

**Daniel G. Linzell, Ph.D., P.E., F.ASCE, F.SEI**

Associate Dean for Graduate and International Programs  
Leslie D. Martin Professor, Department of Civil and Environmental Engineering  
University of Nebraska-Lincoln

Phone: 402-472-5188 (o), 814-404-1716 (m)

[dlinzell@unl.edu](mailto:dlinzell@unl.edu)

<https://engineering.unl.edu/civil/daniel-linzell/>

[www.linkedin.com/in/daniel-linzell-he-him-his-2207a61b](https://www.linkedin.com/in/daniel-linzell-he-him-his-2207a61b)

<https://scholar.google.com/citations?user=cWRP18IAAAAJ&hl=en>

<https://orcid.org/0000-0002-7158-1776>

Appointed as Associate Dean for Graduate and International Programs at the University Nebraska-Lincoln (UNL) College of Engineering (COE) in October 2018. Awarded the Leslie D. Martin Professorship in Civil and Environmental Engineering in 2021. Served as Chair of UNL's Department of Civil Engineering (CIVE), now the Department of Civil and Environmental Engineering (CEE), from August 2013 to September 2018 and concurrently held the Donald R. Voelte, Jr. and Nancy A. Keegan Professorship in Engineering. Served as an Assistant, Associate and the inaugural John A. and Harriette K. Shaw Professor of Civil Engineering at the Pennsylvania State University (PSU) from 1999 to 2013. While at PSU served as the: Coordinator of the Structural Engineering and the Larson Transportation Institute's (LTI) Civil Infrastructure and Testing Laboratories; Director of LTIs Transportation Infrastructure Program; and Director of the Protective Technology Center. Received M.S. in Civil Engineering and Ph.D. from the Georgia Institute of Technology in 1995 and 1999. Licensed Professional Engineer in Nebraska, Pennsylvania, and Georgia.

***Summary of Key Administrative and Academic Activities***

***Administrative Responsibilities***

*Associate Dean for Graduate and International Programs:*

Supervise three staff (Director of Graduate Programs, Assistant Director of Education Abroad, Administrative Associate) and one Professor of Practice (Director, Master of Engineering Management Program). Interface with appropriate constituencies inside and outside the University to ensure graduate and international programs are innovative and of high quality to support growing and dynamic College. Additionally tasked with strategically growing undergraduate research activities. At the request of the Dean lead update to undergraduate Complete Engineer program and creation of graduate Complete Engineer program (<https://engineering.unl.edu/complete-engineer/>). Co-leading development of a Bilingual Engineering Program and directed College strategic planning activities, completed in spring 2020, at the request of the Dean. One of four faculty hand-picked by Dean to lead College development activities in association with University of Nebraska system fundraising campaign beginning November 2022.

Specific duties performed association with directing and coordinating graduate recruitment and wellness activities include:

1. Actively supporting recruitment and retention of a diverse group of graduate students. College graduate student enrollment increased by 5% between fall 2020 and spring 2021 and by 4% between spring and fall of 2021.
2. Supporting a diverse graduate student community via formal and informal advising and use of co- and extracurricular programs that enhance personal, professional, and technical growth.
3. Developing new and growing existing relationships with appropriate regional (e.g., Hastings College in Nebraska), national (e.g., University of Texas Rio Grande Valley), and international

institutions (e.g., Jordanian University of Science and Technology), to expand and formalize mutually beneficial academic and programmatic activities, especially those improving diversity.

4. Supporting development and growth of timely, innovative, and inclusive graduate programs.
5. Developed and implemented Graduate Programs Strategic Plan that maps to College plan.
6. Managing awards and fellowships that support and promote graduate student excellence and increase diversity.
7. Managing data collection activities that help direct and support current and future initiatives.
8. Working with COE Development Officers to engage alumni and industry to support the graduate student enterprise.

In association with directing and coordinating international programs and activities in the COE, specific duties include:

1. Strategically identified international feature program partner institutions who offer a wide range of courses directly mapping to COE technical, social science, and humanities curricular requirements from freshmen through senior year.
2. Supporting development and growth of timely and innovative, faculty led study-abroad courses.
3. Developing relationships with relevant regional, national, and international organizations and institutions that expand and enhance international activities.
4. Developed and implemented International Programs Strategic Plan.
5. Developing tools to manage, support, and grow international activities.
6. Working with key constituencies to ensure programs are meeting needs.
7. Managing data collection activities that help direct and support current and future initiatives.

In association with directing and coordinating undergraduate research in the COE, specific duties include:

1. Developing and implementing an Undergraduate Research Programs Strategic Plan.
2. Implementing scalable undergraduate research framework that leverages COE and UNL successes, provides enriching student experience and tracks activity.
3. Supporting NSF REU activities and increasing number of successful proposals.
4. Supporting student graduate fellowship application efforts (e.g., NSF GRFP) and increasing number of successful proposals.
5. Increasing international undergraduate research partnerships.
6. Developing tools to manage, support, and grow undergraduate research activities.
7. Managing data collection activities that help direct and support current and future initiatives.

Additional administrative roles assigned by the Dean include:

1. Coordinated COE Strategic Planning process (enacted fall 2020).
2. Lead undergraduate and graduate activities associated with implementing College-wide Complete Engineer Initiative in 2022-23 academic year.
3. Leading process to develop and introduce undergraduate Bilingual Engineering Program.

*CIVE Department Chair:*

Supervised upwards of 35 faculty and 8 staff. Primary administrative emphasis was assuring sustained, high-level scholarship via:

1. Hiring, supporting, and mentoring a diverse, high-performing group of tenure/tenure track, teaching, and research faculty so they can successfully realize career goals and aspirations.
2. Supporting and mentoring existing faculty so they could successfully realize career goals and aspirations.
3. Promotion of exceptional and inclusive pedagogy locally and nationally via support of effective and innovative instruction in the classroom and in teaching and research labs.
4. Support of advanced research that reflected institutional missions and effectively contributed to the betterment of society via basic and applied contributions to the state-of-the-art.

5. Elevating the importance of effective service to the institution, profession, state of Nebraska, nation and world via development and refinement of robust faculty and staff evaluation processes that accurately reflected impact.

Committed to furthering equity, diversity, and inclusion at all levels. Extensively involved in and leading external activities focused on the future of civil and structural engineering education that engage regional, national, and international leaders. Focused on potential and current UNL CIVE donors to help support visions and goals for the Department, COE, the University, and the profession. Active engagement and leadership in association with strategic planning processes for two Deans. Focused on internal fiscal stewardship via active involvement in budget development and management with a proven record of effective fiscal responsibility under various and changing budget constraints.

**Research and Teaching Activities**

Research focus areas: (1) real-time assessment of infrastructure health and development and implementation of improved decision-making tools; (2) optimizing and enhancing structural component and system performance under extreme demands, including blast and impact; and (3) assessing and improving bridge performance and optimization, specifically for bridges of irregular geometry (horizontally curved and skewed bridges). Research incorporates material development, computer modeling, experimental studies, and field-testing to achieve objectives. External funding in association with ongoing or completed projects over \$15M, with over \$4.5M as Principal Investigator. Published over sixty refereed journal articles, technical notes, and proceedings articles, with majority inducing current or former graduate advisees as lead or co-authors. Number of additional proceedings articles published with refereed abstracts. Contributions to multiple poster presentations and gave invited talks numerous and technical presentations. Successfully supervised or co-supervised 12 Doctors of Philosophy students, 20 Masters of Science and integrated Bachelors/Master of Science students, 11 Masters of Engineering or non-thesis Masters degree students, 5 Undergraduate Honors students and 6 NSF REU students. Supervised/supervising 6 post-doctoral scholars.

Taught or co-taught multiple undergraduate courses in both Civil and Architectural Engineering in the U.S. and abroad. Include traditional lecture, flipped and experiential “pop-up” courses focused on engineering mechanics, advanced and historical methods of structural analysis, structural health monitoring, steel and prestressed concrete design, bridge and building design, and effects of extreme events on infrastructure resiliency. Served as advisor/co-advisor for PSUs ASCE Student Chapter and ASCE/AISC Student Steel Bridge Team. Received 2 Faculty Advisor Certificates of Commendation from ASCE and the Penn State Engineering Society (PSES) 2005 Outstanding Advising Award.

## ***Summary of Relevant Administrative Experiences, Accomplishments, and Philosophies***

### **Strategic Planning**

- **Coordinated College strategic planning process** on behalf of Dean.
- **Oversaw Graduate Program, International Program, Undergraduate Research and Master of Engineering Management Program strategic planning processes.**
- Worked with Colleagues from Northwestern and Ohio State University to **form Big 10 Academic Alliance (BTAA) Engineering Graduate Deans working group** and initiate formal meetings and activities.
- **Led CIVE strategic planning exercises** starting fall 2017. These activities encompassed: faculty group discussions by rank using expert facilitators from UNL's Social and Behavioral Sciences Research Consortium (SSBRC); subsequent development and execution of a faculty survey by SSBRC using information gleaned from group discussions and development of a summary report that outlines faculty vision for the Department, student preparation, departmental culture and professional support; the completion of visioning activities at spring faculty meetings and retreat; and the formation of faculty-driven Department Action Teams whose activities feed strategic plan development.
- **Served as sole College of Engineering administrative representative on the 25-member Executive Committee of UNL's Nebraska Commission of 150** during the 2018-19 AY. The Commission was charged with developing a vision for the future of the University as it approached its 150<sup>th</sup> anniversary on Feb. 15, 2019. Over 125 additional stakeholders were asked to serve on seven subcommittees, focusing on: mission and values; student experience; research, scholarship and creative activity; engagement in Nebraska and beyond; economic development and innovation; internal operations and infrastructure; and campus community and faculty roles. Served as a member of the economic development and innovation subcommittee. Resulting report set the stage for development of strategic actions and tactics by UNL's N2025 Strategy Team.
- In 2018 successfully garnered faculty support to initiate **changing Department name to Civil and Environmental Engineering.**

### **Diversity and Inclusion**

- Developed and implemented **Memorandum of Understanding preprogram agreement with University of Texas Rio Grande Valley (UTRGV) Department of Mechanical Engineering. Agreement formalizes process whereby UTRGV Master of Science students are comprehensively supported to streamline successful receipt of Ph.D. degree at UNL.**
- Co-leading process to develop and introduce **undergraduate Bilingual Engineering Program.**
- **Increased CIVE faculty gender diversity** by 60% to constitute 23% of the faculty.
- **Supported reformulating COEs Graduate Engineering Advisory Board and creation of Graduate Student Associations in every Department** to ensure that diverse leaders are developed and nurtured, student concerns heard, and appropriate action taken.
- Direct fellowship resources to support **faculty recruiting graduate students from underrepresented groups.**
- Supported formation of and direct resources to **COE Graduate Student Society of Women Engineers Chapter.**

### **Research and Related Scholarly Activities**

- **Oversaw an increase in external research awards** credited to CIVE from \$2.9M in FY '14 to over \$7M in FY '18.

