NIST Associate, Structures Group & National Windstorm Impact Reduction Prgrm. (2015)
National Institute of Standards & Technology (NIST), Gaithersburg, MD

Associate Professor, Department of Civil & Environmental Engineering (2005-13)
University of Illinois, Urbana, IL

Visiting Associate Professor, Dept. of Civil & Environmental Engineering (2007-08)
University of Washington, Seattle, WA

Assistant Professor, Department of Civil & Environmental Engineering (1999-2005)
University of Illinois, Urbana, IL

Assistant Professor, Department of Civil & Environmental Engineering (1997-99)
University of Massachusetts, Amherst, MA

Graduate Student Fellow, Research Assistant & Teaching Assistant, Department of Civil & Environmental Engineering (1991-96); University of Michigan, Ann Arbor, MI

Consulting Structural / Forensic Engineer (1987-91)
Wiss, Janney, Elstner Associates, Inc.; Princeton Junction, NJ

Graduate Student Research Assistant, U.S. Army (Corps of Engineers) Construction Engineering Research Lab / UIUC (1986-87); Champaign, IL.

Intern Engineer (1985)
Sargent and Lundy Engineers; Chicago, IL

PROFESSIONAL REGISTRATION

Licensed Professional Engineer, State of Michigan (1996-present)

AWARDS AND HONORS

Research Awards:

PCI Martin P. Korn Award (2023)
Precast/Prestressed Concrete Institute

Journal of Performance of Constructed Facilities Outstanding 2016 Paper Award
American Society of Civil Engineers – Forensic Engineering Division

Dziugas Reneckis Faculty Advisor – Outstanding PhD Dissertation Award (2011)
The Masonry Society

ACI Wason Medal for Most Meritorious Paper (2009)
American Concrete Institute

ACI Fellow (2008)
American Concrete Institute

Outstanding TMS Journal Paper Award (2007)
The Masonry Society

ASTM Alan H. Yorkdale Memorial Award (2006)
American Society for Testing and Materials

Xerox Award for Faculty Research (2005)
College of Engineering; University of Illinois, Urbana, IL

Teaching Awards:**Outstanding Instructor Award** (2002 and 2005)

University of Illinois *American Society of Civil Engineers* (ASCE) Student Chapter

List of Teachers Ranked as Excellent by Their Students (UIUC)

Summer 2012 – CEE 560; Fall 2011 – CEE 199; Fall 2010 – CEE 465; Spring 2010 – CEE 461; Fall 2002 – CEE 465 (now CEE 560); Spring and Fall 2001 – CEE 263 (now CEE 460)

Outstanding Graduate Student Instructional Assistant Award (1996)

University of Michigan *American Society for Engineering Education* (ASEE) Student Chapter

EDITED VOLUMES, BOOK CHAPTERS & COMMITTEE PUBLICATIONS

1. Gardoni, P., and **LaFave, J. M.** (Editors), *Multi-hazard Approaches to Civil Infrastructure Engineering*, Springer, 2016, 573 pp.
2. Gardoni, P., and **LaFave, J. M.**, “Multi-hazard Approaches to Civil Infrastructure Engineering: Mitigating Risks and Promoting Resilience,” in P. Gardoni & J. M. LaFave (Eds.), *Multi-hazard Approaches to Civil Infrastructure Engineering*, 2016, pp. 3-12 (Springer).
3. ACI-ASCE Committee 352 (Editorial Subcommittee: **J. M. LaFave** (Chair), M. B. Hueste, T. H.-K. Kang, and I. N. Robertson), “Guide for Design of Slab-Column Connections in Monolithic Concrete (ACI 352.1R-11),” American Concrete Institute, Farmington Hills, Michigan, 2012, 28 pp.
4. ACI-ASCE Committee 352 (Editorial Subcommittee: S. M. Alcocer, J. F. Bonacci, T. R. Gentry, M. E. Kreger, and **J. M. LaFave**), “Recommendations for Design of Beam-Column Connections in Monolithic Reinforced Concrete Structures (ACI 352R-02),” American Concrete Institute, Farmington Hills, Michigan, 2002, 37 pp.

JOURNAL PUBLICATIONS (* indicates current or former student)***Published or In Press***

1. Schissler*, L. R., **LaFave, J. M.**, Elbanna, A. E., and Fahnestock, L. A., “Point Cloud Processing for Damage Characterization of Steel I-Sections,” *ASCE Journal of Structural Engineering*, 2026, in press.
2. Schissler*, L. R., Ahershinge*, S., Ibrahim*, A. E., Fahnestock, L. A., **LaFave, J. M.**, and Elbanna, A. E., “Survey and Review of Bridge Strikes and Assessment Methods for Low-Clearance Steel-Girder Bridges,” *ASCE Journal of Structural Design and Construction Practice*, vol. 31, no. 1, January 2026, Article # 04025107 (12 pp.).
3. Zhou*, S., Fahnestock, L. A., **LaFave, J. M.**, and Dorado*, R., “Field and Numerical Evaluations of Static and Dynamic Live Load Response in Skewed Steel I-Girder Bridges with Stub and Integral Abutments,” *ASCE Journal of Bridge Engineering*, vol. 30, no. 7, July 2025, Article # 04025037 (14 pp.).

4. Liu*, G., **LaFave, J. M.**, and Fahnestock, L. A., “Parametric Assessment of Structural Behavior of Integral Abutment Bridge Approach Slabs When Subjected to Live Load and Thermal Effects,” *ASCE Journal of Bridge Engineering*, vol. 30, no. 6, June 2025, Article # 04025032 (13 pp.).
5. Kim, C., Nguyen, H. D., Shin, M., and **LaFave, J. M.**, “Fragility Analysis of APR-1400 Nuclear Containment Structures under Internal Pressure,” *Nuclear Engineering and Design*, vol. 433, March 2025, Article # 113864 (16 pp.).
6. Dorado*, R., **LaFave, J. M.**, and Fahnestock, L. A., “Field-Data-Driven Assessment of an In-Service Skewed Integral Abutment Bridge Assisted by Deep Learning,” *Bridge Structures*, vol. 21, no. 1, February 2025, pp. 18-33.
7. Kang, H.-S., and **LaFave, J. M.**, “Internationalising an Engineering Group Project Course: An Intercultural Contact Study,” *European Journal of Engineering Education*, v. 50, no. 3, 2025, pp. 637-653.
8. Zhou*, S., Fahnestock, L. A., and **LaFave, J. M.**, “Parametric Study of Skewed Steel I-Girder Bridge Truck Live Load Response,” *ASCE Journal of Bridge Engineering*, v. 29, no. 12, December 2024, Article # 04024088 (14 pp.).
9. Zhou*, S., Fahnestock, L. A., **LaFave, J. M.**, and Dorado*, R., “Long-Term Field Response of Skewed Steel I-Girder Bridge Superstructures under Thermal Variation,” *ASCE Journal of Performance of Constructed Facilities*, v. 38, no. 5, October 2024, Article # 04024039 (14 pp.).
10. Liu*, G., **LaFave, J. M.**, and Fahnestock, L. A., “Short-Term Structural Response of Integral Abutment Bridge Approach Slabs Subjected to Live Loading and Thermal Effects,” *ASCE Journal of Bridge Engineering*, v. 29, no. 4, April 2024, Article # 04024010 (14 pp.); “Editor’s Choice” Collection Paper.
11. Zhou*, S., Fahnestock, L. A., and **LaFave, J. M.**, “Field and Numerical Evaluation of Lateral Bending in Skewed Steel I-Girder Bridges during Deck Placement,” *ASCE Journal of Bridge Engineering*, v. 29, no. 2, February 2024, Article # 04023111 (15 pp.); “Editor’s Choice” Collection Paper.
12. Zhou*, S., Fahnestock, L. A., **LaFave, J. M.**, and Dorado*, R., “Construction and Live Load Behavior of a Skewed Steel I-Girder Bridge,” *Transportation Research Record*, v. 2678, no. 1, January 2024, pp. 846-860.
13. Nguyen, H. D., Lee, Y.-J., **LaFave, J. M.**, and Shin, M., “Seismic Fragility Analysis of Steel Moment Frames Using Machine Learning Models,” *Engineering Applications of Artificial Intelligence*, v. 126, November 2023, Article # 106976 (16 pp.).
14. Nguyen, H. D., Shin, M., and **LaFave, J. M.**, “Optimal Intensity Measures for Probabilistic Seismic Demand Models of Steel Moment Frames,” *Journal of Building Engineering*, v. 65, April 2023, Article # 105629 (18 pp.).
15. Zhou*, S., Fahnestock, L. A., and **LaFave, J. M.**, “Development of Skewed Steel I-Girder Bridge Field Monitoring Strategy through Agency Survey and Numerical Simulation,” *ASCE Practice Periodical on Structural Design and Construction*, v. 28, no. 1, February 2023, Article # 04022056 (13 pp.).

