CURRICULUM VITAE

Elaina J. Sutley, Ph.D., LEED AP Homes

Associate Professor
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EDUCATION

Ph.D., 2015 ***Colorado State University*** *– Fort Collins, CO*
Major: Civil Engineering, concentrating in Structural Engineering, with an emphasis on seismic retrofit of wood buildings and community resilience applications

M.S., 2011 ***University of Alabama*** *– Tuscaloosa, AL*
Major: Civil Engineering, concentrating in Structural Engineering and Materials Science, with an emphasis on concrete infrastructure rehabilitation using advanced materials

B.S., 2010 ***University of Alabama*** *– Tuscaloosa, AL*
Major: Civil Engineering, concentrating in Structural Engineering

PROFESSIONAL EXPERIENCE

▪ 05/2021 – Present	Associate Professor	**University of Kansas** *KU School of Engineering* *Lawrence, KS*
▪ 08/2019 – 08/2021	Chair's Council Assistant Professor	**University of Kansas** *KU School of Engineering* *Lawrence, KS*
▪ 08/2015 – 08/2019	Assistant Professor	**University of Kansas** *KU School of Engineering* *Lawrence, KS*
▪ 05/2015 – 07/2015	Post-Doctoral Researcher	**Colorado State University** *Center for Risk-Based Community Resilience Planning* *Fort Collins, CO*
▪ 01/2015 – 05/2015	Lecturer	**Colorado State University** College of Engineering Fort Collins, CO
▪ 08/2012 – 05/2015	Graduate Research Assistant	**Colorado State University** *College of Engineering* *Fort Collins, CO*
▪ 08/2011 – 07/2012	Graduate Research Assistant	**University of Alabama** *College of Engineering* *Tuscaloosa, AL*
▪ 08/2010 – 07/2011	Graduate Teaching Assistant	**University of Alabama** *College of Engineering* *Tuscaloosa, AL*

PROFESSIONAL ORGANIZATIONS

- American Society of Civil Engineers (ASCE), Member 2012 – Present
  - Editorial Advisory Board Member, ASCE Journal of Infrastructure Systems, June 2019 – Present
  - Social Science, Policy, Economics, Education, Decision (SPEED) Committee, Infrastructure Resilience Division (IRD)
    - Co-Chair, October 1, 2020 – Present
    - Member since February 27, 2017
  - Sustainability Technical Working Group, April 2021 – Present
  - Committee Member, Risk and Resilience Measurement Committee (RRMC), Infrastructure Resilience Division (IRD), February 27, 2017 – Present
  - Committee Member, Disaster Response and Recovery Committee (DDRC), Infrastructure Resilience Division (IRD), February 27, 2017 – Present

- American Society of Civil Engineers (ASCE) Structural Engineering Institute (SEI), Member 2012 – Present
  - Wind Loads Subcommittee (WLSC), ASCE/SEI 7 – Minimum Design Loads and Associated Criteria for Buildings and Other Structures, Codes and Standards Division
    - Balloteer and Voting Member, January 2018 – Present
  - Design of Wood Structures Committee
    - Chair, October 1, 2017 - Present
    - Member since October 1, 2016
  - Multi-Hazard Mitigation Committee,
    - Secretary-elect, October 1, 2021 - Present
    - Member since October 1, 2016
  - Committee Member, Performance of Wood Structures Committee, October 1, 2016 – Present

- National Science Foundation (NSF) Natural Hazards Engineering Research Infrastructure (NHERI)
  - Chair, User Forum Committee, February 4, 2019 – May 12, 2020; Secretary from February 14, 2017 – February 3, 2019
  - Advisory Board Member, Interdisciplinary Science and Engineering Extreme Events Reconnaissance (ISEER), November 2018 – present
  - Advisory Committee Member, CONVERGE Data Publication, January 2019 – June 2020
  - Level 4 member, Structural Engineering Extreme Events Reconnaissance (StEER), May 2019 – Present

- American Society of Engineering Education (ASEE), Member 2016 – Present

- Earthquake Engineering Research Institute (EERI), Member 2014 – Present

- Reviewer for: *Natural Hazards*; *Journal of Risk and Uncertainty*; ASCE *Journal of Infrastructure Systems*; *Journal of Building Engineering*; *Journal of Sustainable and Resilient Infrastructure*; *International Journal of Disaster Risk Reduction*; *Risk Analysis*; ASCE *Natural Hazards Review*; *Journal of Earthquake Engineering*; *Engineering Structures*; ASCE *Journal of Structural Engineering*; National Science Foundation; National Defense and Engineering Graduate Fellow Fund; National Institute of Standards and Technology

HONORS AND AWARDS

- 2021 School of Engineering Miller Faculty Scholar Award, University of Kansas

- 2019 Early Career Research Fellow, Gulf Research Program, National Academies of Science, Engineering, and Medicine
- 2019 Faculty Early Career Development Program (CAREER) award, National Science Foundation
- 2019 Invitation and Travel Award to "Road Infrastructure Reimagined", University of Kansas, Alexandria, VA, October 3 – 4, National Science Foundation
- 2019 Invitation and Travel Award to "Sustainable Urban Systems", Georgetown University, Washington, D.C.
- 2019 Invitation and Travel Award to "An International Workshop to Develop Research Campaigns, Interdisciplinary Teams and Disruptive Technologies for the NHERI 5- Year Science Plan for Natural Hazards", Alexandria, VA2018 Invitation and Travel Award to "Rapid Georisks: Social, Geoscience, and Engineering Perspectives on Risk and Resilience" Symposium presented by Virginia Tech's Global Forum on Urban and Regional Resilience, Alexandria, VA
- 2019 Invitation and Travel Award, Joint CONVERGE-DesignSafe-CI Data Model Development Workshop, Boulder, CO
- 2018 Special Project Award ($8,000) to Design of Wood Structures Committee, "Development of Technical Guidelines for Performance-Based Seismic Design of Mid-Rise Wood Buildings," Structural Engineering Institute, American Society of Civil Engineers
- 2018 Travel Award, NSF Workshop Series: Interdisciplinary Methods and Approaches for Hazards and Disaster Research, Boulder, CO
- 2017 International Expert Invited Presentation and Travel Award, European Union Joint Research Centre, Ispra, Italy
- 2017 NHERI Summer Institute Faculty Development Workshop and Travel Award, Natural Hazards Engineering Research Infrastructure, San Antonio, TX
- 2016 Travel Award, NSF Workshop Series: Interdisciplinary Methods and Approaches for Hazards and Disaster Research, Arlington, VA
- 2016 American Society of Civil Engineering Excellence in Civil Engineering Education Fellow
- 2015 Civil Engineering Risk and Reliability Association Student Recognition Award
- 2011 Engineering Council of Birmingham Civil Engineering Graduate Student Engineer of the Year
- 2011 National Science Foundation Graduate Research Diversity Supplement Doctoral Fellow
- 2011 University of Alabama National Alumni Association Graduate Fellow
- 2011 Bibb Graves award for Outstanding Graduate Teaching Assistant
- 2010 Nell Vice Support Fund Scholarship
- Chi Epsilon Honor Society
- Order of the Engineer

PUBLICATIONS

Corresponding author underlined.

Peer-Reviewed Journal Papers

- **Sutley, E.J.,** Kim, J.H., Kirkham, W.J., and Lequesne, R. (2021) "Examining Tornado Vulnerability in Kansas with Recent Findings from an EF4 Tornado." ASCE *Journal Natural Hazards Review,* 22(3). DOI: 10.1061/(ASCE)NH.1527-6996.0000476.

- Lakhina, S., **Sutley, E.,** and Wilson, J. (2021). "How do we actually do convergence? For disaster resilience: Cases from Australia and the United States." *International Journal of Disaster Risk Reduction*, DOI: 10.1007/s13753-021-00340-y.