- **Supported CIVE faculty seeking federal research funding** using seed and matching funds, waiver of indirect costs, teaching release, graduate student support, etc. Successful funding agencies included:
  - Department of Agriculture-NIFA.
  - Department of Energy Office of Energy Efficiency and Renewable Energy, Nuclear Energy University Program (NEUP).
  - National Science Foundation CAREER, CBET, CISE, CMMI, EPSCOR, IRES, REU.
  - U.S. Department of Transportation Regional University Transportation Center, Tier 1 University Transportation Center.
  - DOD-Offutt Air Force Base-STRATCOM NSRI.
- **Supported CIVE faculty seeking honors** recognizing research success via promotion of activities, nominations for awards, completion of recommendation letters. Faculty honors included:
  - AAAS Fellow
  - ASCE State of the Art Award
  - ASCE Rudolph Hering Medal
  - DOE Research Award
  - Grand Prize for University Research by the American Academy of Environmental Engineers & Scientists
  - Water Environment Federation Fellow (WEF)
- To **promote and support interdisciplinary research**, spearheaded an effort focused on big data and rural bridge health that culminated in activities involving UNL College of Engineering faculty and University of Nebraska-Omaha (UNO) College of Information and Science faculty. This effort has included 5 workshops, 2 funded using an NSF-CISE Big Data Spokes Planning grant and development of a BD Spokes full research grant proposal involving multiple faculty from UNL and UNO that was awarded in 2018. NSF success produced \$5M U.S. Army Corps of Engineers-ERDC award in 2021.

#### **Faculty and Student Development and Fundraising Activities**

- **One of four COE faculty selected to raise COE funds for systemwide Campaign.** Campaign initiating fall 2022.
- **Actively involved in Nebraska University Foundation development activities supporting CIVE and College of Engineering initiatives.** Efforts produced over \$500K of new CIVE donations.
- **Hired thirteen CIVE faculty while Chair.** Lead successful recruitment of 9 of 13 new hires. CIVE gender diversity increased by 60% to constitute 23% of the faculty.
- **Improved CIVE collegiality** by (1) requiring all faculty meetings for co-located Department (21 faculty in Lincoln, 14 faculty in Omaha) are in person, (2) instituting faculty brownbags and sponsored lunches to discuss teaching, research, and service activities and (3) by developing group-mentoring activities to discuss concerns and needs.
- **Successfully encouraged and CIVE supported faculty** interested in attending ASCEs ExCEED teaching workshop.
- Selected as a **BTAA Department Executive Officer (DEO) Fellow and Academic Leadership Program member.**
- **Supported CIVE student development** via dedication of resources to help defray student professional and honorary group costs to travel to and participate in leadership development activities and student competitions.
- **Supported and relied on CIVEs Student Leadership Council**, made up of student professional and honors society chapter leaders, for valuable information and feedback related to CIVE operations and initiatives.

- **Supported formation of CIVE Graduate Student Association.**

**Curricular Innovation and Change**

- **Supported development, successful implementation, and growth of innovative interdisciplinary and intercampus graduate programs.** Includes PhD programs and specializations, integrated BS/MS programs, online programs, and specialized certificates.
- **Established and grew domestic and international graduate partnerships** focused on increasing learning opportunities and student numbers.
- **Co-PI on successful NSF REU entitled “Sustainability of Horizontal Civil Networks in Rural Areas.”** Prior to receiving award in 2017, which has been renewed twice, allocated CIVE resources in 2015 and 2016 to self-fund summer program.
- **Continue curricular activities for American Society of Civil Engineers (ASCE) and ASCEs Structural Engineering Institute as Associate Dean.** Includes currently serving on ASCEs Committee on Student Conferences and Competitions, and Chairing SEIs Committee on Reform of Structural Engineering Education-2. Co-Chair ASCEs Innovation Contest. Served on ASCEs Education Summit and Future World Vision Working Groups. Former member of ASCEs Student Competition Task Committee.
- **Supported creation of Engineering Change Lab-USA (<https://ecl-usa.org/>).** Member of **Steering Committee, Board of Directors, and Treasurer.** ECL-USA critically examines the current state of engineering, speculating about its future, and strives to think critically and innovatively about what engineering will become.
- **Co-Chaired the Programming Committee for *American Society of Civil Engineers (ASCE) Civil Engineering Education Summit*** held on at Southern Methodist University on May 28-30, 2019.
- **Past Secretary of ASCEs Department Heads Coordinating Council and past Corresponding Member of ASCEs Body of Knowledge 3 Task Committee.**
- **Used Department funds to support CIVE faculty** that attended the American Society of Engineering Education’s Annual Conference and the Accreditation Board for Engineering and Technology’s (ABETs) Annual Symposium.

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[dlinzell@unl.edu](mailto:dlinzell@unl.edu)  
<https://engineering.unl.edu/civil/daniel-linzell/>  
[www.linkedin.com/in/daniel-linzell-he-him-his-2207a61b](http://www.linkedin.com/in/daniel-linzell-he-him-his-2207a61b)  
<https://scholar.google.com/citations?user=cWRP18IAAAAJ&hl=en>  
<https://orcid.org/0000-0002-7158-1776>

#### Research Focus Areas

- *Structural Health Monitoring*
- *Curved and Skewed Concrete and Steel Bridges Behavior and Optimization*
- *Force Protection and Structural Resiliency*
- *Advanced Computational Modeling*
- *Laboratory and Field-Testing of Structures*
- *Advanced Materials for Structural Engineering*

#### Education

**Ph.D. in Civil Engineering**, August 1999, The Georgia Institute of Technology

*(Studies of a Full-Scale Horizontally Curved Steel I-Girder Bridge System under Self-Weight, supervisor: Abdul H. Zureick, co-supervisor: Roberto T. Leon)*

**MS in Civil Engineering**, December 1995, The Georgia Institute of Technology

**BS in Civil Engineering**, December 1990, The Ohio State University

#### Professional History

- 8/21 – present **Leslie D. Martin Professor**, Department of Civil and Environmental Engineering, the University of Nebraska-Lincoln, Lincoln, Nebraska.
- 10/18 – present **Associate Dean for Graduate and International Programs**, College of Engineering, the University of Nebraska-Lincoln, Lincoln, Nebraska
- 7/13 – 9/18 **Voelte-Keegan Professor and Chair**, Department of Civil Engineering, the University of Nebraska-Lincoln, Lincoln, Nebraska.
- 7/11 – 7/13 **John A. and Harriette K. Shaw Professor**, Department of Civil and Environmental Engineering, the Pennsylvania State University, University Park, Pennsylvania.
- 7/09 – 7/13 **Director, Protective Technology Center (PTC)**, Department of Civil and Environmental Engineering, the Pennsylvania State University, University Park, Pennsylvania.
- 9/08 – 2/09 **Visiting Professor**, School of Engineering, Tecun, the Technical Campus of the University of Navarra, San Sebastian, Spain.



- 9/05 – 7/13     **Structural Engineer (part-time)**, Envinity, Inc, State College, Pennsylvania.
- 9/05 – 5/06 &   **Director, Transportation Infrastructure Program**, the Thomas D. Larson  
9/06 – 9/08     Pennsylvania Transportation Institute, the Pennsylvania State University,  
University Park, Pennsylvania.
- 7/05 – 6/11     **Associate Professor**, Department of Civil and Environmental Engineering, the  
Pennsylvania State University, University Park, Pennsylvania.
- 8/99 – 6/05     **Assistant Professor**, School of Civil and Environmental Engineering, the  
Pennsylvania State University, University Park, Pennsylvania.
- 2/98 – 9/98     **Associate Engineer**, Construction Technology Laboratories, Skokie, Illinois.
- 9/94 – 8/99     **Graduate Research Assistant**, School of Civil and Environmental  
Engineering, the Georgia Institute of Technology, Atlanta, Georgia.
- 12/90 - 9/94    **Structural Inspection Engineer**, Burgess and Niple, Ltd.,  
Columbus, Ohio.
- 3/90 - 12/90    **Undergraduate Research Assistant**, Department of Civil Engineering, the Ohio  
State University, Columbus, Ohio.
- 6/89-1/90       **Drafter/Lab Technician**, Resource International, Westerville, Ohio.

### ***Professional Certification***

State of Nebraska Professional Engineer Certification, 6/12/2015, Lic # E15662.

Commonwealth of Pennsylvania Professional Engineer Certification, 3/10/2000, Lic. #PE056283E (inactive).

State of Georgia Professional Engineer Certification, 7/14/1997, Lic. # PE023752 (inactive).

State of Ohio Engineer in Training Certification, 1990.

### ***Publications***

#### ***Refereed Journal Articles***

1. **Rageh, A., Sun, C., Linzell, D.G., Puckett, J.A.**, “Dataset for large-scale, lateral-torsional buckling tests of continuous beams in a grillage system,” *Data in Brief*, V 44, October, 108532, <https://doi.org/10.1016/j.dib.2022.108532>, 2022.
2. **Azam, S.E., Didyk, M.M., Linzell, and Rageh, A.**, “Experimental validation and numerical investigation of virtual strain sensing methods for steel railway bridges,” *Journal of Sound and Vibration*, Volume 537, 27 October 2022, 117207, <https://doi.org/10.1016/j.jsv.2022.117207>, 2022.
3. **Sun, C., Linzell, D.G., Puckett, J.A., Akintunde, E.A., Rageh, A.**, “Experimental Study of Continuous-Beam Lateral Torsional–Buckling Resistance with a Noncomposite Concrete Deck,” *ASCE Journal of Structural Engineering*, V148, N4, April, [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0003301](https://doi.org/10.1061/(ASCE)ST.1943-541X.0003301), 2022.
4. **Fang, C., Linzell, D.G., Yosef, T.Y., and Rasmussen, J.D.**, “Numerical Modeling and Performance Assessment of Bridge Column Strengthened by FRP and Polyurea under Combined Collision and Blast Loading,” *ASCE Journal of Composites for Construction*, V26, N2, April, [https://doi.org/10.1061/\(ASCE\)CC.1943-5614.0001188](https://doi.org/10.1061/(ASCE)CC.1943-5614.0001188), 2022.