16. Jung, D., Kang, T. H.-K., Lee, D. J., Kim, S., and **LaFave, J. M.**, “Seismic Performance of a Ductile Rod Exterior Connection System for Precast Concrete Industrial Buildings,” *PCI Journal*, v. 68, no. 1, January-February 2023, pp. 25-47.
17. Fahnestock, L. A., Chee*, M., Liu*, G., Kode*, U., and **LaFave, J. M.**, “Synthesis of Bridge Approach Slab Behavior, Design, and Construction Practice,” *ASCE Practice Periodical on Structural Design and Construction*, v. 27, no. 3, August 2022, Article # 04022032 (12 pp.).
18. Kozak*, D. L., Fahnestock, L. A., and **LaFave, J. M.**, “Seismic Behavior Assessment for Design of Integral Abutment Bridges in Illinois,” *Earthquake Engineering and Engineering Vibration*, v. 21, no. 2, April 2022, pp. 573-589.
19. Foltz*, R. R., **LaFave, J. M.**, and Lee, D., “Seismic Performance of a Structural Concrete Pile-Wharf Connection Before and After Retrofit,” *Structures*, v. 38, April 2022, pp. 874-894.
20. Nguyen, H. D., **LaFave, J. M.**, Lee, Y.-J., and Shin, M., “Rapid Seismic Damage-State Assessment of Steel Moment Frames Using Machine Learning,” *Engineering Structures*, v. 252, February 2022, Article # 113737 (15 pp.).
21. Viswanath*, S., **LaFave, J. M.**, and Kuchma, D. A., “Concrete Compressive Strain Behavior and Magnitudes under Uniaxial Fatigue Loading,” *Construction and Building Materials*, v. 296, August 2021, Article # 123718 (16 pp.).
22. Su, L., Huang, X., Zhang, J.-Q., and **LaFave, J. M.**, “Engineering performance of Two Analytical Methodologies for Estimating Modal Parameter Uncertainty for Structures,” *Structural Control and Health Monitoring*, v. 28, no. 7, July 2021, Article # e2752 (19 pp.).
23. **LaFave, J. M.**, Brambila*, G., Kode*, U., Liu*, G., and Fahnestock, L. A., “Field Behavior of Integral Abutment Bridges under Thermal Loading,” *ASCE Journal of Bridge Engineering*, v. 26, no. 4, April 2021, Article # 04021013 (16 pp.).
24. Viswanath*, S., Kuchma, D. A., and **LaFave, J. M.**, “Experimental Investigation of Concrete Fatigue in Axial Compression,” *ACI Structural Journal*, v. 118, no. 1, January 2021, pp. 263-276.
25. Kim, S., Kang, T. H.-K., Jung, D., and **LaFave, J. M.**, “Seismic Behavior of Precast and Post-Tensioned Exterior Connections with Ductile Headed Rods,” *ACI Structural Journal*, v. 118, no. 1, January 2021, pp. 87-100.
26. Su, L., Zhang, J.-Q., Huang, X., and **LaFave, J. M.**, “Automatic Operational Modal Analysis of Structures Based on Image Recognition of Stabilization Diagrams with Uncertainty Quantification,” *Multidimensional Systems and Signal Processing*, v. 32, no. 1, January 2021, pp. 335-357.
27. Luo*, J., Fahnestock, L. A., and **LaFave, J. M.**, “Seismic Performance Assessment of Quasi-Isolated Highway Bridges with Seat-Type Abutments,” *Journal of Earthquake Engineering*, v. 25, no. 11, 2021, pp. 2285–2324.
28. Su, L., Huang, X., Song, M.-L., and **LaFave, J. M.**, “Automatic Identification of Modal Parameters for Structures Based on an Uncertainty Diagram and a Convolutional Neural Network,” *Structures*, v. 28, December 2020, pp. 369-379.

29. Samara*, K., Sun, M., Cha, E. J., and **LaFave, J.**, “Probabilistic Modeling and Fragility Assessment of Limestone Wall Tie Connections Subjected to Wind Loads,” *Journal of Building Engineering*, v. 26, November 2019, Article # 100884 (10 pp.).
21. Kozak*, D. L., Luo*, J., Olson, S. M., **LaFave, J. M.**, and Fahnestock, L. A., “Modification of Ground Motions for Use in Central North America,” *Journal of Earthquake Engineering*, v. 23, no. 8, September 2019, pp. 1385-1406.
22. Kang, T. H.-K., Kim, S., Shin*, J. H., and **LaFave, J. M.**, “Seismic Behavior of Exterior Beam-Column Connections with High-Strength Materials and Steel Fibers,” *ACI Structural Journal*, v. 116, no. 4, July-August 2019, pp. 31-43.
23. Welt*, T., Lehman, D., Lowes, L., and **LaFave, J.**, “A Constitutive Model for Confined Concrete in Slender Rectangular RC Sections Incorporating Compressive Energy,” *Construction and Building Materials*, v. 193, December 2018, pp. 344-362.
24. Kozak*, D. L., **LaFave, J. M.**, and Fahnestock, L. A., “Seismic Modeling of Integral Abutment Bridges in Illinois,” *Engineering Structures*, v. 165, June 2018, pp. 170-183.
25. Welt*, T. S., Lehman, D. E., and **LaFave, J. M.**, “Boundary Element Detailing in Special Concrete Structural Walls,” *ACI Structural Journal*, v. 115, no. 3, May-June 2018, pp. 635-647.
26. Steelman*, J. S., Fahnestock, L. A., Hajjar, J. F., and **LaFave, J. M.**, “Cyclic Experimental Behavior of Non-seismic Elastomeric Bearings with Stiffened Angle Side Retainer Fuses for Quasi-isolated Seismic Bridge Response,” *ASCE Journal of Bridge Engineering*, v. 23, no. 1, January 2018, Article # 04017120 (14 pp.).
27. Kim, T., and **LaFave, J. M.**, “Proposed New Equivalent Lateral Force Design Method for Low-Rise Reinforced Concrete Wall-Frame Mixed Building Systems,” *Engineering Structures*, v. 152, December 2017, pp. 87-101.
28. Rice*, J. A., **LaFave, J. M.**, Foutch, D. A., and Abdullah, A. B. M., “Passive Vibration Mitigation for Highway Sign Trusses Susceptible to Wind-Induced Vibrations,” *ASCE Journal of Performance of Constructed Facilities*, v. 31, no. 6, December 2017, Article # 04017091 (10 pp.).
29. Luo*, J., Fahnestock, L. A., and **LaFave, J. M.**, “Nonlinear Static Pushover and Eigenvalue Modal Analyses of Quasi-Isolated Highway Bridges with Seat-Type Abutments,” *Structures*, v. 12, November 2017, pp. 145-167.
30. Lee, D. H., Han, S.-J., Kim, K. S., and **LaFave, J. M.**, “Shear Strength of Reinforced Concrete Beams Strengthened in Shear Using Externally-Bonded FRP Composites,” *Composite Structures*, v. 173, August 2017, pp. 177-187.
31. Foltz*, R. R., Lee, D.-H., and **LaFave, J. M.**, “Biaxial Behavior of High-Performance Fiber-Reinforced Cementitious Composite Plates,” *Construction and Building Materials*, v. 143, July 2017, pp. 501-514.
32. Fick, D. R., Hueste, M. B. D., Kang, T., Kreger, M. E., **LaFave, J. M.**, French, C., and Bakir, B. B., “Discussion of ‘Design of Concrete Slabs for Punching Shear: Controversial Concepts’ by Amin Ghali, Ramez B. Gayed, and Walter Dilger,” *ACI Structural Journal*, v. 114, no. 3, May-June 2017, p. 787.

33. Luo*, J., Fahnestock, L., Kozak*, D., and **LaFave, J.**, “Seismic Analysis Incorporating Detailed Structure-Abutment-Foundation Interaction for Quasi-Isolated Highway Bridges,” *Structure and Infrastructure Engineering*, v. 13, no. 5, May 2017, pp. 581-603.
34. Lee, D. H., Han, S.-J., Kim, K. S., and **LaFave, J. M.**, “Shear Capacity of Steel Fiber-Reinforced Concrete Beams,” *Structural Concrete*, v. 18, no. 2, April 2017, pp. 278-291.
35. Welt*, T. S., Massone, L. M., **LaFave, J. M.**, Lehman, D. E., McCabe, S. L., and Polanco, P., “Confinement Behavior of Rectangular Reinforced Concrete Prisms Simulating Wall Boundary Elements,” *ASCE Journal of Structural Engineering*, v. 143, no. 4, April 2017, Article # 04016204 (12 pp.).
36. Stark, T. D., Benekohal, R., Fahnestock, L. A., **LaFave, J. M.**, He*, J., and Wittenkeller*, C., “I-5 Skagit River Bridge Collapse Review,” *ASCE Journal of Performance of Constructed Facilities*, v. 30, no. 6, December 2016, Article # 04016061 (12 pp.).
37. **LaFave, J. M.**, and Kim*, J., “Innovative Approaches for Predicting RC Beam-Column Connection Joint Shear Resistance,” *Symposium Volume – James K. Wight: A Tribute from his Students and Colleagues (ACI SP-311)*, American Concrete Institute, Farmington Hills, Michigan, 2016, pp. 2.1-2.16.
38. **LaFave, J. M.**, Riddle*, J. K., Jarrett*, M. W., Wright*, B. A., Svatora*, J. S., An*, H., and Fahnestock, L. A., “Numerical Simulations of Steel Integral Abutment Bridges under Thermal Loading,” *ASCE Journal of Bridge Engineering*, v. 21, no. 10, October 2016, Article # 04016061 (17 pp.).
39. **LaFave, J. M.**, Gao*, Z., Holder*, D. E., Kuo*, M. J., and Fahnestock, L. A., “Commercial and Residential Building Performance during the May 20, 2013, Tornado in Moore, Oklahoma,” *ASCE Journal of Performance of Constructed Facilities*, v. 30, no. 2, April 2016, Article # 04014210 (13 pp.).
40. Moreu*, F., Li, J., Jo, H., Kim, R. E., Scola, S., Spencer Jr., B. F., and **LaFave, J. M.**, “Reference-Free Displacements for Condition Assessment of Timber Railroad Bridges,” *ASCE Journal of Bridge Engineering*, v. 21, no. 2, February 2016, Article # 04015052 (12 pp.).
41. Steelman*, J. S., Fahnestock, L. A., Hajjar, J. F., and **LaFave, J. M.**, “Performance of Non-Seismic PTFE Sliding Bearings When Subjected to Seismic Demands,” *ASCE Journal of Bridge Engineering*, v. 21, no. 1, January 2016, Article # 04015028 (12 pp.).
42. Moreu*, F., Jo, H., Li, J., Kim, R. E., Cho, S., Kimmle, A., Scola, S., Le, H., Spencer Jr., B. F., and **LaFave, J. M.**, “Dynamic Assessment of Timber Railroad Bridges Using Displacements,” *ASCE Journal of Bridge Engineering*, v. 20, no. 10, October 2015, Article # 04014114 (12 pp.).
43. **LaFave, J. M.**, Kang, H.-S., and Kaiser*, J. D., “Cultivating Intercultural Competencies for Civil Engineering Students in the Era of Globalization: Case Study,” *ASCE Journal of Professional Issues in Engineering Education and Practice*, v. 141, no. 3, July 2015, Article # 05014008 (9 pp.).
44. de Brito, J., **LaFave, J. M.**, and Yao, R., “Editorial,” *Journal of Building Engineering*, v. 1, March 2015, p. 1.