- **Sutley, E.J.,** and Hamideh, S. (2020). "Post-Disaster Housing Stages: A Markov Chain Approach to Model Sequences and Duration Based on Social Vulnerability." Wiley *Risk Analysis*, 40(12): 2675-2695. DOI: 10.1111/risa.13576.

- Kim, J.H., Moraveg, M., **Sutley, E.J.**, Chowdhury, A., and Dao, T. (2020). "Observations and Analysis of Wind Pressures on the Floor Underside of Elevated Buildings." Elsevier *Engineering Structures,* 221, 111101. DOI: 10.1016/j.engstruct.2020.111101.

- Khosravi, M., Leon-Corwin, M., Ritchie, L., Smallegan, S., Stark, N., Stephens, M., **Sutley, E.J**., Athanasopoulous-Zekkos, A. (2020). "Measuring User Satisfaction for the Natural Hazards Engineering Research Infrastructure Consortium." Frontiers of the Built Environment *Special Collection on Natural Hazards Engineering Research Infrastructure (NHERI) 2016-2020: Mitigating the Impact of Natural Hazards on Civil Infrastructure and Communities*, 6(101). DOI 10.3389/fbuil.2020.00101.

- Dellenbaugh, L., Kong, X., Al-Salih, H., Collins, W., Bennett, C., Li, J., and **Sutley, E.J.** (2020). "Development of Distortion-Induced Fatigue Crack Characterization Methodology using Digital Image Correlation." ASCE *Journal of Bridge Engineering*, 25(9). DOI 10.1061/(ASCE)BE.1943-5592.0001598.

- Van de Lindt, J.W., Peacock, W.G., Mitrani-Reiser, J., Rosenheim, N., Deniz, D., Dillard, M., Tomiczek, V., Koliou, M., Graettinger, A., Crawford, S., Harrison, K., Barbosa, A., Tobin, J., Helgeson, J., Peek, L., Memari, M., **Sutley, E.**, Hamideh, S., Gu, D., Cauffman, S., and Fung, J. (2020). "Community Resilience-Focused Technical Investigation of the 2016 Lumberton, North Carolina Flood: An Interdisciplinary Approach." ASCE *Journal Natural Hazards Review*, 21(3), 04020029-1. DOI 10.1061/(ASCE)NH.1527-6996.0000387.

- **Sutley, E.J.,** Vazquez, K., Dao, T., Kim, J., Hunt, J., and Johnston, B. (2020). "Performance of Manufactured Housing during Hurricanes Irma and Michael." ASCE *Journal of Performance of Constructed Facilities*, 34(4). DOI 10.1061/(ASCE)CF.1943-5509.0001486.

- Kim, J. H., **Sutley, E. J.**, and Martin, F. (2019). Review of Modern Wood Fungal Decay Research for Implementation into a Building Standard of Practice. ASCE *Journal of Materials in Civil Engineering*, 31(12), 03119005. DOI 10.1061/(ASCE)MT.1943-5533.0002998.

- Al-Salih, H., Juno, M., Collins, W., Bennett, C., Li, J., and **Sutley, E.J.** (2019). "Evaluation of a Digital Image Correlation Bridge Inspection Methodology on Complex Distortion-Induced Fatigue Cracking." Elsevier *Procedia Structural Integrity*, 17, 682-689. DOI 10.1016/j.prostr.2019.08.091.

- **Sutley, E.J.** (2018). "An Approach for Guiding the Development and Assessing the Interdisciplinarity of New Methodologies that Integrate Social Science and Structural Engineering for Community Disaster Resilience." Wiley *Risk Analysis,* DOI 10.1111/risa.13253.

- **Sutley, E.J.** and Hamideh, S. (2017). "An Interdisciplinary System Dynamics Model for Post-Disaster Housing Recovery." Taylor & Francis *Sustainable and Resilient Infrastructure*, 3(3): 109-127. DOI 10.1080/23789689.2017.1364561.

- **Sutley, E.J.**, J.W. van de Lindt, and L. Peek, (2017). "Multi-Hazard Analysis: An Integrated Engineering and Social Science Approach." ASCE *Journal of Structural Engineering* Special Issue on Recent Advances in Assessment and Mitigation of Multiple Hazards for Structures and Infrastructures, 143(9), 04017107. DOI 10.1061/(ASCE)ST.1943-541X.0001846.

- Boadi-Danquah, E., B. Robertson, M. Fadden, **E.J. Sutley,** and J. Colistra, (2017). "Lightweight Modular Steel Floor System for Rapidly Constructible and Reconfigurable Buildings." WIT Press *International Journal of Computational Methods and Experimental Measurements*, 5(4): 562-573. DOI 10.2495/CMEM-V5-N4-562-573.

- **Sutley, E.J.,** J.W. van de Lindt, and L. Peek, (2017). "Community-Level Framework for Seismic Resiliency I: Coupling Socioeconomic Characteristics and Engineering Building Systems." ASCE *Natural Hazards Review,* 18(3), 04016014. DOI 10.1061/(ASCE)NH.1527-6996.0000239.

- **Sutley, E.J.,** J.W. van de Lindt, and L. Peek, (2017). "Community-Level Framework for Seismic Resiliency II: Multi-Objective Optimization and Illustrative Examples." ASCE *Natural Hazards Review,* 18(3), 04016015. DOI 10.1061/(ASCE)NH.1527-6996.0000230.

- **Sutley, E.J.** and J.W. van de Lindt, (2016). "Evolution of Seismic Risk for Woodframe Buildings." ASCE *Journal of Architectural Engineering,* 22(3), B4016004. DOI 10.1061/(ASCE)AE.1943-5568.0000212.

- **Jennings[1], E.**, Ziaei, W. Pang, J.W. van de Lindt, X. Shao, P. Bahmani, (2015). "Full-Scale Experimental Investigation of Second-Story Collapse Behavior in an Over-Retrofitted First Story of a Woodframe Building." ASCE *Journal of Performance of Constructed Facilities*, 30(2), 04015004. DOI 10.1061/(ASCE)CF.1943-5509.0000736.

- **Jennings[1], E.**, J.W. van de Lindt, E. Ziaei, P. Bahmani, S. Park, X. Shao, W. Pang, D. Rammer, G. Mochizuki, and M. Gershfeld, (2015). "Full-Scale Experimental Verification of Soft-Story-Only Retrofits of Woodframe Buildings with Hybrid Testing." Taylor & Francis *Journal of Earthquake Engineering*, 19(3), pps. 410-430. DOI 10.1080/13632469.2014.975896.

- **Jennings[1], E.**, J.W. van de Lindt, E. Ziaei, G. Mochizuki, W. Pang, and X. Shao, (2014). "Retrofit of a Soft-Story Woodframe Building using SMA Devices with Full-Scale Hybrid Test Verification." Elsevier *Engineering Structures*, 80, pps. 469-485. DOI 10.1016/j.engstruct.2014.09.021.

- **Jennings[1], E.** and J.W. van de Lindt, (2013). "Numerical Retrofit Study of Light-Frame Wood Buildings Using Shape Memory Alloy Devices as Seismic Response Modification Devices." ASCE *Journal of Structural Engineering*, 140(7), pps. 469-485. DOI 10.1061/(ASCE)ST.1943-541X.0000953.

- Pang, W., X. Shao, J. van de Lindt, E. Ziaei, **E. Jennings[1]**, (2013). "Hybrid Testing of a Soft-Story Light-frame Wood Building with Seismic Retrofits." Forest Products Lab *Wood Design Focus: A Journal of Contemporary Wood Engineering*, 23(4).

Peer-Reviewed Papers in Review

- Mazumder, R.K., Enderami, S.A., and **Sutley, E.J.** (n.d.). "Urban Community Hurricane Risk Analysis: A Scenario-based Approach." ASCE *Journal Natural Hazards Review,* In Review.

- Field, C., **Sutley, E.J.**, Naderpajouh, N., van de Lindt, J., Butry, D., Kennan, J., Smith-Colin, J., and Koliou, M. (n.d.). "Incorporating Socio-economic Metrics in Civil Engineering Projects: The Resilience Perspective." ASCE *Journal Natural Hazards Review,* In Review.