5. **Fang, C., Linzell, D.G., Yosef, T.Y., and Rasmussen, J.D.**, “Performance Evaluation of Highway Bridge Piers under Medium Truck Collision Combined with Air Blast,” *Journal of Performance of Constructed Facilities*, V36, N1, February, [https://doi.org/10.1061/\(ASCE\)CF.1943-5509.0001683](https://doi.org/10.1061/(ASCE)CF.1943-5509.0001683), 2022.
6. **Akintunde, E., Azam, S.E., Rageh, A., and Linzell, D.G.**, “Unsupervised Machine Learning for Robust Bridge Damage Detection: Full-Scale Experimental Validation,” *Engineering Structures*, Volume 249, December, 113250, ISSN 0141-0296, <https://doi.org/10.1016/j.engstruct.2021.113250>, 2021.
7. **Fang, C. and Linzell, D.G.**, “Examining progressive collapse robustness of a high-rise reinforced concrete building,” *Engineering Structures*, Volume 248, December, 113274, ISSN 0141-0296, <https://doi.org/10.1016/j.engstruct.2021.113274>, 2021.
8. **Yang, B., Steelman, J.S., Puckett, J.A., and Linzell, D.G.**, “Safe Platooning Headways on Girder Bridges,” *Transportation Research Record: Journal of the Transportation Research Board*, September, <https://doi.org/10.1177/03611981211036379>, 2021.
9. **Fang, C., Yosef, T.Y., Linzell, D.G., and Rasmussen, J.D.**, “Computational Modeling and Simulation of Isolated Highway Bridge Columns Subjected to Vehicle Collision and Air Blast,” *Engineering Failure Analysis*, Volume 125, July, 105389, <https://doi.org/10.1016/j.engfailanal.2021.105389>, 2021.
10. **Fang, C., Yosef, T.Y., Linzell, D.G., and Rasmussen, J.D.**, “Residual Axial Capacity Estimates for Bridge Columns Subjected to Vehicle Collision and Air Blast,” *ASCE Journal of Bridge Engineering*, V26, n7, July, [https://doi.org/10.1061/\(ASCE\)BE.1943-5592.0001735](https://doi.org/10.1061/(ASCE)BE.1943-5592.0001735), 2021.
11. **Fang, C., Rasmussen, J.D., Belenberg, R.W., Lechtenberg, K.A., Faller, R.K. and Linzell, D.G.** “Experimental and numerical investigation on deflection and behavior of portable construction barrier subjected to vehicle impacts,” *Engineering Structures*, v235, 112071, May, <https://doi.org/10.1016/j.engstruct.2021.112071>, 2021.
12. **Castiglione, J., Astroza, R. Azam, S.E, and Linzell, D.** “Auto-regressive model-based input and parameter estimation for nonlinear finite element models,” *Mechanical Systems and Signal Processing*, v143, 106779, September, <https://doi.org/10.1016/j.ymsp.2020.106779>, 2020.
13. **Frankl, B.A. and Linzell, D.** “Validation of modified shear buckling coefficients for horizontally curved steel plate girders,” *Journal of Constructional Steel Research*, v168, 106009, May, <https://doi.org/10.1016/j.jcsr.2020.106009>, 2020.
14. **Rageh, A., Eftekhar Azam, S. and Linzell, D.G.** “Steel railway bridge fatigue damage detection using numerical models and machine learning: Mitigating influence of modeling uncertainty” *International Journal of Fatigue*, v134, 105458, May, <https://doi.org/10.1016/j.ijfatigue.2019.105458>, 2020.
15. **Frankl, B.A. and Linzell, D.G.** “Shear Buckling Coefficients for Slender, Horizontally Curved Plates,” *ASCE Journal of Structural Engineering*, v146, n3, March, [https://doi.org/10.1061/\(ASCE\)ST.1943-541X.0002526](https://doi.org/10.1061/(ASCE)ST.1943-541X.0002526), 2020.
16. **Eftekhar Azam, S., Linzell, D.G. and Rageh, A.** “Damage Detection in Structural Systems Utilizing Artificial Neural Networks and Proper Orthogonal Decomposition,” *Structural Control and Health Monitoring*, <https://doi.org/10.1002/stc.2288>, 2018.
17. **Rageh, A., Linzell, D.G. and Eftekhar Azam, S.** “Automated, Strain-Based, Output-Only Bridge Damage Detection.” *Journal of Civil Structural Health Monitoring*, <https://doi.org/10.1007/s13349-018-0311-6>, 2018.

18. **Khan, E. Lobo, J.A. and Linzell, D.G.**, "Live Load Distribution and Dynamic Amplification on a Curved Prestressed Concrete Transit Rail Bridge." *ASCE Journal of Bridge Engineering*, v23, n6, June, [https://doi.org/10.1061/\(ASCE\)BE.1943-5592.0001236](https://doi.org/10.1061/(ASCE)BE.1943-5592.0001236), 2018.
19. **Reese, L., Qiu, T., Linzell, D., and Rado, Z.** "Field-Scale Testing and Numerical Investigation of Soil-Boulder Interaction under Vehicular Impact using FEM and Coupled FEM-SPH Formulations," *International Journal of Protective Structures*, V7, n1, <https://doi.org/10.1177/2041419615622728>, 2016.
20. **Issa-El-Khoury, G.1, Linzell, D.G. and Geschwindner, L.F.** "Flexure–shear interaction influence on curved, plate girder web longitudinal stiffener placement," *Journal of Constructional Steel Research*, v120, April, Pages 25–32, <http://doi.org/10.1016/j.jcsr.2015.12.021>, 2015.
21. **Xuhui H., Biao W., Yunfeng, Z., Dongyang, H., and Linzell, D.** "Dynamic characteristics and seismic response analysis of a long-span steel-box basket-handle railway arch bridge," *Journal of Vibroengineering*, v17, n5, August, pp. 2422-2432, ISSN 1392-8716, 2015.
22. **Gencturk, B., Linzell, D.G. and Zhou, Y.**, "Introduction - Special Issue on Field Testing of Bridges and Buildings," *ASCE Journal of Structural Engineering*, v141, 1 pp., <https://ascelibrary.org/doi/abs/10.1061/%28ASCE%29ST.1943-541X.0001171>, 2015.
23. **Chen, C.-C. and Linzell, D.**, "Numerical Simulations of Dynamic Behavior of Polyurea Toughened Steel Plates under Impact Loading," *Journal of Computational Engineering*, v2014, Article ID 416049, December, 7 pp., <http://dx.doi.org/10.1155/2014/416049>, 2014.
24. **Kinney, S., Linzell, D. and O'Hare, E.**, "Assessment of Load Sharing Members in an Anti-ram Bollard System," *International Journal of Protective Structures*, v5, n4, December, pp. 417-434, <https://doi.org/10.1260/2041-4196.5.4.417>, 2014.
25. **Reese, L., Qiu, T., Linzell, D., O'Hare, E. and Rado, Z.**, "Field Tests and Numerical Modeling of Vehicle Impacts on a Boulder Embedded in Compacted Fill," *International Journal of Protective Structures*, v5, n4, December, pp. 435-452, <https://doi.org/10.1260/2041-4196.5.4.435>, 2014.
26. **Lee, S., Kamada, T., Uchida, S. and Linzell, D.**, "Imaging Defects in Concrete Structures Using Accumulated SIBIE," *Construction and Building Materials*, v67, September, pp.180–185, <http://doi.org/10.1016/j.conbuildmat.2014.05.018>, 2014.
27. **Sharafbayani, M. and Linzell, D.**, "Optimizing Horizontally Curved, Steel Bridge, Cross-Frame Arrangements to Enhance Construction Performance." *ASCE Journal of Bridge Engineering*, v 19, n 7, July, [http://dx.doi.org/10.1061/\(ASCE\)BE.1943-5592.0000593#sthash.eaHTmm6f.dpuf](http://dx.doi.org/10.1061/(ASCE)BE.1943-5592.0000593#sthash.eaHTmm6f.dpuf), 2014.
28. **Issa-El-Khoury, G., Linzell, D.G. and Geschwindner, L.F.**, "Computational Studies of Horizontally Curved, Longitudinally Stiffened, Plate Girder Webs in Flexure," *Journal of Constructional Steel Research*, v93, February, pp. 97–106, <http://doi.org/10.1016/j.jcsr.2013.10.018>, 2014.
29. **Seo, J., Linzell, D.G. and Hu, J.W.**, "Nonlinear Seismic Response Analysis of Curved and Skewed Bridge System with Spherical Bearings," *Advances in Civil Engineering*, Vol. 2013, Article ID 248575, 7 pp., <http://dx.doi.org/10.1155/2013/248575>, 2013.
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### **Poster Sessions**

1. **Eftekhar Azam, S. and Linzell, D.G.**, “Output-only particle filtering for structural system identification,” ASCE Engineering Mechanics Institute Conference 2019 (EMI2019) June 18-21, 2019.
2. **Rageh, A., Eftekhar Azam, S. and Linzell, D.G.**, “Influence of Modeling Errors on Deficiency Identification in a Steel Railway Bridge Floor System,” 2019 ASCE International Conference on Computing in Civil Engineering, July 17, 2019.
3. **Nalwala, M., Steelman, J.A. and Linzell, D.G.**, “Explosive and Blast Effects on Ultrahigh Molecular Weight Polyethylene Retrofitted Structures,” University of Nebraska-Lincoln Undergraduate Research Fair, April 11, 2018.
4. **Fang, C. and Linzell, D.G.**, “Impact-resistant Behavior of Reinforced Concrete Pier Columns,” University of Nebraska-Lincoln-Lincoln Graduate Research Fair, April 5, 2017.
5. **Rageh, A. and Linzell, D.G.**, “Optimizing Steel Railway Truss Bridge Health Monitoring,” University of Nebraska-Lincoln-Lincoln Graduate Research Fair, April 5, 2017.
6. **O’Hare, E.V., Linzell, D.G. and Rado, Z.**, “Development of Shallow Foundation Streetscape Vehicular Anti-Ram (SVAR) Systems through Modeling and Testing,” Minisymposium 5.3: Numerical Modeling and Engineering Design for Impact and Blast Problems, 12th U.S. National Congress on Computational Mechanics, Raleigh, NC, July 22-25, 2013.
7. **Seo, J. and Linzell, D.**, “Probabilistic Vulnerability Scenarios for Horizontally Curved, Steel, I-Girder Bridges under Earthquake Loads,” TRB Seventh International Bridge Engineering Conference, San Antonio, Texas, December 2010.
8. **Linzell, D.G.**, “Testing of Metallic Decking under Simulated Surface Loads,” 2010 ASCE Structures Congress and Exposition, Poster Session 2, May 14, 2010.
9. **Chen, C-C., Linzell, D. and Sharafbayani, M.** (2010), "Prediction of Movement and Stresses in Curved and Skewed Bridges: Parametric Studies," LTI Student Showcase and Exhibition, Transportation Research Board 89<sup>th</sup> Annual Meeting, Washington D.C., January 11, 2010.
10. **Sharafbayani, M., Linzell, D., Chen, C-C., and Seo, J.** (2010), " Prediction of Movement and Stresses in Curved and Skewed Bridges: Development of Representative Bridges," LTI Student Showcase and Exhibition, Transportation Research Board 89<sup>th</sup> Annual Meeting, Washington D.C., January 11, 2010.
11. **Seo, J., Linzell, D. and Rado, Z.** (2007), " Portable Sign Crash Simulation and Test," PTI Student Showcase and Exhibition, Transportation Research Board 86<sup>th</sup> Annual Meeting, Washington D.C., January 23, 2007.
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### **Presentations**