45. Steelman*, J. S., Filipov*, E. T., Fahnestock, L. A., Revell*, J. R., **LaFave, J. M.**, Hajjar, J. F., and Foutch, D. A., “Experimental Behavior of Steel Fixed Bearings and Implications for Seismic Bridge Response,” *ASCE Journal of Bridge Engineering*, v. 19, no. 8, August 2014, Article # A4014007 (14 pp.).
46. Filipov*, E. T., Revell*, J. R., Fahnestock, L. A., **LaFave, J. M.**, Hajjar, J. F., Foutch, D. A., and Steelman*, J. S., “Seismic Performance of Highway Bridges with Fusing Bearing Components for Quasi-Isolation,” *Earthquake Engineering and Structural Dynamics*, v. 42, no. 9, July 2013, pp. 1375-1395.
47. Steelman*, J. S., Fahnestock, L. A., Filipov*, E. T., **LaFave, J. M.**, Hajjar, J. F., and Foutch, D. A., “Shear and Friction Response of Low-Damping Elastomeric Bearings Subject to Seismic Demands,” *ASCE Journal of Bridge Engineering*, v. 18, no. 7, July 2013, pp. 612-623.
48. Filipov*, E. T., Hajjar, J. F., Steelman*, J. S., Fahnestock, L. A., **LaFave, J. M.**, and Foutch, D.A., “Seismic Behavior of Quasi-Isolated Bridges with Nonlinear Bearing Models,” *Engineering Structures*, v. 49, April 2013, pp. 168-181.
49. Shin*, M., Kang, T. H.-K., **LaFave, J. M.**, and Grossman, J. S., “Design and Behaviour of a Reinforced Concrete High-Rise Tube Building with Belt Walls,” *The Structural Design of Tall and Special Buildings*, v. 21, no. 12, December 2012, pp. 918-932.
50. Caiza-Sanchez*, P., Andrawes, B. O., and **LaFave, J. M.**, “Analytical Modeling and Damage Assessment of Shallow Embedment Pile-Deck Connections,” *Advances in Structural Engineering*, v. 15, no. 10, October 2012, pp. 1673-1687.
51. Kim*, J., and **LaFave, J. M.**, “Simplified Approach to Joint Shear Behavior Prediction of RC Beam-Column Connections,” *Earthquake Spectra*, v. 28, no. 3, August 2012, pp. 1071-1096.
52. Reneckis*, D., and **LaFave, J. M.**, “Seismic Fragility Analysis of Anchored Brick Veneer,” *Structural Safety*, v. 35, no. 1, March 2012, pp. 1-17.
53. Lin, T.-J., and **LaFave, J. M.**, “Experimental Structural Behavior of Wall-Diaphragm Connections for Older Masonry Buildings,” *Construction and Building Materials*, v. 26, no. 1, January 2012, pp. 180-189.
54. Rice*, J. A., Foutch, D. A., **LaFave, J. M.**, and Valdovinos*, S., “Field Testing and Analysis of Aluminum Highway Sign Trusses,” *Engineering Structures*, v. 34, no. 1, January 2012, pp. 173-186.
55. Moreu*, F., and **LaFave, J. M.**, “Survey of Current Research Topics – Railroad Bridges and Structural Engineering,” *Railway Track and Structures*, v. 107, no. 9, September 2011, pp. 65-70.
56. **LaFave, J. M.**, and Kim*, J., “Joint Shear Behavior Prediction for RC Beam-Column Connections,” *International Journal of Concrete Structures and Materials*, v. 5, no. 1, June 2011, pp. 57-64.
57. Reneckis*, D., and **LaFave, J. M.**, “Out-of-Plane Seismic Performance and Detailing of Brick Veneer Walls,” *ASCE Journal of Structural Engineering*, v. 136, no. 7, July 2010, pp. 781-794.

58. Bignell*, J. L., and **LaFave, J. M.**, “Analytical Fragility Analysis of Southern Illinois Wall Pier Supported Highway Bridges,” *Earthquake Engineering and Structural Dynamics*, v. 39, no. 7, June 2010, pp. 709-729.
59. Kim*, T.-W., Foutch, D. A., Wilcoski, J., and **LaFave, J. M.**, “Response Modification Factors for RC Case-Study Buildings with Structural Walls,” *Earthquake Spectra*, v. 25, no. 4, November 2009, pp. 803-819.
60. Kim*, J., **LaFave, J. M.**, and Song, J., “Joint Shear Behaviour of Reinforced Concrete Beam-Column Connections,” *Magazine of Concrete Research*, v. 61, no. 2, March 2009, pp. 119-132.
61. Kim*, J., and **LaFave, J. M.**, “Probabilistic Joint Shear Strength Models for Design of RC Beam-Column Connections,” *ACI Structural Journal*, v. 105, no. 6, November-December 2008, pp. 770-780.
62. Rice*, J. A., **LaFave, J. M.**, and Mehuys, C. H., “End Connection Effects on Vortex Shedding Susceptibility of Welded Aluminum Truss Tubular Web Members,” *ASCE Journal of Performance of Constructed Facilities*, v. 22, no. 5, September-October 2008, pp. 297-304.
63. **LaFave, J. M.**, and Lehman, D. E., “Discussion of ‘Test of High-Rise Core Wall: Effective Stiffness for Seismic Analysis’ by Perry Adebar, Ahmed M. M. Ibrahim, and Michael Bryson,” *ACI Structural Journal*, v. 105, no. 4, July-August 2008, pp. 509-510.
64. Shin*, M., and **LaFave, J. M.**, “Discussion of ‘Eccentric Reinforced Concrete Beam-Column Connections Subjected to Cyclic Loading in Principal Directions’ by Hung-Jen Lee and Jen-Wen Ko,” *ACI Structural Journal*, v. 105, no. 3, May-June 2008, pp. 380-381.
65. Kang, T. H.-K., Robertson, I. N., Hawkins, N. M., and **LaFave, J. M.**, “Recommendations for Design of Post-Tensioned Slab-Column Connections Subjected to Lateral Loading,” *PTI Journal*, v. 6, no. 1, February 2008, pp. 45-59.
66. Kim*, J., **LaFave, J. M.**, and Song, J., “A New Statistical Approach for Joint Shear Strength Determination of RC Beam-Column Connections Subjected to Lateral Earthquake Loading,” *Structural Engineering and Mechanics*, v. 27, no. 4, November 2007, pp. 439-456.
67. Kim*, J., and **LaFave, J. M.**, “Key Influence Parameters for the Joint Shear Behaviour of Reinforced Concrete (RC) Beam-Column Connections,” *Engineering Structures*, v. 29, no. 10, October 2007, pp. 2523-2539.
68. Kang, T. H.-K., **LaFave, J. M.**, Robertson, I. N., and Hawkins, N. M., “Post-Tensioned Slab-Column Connections – Drift Capacity at Punching of Connections Subjected to Lateral Loading,” *Concrete International*, v. 29, no. 4, April 2007, pp. 61-68.
69. Turner*, D. Z., Hjelmstad, K. D., and **LaFave, J. M.**, “Three-Dimensional Flow Visualization Experiment of an RTM Injection for a GFRP Cuff Mold,” *Composite Structures*, v. 76, no. 4, December 2006, pp. 352-361.
70. Choi*, Y.-H., Foutch, D. A., and **LaFave, J. M.**, “New Approach to AISC P-M Interaction Curve for Square Concrete Filled Tube (CFT) Beam-Columns,” *Engineering Structures*, v. 28, no. 11, September 2006, pp. 1586-1598.

71. **LaFave, J. M.**, and Reneckis*, D., “Structural Behavior of Tie Connections for Residential Brick Veneer Construction,” *The Masonry Society Journal*, v. 23, no. 1, December 2005, pp. 105-119.
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3. **LaFave, J. M.**, Fahnestock, L. A., Luo*, J., and Kozak*, D. L., “Seismic Performance of Seat-Type Abutment Highway Bridges in Illinois,” *IDOT/ICT Project R27-133 Final Report (Research Report FHWA-ICT-18-013)*, Illinois Center for Transportation, Springfield, Illinois, 2018, 66 pp.
4. **LaFave, J. M.**, Fahnestock, L. A., and Kozak*, D. L., “Seismic Performance of Integral Abutment Highway Bridges in Illinois,” *IDOT/ICT Project R27-133 Final Report (Research Report FHWA-ICT-18-012)*, Illinois Center for Transportation, Springfield, Illinois, 2018, 85 pp.
5. Kozak*, D. L., Luo*, J., Olson, S. M., **LaFave, J. M.**, and Fahnestock, L. A., “Modification of Ground Motions for Use in Central North America: Southern Illinois Surface Ground Motions for Structural Analysis,” *Report No. NSEL-048*, Newmark Structural Laboratory Report Series, 2017, 10 pp.
6. **LaFave, J. M.**, Fahnestock, L. A., Brambila*, G., Riddle*, J. K., Jarrett*, M. W., Svatora*, J. S., Wright*, B. A., and An*, H., “Integral Abutment Bridges Under Thermal Loading: Field Monitoring and Analysis,” *IDOT/ICT Project R27-115 Final Report (Research Report FHWA-ICT-17-017)*, University of Illinois, Urbana, Illinois, 2017, 75 pp.
7. **LaFave, J. M.**, Fahnestock, L. A., Wright*, B. A., Riddle*, J. K., Jarrett*, M. W., Svatora*, J. S., An*, H., and Brambila*, G., “Integral Abutment Bridges Under Thermal Loading: Numerical Simulations and Parametric Study,” *IDOT/ICT Project R27-115 Final Report (Research Report FHWA-ICT-16-014)*, University of Illinois, Urbana, Illinois, 2016, 67 pp.