- Kim, J.H., and **Sutley, E.J.** (n.d.). "Implementation of Social Equity in an Engineering-Based Framework for Distributing Disaster Resources." Elsevier *International Journal of Disaster Risk Reduction"*, In Review.

[1] Former (maiden) last name of Elaina J. Sutley

- Daniel, L., **Sutley, E.J.**, Lequesne, R., Mazumder, R., Enderami, A. (n.d.). "A Community Capitals Framework for Linking Buildings and Organizations for Enhancing Community Resilience through the Built Environment." ASCE *Journal of Infrastructures Systems*, In Review.

- Enderami, S.A., **Sutley, E.J.,** and Hofmeyer, S. (n.d.). "Defining Organizational Functionality for Evaluation of Post-Disaster Community Resilience." Taylor & Francis *Sustainable and Resilient Infrastructure,* In Review.

- Crawford, P.S., Mitrani-Reiser, J., **Sutley, E.J**., Do, T., Tomiczek, T., Nofal, O., Weigand, J., Watson, M., van de Lindt, J.W., and Graettinger, A. (n.d.). "A measurement approach to develop flood-based damage fragilities for residential buildings following repeat inundation events." ASCE *Journal of Risk and Uncertainty Analysis: Part A: Civil Engineering*, In Review.

Conference Proceedings

- Juno, M., Al-Salih, H., Collins, W., Bennett, C., Li, J., and **Sutley, E.J.** (2020). "Investigating Lighting and Focus Limitations of Digital Image Correlation as a Bridge Inspection Tool." *Structures Congress*, St. Louis, Missouri, April 2020.

- Al-Salih, H., Juno, M., Collins, W., Bennett, C., Li, J., and **Sutley, E.J.** (2019). "Evaluation of a Digital Image Correlation Bridge Inspection Methodology on Complex Distortion-Induced Fatigue Cracking." *ICSI 2019 The 3rd International Conference on Structural Integrity*, Funchal, Madeira, Portugal, September 2-5, 2019.

- **Sutley, E.J.,** Hamideh, S., Dillard, M.K., Gu, D., Seong, K., and van de Lindt, J.W. (2019). "Integrative Modeling of Housing Recovery as a Physical, Economic, and Social Process." *13th International Conference on Applications of Statistics and Probability in Civil Engineering, ICASP13,* Seoul, South Korea, May 26-30, 2019.

- Deniz, D., **Sutley, E.J.**, van de Lindt, J.W., Peacock, W.G., Rosenheim, N. Gu, D., Koliou, M. and Hamideh, S. (2019). "Flood Performance and Dislocation Assessment for Lumberton Homes after Hurricane Matthew." *13th International Conference on Applications of Statistics and Probability in Civil Engineering, ICASP13,* Seoul, South Korea, May 26-30, 2019.

- Kim, J.H., **Sutley, E.J.**, and Martin, F. (2019). "Merging State-of-the-Art Research with Modern Practices to Improve the Quality of Wood Structures Exposed to Decay Fungi." *2019 SEI Structures Congress*, Orlando, Florida, April 25-27, 2019.

- **Sutley, E.J.,** and Srubar, W. (2018). "Quantifying Social, Economic, and Environmental Sustainability of Disaster Policies." *11th National Conference on Earthquake Engineering*, Los Angeles, California, June 25-29, 2018.

- McVey, M., C. Bennett, W. Collins, R. Lequesne, C. Luchies, S. Wilson, **E. J. Sutley,** M. Fadden, and C. Melgares. (2018). "Peer Mentoring for All: Investigating the Feasibility of a Curricular-Embedded Peer Mentoring Structure." *2018 American Society for Engineering Education Annual Conference and Exposition*, Salt Lake City, Utah, June 24-27, 2018.

- Badeaux, L. and **Sutley, E.J.** (2018). "Measuring Sustainability and Resilience Tradeoffs across Post-Disaster Temporary Housing." *4th Residential Building Design and Construction Conference*, State College, Pennsylvania, February 28-March 1, 2018.

- **Sutley, E. J.** and Hamideh, S. (2017). "What Drives Housing Recovery." *2nd International Workshop on Modeling Physical, Economic, and Social Systems for Resilience Assessment*, Ispra, Italy, December 14-16, 2017.

- Robertson, B., E. Boadi-Danquah, M. Fadden, **E.J. Sutley,** and J. Colistra (2017). "Lightweight Rapidly Constructible and Reconfigurable Modular Steel Floor Systems: Serviceability Analysis and Design," *Architectural Engineering Institute Conference*, Oklahoma City, OK, April 11-13, 2017.

- **Sutley, E.J.,** J.W. van de Lindt, and L. Peek (2017). "The Costs of Not Retrofitting from a Combined Engineering, Socioeconomic and Demographic Perspective." *16th World Conference on Earthquake Engineering*, Santiago, Chile, January 9-13, 2017.

- **Sutley, E.J.,** and Hamideh, S. (2016). "A Community Model for Residential Sector Recovery: An Integrated Engineering and Social Science Perspective." *1st International Workshop on Resilience*, September 20-22, 2016, Torino, Italy.

- Robertson, B., Boadi-Danquah, E., Fadden, M., **Sutley, E. J.**, and Colistra, J. (2016). "Lightweight Modular Steel Floor System for Rapidly Constructible and Reconfigurable Buildings." *5th International Conference on Mobile, Adaptable and Rapidly Assembled Structures*, Siena, Italy, September 21-23, 2016.

- **Sutley, E.J.,** Fadden, M., and Li, J. (2016). "A Vision for Smart Cities based on Current Research." *Institute of Electrical and Electronics Engineers Smart Cities Workshop*, Kansas City, Missouri, February 8-9, 2016.

- Ho, A., **Sutley, E.J.**, Kondyli, A., and Johnson, B. (2016). "Building an Adaptive System for Multiple Policy Goals in Cities." *Institute of Electrical and Electronics Engineers Smart Cities Workshop*, Kansas City, Missouri, February 8-9, 2016.

- **Jennings[1], E.N.**, J.W. van de Lindt, and L. Peek (2015). "Multi-Objective Community-Level Seismic Retrofit Optimization for Resiliency using Engineering and Socioeconomic Variables." *12th International Conference on Applications of Statistics and Probability in Civil Engineering,* Vancouver, Canada, July 12-15, 2015.

- **Jennings[1], E.N.**, J.W. van de Lindt, and L. Peek (2014). "Multi-Objective Optimization Approach for Decision-Making Based on Community Level Resiliency Considering Engineering and Social Variables." *Third International Conference on Urban Disaster Reduction,* Boulder, Colorado, September 2014.

- **Jennings[1], E.N.**, J.W. van de Lindt, X. Shao, W. Pang, and E. Ziaei, (2014). "Full-Scale Hybrid Testing of a Soft-Story Woodframe Building Seismically Retrofitted Using Shape Memory Alloy Devices in Scissor-Jack Braces." *Tenth U.S. National Conference on Earthquake Engineering*. Frontiers of Earthquake Engineering, July 21-25, 2014, Anchorage, Alaska.

- van de Lindt, J.W., P. Bahmani, **E.N. Jennings[1]**, W. Pang, E. Ziaei, G. Mochizuki, M. Gershfeld, S. Pryor, X. Shao, M. Symans, J. Tian, D. Rammer, (2014). Full-Scale Testing of Soft-Story Woodframe Buildings with Stiffness-Based Retrofits. *Tenth U.S. National Conference on Earthquake Engineering*. Frontiers of Earthquake Engineering, July 21-25, 2014, Anchorage, Alaska.

- Pang, W., E. Ziaei, X. Shao, **E. Jennings[1]**, J. van de Lindt, M. Gershfeld, and M. Symans, (2014). "A Three-Dimensional Model for Slow Hybrid Testing of Retrofitted Soft-Story WoodFrame Buildings." *Tenth U.S. National Conference on Earthquake Engineering*. Frontiers of Earthquake Engineering, July 21-25, 2014, Anchorage, Alaska.