#### **Conferences/Seminars**

1. **Linzell D., Moreyra Garlock, M.A., Bell, G.R., Hajjar, J. F.,** "SE of 2040? Structural Engineering Education from Plans to Action," ASCE Structures Congress 2022, April, Atlanta, GA.
2. **Akintunde, E., Eftekhar Azam, S., and Linzell, D.G.,** "Damage Detection in Bridges using a Singular Value Decomposition based Novelty Index," ASCE Structures Congress, April 2022, Atlanta, GA.
3. **Linzell, D.G., Puckett, J.A., and Sun, C.S.,** " Stability and strength behavior of floor system stringers," Structural Stability Research Council, Annual Stability Conference, 2022, Denver, April 22-25, 2022.
4. **Gandhi, R., Linzell, D.G., and Burke, J.** "Edge Computing for Data Sharing, Data Infrastructure for Situational Awareness of Infrastructure" USACE Virtual Innovation Summit 2021, Session on Artificial Intelligence, October 27, 2021.
5. **Akintunde, E., and Linzell, D.** "Developed Singular Value Decomposition Based Novelty Index for Damage Detection in Full Scale In-situ Bridges," National Science Foundation, Midwest Big Data Innovation Hub's Regional Community Meeting, October 27, 2021, Virtual.
6. **Akintunde, E., Eftekhar Azam, S, Rageh, A. and Linzell, D.** "Full Scale Bridge Damage Detection Using Sparse Sensor Networks, Principal Component Analysis, and Novelty Detection," 6<sup>th</sup> International Electronic Conference on Sensors and Applications, Session on Structural Health Monitoring Technologies and Sensor Networks, November 21, 2019.
7. **Eftekhar Azam, S. and Linzell, D.G.** "Output-only Strain Estimation in Dynamic Systems: A Comparative Study of Online Updating Approaches," IMAC-XXXVII Conference & Exposition (It's not just modal anymore), Orlando, FL, January 28-31, 2019.

8. **Gandhi, R., Khazanchi, D., Linzell, D., Ricks, B. and Sim, C.**, “Developing Smart Big Data Pipelines to Address Challenges of Bridge Infrastructure health in the US,” presented at the Leverage IoT, Communication, Social Media and Data Science to Protect Civil Infrastructure and Save Lives Seminar, Pre-OTC GCE NODE NORTEX Data Science Cluster, Houston, TX, May 2018.
9. **Fang, C. and Linzell, D.G.**, “Numerical Simulation of RC Bridge Columns under Vehicle Collision and Explosion,” ASCE Structures Congress 2018, April 19-21, 2018, Fort Worth, TX.
10. **Rageh, A., Eftekhar Azam, S., and Linzell, D.G.**, “Automated Damage Detection in Floor System Bracing,” ASCE Structures Congress 2018, April 19-21, 2018, Fort Worth, TX.
11. **Eftekhar Azam, S., Rageh, A., Linzell, D. and Seibel, T.**, “Utilizing an Augmented Kalman Filter for Output-Only Response Prediction in a Steel Beam Excited by a Series of Moving Masses,” IMAC-XXXVI - Engineering Extremes: Unifying Concepts in Shock, Vibration and Nonlinear Mechanics. February 12-15, 2018, Orlando, FL USA.
12. **Rageh, A., Eftekhar Azam, S., and Linzell, D.G.**, “Nondestructive Fatigue Life Evaluation of Steel Railway Bridges,” presented at the AFF10(1) Subcommittee Meeting at the 2018 Transportation Research Board Annual Meeting, January, 2018.
13. **Linzell, D.G., Wood R.L., Wittich, C.E., Puckett, J.A., Steelman, J.A. and Zhu J.**, “Outdoor Laboratory: Platte River Bridges as a Testbed for Bridge Health,” presented at the AFF40 Committee Meeting at the 2018 Transportation Research Board Annual Meeting, January, 2018.
14. **Rageh, A., Khan, E. and Linzell, D.G.**, “Analytical Modeling and Field Testing Plan for a Railway Through-Truss,” ASCE Structures Congress 2017, April 6–8, 2017, Denver, Colorado, DOI: 10.13140/RG.2.2.16737.71527.
15. **Rageh, A., Khan, E. and Linzell, D.G.**, “Analytical Modeling and Field Testing Plan for a Railway Through-Truss,” ASCE Structures Congress 2017, April 6–8, 2017, Denver, Colorado, DOI: 10.13140/RG.2.2.16737.71527.
16. **Frankl, B.A. and Linzell, D.**, “Horizontal Curvature Influence on Shear in Steel Plate Girders,” Transportation Research Board 95th Annual Meeting, Washington D.C., January 2016.
17. **O’Hare, E.V., Linzell, D.G. and Rado, Z.**, “Streetscape Vehicular Anti-Ram (SVAR) System Development: An Integrated Experimental-Computational Approach,” Minisymposium 5.3: Numerical Modeling and Engineering Design for Impact and Blast Problems, 12th U.S. National Congress on Computational Mechanics, Raleigh, NC, July 22-25, 2013.
18. **O’Hare, E.V., Linzell, D.G. and Rado, Z.**, “Development of Shallow Foundation Streetscape Vehicular Anti-ram Systems through Modeling and Testing,” 83<sup>rd</sup> Shock and Vibration Symposium, New Orleans, LA, November 2012.
19. **Reese, L.D., Linzell, D.G. Qiu, T. and Rado, Z.**, “Development of Landscape Vehicular Anti-ram Systems using Computational and Experimental Methods,” 83<sup>rd</sup> Shock and Vibration Symposium, New Orleans, LA, November 2012.
20. **Veggeberg, K., Uzzolino, J.R. and Linzell, D.G.**, “Testing Anti-Ram Barrier Protection Systems at the Larson Institute Crash Safety Research Facility,” 83<sup>rd</sup> Shock and Vibration Symposium, New Orleans, LA, November 2012.

21. **O'Hare, E.V. and Linzell, D.G.**, "Computational Assessment of Steel-Jacketed Bridge Pier Column Performance under Blast Loads," 11th US National Congress on Computational Mechanics, Minneapolis, MN, July, 2011.
22. **Sharafbayani, M., Linzell, D.G. and Chen, C.-C.**, "Web Plumb Influence on Skewed I-girder, Steel Bridges during Construction," 6th New York City Bridge Conference, July, 2011.
23. **Chen, C.-C. and Linzell, D.G.**, "Finite Element Modeling of End Notched Flexure (ENF) Tests with Cohesive Elements to Establish Polyurea-Steel Bond Strength," 10<sup>th</sup> US National Congress on Computational Mechanics, Columbus, OH, July, 2009.
24. **Bennett, C.R., Lin, M., Swanson, J.A. and Linzell, D.G.**, "Experimental Verification of AASHTO-LRFD Distribution Factors for High Performance Steel Bridges," presented at the AFF20 Committee Meeting at the 2009 Transportation Research Board Annual Meeting, January, 2009.
25. **Linzell, D.G.**, "AASHTO/NSBA Steel Bridge Collaboration TG 13, Analysis of Steel Bridges, Update on Activities," Speaker at the AFF20 Committee Meeting of the 2007 Transportation Research Board Annual Meeting, January, 2007.
26. **Linzell, D.G.**, "AASHTO/NSBA Steel Bridge Collaboration TG 13, Analysis of Steel Bridges, Update on Activities," Speaker at the AFF20(1) Subcommittee Meeting of the 2007 Transportation Research Board Annual Meeting, January, 2007.
27. **Chen, C.-C., Alpman, E., Linzell, D.G. and Long, L.**, "Computational Studies of Polyurea Coated Steel Plate Under Blast Loads," Minisymposium of Computational Methods in Impact Engineering, 9th US National Congress on Computational Mechanics, San Francisco, CA, July, 2007.
28. **Linzell, D.G.** "Current Research Areas – Steel Bridges," ASCE Steel Bridges Committee Meeting, 2007 Structures Congress, Long Beach, CA, May, 2007.
29. **Long, L.N., Anderson, J.B., Linzell, D.G., Alpman, E., Chen, A.** "Computational and Experimental Characterization of Coating Materials for Blast Mitigation," 7th World Congress on Computational Mechanics (WCCM VII), Mini-Symposium: Prevention of Structural Collapse due to Blast and Impact Loads Generated by Terrorist Attacks, Los Angeles, CA, July 20, 21, 2006.
30. **Bennett, C.R., Swanson, J.A., and Linzell, D.G.** "Fatigue Characteristics of HPS-70W Connections," 51st Annual Structural Engineering Conference, The University of Kansas, Lawrence, KS, March, 2006.
31. **Linzell, D.G. and Maneetes, H.**, "The Effects of Cross Frame and Bracing Parameters on Dynamic Response of a Curved Steel Bridge," presented at the Bracing for Steel Bridges II – I-Girders session, 2005 ASCE Structures Congress, April, 2005.
32. **Kayser, C.R., Swanson, J.A. and Linzell, D.G.**, "Bolted and Welded Splice Connections Utilizing HPS-70W," presented at the AFH70 Committee Meeting at the 2005 Transportation Research Board Annual Meeting, January, 2005.
33. **Linzell, D.G.**, "Collarless Construction for DD(X) Hydrostatic Testing – PSU Data Overview," presented at the Collarless Construction Team Meeting, October 2004.
34. **Kayser, C.R., Swanson, J.A. and Linzell, D.G.**, "Response of Skewed HPS Bridge Girders to Live Loads," presented at the ASCE Compression and Flexural Members Committee Meeting, 2004 Structures Congress, May, 2004.