8. **LaFave, J.**, Fahnestock, L., Foutch, D., Steelman*, J., Revell*, J., Filipov*, E., and Hajjar, J., “Seismic Performance of Quasi-Isolated Bridges in Illinois,” *IDOT/ICT Project R27-70 Final Report (Research Report FHWA-ICT-13-015)*, University of Illinois, Urbana, Illinois, 2013, 229 pp.
9. **LaFave, J.**, Fahnestock, L., Foutch, D., Steelman*, J., Revell*, J., Filipov*, E., and Hajjar, J., “Experimental Investigation of the Seismic Response of Bridge Bearings,” *IDOT/ICT Project R27-70 Final Report (Research Report FHWA-ICT-13-002)*, University of Illinois, Urbana, Illinois, 2013, 130 pp.
10. Olson, S. M., Holloway*, K. P., Buenker*, J. M., Long, J. H., and **LaFave, J. M.**, “Thermal Behavior of IDOT Integral Abutment Bridges and Proposed Design Modifications,” *IDOT/ICT Project R27-55 Final Report (Research Report FHWA-ICT-12-022)*, University of Illinois, Urbana, Illinois, 2013, 88 pp.
11. Moreu*, F., and **LaFave, J. M.**, “Current Research Topics: Railroad Bridges and Structural Engineering,” *Report No. NSEL-032*, Newmark Structural Laboratory Report Series, 2012, 162 pp.
12. Kim*, J., and **LaFave, J. M.**, “Joint Shear Behavior of Reinforced Concrete Beam-Column Connections Subjected to Seismic Lateral Loading,” *Report No. NSEL-018*, Newmark Structural Laboratory Report Series, 2009, 210 pp.
13. Reneckis*, D., and **LaFave, J. M.**, “Seismic Performance of Anchored Brick Veneer,” *Report No. NSEL-016*, Newmark Structural Laboratory Report Series, 2009, 217 pp.
14. Olson, S. M., Long, J. H., Hansen*, J. R., Reneckis*, D., and **LaFave, J. M.**, “Modification of IDOT Integral Abutment Design Limitations and Details,” *IDOT/ICT Project R27-25 Final Report (Research Report FHWA-ICT-09-054)*, University of Illinois, Urbana, Illinois, 2009, 69 pp.
15. Foutch, D. A., Rice*, J. A., **LaFave, J. M.**, Valdovinos*, S., and Kim*, T.-W., “Evaluation of Aluminum Highway Sign Truss Designs and Standards for Wind and Truck Gust Loading,” *IDOT Physical Research Report No. 153*, Bureau of Materials & Physical Research, Illinois Department of Transportation, Springfield, Illinois, 2006, 322 pp.
16. Bignell*, J. L., **LaFave, J. M.**, and Hawkins, N. M., “Assessment of the Seismic Vulnerability of Wall Pier Supported Highway Bridges on Priority Emergency Routes in Southern Illinois,” *IDOT/ICT Project IHR-R36 Final Report (Research Report FHWA-ICT-07-004)*, University of Illinois, Urbana, Illinois, 2006, 257 pp.
17. Kim*, T.-W., Foutch, D. A., **LaFave, J. M.**, and Wilcoski, J., “Performance Assessment of Reinforced Concrete Structural Walls for Seismic Loads,” *Structural Research Series No. 634*, Department of Civil and Environmental Engineering, University of Illinois, Urbana, Illinois, 2004.
18. Civjan, S. A., **LaFave, J. M.**, Lovett*, D., Sund*, D. J., and Trybulski, J., “Performance Evaluation of Combinations of Durability Enhancing Admixtures (Mineral and Chemical) in Structural Concrete for the Northeast U.S.A.,” *NETC Project 97-2 Final Report (No. NETCR36)*, University of Massachusetts, Amherst, Massachusetts, 2003, 165 pp.

19. Foutch, D. A., and **LaFave, J. M.**, “Performance-Based Design of Steel Buildings for Seismic Loads,” *UIUC / AISC Workshop Report*, University of Illinois, Urbana, Illinois, 2002, 59 pp.
20. **LaFave, J. M.**, and Wight, J. K., “Behavior of Reinforced Concrete Exterior Wide Beam-Column-Slab Connections Subjected to Lateral Earthquake Loading,” *Report No. UMCEE 97-01*, Department of Civil & Environmental Engineering, The University of Michigan, Ann Arbor, Michigan, January 1997, 217 pp.

RESEARCH GRANTS & CONTRACTS

1. *Seismic Damping Effects on Bridges*

Sponsor: Illinois Center for Transportation / IDOT
 Principal Investigator: **James M. LaFave**
 Co-Principal Investigator: Larry A. Fahnestock
 Total Award: \$281,586
 Period of Award: 2024-26

2. *Strength and Serviceability of Damaged Steel Bridge Girders*

Sponsor: Illinois Center for Transportation / IDOT
 Principal Investigator: Larry A. Fahnestock
 Co-Principal Investigators: Ahmed Elbanna & **James M. LaFave**
 Total Award: \$600,000
 Period of Award: 2020-26

3. *Effect of Fatigue on the Capacity and Performance of Structural Concrete*

Sponsor: Department of Energy (via Tufts)
 Principal Investigator: **James M. LaFave**
 Total Award: \$125,000
 Period of Award: 2020-23

4. *Safety Evaluation Procedures for Existing Masonry Structures & Facades Based on Uncertainty Theory*

Sponsor: ZJU-UIUC Institute Research Program
 Principal Investigator: **James M. LaFave**
 Total Award: \$74,500
 Period of Award: 2019-20

5. *Concrete Cylinder Fatigue Testing in Compression*

Sponsor: Tufts University (D. Kuchma)
 Principal Investigator: **James M. LaFave**
 Total Award: \$9,975
 Period of Award: 2019

6. *Metal Plate Connected Wood Floor Truss Testing*

Sponsor: MiTek USA, Inc.
Principal Investigator: **James M. LaFave**
Total Award: \$33,000
Period of Award: 2019

7. *Evaluation of Spatial and Temporal Load Distribution in Steel Bridge Superstructures*

Sponsor: Illinois Center for Transportation / IDOT
Principal Investigator: Larry A. Fahnestock
Co-Principal Investigator: **James M. LaFave**
Total Award: \$1,238,597
Period of Award: 2018-26

8. *Investigation of Approach Slab Construction and Evaluation of Modular Approach Slab Designs*

Sponsor: Illinois Tollway
Principal Investigator: Larry A. Fahnestock
Co-Principal Investigator: **James M. LaFave**
Total Award: \$315,000
Period of Award: 2016-20

9. *Calibration and Refinement of Illinois' Earthquake Resisting System Bridge Design Methodology – Phase II*

Sponsor: Illinois Center for Transportation / IDOT
Principal Investigator: **James M. LaFave**
Co-Principal Investigator: Larry A. Fahnestock
Total Award: \$300,000
Period of Award: 2013-18

10. *Emerging Structural Engineering Infrastructure Improvement Lessons from the Recent Oklahoma Tornadoes*

Sponsor: Illinois CEE Rapid Response Grant Program
Principal Investigator: **James M. LaFave**
Co-Principal Investigator: Larry A. Fahnestock
Total Award: \$20,000
Period of Award: 2013-15

11. *Assessment and Legal Impacts of I-5 Bridge Collapse, Mount Vernon, Washington*

Sponsor: Illinois CEE Rapid Response Grant Program
Principal Investigator: Timothy D. Stark
Co-Principal Investigators: **James M. LaFave**, Rahim Benekohal & Marcelo Garcia
Total Award: \$15,000
Period of Award: 2013-15

12. Understanding Engineering Student Needs in the Era of Globalization: Cultivating Intercultural Competencies for High-Quality Collaborative Teamwork

Sponsor: Illinois College of Engineering GATE Program
Principal Investigator: **James M. LaFave**
Co-Principal Investigator: Hyun-Sook Kang (ISU)
Total Award: \$15,500
Period of Award: 2013-15

13. International Conference on Multi-Hazard Approaches to Civil Infrastructure Engineering (ICMAE)

Sponsor: Illinois CEE Research Thrust Development Program
Principal Investigator: Paolo Gardoni
Co-Principal Investigator: **James M. LaFave** and Youssef Hashash
Total Award: \$30,000
Period of Award: 2013-14

14. Analysis of Superstructures of Integral Abutment Bridges

Sponsors: Illinois Center for Transportation / IDOT & Illinois Tollway
Principal Investigator: **James M. LaFave**
Co-Principal Investigator: Larry A. Fahnestock
Total Award: \$515,000
Period of Award: 2012-17

15. Railroad Bridge Assessment Using Simplified Field Monitoring

Sponsor: American Association of Railroads
Principal Investigator: **James M. LaFave**
Total Award: \$92,000
Period of Award: 2011-14

16. Structural Behavior of Limestone Tie Anchors for High-Rise Stone Veneer

Sponsor: University of Chicago
Principal Investigator: **James M. LaFave**
Total Award: \$19,800
Period of Award: 2010-11

17. Behavior of Concrete-Filled Tubes with Internal Links

Sponsor: University of Jordan (A. Najmi)
Principal Investigator: **James M. LaFave**
Total Award: \$17,900
Period of Award: 2010

18. Calibration and Refinement of Illinois' Earthquake Resisting System Bridge Design Methodology

Sponsor: Illinois Center for Transportation / IDOT
Principal Investigator: **James M. LaFave**
Co-Principal Investigators: Jerome Hajjar, Larry Fahnestock, and Douglas Foutch
Total Award: \$725,000
Period of Award: 2009-12

19. Behavior of Precast-Prestressed Concrete Pile-to-Wharf Connections, Etc.

Sponsor: Precast/Prestressed Concrete Institute
Principal Investigator: Daniel A. Kuchma
Co-Principal Investigators: **James M. LaFave** and Bassem O. Andrawes
Total Award: \$60,000
Period of Award: 2009-12

20. NEESR Grand Challenge – Seismic Risk Mitigation for Port Systems

Sponsor: National Science Foundation (via Georgia Tech)
Principal Investigator: **James M. LaFave**
Total Award: \$125,000
Period of Award: 2008-11

21. Preliminary Engineering Analysis and Risk Assessment of GE Vendors' Concrete Wind Tower Designs

Sponsor: General Electric
Principal Investigator: Arif Masud
Co-Principal Investigators: **James M. LaFave** and Daniel A. Kuchma
Total Award: \$40,000
Period of Award: 2008-10

22. Plastic Rotation Capacity Models for Intermediate RC Frames and Beam-Column Connections Subjected to Seismic Lateral Loading

Sponsor: Portland Cement Association Education Foundation
Principal Investigator: **James M. LaFave**
Total Award: \$20,000
Period of Award: 2007-09

23. Modification of IDOT Integral Abutment Design Limitations and Details

Sponsor: Illinois Center for Transportation / IDOT
Principal Investigator: Scott M. Olson
Co-Principal Investigators: **James M. LaFave** and James H. Long
Total Award: \$120,000
Period of Award: 2007-09