- Shao, X., J.W. van de Lindt, P. Bahmani, W. Pang, E. Ziaei, M. Symans, J. Tian, **E. Jennings**, T. Dao. (2014). "Real-time hybrid simulation of a stacked wood shear wall with viscous damper." *Tenth U.S. National Conference on Earthquake Engineering*. Frontiers of Earthquake Engineering, July 21-25, 2014, Anchorage, Alaska.

- van de Lindt, J.W., P. Bahmani, M. Gershfeld, G. Mochizuki, X. Shao, S.E. Pryor, W. Pang, M.D. Symans, J. Tian, E. Ziaei, **E.N. Jennings[1]**, D. Rammer, (2014). Seismic Risk Reduction for Soft-Story Wood-Frame Buildings: "Test Results and Retrofit Recommendations from The NEES-Soft Project." *World Conference on Timber Engineering*, Quebec City, Canada, August 10-14, 2014.

- Gershfeld, M., C. Chadwell, **E. Jennings[1]**, E. Ziaei, W. Pang, X. Shao, J. van de Lindt, (2014). "Seismic Performance of Distributed Knee-Brace (DKB) System as a Retrofit for Weak-Story Wood-Frame Buildings." *World Conference on Timber Engineering*, Quebec City, Canada, August 10-14, 2014.

- Pang, W., E. Ziaei, **E. Jennings[1]**, X. Shao, J. van de Lindt, M. Gershfeld, and S. Pryor, (2014). "Numerical Model for Hybrid Simulation of a Three-Story Wood-Frame Building." *World Conference on Timber Engineering*, Quebec City, Canada, August 10-14, 2014.

- van de Lindt, J.W., P. Bahmani, S. Pryor, G. Mochizuki, M. Gershfeld, W. Pang, E. Ziaei, **E. Jennings[1]**, M. Symans, X. Shao, J. Tian, and D. Rammer, (2014). "Overview of the NEES-Soft Experimental Program for Seismic Risk Reduction of Soft-Story Woodframe Buildings." *Structures Congress* 2014: pp. 2875-2885.

- Gershfeld, M., C. Chadwell, J. van de Lindt, W. Pang, E. Ziaei, M. Amini, S. Gordon, **E. Jennings[1]**, (2014). "Distributed Knee-Braced (DKB) System as a Complete or Supplemental Retrofit of Soft-Story Wood-frame Buildings." *Structures Congress* 2014: pp. 2853-2874.

- van de Lindt, J.W., P. Bahmani, M. Gershfeld, G. Mochizuki, X. Shao, W. Pang, M. Symans, E. Ziaei, **E. Jennings[1]**, S. Pryor, D. Rammer, J. Tian, (2013). "Full-Scale Dynamic Testing of Soft-Story Retrofitted and Un-Retrofitted Woodframe Buildings." *Structural Engineers Association of Southern California*, San Diego, CA.

- **Jennings[1], E.**, and J.W. van de Lindt, (2013). "Low Cost Shape Memory Alloy Devices for Seismic Response Modification of Light-Frame Wood Buildings." *Structures Congress* 2013: pp. 1205-1216. DOI: 10.1061/9780784412848.107

- **Jennings[1], E.**, J. Wang, K. Fridley, and C. Chen, (2013). "Temperature Effect on Subcritical Crack Growth in CFRP Externally Bonded Concrete Systems." *ASC 28th annual technical conference*, Sept 9th – 11th, 2013, State College, PA, CD-ROM proceeding (15 pages).

- **Jennings, [1] E.**, and J.W. van de Lindt, (2012). "Shape Memory Alloy Dampers for Response Modification of Light-Frame Wood Buildings." *15th World Conference on Earthquake Engineering*, Lisboa, Portugal, September 2012.

Book Chapters

- Van de Lindt, J.W., Fields, C., and **Sutley, E.J**. (2021). "Community Socio-Economics." a chapter in Hazard-Resilient Infrastructure: Analysis and Design, ASCE Manuals and Reports on Engineering Practice No. 144, edited by Bilal Ayyub, American Society of Civil Engineers, Reston, VA. https://doi.org/10.1061/9780784415757.

- Souto-Martinez, A., **Sutley, E.J.**, Liel, A.B., and Srubar III, W.V. (2018). "Embodied Carbon of Wood and Reinforced Concrete Structures Under Chronic and Acute Hazards." This is a Chapter in Embodied Carbon in Buildings Measurement, Management, and Mitigation, Editors Pomponi,

F., De Wolf, C., and Moncaster, A., pages 77-103, Springer International Publishing, https://doi.org/10.1007/978-3-319-72796-7.

Reports

- **Sutley, E.J.,** Dillard, M.K., and van de Lindt, J.W. (2021). *Community Resilience-Focused Technical Investigation of the 2016 Lumberton, North Carolina Flood: Multi-Disciplinary Approach*. National Institute of Standards and Technology (NIST SP 1230-2). https://doi.org/10.6028.NIST.SP.1230-2.

- **Sutley, E.,** Lequesne, R., Gelino, B., Reed, D., Phan, N., Smith, M., Dumler, M., Bhatta, A., Enderami, S., and Snay, A. (2020) "May 28, 2019 EF4 Linwood Tornado: Six-Month Post-Tornado Recovery Report", in *StEER - 28 MAY 2019 LINWOOD, KS EF4 TORNADO: FIELD ASSESSMENT STRUCTURAL TEAM 1 (FAST-1)*. DesignSafe-CI: Report. https://doi.org/10.17603/ds2-qbsx-ma75.

- **Sutley, E.**, Lequesne, R., Li, J., Kirkham, B., Chen,Z., Al-Sabawy, A., Daniel, L., Enderami, S.A., Kim, J., Mudaliar, T., Taher, S., Sharma, P., and Roueche, D. (2019) "StEER - 28 MAY 2019 LINWOOD, KS EF4 TORNADO: FIELD ASSESSMENT STRUCTURAL TEAM (FAST) EARLY ACCESS RECONNAISSANCE REPORT (EARR)." DesignSafe-CI: Report. https://doi.org/10.17603/ds2-xz1j-nm14.

- van de Lindt, J.W., W. G. Peacock, J. Mitrani-Reiser, N. Rosenheim, D. Deniz, M. Dillard, T. Tomiczek, M. Koliou, A. Graettinger, S. Crawford, K. Harrison, A. Barbosa, J. Tobin, J. Helgeson, L. Peek, M. Memari, **E. Sutley**, D. Gu, S. Cauffman, and J. Fung. (2018). *Community Resilience-Focused Technical Investigation of the 2016 Lumberton, North Carolina Flood: Multi-Disciplinary Approach*. van de Lindt, J.W., W. G. Peacock, and J. Mitrani-Reiser (ed). National Institute of Standards and Technology (NIST SP 1230). https://doi.org/10.6028.NIST.SP.1230.

- Alipour, A., Aly, A., Davis, B., Gutierrez Soto, M., Kijewski-Correa, T., Lenjani, A., Lichty, B., Miner, N., Roueche, D., Salman, A., Smith, D., **Sutley, E.**, Mosalam, K., Prevatt, D., Robertson, I., (2018), "STEER - HURRICANE MICHAEL: PRELIMINARY VIRTUAL ASSESSMENT TEAM (P-VAT) REPORT", DesignSafe-CI, Report. DOI: https://ezid.cdlib.org/id/doi:10.17603/DS2RH71

- **Jennings[1], E.** (2015). "A Multi-Objective Community Level Seismic Retrofit Optimization Combining Social Vulnerability with an Engineering Framework for Community Resilience." A dissertation. Colorado State University. Copyright 2002-2013. Duraspace. http://hdl.handle.net/10217/166964.