35. **Linzell, D.G., Nevling, D.L. and Laman, J.A.**, “Numerical Study of Curved Steel Bridge Response under Traffic Loads – Comparison to Field Data,” presented at the ASCE Steel Bridge Committee Meeting, 2004 Structures Congress, May, 2004.
36. **Linzell, D.**, “Curved Steel Bridges in the United States – Where We’ve Been, Where We’re At, Where We’re Going,” presented at the ASCE Central Pennsylvania Section Structures Meeting, March 2004.
37. **Linzell, D.G. and Swanson, J.A.**, “Numerical and Field Studies of a Semi-Integral Abutment, Skewed, HPS Bridge During Deck Placement,” invited speaker at the A2C02(1) presented at the Subcommittee Meeting of the 2004 Transportation Research Board Annual Meeting, January, 2004.
38. **Bennett, A.T., Linzell, D.G. and Laman, J.A.**, "Analysis of Lateral Bending and Torsional Stresses in a Skewed Composite Prestressed Bridge during Construction," presented at the 6<sup>th</sup> Annual Pennsylvania Transportation Institute Transportation Conference, Penn State University, July 16-17, 2003.
39. **DePolo, D.E., Linzell, D.G. and Laman, J.A.**, "Field and Numerical Evaluation of the Distribution of Warping Behavior in a Horizontally Curved I-Girder Bridge," presented at the 6<sup>th</sup> Annual Pennsylvania Transportation Institute Transportation Conference, Penn State University, July 16-17, 2003.
40. **Laman, J.A., Linzell, D.G., Leighty C.A. and Fennema, J.**, “Integral Abutment Bridges: Methodology to Predict Movement and Stresses,” presented at the A2C05 Committee Meeting at the 2003 Transportation Research Board Annual Meeting, January, 2003.
41. **Lobo, J.A. and Linzell, D.G.**, “Analysis of Steel Curved Girder Bridges with Geometric Imperfections,” presented at the A2C02(1) Subcommittee Meeting at the 2003 Transportation Research Board Annual Meeting, January.
42. **Kayser, C., Swanson, J.A. and Linzell, D.G.**, “High Performance Steel Bridge Girders: Verification of Performance and Design Criteria,” presented at the A2C02 Committee Meeting at the 2003 Transportation Research Board Annual Meeting, January, 2003.
43. **Laman, J.A. and Linzell, D.G.**, “Methodology to Predict Movement and Stresses in Integral Abutments,” *PennDOT Research Newsletter*, 2nd Ed., April-June 2002.
44. **Bell, B.J., Linzell, D.G. and Laman, J.A.**, "Behavioral Response of Horizontally Curved Plate Girder Bridges Under Construction Loads," presented at the 5<sup>th</sup> Annual Pennsylvania Transportation Institute Transportation Conference, Penn State University, July 24, 2002.
45. **Norton, E.K., Linzell, D.G. and Laman, J.A.**, "Response of a Skewed Composite Steel-Concrete Bridge Floor-System to Placement of the Deck Slab," presented at the 5<sup>th</sup> Annual Pennsylvania Transportation Institute Transportation Conference, Penn State University, July 24, 2002.
46. **Nevling, D.L., Linzell, D.G. and Laman, J.A.**, "Evaluation of Level of Analysis Methodologies for Horizontally Curved I-Girder Bridges Through Comparison with Measured Response of an In-Service Structure," presented at the 5<sup>th</sup> Annual Pennsylvania Transportation Institute Transportation Conference, Penn State University, July 24, 2002.
47. **Linzell, D.G.**, “Curved Steel Bridges in the United States – A Historical Perspective,” invited presented at the Intensive Course In Steel Bridge Engineering, SUNY-Buffalo, June, 2002.

48. **Linzell, D.G. and Laman, J.A.**, “PSU Curved Bridge Field Testing Research,” presented at the Curved Girder Bridge Project Meeting, FHWA TFHRC, February, 2002.
49. **Linzell, D.G. and Laman, J.A.**, “Evaluating and Monitoring Full-Scale Steel Bridge Response to Construction and Traffic Loads,” presented at the A2C02(1) Subcommittee Meeting of the 2002 Transportation Research Board Annual Meeting, January, 2002.
50. **Laman, J.A., Linzell, D.G., Leighty, C.A. and Fennema, J.**, “Integral Abutment Bridges: Methodology to Predict Movement and Stresses,” presented at the A2C05 Committee Meeting of the 2002 Transportation Research Board Annual Meeting, January, 2002.
51. **Linzell, D.G., Laman, J.A., Bell, B.J., Colon, J.C. and Lobo, J.A.**, “Prediction of Movement and Stresses in Curved and Skewed Bridges,” presented at the A2C05 Committee Meeting of the 2002 Transportation Research Board Annual Meeting, January, 2002.
52. **Linzell, D.G., Laman, J.A. and Nevling, D.L.**, “Evaluation of Level of Analysis Methodologies for Horizontally Curved I-Girder Bridges Through Comparison with Measured Response of an In-Service Structure,” presented at the A2C05 Committee Meeting of the 2002 Transportation Research Board Annual Meeting, January, 2002.
53. **Linzell, D.G. Nevling, D.L., Kollias, A.A. and Laman, J.A.**, “Experimental and Numerical Response of a 1915 Riveted Through-Girder Bridge,” presented at the 4<sup>th</sup> Annual Pennsylvania Transportation Institute Transportation Conference, Penn State University, July 19, 2001.
54. **Linzell, D.**, “Comparisons Between Measured Response and Analytical Predictions for Horizontally Curved Girders During Construction,” presented at the A2C02(1) Subcommittee Meeting of the 2001 Transportation Research Board Annual Meeting, January, 2001.
55. **Linzell, D.**, “Cost Effective High Performance Steel Short Span Bridge Designs,” presented at the Bridge Task Force Meeting at the AASHTO T-14 Committee Meeting, Sacramento, CA., August 9, 2000.
56. **Linzell, D.**, “High Performance Steel Design Options for Short Span Bridges,” presented at the Transportation Research Forum, Penn State University, August 2, 2000.
57. **Fritch, A. and Linzell, D.**, “The Use of High Performance Steel for Short Span Bridge Design in Pennsylvania,” presented at the 3<sup>rd</sup> Annual Pennsylvania Transportation Institute Transportation Conference, Penn State University, July 20, 2000.
58. **Linzell, D.**, “FHWA Curved Steel Bridge Research Project Erection Studies,” presented at the Research Council for Curved Bridges Meeting #5, Federal Highway Administration Turner-Fairbank Highway Research Center, Washington, D.C., October 1, 1999.
59. **Linzell, D., Zureick, A., Leon, R.T., and Grubb, M.**, “FHWA Experimental Studies of Curved Steel Bridge Behavior During Construction,” presented at the 2<sup>nd</sup> Annual Pennsylvania Transportation Institute Transportation Conference, Penn State University, July 29, 1999.
60. **Linzell, D., Zureick, A., and Leon, R. T.**, “FHWA Experimental Studies of Curved Steel Bridge Behavior During Construction,” presented at the 1999 ASCE Structures Congress: Structural Engineering in the 21st Century, April 1999.

**Invited Talks or Keynote Speeches**

1. **Linzell, D.G.** (2021), “Research is a BLAST in Nebraska. Our IMPACT? Improving Tools and Processes to Enhance Resiliency and Save Lives,” University of Massachusetts-Amherst, March 5.
2. **Linzell, D.G.** (2020), “Smart infrastructure – ongoing research related to economical and intelligent bridge health monitoring and damage detection,” American Council of Engineering Companies Nebraska Knowledge Network Session, May 20.
3. **Linzell, D.G., Alsaleem, F, Azam, S** (2019), “Bridges are Dumb – How Do We Make Them Smarter?,” Jordanian University of Science and Technology, Wednesday, November 13.
4. **Linzell, D.**, (2019), “Boom and Bang: Collapse, Impact and Blast Research at the University of Nebraska-Lincoln,” Pontificia Universidad Catolica de Chile, Thursday, May 16.
5. **Wood, R., Wittich, C., and Linzell, D.G.** (2018), “Cather & Pound Halls Demolition,” Thirty-Eighth Annual Structural Conference, Structural Engineers Association of Nebraska, Friday, September 21.
6. **Wood, R., Wittich, C., and Linzell, D.G.** (2018), “Implosion of Cather & Pound Halls: Research Findings,” 2018 AIA Nebraska Annual Conference, September 21, 2018.
7. **Linzell, D.G.** (2018), “YOU are our future...how can WE make you better in the future? Where could (should?) civil engineering education be headed?,” 2018 ASCE Region 3/6/7 Workshop for Section and Branch Leaders/Student Chapter Leaders, January 27.
8. **Linzell, D.G.** (2018), “Attracting the Younger Generation to Civil Engineering & Construction,” presented at the Nebraska Concrete Paving Association 39th Annual Concrete Paving Workshop, January 17.
9. **Linzell, D.G.** (2017), “The Future of Civil Engineering Education – One (Over-)Educated Person’s Perspective,” University of Nebraska Chi Epsilon Induction Ceremony, November 30.
10. **Linzell, D.G.** (2017), “Transportation Infrastructure Health Monitoring in the Big (Actually SMART) Data Age – Activities in the Heartland,” presented at the University of Houston, April 14.
11. **Linzell, D.G.** (2017), Welcome Address, 34th Annual Geotechnical Seminar, GEO-Omaha, February 10.
12. **Dingman, P., Traynowicz, M., Szerszen, M., and Linzell, D.G.** (2016), Press Conference Announcing Re-Opening of Bridge J-143, Lancaster County, Nebraska, December, 9.
13. **Linzell, D.G.** (2015), “Structural Engineering Research Focusing on Being “Passively Aggressive”, Studies Involving Bridges, Buildings and a Few Things In-Between,” presented at the Ohio State University, April 15.
14. **Linzell, D.G.** (2015), Welcome Address, 32nd Annual Geotechnical Seminar, GEO-Omaha, February 13.
15. **Linzell, D.G.** (2014), “More,” Commencement Address, UNL Graduate and Professional Degrees Ceremony, December.
16. **Mainstone, D., Linzell, D.G.** (2014), “Art Talk: Di Mainstone and Collaborators,” Bemis Center for Contemporary Arts, Omaha, October.

17. **Linzell, D.G.** (2014), “A Summary of Infrastructure Research Activities – from Bridges to Buildings with a Few Stops in Between,” presented at the Indian Institute of Technology, Delhi, February.
18. **Linzell, D.G.** (2014), “Aggressively Passive Structural Engineering Research, Bridges to Buildings and Some Things In-Between,” presented at the January lunch meeting of the Nebraska Society of Professional Engineers, January.
19. **Linzell, D.G. and Moen, C.** (2013), “Designing Members for Torsion,” 2013 North American Steel Construction Conference (NASCC), April.
20. **Linzell, D.G.** (2011), “Effective Skewed Bridge Practices,” 29th Annual International Bridge Conference Workshop 10, June.
21. **Linzell, D.G.** (2009), “PTC and ISERRT Collaborations,” University of North Carolina at Charlotte, November.
22. **Linzell, D.G.** (2008), “A.T.G 2020 Vision, Highway and Bridge,” DMJM-Harris, June.
23. **Linzell, D.G.** (2008), “State-of-the-Art Technological Developments in Concrete,” 31st Annual Penn State University Airport Conference Preconference Workshop, March.
24. **Linzell, D.G.** (2007), Penn State University College of Engineering Tablet PC Lunch Meeting, October.
25. **Linzell, D.G.** (2007), Johns Hopkins University Invited Seminar Series, October.
26. **Linzell, D.G.** (2006), NSBA SCEF Meeting, August.
27. **Linzell, D.G.** (2006), AASHTO/NSBA Symposium, March.
28. **Linzell, D.G.** (2005), Collarless Construction Workshop, Penn State Applied Research Lab, Naval Sea Systems Command, October.
29. **Linzell, D.G.** (2004), “Collarless Construction for DD(X) Hydrostatic Testing – PSU Data Overview,” presented at the Collarless Construction Team Meeting, October.
30. **Linzell, D.G.** (2004), “Collarless Construction for DD(X): Review of Hydrostatic Testing – PSU Data,” presented at the Collarless Construction Team Meeting, August.
31. **Martukanitz, R.T. and Linzell, D.G.** (2004), “Collarless Construction for DD(X): Program Review Prepared for the Leadership Integrated Program Team (LIPT),” presented at the LIPT Meeting, August.
32. **Linzell, D.G. and Swanson, J.A.** (2004), “Numerical and Field Studies of a Semi-Integral Abutment, Skewed, HPS Bridge During Deck Placement,” invited speaker at the A2C02(1) presented at the Subcommittee Meeting of the 2004 Transportation Research Board Annual Meeting, January.
33. **Linzell, D.G.** (2002), “Curved Steel Bridges in the United States – A Historical Perspective,” invited presented at the Intensive Course in Steel Bridge Engineering, SUNY-Buffalo, June 2002.
34. **Linzell, D.G.** (1999), “FHWA Curved Steel Bridge Research Project – Erection Studies,” Penn State Structure Seminar Series, October.