24. NEESR – Coupled Wall Systems Using HPRCC Coupling Beams

Sponsor: National Science Foundation (via Michigan)
Principal Investigator: **James M. LaFave**
Total Award: \$150,000
Period of Award: 2006-09

25. Biaxial Behavior of High-Performance Fiber Reinforced Cementitious Composite Materials

Sponsor: University of Michigan (National Science Foundation)
Principal Investigator: **James M. LaFave**
Total Award: \$4,900
Period of Award: 2005-07

26. Evaluation of Aluminum Highway Sign Truss Design Details and Review of Traffic Structures Standards

Sponsor: Illinois Department of Transportation (IDOT)
Principal Investigator: Douglas A. Foutch
Co-Principal Investigator: **James M. LaFave**
Total Award: \$253,804
Period of Award: 2004-06

27. Experimental Shake Table Testing and Analysis of Brick Veneer Construction

Sponsor: State Farm Insurance
Principal Investigator: **James M. LaFave**
Total Award: \$30,000
Period of Award: 2003-05

28. Evaluation of Existing IDOT Priority Emergency Routes for Earthquake Response

Sponsor: Illinois Department of Transportation (IDOT)
Principal Investigator: **James M. LaFave**
Co-Principal Investigator: Neil M. Hawkins
Total Award: \$73,000
Period of Award: 2002-05

29. Structural and Materials Security Technologies for the Seven World Trade Center Building

Sponsor: Silverstein Properties
Principal Investigator: Keith D. Hjelmstad
Co-Principal Investigator: **James M. LaFave**
Total Award: \$20,000
Period of Award: 2002

30. Seismic Vulnerability of Wall-Type Piers and Abutments for Bridges on Priority Routes in Illinois

Sponsor: Illinois Department of Transportation (IDOT)
Principal Investigator: **James M. LaFave**
Co-Principal Investigator: Neil M. Hawkins
Total Award: \$80,000
Period of Award: 2002-05

31. Development of Structural Sensing Systems for Increased Building Security

Sponsor: Illinois Program for Security Technology
Principal Investigator: Keith Hjelmstad
Co-Principal Investigator: **James M. LaFave**
Total Award: \$50,000
Period of Award: 2002-03

32. Innovative Frame Cuff Joints for Glass Fiber Reinforced Plastic Pultruded Members

Sponsor: National Science Foundation
Principal Investigator: Keith Hjelmstad
Co-Principal Investigator: **James M. LaFave** and I. Dennis Parsons
Total Award: \$224,918
Period of Award: 2001-04

33. Methodologies for Performance-Based Design and Evaluation of Steel Structures for Seismic Loads

Sponsor: American Institute of Steel Construction
Principal Investigator: Douglas A. Foutch
Co-Principal Investigator: **James M. LaFave**
Total Award: \$28,000
Period of Award: 2001-02

34. Seismic Performance of Light-Frame Wood Construction with Brick Veneer

Sponsor: Mid-America Earthquake Center
Principal Investigator: **James M. LaFave**
Total Award: \$140,000
Period of Award: 1999-2003

35. Performance Evaluation and Economic Analysis of Combinations of Durability Enhancing Admixtures (Mineral and Chemical) in Structural Concrete for the Northeast U.S.A.

Sponsor: New England Transportation Consortium
Principal Investigator: **James M. LaFave**
Co-Principal Investigator: Scott A. Civjan
Total Award: \$122,773
Period of Award: 1998-2003

36. Research Experience for Undergraduates Site – UMass CEE

Sponsor: National Science Foundation
Principal Investigator: **James M. LaFave**
Co-Principal Investigator: Sharon L. Long
Total Award: \$163,867
Period of Award: 1998-2000

37. Modernizing a Structural Engineering Test Apparatus

Sponsor: UMass Engineering Alumni Association
Principal Investigator: **James M. LaFave**
Total Award: \$500
Period of Award: 1997

38. *Strengthening Reinforced Concrete Bridge Columns with SIMCON Jackets*

Sponsor: UMass Faculty Research Council Healy Endowment
Principal Investigator: **James M. LaFave**
Total Award: \$5,000
Period of Award: 1997-98

TEACHING EXPERIENCE

University of Illinois at Urbana-Champaign (UIUC):

Undergraduate Courses (+ parts of **CEE 195**, in Fall 2017-19, and **CEE 201**, in Fall 2019, at ZJUI)

CEE 195 – *About Civil Engineering* – Fall 2019 (+ CEE 195 ZJU), Fall 2018, Fall 2017, Fall 2016

CEE 199 – *The Structure of Ballparks* – Fall 2015, Fall 2014, Fall 2013, Fall 2012, Fall 2011, Fall 2010

CEE 460 – *Steel Structures, I* (formerly CEE 263 – *Behavior and Design of Metal Structures, I*) – Spring 2006, Spring 2005, Spring 2004, Spring 2003, Fall 2002, Spring 2002, Fall 2001, Spring 2001, Fall 2000, Spring 2000, Fall 1999

CEE 461 – *Reinforced Concrete, I* – Fall 2025, Fall 2024, Fall 2023, Fall 2021, Spring 2020, Spring 2013, Spring 2012, Spring 2010, Spring 2007

CEE 465 – *Design of Structural Systems* – Spring 2025, Spring 2019, Fall 2018, Spring 2018, Fall 2017, Fall 2016, Spring 2016, Spring 2014, Fall 2013, Fall 2012, Fall 2011, Fall 2010, Fall 2009, Fall 2008

CEE 497 – *Independent Study* (formerly CEE 397) – Spring 2019, Fall 2018, Spring 2018, Spring 2017, Spring 2011, Spring 2006, Summer 2005, Fall 1999

Graduate Courses

CEE 560 – *Steel Structures, III* (formerly CEE 465 – *Behavior of Structural Metal Frameworks*) – Spring 2026, Spring 2024, Spring 2018, Spring 2017, Fall 2015, Fall 2014, Summer 2012, Spring 2011, Spring 2009, Fall 2006, Fall 2005, Fall 2004, Fall 2003, Fall 2002, Fall 2001

CEE 597 – *Independent Study* (formerly CEE 497) – Summer 2024, Summer 2019, Summer 2017, Spring 2017, Fall 2016, Fall 2014, Fall 2013, Summer 2013, Spring 2013, Spring 2012, Fall 2011, Fall 2009, Spring 2009, Fall 2008, Spring 2008, Fall 2006, Fall 2005, Fall 2003, Spring 2003, Fall 2002, Summer 2002, Fall 2000

Short Course (at UIUC for visiting students from South China University of Technology)

“Steel Structures” (with L. Fahnestock) – Summer 2016

University of Washington (Seattle):

Graduate Course

CEE 599G – *Advanced Steel, II (Special Topics)* – Spring 2008

University of Massachusetts – Amherst:

Undergraduate Courses

- CEE 396 – *Independent Study* – Spring 1998, Fall 1997
- CEE 433 – *Reinforced Concrete Structures* – Fall 1998, Fall 1997
- CEE 434 – *Structural (Steel) Design* – Spring 1999, Spring 1997

Graduate Courses

- CEE 536 – *Advanced Topics in Concrete* – Spring 1998
- CEE 590C – *Prestressed Concrete* – Spring 1999
- CEE 596/696 – *Independent Study* – Fall 1998, Spring 1997

RESEARCH ADVISING & COLLABORATION

Visiting Scholars / Postdoctoral Students

1. **Jaehyun Kim**, 2024-25, *Strengthening Strategies of Half-Precast Concrete Wall Systems, and Joint Shear Behavior Modeling of RC Beam-Column Connections Considering Bi-directional Loading.*
2. **Thomas H.-K. Kang (SNU)**, 2016-17, *Innovative Precast and Post-Tensioned Concrete Beam-to-Column Connections.*
3. **Deuck Hang Lee**, 2015-16, *Biaxial Behavior of Steel Fiber Reinforced Concrete Materials.*
4. **Taewan Kim (KNU)**, 2014, *Equivalent Lateral Force Design Methods for Low-Rise Reinforced Concrete Wall-Frame Mixed Building Systems.*
5. **Tsu-Jung Lin**, 2010-11, *Experimental Structural Behavior and Modeling of Wall-Diaphragm Connections in Older Masonry Buildings.*
6. **Dziugas Reneckis**, 2009, *Analytical Modeling of IDOT Integral Abutment Bridges.*
7. **Myoungsu Shin**, 2004, *Analytical Modeling of Reinforced Concrete Beam-Column Connection Behavior under Reversed-Cyclic Lateral Loading.*

Doctor of Philosophy (Ph.D.)

Chair (or Co-Chair) of Dissertation Research Committee

1. **Ahmed Ibrahim**, expected PhD completion 2026 (co-advised with A. Elbanna and L. Fahnestock), *Evaluation of Damaged Steel I-Girders in Bridges due to Strikes by Over-Height Vehicles Using Numerical Simulations and Machine Learning.*
2. **Ricardo Dorado**, expected PhD completion 2026 (co-advised with L. Fahnestock), *Influence of Skew and Integral Construction on the Stress Distribution of Steel I-Girder Bridges under Service and Ultimate Loads.*
3. **Somashekar Viswanath**, expected PhD completion 2026, *Design and Analysis Framework for Precast Concrete Wind Turbine Towers.*