- **Jennings[1], E.** (2011). "Environment-Assisted Subcritical Crack Growth in CFRP Externally Bonded Concrete Systems." A thesis. University of Alabama. Order No. 1505196. Available from ProQuest Dissertations & Thesis Global (917745430).

Datasets and Data Collection Instruments

- Tobin, J., Peek, L., van de Lindt, J., **Sutley, E.,** Dillard, M., Watson, M., Helgeson, J., Hamideh, S., Mitrani-Reiser, J. (2021) "Institutional Review Board Protocol 2015 - 2020", in A Longitudinal Community Resilience Focused Technical Investigation of the Lumberton, North Carolina Flood of 2016. DesignSafe-CI. https://doi.org/10.17603/ds2-9w11-tn85.

- **Sutley, E.,** Dillard, M., Hamideh, S., Peacock, W., Tobin, J., Peek, L., Seong, K., Barbosa, A., Tomiczek, T., van de Lindt, J., Gu, D. (2020) "Household Survey Instrument, January 19, 2018: Wave 2", in A Longitudinal Community Resilience Focused Technical Investigation of the Lumberton, North Carolina Flood of 2016. DesignSafe-CI. https://doi.org/10.17603/ds2-db3h-gy28.

- Xiao, Y., Watson, M., Helgeson, J., Farokhnia, K., van de Lindt, J., Mitrani-Reiser, J., **Sutley, E.,** Deniz, D., Tomiczek, T., Barbosa, A., Fung, J., Nofal, O., Koliou, M. (2020) "Business Survey Instrument, January 19, 2018: Wave 2", in A Longitudinal Community Resilience Focused Technical Investigation of the Lumberton, North Carolina Flood of 2016. DesignSafe-CI. https://doi.org/10.17603/ds2-f9kt-fm93.

- Deniz, D., van de Lindt, J., Tomiczek, T., Koliou, M., Barbosa, A., **Sutley, E.,** Peacock, W., Mitrani-Reiser, J., Jones, C., Coulbourne, W. (2020) "Building Damage Survey Instrument, November 26, 2016: Wave 1", in A Longitudinal Community Resilience Focused Technical Investigation of the Lumberton, North Carolina Flood of 2016. DesignSafe-CI: Survey Instruments. https://doi.org/10.17603/ds2-b1yd-pq98.

- **Sutley, E**. Chen, Z. LI, J. Chao, H. Daniel, L. Clements, J. Sharma, P. Taher, S. Kim, J. Lequesne, R. Kirkham, W. Roueche, D. (2019) "Door to door damage assessment survey", in StEER - 28 MAY 2019 LINWOOD, KS EF4 TORNADO: FIELD ASSESSMENT STRUCTURAL TEAM 1 (FAST-1). DesignSafe-CI Dataset. https://doi.org/10.17603/ds2-a06x-f358.

- **Sutley, E**., Dao, T., and Kim, J. (2019) "RAPID: Assessing the Performance of Elevated Wood Buildings, including Manufactured Housing, in Florida during 2018 Hurricane Michael." DesignSafe-CI: Dataset. https://doi.org/10.17603/ds2-85fv-n684.

- **Jennings[1], E.,** E. Ziaei, J. van de Lindt, W. Pang, X. Shao, G. Mochizuki, M. Gershfeld, D. Rammer, J. Tian, M. Symans (2014). "Hybrid Testing of a Full-Scale Three-Story Soft-Story Woodframe Building", Network for Earthquake Engineering Simulation (distributor), Dataset, DOI:10.4231/D3JS9H85N

Magazine and Online Articles

- Kim, J. and **Sutley, E**. (2020). Investigating the Effects of Wind on Elevated Buildings in the Field and at the Wall of Wind. Newsletter of American Association for Wind Engineering, Research Article, 3-8. November 2020. https://aawe.org/wp-content/uploads/2020/11/The-Wind-Engineer-2020-November.pdf

- Ritchie, L., Sibley, M., Dumler, M., **Sutley, E.,** Gibb, C., and Gill, D. (2020). Research on Researchers (RoR) Working Group Research Agenda-Setting Paper. CONVERGE COVID-19 Working Groups for Public Health and Social Sciences Research. Boulder, CO: Natural Hazards Center, University of Colorado Boulder. https://converge.colorado.edu/v1/uploads/images/researchonresearchers_ror-1594485622376.pdf.

- Fischer, E., Porter, K., and **Sutley, E.J.** (2019). "Community Resilience through Mandatory Retrofit Ordinances: What is the role of the Structural Engineer?" STRUCTURE Magazine, Structural Sustainability Issue, June 2019.

- **Sutley, E.** (2018). "Ending Bias in Disaster Mitigation and Recovery Policies." *Research Counts*, Natural Hazards Center, June 10, 2018. https://hazards.colorado.edu/news/research-counts/ending-bias-in-disaster-mitigation-and-recovery-policies, and shared on Prevention Web: https://www.preventionweb.net/news/view/58736.

PRESENTATIONS

Invited Presentations/Lectures

- **Sutley, E.J.** (2020). "Learning from Disaster: A Case Study of the May 28, 2019 Tornado in Linwood, KS." Invited Virtual Lecture, Ocean, Sustainability, Atmosphere Colloquium, Stony Brook University, October 2, 2020.

- **Sutley, E.J.** (2020). "The Lumberton, North Carolina Flood of 2016: An Interdisciplinary Approach to Community Resilience Focused Technical Investigation." Invited Virtual Lecture, Resilience Engineering, Oregon State University, May 13, 2020.

- **Sutley, E.J.** (2020). "Learning from the May 28, 2019 EF4 Linwood, KS Tornado, and Examining Adoption Potential of Above-Code Performance for Residential Buildings." Professional Development Seminar, Black & Veatch, Kansas City, Missouri, March 2, 2020.

- **Sutley, E.J.** (2020). "Learning from Disaster." Planet Expo, University of Kansas, Engineering Expo, Lawrence, Kansas, February 24, 2020.

- **Sutley, E.J.** (2019). "Providing a Continuous Load Path to Light Frame Wood One- and Two-Story Dwellings." Invited Lecture, Lawrence Homebuilders Association, Douglas County, Kansas, November 19, 2019.

- **Sutley, E.J.** and Sharma, P. (2019). "Impacts of the 2019 Linwood, KS Tornado." Invited Presentation, Engineers Club of Kansas City, Kansas City, Missouri, September 9, 2019.

- **Sutley, E.J.** (2019). "Infusing Community Disaster Resilience Research with Care and Well-Being." *Red Hot Research @ The Commons*, University of Kansas, Lawrence, KS, September 6, 2019.

- **Sutley, E.J.** (2019). "Convergence Research to Redesign the Building Code for Sustained Community Functionality." Invited Presentation, 2019 Researchers Meeting, International Research Committee on Disasters and the Natural Hazards Center, Broomfield, Colorado, July 17, 2019.

- **Sutley, E.J.** (2019). "Impacts of the 2019 Linwood, KS Tornado." Invited Presentation, Society of American Military Engineers (SAME) Kansas City, Kansas City, Missouri, April 20, 2019.

- **Sutley, E.J.** (2019). "An Overview of the Longitudinal Community Resilience Study of Lumberton, North Carolina following 2016 Hurricane Matthew", Invited Presentation, ASCE Eastern Branch Meeting, Raleigh, North Carolina, April 16, 2019.

- **Sutley, E.**J. (2019). "Ending the Bias in Disaster Mitigation." Invited Seminar, University of Colorado Boulder, Boulder, Colorado, March 22, 2019.

- **Sutley, E.J.** (2019). "Matthew, Florence and Michael: Multi-Disciplinary Research on Recent Hurricane Disasters," Invited Keynote Presentation, *64th Annual Structural Engineering Conference*, University of Kansas, Lawrence, Kansas, March 7, 2019.

- **Sutley, E.J.** (2019). "Interdisciplinary Recovery Modeling for Community Disaster Resilience," Invited Seminar, Purdue University, West Lafayette, Indiana, February 26, 2019.