## **Datasets**

1. Linzell, Daniel. (2019). "Protecting Critical Civil Infrastructure Against Impact from Commercial Vehicles - Phase I Dataset." UNL Data Repository. Dataset. <https://doi.org/10.32873/unl.dr.20190809.1>.

## **Research Funding**

### **The University of Nebraska-Lincoln, Lincoln (Total Contract Amount Approx. \$5M):**

*(January 2022 – February 2023)*, "Protecting Critical Civil Infrastructure Against Impact from Commercial Vehicles, Phase III, A Systems Based Approach," Mid-American Transportation Research Center, U.S. Department of Transportation, \$185,904 (Principal Investigator)

*(October 2021 – December 2022)*, "Multilevel Analytics and Data Sharing for Operations Planning (MADS-OPP)," Subaward from the University of Nebraska-Lincoln-Omaha, Prime Sponsor: U.S. Army Corps of Engineers-ERDC, Award #W912HZ-20-BAA-01, \$1,392,384 (Principal Investigator)

*(July 2021 – May 2023)*, "Truck Platooning Effects on Girder Bridges – Phase 2," Nebraska Department of Transportation, Project SG-14, \$120,843 (Co-Principal Investigator)

*(July 2020 – December 2021)*, "Protecting Critical Civil Infrastructure Against Impact from Commercial Vehicles, Phase II, A Systems Based Approach," Mid-American Transportation Research Center, U.S. Department of Transportation, \$335,764 (Principal Investigator)

*(March 2020 – February 2023)*, "REU Site: Sustainability of Horizontal Civil Networks in Rural Areas," National Science Foundation, \$445,241 (Co-Principal Investigator)

*(August 2019 – September 2019)*, "Niobrara River Bridge Testing," Subaward from Bridge Diagnostics, Inc., Prime Sponsor: Nebraska Department of Transportation, \$10,000 (Principal Investigator)

*(July 2019 – March 2021)*, "Low-Cost Modal Identification Sensors for Bridge Field Testing," Nebraska Department of Transportation, Project SB-08, \$142,519 (Principal Investigator)

*(July 2019 – December 2020)*, "Truck Platooning Effects on Girder Bridges," Nebraska Department of Transportation, Project SPR-P1(20) M030, \$114,363 (Co-Principal Investigator)

*(July 2019 – December 2021)*, "Outdoor Laboratory and Testbed for Bridge Health," Nebraska Department of Transportation, Project SPR-P1(20) M030, \$115,074 (Co-Principal Investigator)

*(June 2019 – June 2022)*, "31-in. Midwest Guardrail System (MGS) and Curb Combination Guidelines for MASH TL-3," National Cooperative Highway Research Program, \$600,000 (Co-Principal Investigator)

*(February 2019 – December 2019)*, "Protecting Critical Civil Infrastructure Against Impact from Commercial Vehicles, Phase II," Mid-American Transportation Research Center, U.S. Department of Transportation, \$238,568 (Principal Investigator)

*(September 2018 – August 2022)*, "BD Spokes Medium: Midwest - Big Data Innovations for Bridge Health," Subaward from the University of Nebraska-Lincoln-Omaha, Prime Sponsor: The National Science Foundation, Award #1636805, \$476,933 (Co-Principal Investigator)

(June 2018 – March 2021), “Load Rating of Existing Continuous Stringers on Louisiana’s Bridges,” Louisiana Tech University, Prime Sponsor Louisiana State University-LTRC, \$81,945 (Principal Investigator)

(May 2018 – August 2019), “STTR: Non-Destructive Concrete Interrogator and Strength of Materials Correlator, Phase 1” Karagozian & Case Inc., Prime Sponsor STTR: Navy, \$81,893 (Co-Principal Investigator)

(January 2018 – June 2019), “Protecting Critical Civil Infrastructure Against Impact from Commercial Vehicles, Phase I,” Mid-American Transportation Research Center, U.S. Department of Transportation, \$121,906 (Principal Investigator)

(March 2017 – February 2020), “REU Site: Sustainability of Horizontal Civil Networks in Rural Areas,” National Science Foundation, \$352,698 (Co-Principal Investigator)

(September 2016 – August 2018), “BD Spokes Planning: Midwest - Big Data Innovations for Bridge Health,” Subaward from the University of Nebraska-Lincoln-Omaha, Prime Sponsor: The National Science Foundation, \$12,662 (Principal Investigator)

(July 2015 – October 2018), “Protocol to Evaluate and Load Rate Existing Bridges,” Supplemental Award, Nebraska Department of Transportation, \$18,924 (Principal Investigator)

(July 2015 – December 2016), “Steel Pin and Hanger Assembly Replacement Options,” Nebraska Department of Roads, \$20,257 (Principal Investigator)

(July 2013 – December 2014), “U.S. Department of State Master Cooperative Agreement No. S-DSASD-10-CA-202, Univ. of Nebraska Subaward,” The Pennsylvania State University, \$99,764 (Principal Investigator)

**Pennsylvania State University (Total Contract Amount Approx. \$10.5M):**

(July 2012 – July 2013), “Incremental Sheet Forming,” PSU Applied Research Lab/U.S. Navy, \$64,701. (Principal Investigator)

(January 2011 – May 2012), “Testing of Reinforced Concrete Beams,” U.S. Department of the Army (Phase II SBIR for Carlyle Consulting, LLC), \$119,559. (Principal Investigator)

(January 2011 – May 2012), “Technical Expertise for Reviewing Construction Plans and Actions for a Skewed Steel Bridge,” Creamer-Sanzari Joint Venture, \$30,797. (Principal Investigator)

(July 2010 – July 2015), “Research, Development, Testing and Evaluation (RDT&E) of Vehicle Anti-Ram Barriers,” Funding Opportunity Number DSPPSP-10-CA-WHA-052110, U.S. Department of State, Bureau of Diplomatic Security, Physical Security Division, Office of Physical Security Programs, \$6,976,672. (Co-Principal Investigator)

(July 2010 – July 2012), “The Impact of Marcellus Gas Development on the Rural Transportation Infrastructure,” PSU Marcellus Initiative for Outreach and Research, \$57,500. (Co-Principal Investigator)

(March 2010 – June 2010), “ARA Heavy Window Assembly Static Load Pressure Testing,” Applied Research Associates, \$66,671. (Principal Investigator)

(May 2009 – June 2010), “Static Load Pressure Testing,” Concurrent Technologies Corporation, \$139,391. (Principal Investigator)

(August 2007 – August 2010), “Guidelines for Analyzing Curved and Skewed Bridges and Designing Them for Construction,” Pennsylvania Department of Transportation, MAUTC, \$408,252. (Principal Investigator)

(May 2007 – September 2007), “Concurrent Technologies Purchase Order No. 070500311,” Concurrent Technologies Corporation, \$5,904. (Principal Investigator)

(June 2006 – December 2007), “Portable Sign Crash Test,” Pennsylvania Department of Transportation, MAUTC, \$169,400. (Co-Principal Investigator)

(November 2005 – December 2006), “Lascor Strength Testing,” Office of Naval Research (through PSU Applied Research Lab), \$100,000. (Principal Investigator)

(August 2005 – March 2009), “Computational Chemistry of Explosions, Blasts and their Neutralization,” Office of Naval Research, \$622,000. (Co-Principal Investigator)

(June 2005 – August 2006), “Prediction of Movement and Stresses in Curved and Skewed Bridges,” Pennsylvania Department of Transportation, \$123,787. (Principal Investigator)

(June 2005 – December 2005), “Evaluation Study of Algrip Slip Resistant Flooring Products,” Ross Technologies Corp., \$24,780. (Co-Principal Investigator)

(June 2005 – December 2005), “Collarless Construction Fatigue Testing,” Office of Naval Research (through PSU Applied Research Lab), \$71,837. (Principal Investigator)

(May 2005 – December 2005), “Dynamic Load Effects of Motorsport Vehicles: Phase I,” ClearChannel Communications, \$7,673. (Co-Principal Investigator)

(January 2004 – December 2004), “Laboratory Testing of SuperLoc™ Composite Sheetpiling, Winter 2004,” Creative Pultrusions, Inc., \$3,000. (Principal Investigator)

(September 2003 – December 2004), “Collarless Construction Instrumentation,” Office of Naval Research (through PSU Applied Research Lab), \$38,583. (Principal Investigator)

(August 2003 – October 2004), “Interstate 99 Interim Research Activities,” Pennsylvania Department of Transportation, \$410,671. (Co-Principal Investigator)

(May 2002 – November 2002), “Laboratory Testing of SuperLoc™ Composite Sheetpiling, Phase III” Creative Pultrusions, Inc., \$12,800. (Principal Investigator)

(September 2001 – September 2003), “Evaluation of Level of Analysis Methodologies for Horizontally Curved I-Girder Bridges Through Comparison with Measured Response of an In-Service Structure - Phase 2: Model Calibration, Field Testing, Analytical Study,” Professional Service Industries/FHWA, \$134,866. (Principal Investigator)

(September 2001 – August 2002), “Laboratory Testing of SuperLoc™ Composite Sheetpiling, Phase II” Creative Pultrusions, Inc., \$5,099. (Principal Investigator)

(July 2001 – September 2002), “Protective Technology Research, Development and Implementation in Support of DOD Force Protection Needs,” Department of Defense, \$177,360. (Co-Principal Investigator)

(May 2001 – November 2001), “McAlister Building Material Testing,” PSU OPP, \$3,800. (Principal Investigator)