4. **Siang (Sunny) Zhou**, PhD completed 2023 (co-advised with L. Fahnestock), *Evaluation of Superstructure Response and Load Distribution in Skewed Steel I-Girder Bridges* (now with the University of Texas Rio Grande Valley, Edinburg, TX).
5. **Gaoyu Liu**, PhD completed in 2023 (co-advised with L. Fahnestock), *Structural Behavior of Integral Abutment Bridge Approach Slabs* (now with Meta, Bellevue, WA).
6. **Derek L. Kozak**, PhD completed 2018 (co-advised with L. Fahnestock), *Seismic Behavior and Design of Integral Abutment Bridges in Southern Illinois* (now with KPFF, Seattle, WA).
7. **Jie Luo**, PhD completed 2016 (co-advised with L. Fahnestock), *Seismic Performance Assessment of Quasi-Isolated Highway Bridges with Seat-Type Abutments* (now with Rutherford + Chekene, San Francisco, CA).
8. **Travis S. Welt**, PhD completed 2015, *Detailing for Compression in Reinforced Concrete Wall Boundary Elements: Experiments, Simulations, and Design Recommendations* (now with the University of St. Thomas, St. Paul, MN).
9. **Joshua S. Steelman**, PhD completed 2013 (co-advised with L. Fahnestock and J. Hajjar), *Bearing Behavior for Quasi-Isolated Response of Bridges Subject to a High-Magnitude, Low-Probability Seismic Hazard* (now with the University of Nebraska, Lincoln, NE).
10. **Pablo Caiza Sanchez**, PhD completed 2013 (co-advised with B. Andrawes), *Modeling the Seismic Performance of Structural Concrete Pile-Wharf Connections* (now with Escuela Politecnica del Ejercito, Quito, Ecuador).
11. **Raymond R. Foltz**, PhD completed 2011, *Structural Behavior and Modeling of High-Performance Fiber-Reinforced Cementitious Composites for Earthquake-Resistant Design* (now with Exxon Corporation, Houston, TX).
12. **Dziugas Reneckis**, PhD completed 2009, *Seismic Performance of Anchored Brick Veneer* (now with Thornton Tomasetti, New York, NY).
13. **Jaehong Kim**, PhD completed 2007, *Joint Shear Behavior of Reinforced Concrete Beam-Column Connections Subjected to Seismic Lateral Loading* (now with Samsung Corporation, South Korea).
14. **John L. Bignell**, PhD completed 2006, *Assessment of the Seismic Vulnerability of Wall Pier Supported Highway Bridges on Priority Emergency Routes in Southern Illinois* (now with Sandia National Laboratories, Albuquerque, NM).
15. **Young-Hwan Choi**, PhD completed 2004 (co-advised with D. Foutch), *A Modified AISC P-M Interaction Curve for Square Concrete Filled Tube Beam-Columns* (now an engineering researcher in South Korea).
16. **Tae-Wan Kim**, PhD completed 2004 (co-advised with D. Foutch), *Performance Assessment of Reinforced Concrete Structural Walls for Seismic Loads* (now with Kangwon National University, South Korea).
17. **Myoungsu Shin**, PhD completed 2004, *Performance of Reinforced Concrete Edge Beam-Column-Slab Connections Subjected to Earthquake Loading* (now with Ulsan National Institute of Science and Technology, South Korea).

Dissertation (and/or Prelim) Committee Member

18. Shitao Shi, PhD Candidate
19. Ernesto Perez Claros, PhD Candidate
20. Pratik Deogekar, PhD Candidate
21. Oscar Moreno Torres, PhD Candidate
22. Angshuman Baruah, PhD Completed 2025
23. Aradhana Agarwal, PhD Completed 2025
24. Joseph Gamez, PhD Completed 2024
25. Min Soo Sung, PhD Completed 2023
26. Daniel Rhee, PhD Completed 2021
27. Hang Zhao, PhD Completed 2019
28. Sami Pant, PhD Completed 2019
29. Kun-Ho Eugene Kim, PhD Completed 2018
30. Joshua Sizemore, PhD completed 2017
31. Fernando Moreu, PhD completed 2015
32. Daniel Borello, PhD completed 2014
33. Sudarshan Krishnan, PhD completed 2014
34. Mark Muszynski, PhD completed 2013
35. Adeel Zafar, PhD completed 2013
36. Christopher Hart, PhD completed 2012
37. Mark Denavit, PhD completed 2012
38. Kerry Hall, PhD completed 2011
39. Matthew R. Eatherton, PhD completed 2010
40. Kristine Cochran, PhD completed 2009
41. Heui Hwang Lee, PhD completed 2009
42. Daqing Xu, PhD completed 2008
43. Shaoyun Sun, PhD completed 2007
44. Hao Liang, PhD completed 2007
45. Thomas Nagle, PhD completed 2007
46. Jun Ji, PhD completed 2007
47. Zhennua Huang, PhD completed 2006
48. Moon Sung Lee, PhD completed 2005
49. Pamalee Brady, PhD completed 2004

50. Kuo-Wei Liao, PhD completed 2004
51. Kang Su Kim, PhD completed 2004
52. Anne Werner, PhD completed 2004
53. Padipat Chaemmangkang, PhD completed 2001
54. Seung-Yul Yun, PhD completed 2000
55. Mark C. Webb (UMass), PhD completed 1998

Master of Science (M.S.) Research / Thesis

Research Advisor (or Co-Advisor) / Chair (or Co-Chair) of Thesis Committee

University of Illinois @ Urbana-Champaign

1. Alec Spano, MS expected 2026, *Seismic Damping Effects on Integral Abutment Bridges from Structural Concrete Approach Slabs*
2. Lauren (Limo) Schissler, MS completed 2024 (co-advised with L. Fahnestock and A. Elbanna), *Laser Scan Point Cloud Processing for Displacement Measurements of Damaged Steel I-Girders* (now a PhD student in CEE at UIUC).
3. Sanjana Ahershing, MS completed 2022 (co-advised with L. Fahnestock), *Transportation Agency Survey with Respect to Damaged Steel Bridge Girders* (now with Jacobs, Dallas, TX).
4. Ricardo Dorado Saucedo, MS completed 2022 (co-advised with L. Fahnestock), *Field Monitoring of Skewed Steel I-Girder Bridges* (now a PhD student in CEE at UIUC).
5. Utkarsh Vankatesh Kode, MS completed 2020 (co-advised with L. Fahnestock), *Field Performance of Integral Abutment Bridges and Approach Slabs* (now with Horner & Shifrin, St. Louis, MO).
6. Himanshu Joshi, MS completed 2019 (co-advised with L. Fahnestock), *Field Monitoring of Integral Abutment Bridge Approach Slabs* (now a PhD student in MechSE at UIUC).
7. Carlos Paez Vargas, MS completed 2018, *Assessment of Modeling Sensitivity for Nonlinear Seismic Analysis of Highway Bridges in Illinois* (now a consulting engineer in Ecuador).
8. Marian Chee, MS completed 2018 (co-advised with L. Fahnestock), *Assessment of Structural Concrete Approach Slab Cracking at Integral Abutment Bridges* (now with Howard I. Shapiro & Associates, Lynbrook, NY).
9. Gabriela Brambila, MS completed 2017 (co-advised with L. Fahnestock), *Field Monitoring and Numerical Analysis of Two Illinois Integral Abutment Bridges* (now with Burns & McDonnell, Kansas City, MO).
10. Beth Wright, MS completed 2016 (co-advised with L. Fahnestock), *Numerical and Field Data Analysis of Integral Abutment Bridges* (now with Perry & Associates, Chicago, IL).
11. Matthew Jarrett, MS completed 2015 (co-advised with L. Fahnestock), *Structural Assessment of IDOT and Illinois Tollway Integral Abutment Bridges* (now with WJE Associates, Northbrook, IL).
12. Ahraaz Qureishi, MS completed 2014, *Testing of Reinforced Concrete Prisms Representing Structural Wall Boundary Elements* (now a consulting structural engineer, Madison, WI).

13. Joseph Riddle, MS completed 2014 (co-advised with L. Fahnestock), *Structural Instrumentation of Illinois Tollway Integral Abutment Bridges* (now with ESI, Aurora, IL).
14. Jeffrey Svatora, MS completed 2013 (co-advised with L. Fahnestock), *Modeling and Instrumentation of IDOT and Illinois Tollway Integral Abutment Bridges* (now with HDR Engineering, Omaha, NE).
15. Huayu An, MS completed 2013 (co-advised with L. Fahnestock), *Structural Modeling of IDOT and Illinois Tollway Integral Abutment Bridges* (now with MKA, Seattle, WA).
16. Alan Cubas Pastor, MS completed 2013, *Testing and Repair of a Structural Concrete Pile-Wharf Connection* (now with HNTB, Chicago, IL).
17. Jessica Revell, MS completed 2013 (co-advised with L. Fahnestock), *Quasi-Isolated Highway Bridges: Influence of Bearing Anchorage Strength on Seismic Performance* (now with Parsons, Chicago, IL).
18. Kurt Holloway, MS completed 2012 (co-advised with S. Olson and J. Long), *Structural Modeling for Parametric Study of IDOT Integral Abutment Highway Bridges* (now with WJE Associates, Northbrook, IL).
19. Evgueni Filipov, MS completed 2012 (co-advised with L. Fahnestock), *Systems Modeling of Illinois Highway Bridge Designs Subjected to Earthquakes* (now with the University of Michigan).
20. Steven Kreh, MS completed 2008, *Structural Modeling of IDOT Integral Abutment Highway Bridges* (now with the U.S. Military Academy).
21. Jesse M. Guerra, MS completed 2007, *Seismic Behavior of HPFRCC Coupling Beams*.
22. Raymond R. Foltz, MS completed 2006, *Biaxial Testing of HPFRCC Materials* (now with Exxon Corporation, Houston, TX).
23. Amelia I. Barr, MS completed 2006, *Evaluation of IDOT Priority Routes for Emergency Earthquake Response* (now with Walter P. Moore, Houston, TX).
24. Jennifer A. Rice, MS completed 2005 (co-advised with D. Foutch), *Vibration Evaluation of Aluminum Sign Trusses – Components and Connections* (now with the University of Florida, Gainesville, FL).
25. Shaun L. Valdovinos, MS completed 2005 (co-advised with D. Foutch), *Field Testing and Analyses of Aluminum Sign Truss Structures* (now with Hatch Mott MacDonald, Vancouver, Canada).
26. Susan M. Reynolds, MS completed 2004 (co-advised with K. Hjelmstad), *Documentation and Modeling of the Thomas M. Siebel Center for Computer Science: A Framework for the Development of a Living Laboratory for Structural Health Monitoring* (now with Robert Silman Associates, Washington, D.C.).
27. Dziugas Reneckis, MS completed 2003, *Testing and Analyses of Brick Veneer on Wood Frame Construction* (now with Wiss, Janney, Elstner Associates, New York, NY).
28. Ki Woong Ryu, MS completed 2003, *Evaluation of IDOT Priority Routes for Emergency Earthquake Response* (now a consulting engineer in South Korea).