- **Sutley, E.J.** (2019). "New Wind Loads for Elevated Buildings, and Other Findings from Recent Hurricane Investigations", Professional Development Seminar, Burns & McDonnell, Kansas City, Missouri, February 4, 2019.

- **Sutley, E.J.** (2018). "Incorporating Social Science into Engineering for Community-Level Disaster Resilience." EERI Distinguished Lecture Series, Invited Seminar, University of Texas, Austin, Texas, July 26, 2018.

- **Sutley, E. J.** and Hamideh, S. (2017). "What Causes Housing Recovery." Invited Presentation at the *2nd International Workshop on Modeling Physical, Economic, and Social Systems for Resilience Assessment*, Ispra, Italy, December 14-16, 2017.

- **Sutley, E.J.** (2017). "Post-Disaster Housing Recovery: An Integrated Engineering and Social Science Perspective." Invited Seminar, University of Massachusetts, Amherst, Massachusetts, April 14, 2017.

- **Sutley, E.J.** (2017). "Protecting your Home from Natural Disasters: New Construction and Retrofit", Professional Development Seminar, Burns & McDonnell, Kansas City, Missouri, April 10, 2017.

- **Sutley, E.J.** (2016). "Post-Disaster Housing Recovery: An Integrated Engineering and Social Science Perspective." Invited Seminar, Colorado School of Mines, Golden, Colorado, September 9, 2016.

- **Sutley, E.J.** (2016). "Preventing Natural Hazards from Becoming Natural Disasters", Professional Development Seminar, Burns & McDonnell, Kansas City, Missouri, April 11, 2016.

- **Sutley, E. J.** (2016). **"**Community Resilience." Invited Presentation at *Red Hot Research at The Commons*, University of Kansas, Lawrence, Kansas, January 29, 2016.

- **Sutley, E. J.** (2015). **"**Interdisciplinary Work." Invited Presentation at Society of Women in Design Student Group Meeting, University of Kansas. November 17, 2015.

Presentations

- **Sutley, E.J.** (2021). "Longitudinal Housing Recovery in Lumberton, NC after Hurricanes Matthew and Florence." *2021 Carolinas Climate Resilience Conference*, Columbia, South Carolina, Virtual, May 12, 2021.

- **Sutley, E.J.** (2020). "Enhancing Community Resilience through the Built Environment: Linking Buildings and Organizations". *ResilienceWeek 2020*, Virtual, October 23, 2020.

- **Sutley, E.J.** and Kim, J. (2020). "How to Characterize Rural Resilience when your Sample Posts KEEP OUT Signs." *2020 Researchers Meeting*, International Research Committee on Disasters and the Natural Hazards Center, Virtual, July 16, 2020.

- **Sutley, E.J.** (2020). "Predicting the Sequence and Duration of Post-Hurricane Housing Stages for Equitable Recovery Resource Allocation." *Gulf of Mexico Oil Spill and Ecosystem Science Conference*, Tampa, Florida, February 6, 2020.

- **Sutley, E.J.,** Lequesne, R., Kim, J., Kirkham, W., Clements, J. (2019). "Leveraging Recent Post-Tornado Damage Findings to Evaluate Kansas Tornado Vulnerability." *THWARTS: Tornado Hazard Wind Assessment and ReducTion Symposium*, Urbana-Champaign, IL, October 15, 2019.

- **Sutley, E.J.**, Hamideh, S., Dillard, M.K., Gu, D., Seong, K., and van de Lindt, J.W. (2019). "Integrative Modeling of Housing Recovery as a Physical, Economic, and Social Process." *13th*

International Conference on Applications of Statistics and Probability in Civil Engineering, ICASP13, Seoul, South Korea, May 26-30, 2019.

- Collins, W., and **Sutley, E.J.** (2019). "Peer Mentoring for All: Extending the Benefits of Peer Mentoring to More Students." *Engineering Teaching Workshop*, University of Kansas, Lawrence, Kansas, April 18, 2019.

- **Sutley, E.J.** (2018). "Housing Data Collection and Results: Combining Engineering and Socio Science Assessments." *2018 Carolinas Climate Resilience Conference*, Columbia, South Carolina, October 29-30, 2018.

- **Sutley, E.J**. (2018). "Connecting Physical with Socio-Economics – An Interdisciplinary Approach to Research, Education, and Design." *ASCE 2018 Convention*, Denver, Colorado, October 12-15, 2018.

- **Sutley, E.J.**, T. Tomiczek, M. Dillard, M., Koliou, D. Deniz, S. Hamideh, J. van de Lindt, J. Mitrani-Reiser, A. Barbosa, M. Watson, Y. Xiao, J. Helgeson. (2018). "The Role of the Interior in Accurately Classifying Flood Damage to Homes and Businesses." *2018 Researchers Meeting*, International Research Committee on Disasters and the Natural Hazards Center, Broomfield, Colorado, July 11, 2018.

- **Sutley, E.J.**, R. Green, N. Stark, E. Johnson, R. Kargarmoakhar, M. Elsharawy, A. Athanasopoulos-Zekkos, J. Malley, and L. Ritchie. (2018). "Introduction to the NHERI User Forum." *11th National Conference on Earthquake Engineering*, Los Angeles, California, June 25-29, 2018.

- **Sutley, E.J.**, and Srubar, W. (2018). "Quantifying Social, Economic, and Environmental Sustainability of Disaster Policies." *11th National Conference on Earthquake Engineering*, Los Angeles, California, June 25-29, 2018.

- **Sutley, E.J.** and Fedders, E. (2018). "Quantifying the Importance of Social Infrastructure in Community Resilience using Social Capital." *2018 SEI Structures Congress*, Fort Worth, Texas, April 18-24, 2018.

- **Sutley, E.J.**, and Srubar, W. (2018). "A Framework for Quantifying Social, Economic, and Environmental Sustainability of Hazard Mitigation Policies." *2018 SEI Structures Congress*, Fort Worth, Texas, April 18-24, 2018.

- **Sutley, E.J.** and Hamideh, S. (2016). "Post-Disaster Housing Recovery." *American Planning Association, Kansas Chapter Conference*, Lawrence, Kansas, October 5-7, 2016.

- **Sutley, E.J.**, and Hamideh, S. (2016). "A Community Model for Residential Sector Recovery: An Integrated Engineering and Social Science Perspective." *1st International Workshop on Resilience*, Torino, Italy, September 20-22, 2016.

- **Sutley, E. J.**, and van de Lindt. J.W. (2016). "Evolution of Predicted Seismic Risk of Low-Rise Woodframe Buildings." *Geotechnical and Structural Engineering Congress*, Phoenix, Arizona, February 15, 2016.

- **Jennings[1], E.N.**, J.W. van de Lindt, and L. Peek (2015). "Multi-Objective Community-Level Seismic Retrofit Optimization for Resiliency using Engineering and Socioeconomic Variables."

12th International Conference on Applications of Statistics and Probability in Civil Engineering, Vancouver, Canada, July 13, 2015.

- **Jennings[1], E.N.**, J.W. van de Lindt, X. Shao, W. Pang, and E. Ziaei, (2014). "Full-Scale Hybrid Testing of a Soft-Story Woodframe Building Seismically Retrofitted Using Shape Memory Alloy Devices in Scissor-Jack Braces." *Tenth U.S. National Conference on Earthquake Engineering*. Frontiers of Earthquake Engineering, Anchorage, Alaska, July 22, 2014.

- **Jennings[1], E.**, van de Lindt, J.W., and Peek, L. (2014). "Multi-Objective Optimization Approach for Decision-Making: Considering Engineering and Social Variables for Community Level Resilience." *Third International Conference on Urban Disaster Reduction,* Boulder, Colorado, September 30, 2014.

- **Jennings[1], E.**, and J.W. van de Lindt, (2013). "Low Cost Shape Memory Alloy Devices for Seismic Response Modification of Light-Frame Wood Buildings." *Structures Congress,* Boston, Massachusetts, May 3, 2013.