(October 2000 – March 2003), “Prediction of Movement and Stresses in Curved and Skewed Bridges – Phase I,” Pennsylvania Department of Transportation, \$349,982. (Principal Investigator)

(October 2000 – March 2003), “Methodology to Predict Movement and Stresses in Integral Abutments – Phase I,” Pennsylvania Department of Transportation, \$375,574. (Co-Principal Investigator)

(October 2000 – October 2001), “Evaluation of Level of Analysis Methodologies for Horizontally Curved I-Girder Bridges through Comparison with Measured Response of an In-Service Structure - Phase 1: Literature Search, Definition of Analysis Methods, Preliminary Analysis,” Professional Service Industries/FHWA, \$38,369. (Principal Investigator)

(October 2000 – April 2001), “Laboratory Testing of SuperLoc™ Composite Sheetpiling,” Creative Pultrusions, Inc., \$10,000. (Principal Investigator)

(May 2000 – December 2000), “Field Monitoring of Bridge # 21, County of Chester, PA,” County of Chester, \$6,409. (Principal Investigator)

### **Teaching**

#### **Courses taught at the University of Nebraska-Lincoln:**

When the Levee Breaks  
Introduction to Bridge Engineering

#### **Courses taught at the Pennsylvania State University:**

Structural Analysis  
Matrix Structural Analysis  
Steel Design  
Senior Capstone Course in Structural Engineering  
Ancient and Medieval Structural Design (through PSU Architectural Engineering Dept.)  
Structural Analysis by Classical Methods (graduate course)  
Steel Bridge Systems (graduate course)  
Bridge Engineering I (graduate course)  
Bridge Engineering II (graduate course)  
Statically Indeterminate Structures (graduate course)  
Infrastructure Health Monitoring (graduate course)

#### **Courses taught at Tecnum:**

Laboratorio de Estructuras, Infrastructure Health Monitoring (InSHM)

**Courses taught at the Georgia Institute of Technology:**

Statics

Mechanics of Solids

***Graduate Students Supervised***

**Pennsylvania State University:**

Timothy Nicholson (M Eng, 2001), “McAlister Building Steel Coupon Testing.”

Hathairat Maneetes (MS, 2002), “The Effects of Cross Frames and Lateral Bracing on the Dynamic Response of Curved Steel I-Girder Bridges During Construction.”

Tapan Sabuwala (MS, 2002), “Finite Element Analysis of Steel Beam-to-Column Connections Subjected to Blast Loads.”

Tze-Wei Choo (M Eng, 2003), “The Response of a Continuous Skewed Steel Bridge Superstructure under Various Deck Placement Methods during Construction.”

Jose Colon (M Eng, 2003), “Finite Element Analysis of Lenticular Truss Bridges.”

John Lobo (MS, 2003), “Effects of Geometric Imperfections on Horizontally Curved Steel Girder Bridges.”

Panit Vanachayangkul (M Eng, 2003), “Effective Methods for Replication of Crossframe Stiffness in Bridge Grillage Models.”

Deanna Nevling (MS, 2003), “Evaluation of Level of Analysis Methodologies for Horizontally Curved I-Girder Bridge through Comparisons with Measured Response of an In-Service Structure.”

Bradley Bell (MS, 2004), “Effects of Erection Procedures on the Response of Horizontally Curved I-Girder Bridges.”

Aaron Bennett (MS, 2004), “Analysis of Lateral Bending and Torsional Stresses in a Skewed Composite Prestressed Concrete Bridge during Construction.”

David DePolo (MS 2004), “Evaluation of Lateral Flange Bending for a Horizontally Curved I-Girder Bridge.”

Amir Ahmad Hedayati (M Eng, 2004), “Comparison of Finite Element Modeling and Grillage Modeling of a Bridge Deck with Cross Bracings.”

Matthew Kostick (MS, Fall 2004), “Evaluation of Design Code Prestress Loss Prediction Methods for Use with Pennsylvania High Strength Concrete.”

Joseph Fleishmann (M Eng, Spring 2005), “A Study of the Effects of Changes in Unbraced Length on Bending and Warping Stress Distribution in a Horizontally Curved, Steel, I-Girder Bridge.”

Jason Shura (MS, Spring 2005), “The Effects of Horizontal Curvature on Warping during Construction of a Steel Plate Girder Bridge with Large Radii.”

Richard Myers, (M Eng, Fall 2007), “Kontek Barrier Evaluation”. (Co-supervised w/ A. Schokker)

Andrew Kubic, (M Eng, Fall 2007), “Simple Span Made Continuous Bridge Performance Evaluation”.

Andrew Coughlin, (MS, Summer 2008), “Contact Charge Blast Performance of Fiber Reinforced and Polyurea Coated Concrete Vehicle Barriers.” (Co- supervised w/ A. Schokker)

- Venkata Nadakuditi, (MS, Summer 2008), “Effects of Cross Frames and Diaphragms on Forced Excitation of a Horizontally Curved Steel I- Girder Bridge.”
- Deanna Nevling, (PhD, Fall 2008), “Development of Guidelines for Erection Procedures for Horizontally Curved Steel I-Girder Bridges through Analysis of a Parametric Group of Bridges.”
- Chien-Chung Chen, (PhD, Summer 2009), “A Study of Blast Effects on Elastomer Coated Steel Components.”
- Junwon Seo, (PhD, Summer 2009), “Seismic Fragility Curves of a Family of Curved Steel Bridges.”
- Lynsey Reese (MS, Summer 2009), “Critical Member Removal and Load Redistribution of Deteriorated Truss Bridges.”
- Gaby Issa-El-Khoury (PhD, Architectural Engineering, Summer 2010), “Optimization of Longitudinal Web Stiffener Location in Horizontally Curved Plate Girders.” (Co-supervised w/ L. Geschwindner)
- Omar Ashour (Integrated BS/MS, Fall 2010), “Effects of Replacing Cross Frames with Diaphragms on Curved Bridge Construction Response.”
- Edward O’Hare (MS, Summer 2011), “Computational Assessment of Steel-Jacketed Bridge Pier Column Performance under Blast Loads.”
- Shane Murphy (MS, Summer 2012), “Skewed Steel Bridge Cross-Frame Response to Truck Loading.”
- Mohammad Sharafbayani, (PhD, Fall 2012), “Evaluation of Bracing Systems in Horizontally Curved Steel I-Girder Bridges”
- Chris Noveral (Integrated BS/MS, Summer 2013), “Investigation of a Basic HSS Connection for Load Sharing in Anti-Ram Vehicle Barriers.”
- Scott Kinney (MS, Summer 2013), “Assessment of Load Sharing Members in an Anti-Ram Bollard System Subjected to Vehicle Impacts.”
- Kendra Jones (MS, Summer 2013), “Blast Response of Polyurea Coated Stone Cladding.”
- Edward O’Hare (PhD Summer 2015 - Co- Advisor Doctoral Committee Special Member) “Behavior of Concrete-Filled Tube Through-Beam Connections Subjected to Varying Load Rates.”
- Tanit Jaissa-Ard (PhD Summer 2015 - Co- Advisor Doctoral Committee Special Member) “Statistically-Based Air Blast Load Factors Based on Imprecise Parameter Statistics for Reinforced Concrete Wall.”
- Lynsey Reese (PhD Fall 2015 - Co- Advisor Doctoral Committee Special Member) “Experimental Testing and Numerical Modeling of Geomaterials Interacting with Rigid Bodies Under Impact Loading.”

**University of Nebraska-Lincoln:**

- Chandana Balakrishna (MS, Summer 2018), “Examination of Steel Pin and Hanger Options - Retrofit to Replacement.”
- Ahmed Rageh (MS Spring 2018), “Optimized Health Monitoring Plans For a Steel, Double-Track Railway Bridge.”
- Bernard Frankl (PhD, Summer 2017) “Buckling and Shear Capacity of Horizontally Curved Steel Plate Girders.”
- Nicole Jaber (Non-Thesis MS, Summer 2014).
- Kevin Williams (Non-Thesis MS, Summer 2014).
- Corbin Mundt (Non-Thesis MS, Fall 2014).

Ahmed Rageh (PhD Summer 2020), “Riveted Steel Railway Bridge Health Monitoring and Damage Detection.”

Chen Fang (PhD Summer 2020), “Structural Resilience and Hardening of Bridge Piers and Pier Columns against Vehicle Collision and Blast Loads.”

Emmanuel Akintunde (PhD expected Spring 2022), “Bridge Fatigue Prognosis using Long term Monitoring Data.”

Qusai Alomari (PhD expected Spring 2023), “Protecting Critical Civil Infrastructure Against Impact from Commercial Vehicles - A Systems Based Approach.”

### ***Undergraduate Honors Students Supervised***

#### **Pennsylvania State University:**

Victoria Christini (BSCE, 2003)

Nathan Myers (BSCE, 2004)

Nicholas Cervo (BSCE, 2006)

Daniel Reynolds (BSCE 2009)

Tyler Goodman (BSCE 2013)

### ***Undergraduate NSF REU Students Supervised***

#### **University of Nebraska-Lincoln:**

Iliana Gonzalez, Swarthmore College, Summer 2022.

Erica West, Hanover University, Summer 2020, Summer 2021.

Guadalupe Reyes, University of the Pacific, Summer 2019.

Samantha Lopez, University of Texas-Rio Grande Valley, Summer 2018.

Trey Seibel, Nebraska Wesleyan University, Summer 2017.

Samuel Lozano, Oregon Institute of Technology, Summer 2016.

### ***Undergraduate Research Supervised***

#### **University of Nebraska-Lincoln:**

Murtaza Nalwala, Fall 2016-Spring 2018, UCare.

### ***Post-Doctoral Researchers***

#### **University of Nebraska-Lincoln:**

Dr. Roya Nasmi, Spring 2022 – present.

Dr. Samira Ardani, Spring 2020 – present

Dr. Yashar Eftekhari Azam, Spring 2017- Summer 2020.

Dr. Easa Khan, Summer 2015 - Summer 2016.

**Pennsylvania State University:**

Dr. Jason Sanchez (DTRA Fellow Faculty Mentor), Spring 2010 – Fall 2012.

Dr. Chien-Chung Chen, Fall 2009 – Fall 2010.

***Visiting Scholars***

**University of Nebraska-Lincoln:**

Dr. Guochang Li, Shenyang Jianzhu University, January 2018- May 2018.

**Pennsylvania State University:**

Dr. Guochang Li, Shenyang Jianzhu University, January 2018- May 2018.

Dr. Sanghun Lee, Tohoku Gakuin University, March 2011 – May 2012.

Jian Xia, Fujian Academy of Building Research, September 2010 – March 2011.

Dr. Song Zhensen, Shanghai-Jiaotong University, Fall 2009 – February 2011.