29. Juan E. Carrion, MS completed 2003 (co-advised with K. Hjelmstad), *Experiments and Analyses of Monolithic Cuff Connections for Fiber Reinforced Plastic Box Sections* (now with Skidmore, Owings, and Merrill, Chicago, IL).
30. Wade M. Clarke, MS completed 2002, *Design, Construction, and Shake Table Testing of a Brick Veneer Wall Panel* (now with Wiss, Janney, Elstner (WJE) Associates, Inc., Northbrook, IL).
31. Sudhir Singamsethi, MS completed 2002 (co-advised with K. Hjelmstad), *Manufacture and Performance of GFRP Cuff Joints for GFRP Pultruded Box Sections* (now with Matrix Engineering Corporation, Chicago, IL).
32. Christopher J. Otahal, MS completed 2001, *Laboratory Testing of Brick-Tie-Wood Subassemblies*.

University of Washington (Seattle)

33. Amanda Jellin, MS completed 2008 (co-advised with C. Roeder & D. Lehman), *Improved Seismic Connections for Pile-Wharf Construction* (now a consulting structural engineer in professional practice).

University of Massachusetts – Amherst

34. Daniel Lovett, MS completed 2000 (co-advised with S. Civjan), *Performance Evaluation of Combinations of Durability Enhancing Admixtures in Concrete – Experimental Program* (now with Tighe and Bond, Inc., Westfield, MA).
35. Alan Goodell, MS completed 1999, *Seismic Performance of Reinforced Concrete Frame Buildings with (and without) Floor Slab Participation*.
36. Daniel J. Sund, MS completed 1999, *Performance Evaluation of Durability Enhancing Admixtures (Mineral and Chemical) in Structural Concrete – Literature Review* (now with Tighe and Bond, Inc., Westfield, MA).

Advising of Student Organizations and Undergraduate Research

1. Illinois *ASCE Student Chapter* Steel Bridge Team Faculty Advisor – 1999-present
2. Illinois *Structural Engineers Association Student Chapter* Faculty Advisor – 2016
3. Illinois *Structural Engineering Graduate Student Organization (SEGSO)* Faculty Advisor – 2013-14
4. Illinois *Chi Epsilon Civil Engineering Honor Society* Faculty Advisor – 2001-07 and 2009-10
5. Undergraduate Research Advisor for REU Students – UMass (1997-99) and Illinois (2003-04, 2009-11, 2013-17, 2019, and 2025)
6. Illinois *McNair Scholar* Research Advisor – 2005
7. Design Project Consultant for Illinois' CEE 398CAP – 2000-01
8. UMass *ASCE Student Chapter* Concrete Canoe Team Faculty Advisor – 1999

INVITED SEMINARS AND LECTURES

1. “Bridge Resilience through Economical Seismic ‘Quasi-Isolation’ Design Using Common Bearing Components,” *OSU CECE Distinguished Speaker Seminar*, The Ohio State University, Columbus, OH, 2026.
2. “Strength and Serviceability of Damaged Beams,” *ACEC-Illinois IDOT Bridge Seminar*, Lombard, IL, 2024.
3. “Bridge Resilience through Economical Seismic ‘Quasi-Isolation’ Design Using Common Bearing Components,” *Annual Structural Engineering Conference*, University of Illinois, Urbana, IL, 2019.
4. “Bridge Resilience through Economical Seismic ‘Quasi-Isolation’ Design Using Common Bearing Components,” *FAMU-FSU Engineering Seminar in CEE*, Florida State University, Tallahassee, FL, 2018.
5. “Bridge Resilience through Economical Seismic ‘Quasi-Isolation’ Design Using Common Bearing Components,” *EERI Student Chapter Seminar*, University of Wisconsin, Madison, WI, 2018.
6. “Field Monitoring and Numerical Simulation for Performance Assessment of Integral Abutment Bridges,” *Illinois Transportation and Highway Engineering Conference*, Urbana, IL, 2018.
7. “Bridge Resilience through Economical Seismic ‘Quasi-Isolation’ Design Using Common Bearing Components,” *College of Civil Engineering and Architecture Seminar*, Zhejiang University, Hangzhou, China, 2017.
8. “Bridge Resilience through Economical Seismic ‘Quasi-Isolation’ Design Using Common Bearing Components,” *Indiana Structural Engineers Association – 2016 Spring Conference*, Indianapolis, IN, 2016.
9. “Bridge Resilience Through Economical Seismic ‘Quasi-Isolation’ Design Using Common Bearing Components,” *Civil and Architectural Engineering Seminar*, Seoul National University, Seoul, South Korea, 2015.
10. “Bridge Resilience Through Economical Seismic ‘Quasi-Isolation’ Design Using Common Bearing Components,” *Civil Engineering Seminar*, Pusan National University, Pusan, South Korea, 2015.
11. “Bridge Resilience Through Economical Seismic ‘Quasi-Isolation’ Design Using Common Bearing Components,” *Urban Engineering Seminar*, Ulsan National Institute for Science & Technology, Ulsan, South Korea, 2015.
12. “Achieving Bridge Resilience Through Economical Seismic ‘Quasi-Isolation’ Design Using Common Bearing Components,” *SEAOI Central Chapter Trade Show – Keynote Lecture*, Springfield, IL, 2013.
13. “Seismic Performance of Illinois Bridges: ‘Quasi-Isolated’ Seismic Bridge Design as an Innovative Path to Reliable Performance,” *Annual Structural Engineering Conference – Post-Conference Seminar*, University of Illinois, Urbana, IL, 2013.

14. “Bridge Bearing Tests and Systems Modeling for Validation and Refinement of Quasi-Isolated Seismic Design,” *Structural Engineering Seminar*, University of Tennessee, Knoxville, TN, 2012.
15. “Out-of-Plane Seismic & Wind Performance of Brick Veneer Walls on Wood Frame Construction,” *Structural Engineering Seminar*, Oregon State University, Corvallis, OR, 2012.
16. “Out-of-Plane Seismic & Wind Performance of Brick Veneer Walls on Wood Frame Construction,” *Structural Engineering Seminar*, Texas A&M University, College Station, TX, 2012.
17. “Calibration and Refinement of Illinois’ Earthquake Resisting System Bridge Design Methodology,” *ACEC-Illinois IDOT Bridge Seminars*, Springfield, IL and Lisle, IL, 2010.
18. “Out-of-Plane Seismic & Wind Performance of Brick Veneer Walls on Wood Frame Construction,” *Structural Engineering Seminar*, Purdue University, West Lafayette, IN, 2010.
19. “Out-of-Plane Seismic & Wind Performance of Brick Veneer Walls on Wood Frame Construction,” *Structural Engineering Seminar Series*, University of Illinois, Urbana, IL, 2010.
20. “Out-of-Plane Seismic & Wind Performance of Brick Veneer Walls on Wood Frame Construction,” *EERI Student Chapter Seminar*, Notre Dame University, South Bend, IN, 2009.
21. “Evaluation of Aluminum Highway Sign Trusses for Wind & Truck Gust Loadings,” *Oklahoma Department of Transportation Seminar*, Oklahoma City, OK, 2009.
22. “Out-of-Plane Seismic & Wind Performance of Brick Veneer Walls on Wood Frame Construction,” *Inter-Disciplinary Engineering Seminar*, University of Oklahoma, Norman, OK, 2009.
23. “Out-of-Plane Seismic & Wind Performance of Brick Veneer Walls on Wood Frame Construction,” *Structural Engineering Seminar*, University of Washington, Seattle, WA, 2008.
24. “Structural Behavior of Tie Connections for Residential Brick Veneer Construction,” *ASTM Masonry Committees’ Awards Luncheon*, ASTM Committee Week, Atlanta, GA, 2006.
25. “Out-of-Plane Seismic & Wind Performance of Brick Veneer Walls on Wood Frame Construction,” *EERI Student Chapter Seminar*, University of Michigan, Ann Arbor, MI, 2006.
26. “Experimental Behavior and Analytical Modeling of Reinforced Concrete Edge Beam-Column-Slab Connections,” *Structural Engineering Seminar*, Texas A&M University, College Station, TX, 2004.
27. “Seismic Performance of Eccentric Reinforced Concrete Beam-Column Connections,” *Structural Engineering Seminar*, Penn State University, University Park, PA, 2004.
28. “Damage Assessment & Repair of Buildings Adjacent to the World Trade Center Site,” *Structural Engineers Association General Meeting*, Urbana, IL, 2003.
29. “Seismic Performance of Wood-Frame Housing with Brick Masonry Veneer,” *MAE Center Annual Meeting*, Memphis, TN, 2002.

30. “Damage Assessment of Buildings Adjacent to the World Trade Center Site,” *Annual Structural Engineering Conference*, University of Illinois, Urbana, IL, 2002.
31. “Assessment of Structural and Non-Structural Damage in Buildings Adjacent to the World Trade Center Site,” *MAE Center Multi-Hazards Colloquium Series*, Urbana, IL, 2001.
32. “Damage Assessment of Buildings Adjacent to the World Trade Center Site,” *Structural Engineering Seminar Series*, University of Illinois, Urbana, IL, 2001.
33. “Joints – There’s Nothing to Inhale When They’re Made of Reinforced Concrete,” *EERI Student Chapter Seminar*, University of Michigan, Ann Arbor, MI, 1998.
34. “Behavior of Reinforced Concrete Exterior Wide Beam-Column-Slab Connections Subjected to Lateral Earthquake Loading,” *Structural Engineering Seminar Series*, University of Illinois, Urbana, IL, 1998.
35. “Behavior of Reinforced Concrete Exterior Wide Beam-Column-Slab Connections Subjected to Lateral Earthquake Loading,” *Civil Engineering Seminar Series*, University of Akron, Akron, OH, 1996.
36. “Behavior of Reinforced Concrete Exterior Wide Beam-Column-Slab Connections Subjected to Lateral Earthquake Loading,” *Civil Engineering Seminar Series*, University of South Florida, Tampa, FL, 1996.
37. “Behavior of Reinforced Concrete Exterior Wide Beam-Column-Slab Connections Subjected to Lateral Earthquake Loading,” *Civil Engineering Seminar Series*, Oklahoma State University, Stillwater, OK, 1996.
38. “Behavior of Reinforced Concrete Exterior Wide Beam-Column-Slab Connections Subjected to Lateral Earthquake Loading,” *Civil Engineering Seminar Series*, University of Massachusetts, Amherst, MA, 1996.
39. “Behavior of Reinforced Concrete Exterior Wide Beam-Column-Slab Connections Subjected to Lateral Earthquake Loading,” *Civil Engineering Seminar Series*, San Jose State University, San Jose, CA, 1996.
40. “Behavior of Reinforced Concrete Exterior Wide Beam-Column-Slab Connections Subjected to Lateral Earthquake Loading,” *Civil Engineering Seminar Series*, Virginia Tech University, Blacksburg, VA, 1996.
41. “Behavior of Reinforced Concrete Exterior Wide Beam-Column-Slab Connections Subjected to Lateral Earthquake Loading,” *Civil Engineering Seminar Series*, Santa Clara University, Santa Clara, CA, 1995.