- **Jennings[1], E.**, and van de Lindt, J.W. (2012). "Shape Memory Alloy Dampers for Response Modification of Light-Frame Wood Buildings." *15th World Conference on Earthquake Engineering*, Lisboa, Portugal, September 28, 2012.

RESEARCH GRANTS

Principal Investigator unless noted otherwise.

Externally Funded Research

Summary:
$2,294,777 total externally-funded research grants ($1,119,911 as PI, $1,174,866 as Co-PI)
$1,789,907 in active externally-funded research grants

- "Tornado Risk Perception Data, Instruments and Protocols: Survey of Contractors and KU Campus Community," Funded for $1,250 from the Natural Hazards Center. Project Duration May 24, 2021 – October 8, 2021. Co-PI with PI: Ram Krishna Mazumder.

- "Household Impact and Recovery Data, Instruments and Protocols: A Longitudinal investigation after the May 28, 2019 EF4 Linwood, Kansas Tornado," Funded for $2,500 from the Natural Hazards Center. Project Duration May 24, 2021 – October 8, 2021. Co-PI with PI: Ram Krishna Mazumder.

- "Research on Research (ROR)," Funded for $500 to the University of Kansas; $1,000 total award from COVID-19 Working Groups for Public Health and Social Sciences Research from NSF NHERI CONVERGE. Project Duration May 1, 2020 – April 30, 2022 (Estimated).

- "Center for Risk-Based Community Resilience Planning," Funded for $367,889 subcontract to the University of Kansas; $20,000,000 total award amount to Colorado State University from the Community Resilience Group within National Institute of Standards and Technology (NIST), Grant Number 70NANB15H044. Project Duration: February 2020 – January 2025 (Estimated).

- "Community Resilience Support Services IDIQ," Funded for $22,000 to date subcontracted to the University of Kansas; contract and task orders awarded to AECOM from the Community Resilience Group within the National Institute of Standards and Technology (NIST). Project Duration: September 2019 – August 2024 (Estimated).

- Early Career Research Fellowship, Funded for $76,000 from the Gulf Research Program of the National Academies of Science, Engineering, and Medicine, Grant #2000010686. Project Duration: September 1, 2019 – August 31, 2021 (Estimated).

- "Assessing the Influence of Hazard Mitigation Planning on Disaster Recovery," Funded for $399,808 from the Humans, Disasters, and the Built Environment (HDBE) Program within the National Science Foundation, CMMI Award No. 1760183. Project Duration: March 2019 – February 2022 (Estimated). Co-PI with PI: W. Lyles.

- "CAREER: Assessing the Role of Buildings and Organizations in Community Disaster Resilience," Funded for $548,907, including $24,000 REU Supplement and $24,907 CLB Supplement, from the Humans, Disasters, and the Built Environment (HDBE) Program within the National Science Foundation, CMMI Award No. 1847373. Project Duration: February 15, 2019 – January 31, 2024 (Estimated).

- "RAPID: Assessing the Performance of Elevated Wood Buildings, including Manufactured Housing, in Florida during 2018 Hurricane Michael", Funded for $44,615 from the Engineering for Civil Infrastructure (ECI) Program within the National Science Foundation, CMMI Award No. 1903486. Project Duration: December 1, 2018 – November 30, 2020 (Estimated).

- "Collaborative Research: Filling in the Central Himalayan Seismic Gap: A Structural, Neotectonic, and Paleoseismic Investigation of the Western Nepal Fault System", Funded for $371,053 to the University of Kansas; $785,369 total award from the Prediction of and Resilience against Extreme Events (PREEVENTS) and Tectonics Programs within the National Science Foundation, CMMI Award No. 1827866. Project Duration: August 15, 2018 – July 31, 2021 (Estimated). Co-PI with PI: M. Taylor; Co-PI: Richard Styron.

- "Analytical Investigation of Saddle Connections for Overhead Sign Trusses with Respect to Strength and Fatigue Performance," Funded for $47,405 from the Kansas Department of Transportation. Project Duration: July 2017 – June 2019. Co-PI with PI: J. Li; Co-PI: C. Bennett; Co-PI: W. Collins; Co-PI: M. Fadden.

- "Development of an Automated Bridge Inspection Methodology using Digital Image Correlation," Funded for $168,258 by the Mid-America Transportation Center (MATC). Project Duration: August 2017 – July 2019. Co-PI with PI: W. Collins; Co-PI: J. Li; Co-PI: C. Bennett.

- "Exploring the Factors Influencing Property Value Changes and Neighborhood Health in Johnson County Kansas," Funded for $39,746 from Johnson County, Kansas. Project Duration: June 2016 – May 2017. Co-PI with PI: T. Lei; Co-PI: A. Ho; Co-PI: J. Fowles; Co-PI: A. Kondyli.

- "Determination of Fatigue Resistance of Coupler Connection in Aluminum Overhead Truss Sign Supports," Funded for $144,846 from the Kansas Department of Transportation., Project Duration: October 2015 – March 2019. Co-PI with PI: C. Bennett; Co-PI: W. Collins; Co-PI: J. Li; Co-PI: M. Fadden.

- "Center for Risk-Based Community Resilience Planning," Funded for Funded for $60,000 subcontract to the University of Kansas with an additional $17,000 in travel reimbursement support; $20,000,000 total award amount to Colorado State University from the Community Resilience Group within National Institute of Standards and Technology (NIST). Project Duration: February 2015 – January 2020.

Internally Funded Research

- "Benchmarks for Teaching Effectiveness", Funded for $5,000 from the Center for Teaching Excellence, University of Kansas, as part of the National Science Foundation-funded TeVAL Project. Project Duration: January 2020 – December 2020. Co-PI with PI: R. Parsons; Co-PI R. Lequesne; Co-PI: B. Lines; Co-PI: A. Kondyli; Co-PI: J. Roundy; Co-PI: C. Bennett.

- "TRESTLE Course Transformation Grant for CE 461 Structural Analysis", Funded for $1,500 from the Center for Teaching Excellence, University of Kansas as part of the National Science Foundation-funded TRESTLE Project. Project Duration: October 2019 – September 2020. Co-PI with PI: J. Li.

- Stipend for One Emerging Scholar, Funded for $500 from Center for Undergraduate Research, University of Kansas. August 2018 – May 2019.

- "TRESTLE Course Transformation Grant for CE 461 Structural Analysis", Funded for $1,500 from the Center for Teaching Excellence, University of Kansas as part of the National Science Foundation-funded TRESTLE Project. Project Duration: October 2018 – September 2019. Co-PI: J. Li.

- "Empirically-Based Post-Disaster Housing Recovery Model", Funded for $8,000 from the General Research Fund Award, University of Kansas. Project Duration: July 2018 – June 2019.

- Stipend for Three Emerging Scholars, Funded for $1,500 from Center for Undergraduate Research, University of Kansas. August 2017 – May 2018.

- Stipend for One Emerging Scholar, Funded for $500 from Center for Undergraduate Research, University of Kansas. August 2016 – May 2017.

- "A Holistic Approach for Promoting Residential Sustainability", Funded for $8,000 from the New Faculty General Research Fund Award, University of Kansas. Project Duration: July 2016 – June 2017.