***University Committee/Advisory Activities***

**The University of Nebraska-Lincoln:**

*Department of Civil Engineering*

Co-Chair, ABET Ad-Hoc Committee, Fall 2016-Spring 2017.

Chair, Social Events Committee, Fall 2014 - Spring 2016.

Chair, Undergraduate Advising Committee, Fall 2015 – Spring 2016.

Co-Chair, Undergraduate Advising Committee, Fall 2014-Spring 2015

*College of Engineering*

Complete Engineer Executive Board, Spring 2021 – present.

Executive Council, Member, Spring 2020 – present.

Building Planning Steering Committee, Member, Fall 2016 – Spring 2020.

Durham School Director Search Committee, Co-Chair, Fall 2014-Spring 2015

*University of Nebraska-Lincoln*

Assistant Vice Chancellor for Digital and Online Learning, Search Committee Chair, 2022-present.

Education Abroad Advisory Committee, Member, Fall 2020 – present.

Graduate Studies Advisory Board, Member Fall 2020-present.



Global Strategy Committee, Member, Spring 2020 – Fall 2020.

The Nebraska Commission of 150 Executive Steering Committee, Member, Spring 2018-Spring 2019.

The Nebraska Commission of 150 Economic Development and Innovation Subcommittee, Member, Spring 2018-Spring 2019.

Dean's Search Committee, Fall 2017-Spring 2018.

Task Force on Professional Conduct, Spring 2017-2020.

Water Sciences Laboratory Advisory Board, Fall 2016-Fall 2018.

Department Executive Officer Advisory Committee, Fall 2015-Fall 2018

Committee on Institutional Cooperation's Academic Leadership Program, Fellow, 2014-2015.

Committee on Institutional Cooperation's Department Executive Officers Seminar Participant, 2013-2014.

**Pennsylvania State University:**

Civil and Environmental Engineering Department Surcharge Committee, Member, Fall 1999-Summer 2001.

Civil and Environmental Engineering Department Laboratory Committee, Member, Fall 2000-Summer 2001.

Civil and Environmental Engineering Department Budget Committee, Member, Spring 2001-Summer 2001.

Civil and Environmental Engineering Department Surcharge and Laboratory Committee, Member, Fall 2001 – Fall 2002.

Civil and Environmental Engineering Department Engineering Open House Committee, Chair, Fall 2001- Fall 2002.

Civil and Environmental Engineering Department Surcharge and Laboratory Committee, Chair, Fall 2002 – Fall 2005.

Civil and Environmental Engineering Department Structures Laboratory Coordinator, Fall 1999-Spring 2004.

Civil and Environmental Engineering Department Spend-An-Engineering Day Department Representative, Spring 2000-Summer 2001.

Civil and Environmental Engineering Department Engineering Open House Faculty Co-Chair, Fall 2000-Summer 2001.

Civil and Environmental Engineering Department Graduate Committee, Member, Fall 2004 – Summer 2005.

Civil and Environmental Engineering Department ASCE/AISC Student Steel Bridge Co-Advisor, Fall 1999 – Fall 2001.

Civil and Environmental Engineering Department ASCE/AISC Student Steel Bridge Advisor, Fall 2001 – Fall 2007.

Civil and Environmental Engineering Department ASCE Student Chapter Advisor, Fall 2004 – Fall 2007.

Civil and Environmental Engineering Department Cato Park Laboratory Coordinating Committee, Member, Fall 2003 – Summer 2005

Civil and Environmental Engineering Department Promotion and Tenure Committee, Member, Fall 2005 – Spring 2008.

Civil and Environmental Engineering Department Civil Infrastructure Testing and Evaluation Laboratory (CITEL) Coordinating Committee, Chair, Fall 2005 – Summer 2008.

Civil and Environmental Engineering Department Group Coordinating Committee, Member, Fall 2005 – Summer 2008.

Civil and Environmental Engineering Department Research Strategies, Opportunities and Issues Committee, Member, Fall 2010 – Summer 2011.

Civil and Environmental Engineering Department Research Strategies, Opportunities and Issues Committee, Chair, Fall 2011– present.

College of Engineering Faculty Advisory Council, Member, Spring 2011 – Spring 2013.

College of Engineering Faculty Advisory Council, Chair, Undergraduate Studies Committee, Fall 2012 – Spring 2013.

Pennsylvania Transportation Institute Marketing Innovation Group (MIG), Fall 2003 – Spring 2013.

Faculty Search Committee, Department of Architectural Engineering, Member, Fall 2004 – Spring 2005.

Thomas D. Larson Pennsylvania Transportation Institute, Transportation Infrastructure Program (TIP), Director, Fall 2005- Summer 2006, Fall 2006-Summer 2008.

Civil and Environmental Engineering, Director, Protective Technology Center, Summer 2009 – Summer 2013.

Pennsylvania State University, Member, Homeland Security Coordination Council, Summer 2009 – Summer 2013.

## **Outreach**

### **Conference leadership:**

*ASCE Education Summit*: Co-chair, May 28–30, 2019, Dallas TX.

### **Professional committee activities:**

*Engineering Change Lab – USA*: Board of Direction, member, 2018-present; Steering Committee, Member, 2017-present.

*Nebraska Board of Engineers and Architects*: Member, 2015-2016.

### **Technical committee activities:**

*AASHTO/NSBA Steel Bridge Collaboration*: Task Group 13 - Analysis of Steel Bridges, Member, 2007-present.

*American Iron and Steel Institute*: Bridge Task Force, Member, 1999-2001; Design Advisory Group, Member, 2001-2005.

*American Society of Civil Engineers (ASCE)*: Body of Knowledge 3 Task Committee, Corresponding Member, 2017-2018; Bridge and Tunnel Security Committee, Member, 2009-2010; Civil Engineering Education Summit Working Group, Member, 2020-present; Committee on Accreditation, Corresponding Member, 2018-present; Committee on Student Conferences and Competitions, Member, 2019-present; Committee on Composite Construction, Member, 2006-2012; Committee on Compression and Flexural Members, Member, 2001-2007; Committee on Compression and Flexural Members, Secretary, 2002-2003; Committee on Compression and Flexural Members, Chair, 2003-2007; Department Heads Coordinating Council, Secretary, 2017-2019; Department Heads Coordinating Council, Member, 2015-2019; Future World Vision Use Case Working Group, 2020; Innovation Contest, Co-Chair, 2021-present; Steel Bridge Committee, Member, 2000-2005; Steel Bridge Committee, Secretary, 2005, 2007; Steel Bridge Committee, Chair, 2009-2013; Student Competitions Task Committee, Member, 2018-2019; Technical Administrative Committee on Metals, Member, 2003-2007; Technical Administrative Committee on Bridges, Member, 2009-2013.

*ASCE Structural Engineering Institute*: Committee on Reform of Structural Engineering Education (CROSEE2), Member, 2020-present, Chair 2021-present.

*Structures Stability Research Council*: Chair, 2021-present; Vice-Chair, 2018-2021; Executive Committee, Member, 2016-present; Task Group 14: Horizontally Curved Girders, Member, 2000-2007; Task Group 14: Horizontally Curved Girders, Chair, 2007-2010; Task Group 4: Steel Bridges, Chair, 2010-2016; Task Group 4: Steel Bridges, Member, 2016-present.

*Transportation Research Board*: Committee AFF20/AKB20: Steel Bridges, Member, 2017-present, 2005-2014; Subcommittee AFF20(1)/AKB20(1): Methods of Analyzing Steel Bridges, Member, 2000-2007, 2015-present; Subcommittee AFF20(1): Methods of Analyzing Steel Bridges, Secretary, 2007-2011; Subcommittee AFF20(1): Methods of Analyzing Steel Bridges, Chair, 2011-2014.

### **Journal editorship:**

*Special Issue on Field Testing of Bridges and Buildings, ASCE Journal of Structural Engineering*, v141, 2014, Co-Editor.

*Memoria de Trabajos de Difusión Científica y Técnica (Journal of Scientific and Technical Publishing)*, University of Montevideo, Editorial Board (2012 – Present).

*The Open Construction and Building Technology Journal*, Editorial Board, 2007-present.

*ASCE Journal of Bridge Engineering*, Associate Editor, 2002-2006.

### **Journal paper reviews:**

*ASCE Journal of Bridge Engineering, ASCE Journal of Composites for Construction, ASCE Journal of Structural Engineering, Computer-Aided Civil and Infrastructure Engineering, Composite Construction in Steel and Concrete VI, Earthquake Spectra, Engineering Structures, International Journal for Computational Methods in Engineering Science & Mechanics, Journal of Bridge Structures, Journal of Constructional Steel Research, Journal of the Transportation Research Board, Steel and Composite Structures, Structural Engineering International, Structural Engineering and Mechanics, Structural Health Monitoring.*

### **Books edited:**

Ziemian, R.D. (Ed.) (2010), *Guide to Stability Criteria for Metal Structures*, John Wiley and Sons, Revisions and Updates to Ch. 6, Plate Girders.

**Books reviewed:**

13 reviews of full texts. Text proposals reviewed for various publishers.

**External Proposals Reviewed:**

University of Delaware University Transportation Center (UDUTC) 2011 Proposal Review:  
“Investigation of Load Path Redundancy in Aging Steel Bridges – Phase 2,” Righman-McConnell, J.

West Virginia University Senate Grant for Research and Scholarship 2010 Proposal Review:  
“Redundancy Assessment of Steel Truss Bridges,” Barth, K.

University Transportation Research Center (City College Of New York) 2010 Proposal Review:  
“Analyzing Damage of Cast-iron Subway Tunnels Subject to Internal Blast Loading,” Liu, H.

University of Delaware University Transportation Center (UDUTC) 2010 Proposal Review:  
“Investigation of Load Path Redundancy in Aging Steel Bridges,” Righman-McConnell, J.

West Virginia University Senate Grant for Research or Scholarship 2002-2003 Proposal Review:  
“Evaluation of Positive Moment Ductility in Composite Steel Bridge Girders,” Barth, K.

South Carolina Research Initiative Grant Proposal Review: “Rapid Assessment Techniques for Bridge Structures,” Gassman, S., Petrou, M., Harries, K. and Pierce, C.

**Research Proposal Review Panels:**

National Science Foundation: Fall 2006, Spring 2011; Fall 2020

**Short Courses:**

Nebraska Department of Transportation: “Bridge Engineering Training Course,” D. Linzell, G. Morcous, J Puckett

**Awards Received**

**Pennsylvania State University:**

Penn State Engineering Society (PSES) *2005 Outstanding Advising Award.*

**American Society of Civil Engineers:**

ASCE Committee on Student Activities *2006 Faculty Advisor Certificate of Commendation.*

ASCE Committee on Student Activities *2007 Faculty Advisor Certificate of Commendation.*

ASCE, Fall 2010, *Elected as Fellow.*

ASCE Structural Engineering Institute, Fall 2018, *Elected as Fellow.*