PROFESSIONAL SERVICE

Professional Societies

- ACI 318 (*Structural Concrete Building Code*) Subcommittee J (*Joints and Connections*) – Member (2014-19)
- *Chapter Honor Member* for the Illinois Alpha Chapter of the Chi Epsilon (XE) Civil Engineering Honor Society (2018)
- SEAIO *Excellence in Structural Engineering Awards Competition* – Judge (2014)

- ACI-ASCE Committee 352 (*Joints and Connections in Monolithic Concrete Structures*) – Member (1997-present) and Chair (2002-09)
- ACI Committee CAP Subcommittee SC3 (*Chester Paul Siess Award for Excellence in Structural Research*) – Member (2002 and 2010-11) and Chair (2011)
- ACI Committee SA02 (*Wason Medal for Materials Research*) – Member (2007-08) and Chair (2008)
- ACI Committee 07 (*Committee on Awards for Papers (CAP)*) – Member (2008 and 2011)
- ACI Committee 374 (*Performance-Based Seismic Design of Concrete Buildings*) – Member (1999-2018)
- ACI Committee 408 (*Development and Splicing of Deformed Bars*) – Member (2007-24)
- ACI Committee 439 (*Steel Reinforcement*) – Member (2002-07)
- ACI Committee E802 (*Teaching Methods and Educational Materials*) – Member (1997-2007)
- MSJC *Reinforcement and Connectors* (R&C) Subcommittee – Member (2007-13)
- MSJC *Veneer, Glass Block and Empirical* (VG&E) Subcommittee – Member (2007-13)
- Earthquake Engineering Research Institute (EERI) Review Panel Member for *Annual Student Paper Competition* (1999) and for *EERI/FEMA Graduate Fellowship* (2004)
- EERI – Founder of *EERI University of Michigan Student Chapter* (1995-96)

Editorship of Refereed Journals

- Founding Editor-In-Chief of the *Journal of Building Engineering* (Elsevier, 2014-25); Honorary Founding Editor (2025-present)
- Editorial Board Member of *Engineering Structures* (Elsevier, 2009-21)

Conference Events Organized & Chaired Conference Sessions

- Chair & Organizer – 18th *Annual Structural Engineering Conference*, University of Illinois, Urbana, Illinois, 2017.
- Session Co-Organizer / Moderator – *Education Panel Session: “Enhancing Recruitment of Graduate Students Through Active Organizational Participation”*, ASCE/SEI Structures Congress, Denver, Colorado, 2017
- Chair & Organizer – 17th *Annual Structural Engineering Conference*, University of Illinois, Urbana, Illinois, 2016.
- Co-Chair & Co-Organizer – *International Conference on Multi-Hazard Approaches to Civil Infrastructure Engineering*, Chicago, Illinois, 2014
- Session Organizer / Moderator – *New Developments for Analysis and Design of Structural Concrete Beam-Column Connections*, ASCE/SEI Structures Congress, Pittsburgh, Pennsylvania, 2013
- Session Moderator – *Seismic Analysis and Performance of Masonry*, 9th U.S. National Conference on Earthquake Engineering, Toronto, Ontario, Canada, 2010

- Session Organizer – *New Developments for Practical Analysis and Design of Structural Concrete Frame Connections*, ASCE/SEI Structures Congress, Austin, Texas, 2009
- Session Chair / Moderator – *Design and Analysis of Reinforced Concrete Beam-Column Joints*, ASCE Structures Congress, Seattle, Washington, 2003
- Session Organizer and Chair / Moderator – *Overview: Revised ACI-ASCE Committee 352 Recommendations for Design of Beam-Column Connections*, ASCE Structures Congress, Washington, D.C., 2001
- Organizer and Chair / Moderator – *Open Paper Session*, ACI Spring Convention, San Diego, California, 2000
- Organizer and Chair / Moderator – *Open Paper Session*, ACI Fall Convention, Baltimore, Maryland, 1999
- Chair / Moderator – *Open Paper Session*, ACI Spring Convention, Chicago, Illinois, 1999
- Organizer and Chair / Moderator – *Design and Construction of Earthquake-Resisting Beam-Column Connections* (2 sessions), ACI Fall Convention, Los Angeles, California, 1998
- Chair / Moderator – *Open Paper Session*, ACI Fall Convention, Los Angeles, California, 1998
- Chair / Moderator – *Testing of Structures and Components*, 6th U.S. National Conference on Earthquake Engineering, Seattle, Washington, 1998

Peer-Reviewer for Professional Society and Other Refereed Journals

- ACI – *Structural Journal*, *Materials Journal*, and *Special Publications*
- ASCE – *Journal of Structural Engineering*, *Journal of Materials in Civil Engineering*, *Journal of Bridge Engineering*, *Journal of Architectural Engineering*, and *Journal of Engineering Mechanics*
- EERI – *Earthquake Spectra*
- American Institute of Steel Construction (AISC) – *Engineering Journal*
- *Engineering Structures*
- *Journal of Earthquake Engineering*
- *Earthquake Engineering and Structural Dynamics*
- *Structural Engineering and Mechanics*
- *Construction and Building Materials*
- *The Structural Design of Tall and Special Buildings*
- *Bridge Structures*

University Service

Departmental

- NSEL Senior Research Engineer Search Committee – Chair (2022-23) & Member (2024)
- CEE P&T Ad Hoc Committees (& also for ZJUI) – Member & Chair (2021-24)
- Member of Illinois CEE Teaching Faculty Search Committee (2019)
- Liaison Member (to the College & Campus & Outside Consultants) of the CEE Modernization Advisory Committee for Renovation & Expansion of the CEE-Hydrosystems Lab Building and the Hydrosystems Sump & Pump Project (2016-20)
- Illinois CEE Advisory Committee – Member (2014-16 & 2024-27) and Chair (2025-26)
- MAE Center Deputy Director (2013-present)
- Member of Illinois CEE Structural Engineering Professor-of-Practice Search Committee (2013-15)
- Member of Illinois CEE Promotion & Tenure Committee (2014)
- Member of Illinois CEE Ad Hoc Committee on Cross-Cutting Programs (2014)
- Chair – Illinois CEE Structural Engineering & Mechanics Group (2010-14 & 2023-25)
- Illinois CEE Alumni Association – Board of Directors Member & Secretary (2008-12)
- Illinois CEE Structural Engineering Faculty Search Committees – Member (1999-2000 & 2006-07) and Chair (2005-06)
- Illinois CEE Structures Grad Affairs / Admissions / Recruiting Committee – Member (2008-09 and 2010-14) and Chair (2006-07 and 2009-10)
- Illinois CEE Structural Engineering Qualifying Exam Committee – Member (1999-present) and Chair (2000-06)
- Member of Illinois CEE Newmark Structural Engineering Lab Advisory & Shop Coordination Committee – Member (1999-2007 & 2009-13 & 2019-20 & 2025-26) and Chair (2025-26)
- Member of Illinois CEE ABET Committee (2007)
- Member of Illinois CEE Curriculum Committee (2005-06 and 2016-22)
- Member of Illinois CEE Staff Award for Excellence Evaluation Committee (2004)

College of Engineering and Campus

- Campus Instructional Facility Core Operations Committee (2020-22)
- Member of ZJUI P&T Committee (2019-24)
- Member of College of Engineering Associate Dean for Undergraduate Programs Search Committee (2017-18)

- Member of Engineering Design Council (2017 and 2019)
- Chair of Engineering for Society Program Development Committee (2016-17)
- Member of College of Engineering Executive Committee (2013-16)
- Member of College Ad Hoc Subcommittee on Revision to Materials Science & Engineering Undergraduate Curriculum (2016)
- Member of CEE Department Head Search Committee (2014)
- Member of College Ad Hoc Subcommittees on New & Revised CEE Construction Materials Courses (2005-10)
- Engineering Commencement Reader (2007 and 2016-18)
- CEE Senator on Illinois Faculty Senate (2006-08, 2010-12, 2014-16 & 2024-26)
- Member of Computational Mechanics Faculty Search Committee (2005-06)

State, Federal & Other

- University Laboratory High School “Agora Days” Class – *The History & Structure of Ballparks* (2024 & 2026)
- AISC / ASCE *National Student Steel Bridge Competition* (NSSBC) – 2018 Faculty Advisor for Illinois CEE as Competition Host
- *NIST Task Order 22 / ATC-95* Project – “Development of a Collapse Indicator Methodology for Existing Reinforced Concrete Buildings” – Invited Member of “Collapse Simulation Workshop”, San Francisco, CA (2013)
- Illinois CEE Faculty Representative on the Structures, Geotechnical, and Hydraulics Technical Advisory Group (TAG) – *Illinois Center for Transportation* (2005-10)
- Member of *NSF Seismic Proposal Review Panels* (2004 and 2006)
- Invited Speaker at *Champaign Rotary* and *Urbana Exchange Club* (2002 and 2003)
- *WYSE* Summer Program for High School Students (2000-01)
- City of Urbana *Project Impact Model Home Non-Structural Mitigation Shake Table Test* (2000)

OTHER STRUCTURAL ENGINEERING CONSULTING ACTIVITIES

- *Mitek USA, Inc.* (2019-20)
- *Applied Technology Council* (2013-15)
- *University of Chicago* and *Tri-State Cut Stone & Brick Co.* (2009-11)
- *Illinois CEE Environmental Hydrology & Hydraulic Engineering Group* (2000-01)
- *Upchurch & Associates* (2000)