CHAIRPERSON

Postdoctoral Researchers – 1 complete (1 ongoing)

Kim, Jae August 2020 – May 2021, University of Kansas
Current Position: Structural Engineer, Walter P. Moore, Houston, Texas

Doctor of Philosophy Students – 1 graduated (2 ongoing)

Kim, Jae Summer 2020, University of Kansas
Dissertation title: A Societally-Optimized Resource Distribution (SORD) Framework for Community Flood Recovery
Current Position: Structural Engineer, Walter P. Moore, Houston, Texas

Master of Science Students– 5 graduated (1 ongoing)

Bhatta, Alok Spring 2021, University of Kansas
Thesis title: Seismic Performance Characterization of Nepali School Buildings using a Novel Micro-Modeling Approach
Current Position: Structural Engineer, Charles A Manganaro Consulting Engineers, New York

Daniels, Liba Summer 2019, University of Kansas
Thesis title: Linking Community Capital Measurements to Building Damage Estimation for Community Resilience
Current Position: Associate Structural Engineer, Collins Structural Consulting, North Carolina

Badeaux, Lauren Spring 2018, University of Kansas
Thesis title: Sustainability and Resiliency Tradeoffs for Post-Disaster Temporary Housing
Current Position: Associate Structural Engineer, Apex Engineers, Missouri

Fedders, Eric, Spring 2018, University of Kansas
Thesis title: Building Design using CLTs and Measuring the Cultural Significance of Buildings
Current Position: Associate Structural Engineer, Thornton-Tomasetti, Missouri

Islam, Rezoana, Summer 2017, University of Kansas
Thesis title: Sustainability and Resiliency Comparison of Soft-Story Woodframe Building Retrofits
Current Position: Project Engineer, Canyons Structural Inc., Utah

Undergraduate Student Researchers – 11 complete (1 ongoing)

Wang, Tina, Spring 2020 – Spring 2021, University of Kansas

Caraway-Short, Lane, Fall 2019 – Spring 2021, University of Kansas, Emerging Scholars Program

Thompson, Tyler, Spring 2020 – Fall 2020, University of Kansas

Vazquez, Karen, Fall 2016 - Spring 2020, University of Kansas, Emerging Scholars Program

Phan, Nhi, Spring 2019, University of Kansas

Lipford, Chris, Fall 2018 - Spring 2019, University of Kansas

Cubero-Navarro, Miguel, Fall 2018 - Spring 2019, University of Kansas

Abdulwahed, Mahmoud, Fall 2018 - Spring 2019, University of Kansas

Smith, Michael, Fall 2018 – Spring 2019, University of Kansas

Thomason, Cory, Fall 2017 – Spring 2018, University of Kansas, Emerging Scholars Program

DeZutter, Tom, Fall 2017 – Spring 2018, University of Kansas, Emerging Scholars Program

TEACHING EXPERIENCE

Course Title	Semester(s) Taught	
CE 461, Structural Analysis	Fa15, Fa16, Fa17, Fa18, Fa19, Fa20	U. Kansas
CE 768, Design of Timber Structures	Sp16, Sp17, Sp18, Sp19, Sp20	U. Kansas
CE 895, Sustainable and Resilient Structures	Fa17, Fa18	U. Kansas
CE 891, Performance Based Seismic Design of Mid-Rise Wood Buildings	Sp19	U. Kansas
CE 490, Environmental Sustainability and Community Resilience	Su17	U. Kansas

CE 991, Community Resilience	Sp16	U. Kansas
CIVE 367, Structural Analysis	Sp15	Colorado State U.
CE 262, Civil and Construction Engineering Materials	Fa10, Sp11, Su11	U. Alabama

CONFERENCE ORGANIZING SERVICE

- Panelist, NSF Interdisciplinary CAREER Award Panel, NHERI Summer Institute, Virtual, June 16, 2021
- Reviewer, ASCE International Conference on Sustainable Infrastructure (ICSI 2021), Virtual, Summer 2021
- Moderator, Invited Session, Resilience Metrics and Social Equity, ResilienceWeek 2020, Virtual, October 23, 2020
- Moderator, Invited Session, Interdisciplinary Resilience Science, ResilienceWeek 2020, Virtual, October 23, 2020
- Moderator, Invited Session, Modeling the Disaster Timeline, ResilienceWeek 2020, Virtual, October 21, 2020
- Organizing Committee, ResilienceWeek 2020, Salt Lake City, Utah, October 19-22, 2020
- Panelist, Infrastructure and Climate Change, Hosted and Moderated by U.S. Kansas Representative Sharice Davids, Overland Park, Kansas, February 19, 2020.
- Panelist, Cases of Convergence in Action, 2019 Natural Hazards Workshop, Broomfield, Colorado, July 2019
- Organizer and Moderator, Invited Session on Interdisciplinary Research, Disasters Researchers Meeting, Natural Hazards Center, Broomfield, Colorado, July 2019
- Panelist, CAREER proposal writing, NHERI Summer Institute, San Antonio, TX, June 6, 2019
- Organizer and Panel Moderator, Hurricane Engineering: Past, Present, and Future, Structures Congress, Orlando, FL, April 2019
- Organizer and Session Moderator, Recent Efforts in Hurricane Engineering: Assessment, Mitigation and Recovery, Structures Congress, Orlando, FL, April 2019
- Moderator, Data Driven Science, An International Workshop to Develop Research Campaigns, Interdisciplinary Teams and Disruptive Technologies for the NHERI 5- Year Science Plan for Natural Hazards, March 18, 2019
- Panelist, Resilience and Recovery: A Case Study of the 2016 Lumberton, NC Flood, 2018 Carolinas Climate Resilience Conference, Columbia, South Carolina, October 2018.
- Organizer, International Research Committee for Disasters Researchers Meeting, Natural Hazards Center, Broomfield, Colorado, July 2018
- Panelist, Career Development Webinar, NHERI REU Program, July 23, 2018
- Panelist, How Mandatory Building Retrofits Impact Resilience of Communities, SEI Structures Congress, Fort Worth, Texas, April 2018
- Moderator, Integrated Engineering and Social Science Approaches to Disaster Resilience Structures, SEI Structures Congress, Fort Worth, Texas, April 2018
- Panelist, Getting Students Engaged in Research Panel for New Faculty, KU Center for Undergraduate Research, October 2017
- Panelist, Keeping Count: Deaths, Damages, and Dollars Lost from Disasters, 2017 Natural Hazards Workshop, Broomfield, Colorado, July 2017

- Moderator, Building Resilient Communities: Including Sociological Impacts in Engineering Practice, SEI Structures Congress, Denver, Colorado, May 2017

SERVICE

University

- Presenter, Mini College, "Learning from Disaster – an integrated Engineering and Social Science Approach," June 2021
- Presenter, Junior Scholar Day Mock Classroom, March 2020
- Founding Member, Center for Compassionate and Sustainable Communities, January 2019 - Present
- Panelist, Getting Students Engaged in Research Panel for New Faculty, Center for Undergraduate Research, August 2017, August 2018
- Member, Faculty Working Group, KU Center for Undergraduate Research, August 2017 – May 2018.
- Reviewer, Undergraduate Research Projects, Center for Undergraduate Research, April 2016

School of Engineering

- Presenter, KU Endowment, July 2019
- Member, Chair Review Committee, CEAE Department, April 2018 – August 2018
- Judge, SELF Program Interview Day, February 2018
- Judge, IHAWKe-a-thon student group competition, August 2017
- Judge, School of Engineering Graduate Student Research Awards, April 2017
- Reviewer, School of Engineering Academic Misconduct Panel, March 2017
- Member, Faculty Search Committee, Associate Dean for Diversity, Equity, and Inclusion, August 2016 – May 2017
- Faculty Advisor, Women in Design Student Group, August 2015 – Present

Department of Civil, Environmental and Architectural Engineering

- Member, Diversity and Equity Task Force, June 2020 – Present
- Member, Graduate Studies Committee, August 2019 – Present
- Member, Architectural Engineering Steering Committee, August 2018 – Present
- Member, Curriculum Committee, August 2018 – Present
- Member, Faculty Search Committee, Professor of the Practice Position, April 2016 – July 2017
- Faculty Co-Advisor, Earthquake Engineering Research Institute Student Group, August 2016 – July 2017
- Faculty Co-Advisor, GEOWall Competition Student Group, August 2015 – May 2016
- Session Presider, CEAE Structural Engineering Conference, March 2016
- Organizing Committee, CEAE Structural Engineering Conference, 2015, 2016, 2017, 2018, 2019

MEDIA FEATURES

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