Curriculum Vitae

Mojdeh A. Pajouh, Ph.D., P.E.

Assistant Professor
Texas State University
Ingram School of Engineering
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Email: mpajouh@txstate.edu

EDUCATION HISTORY

Texas A&M University, College Station, TX
Ph.D. in Civil Engineering, Geotechnical Engineering (Dec. 2015)
Dissertation: *Experimental and Numerical Investigation of Impact Loads on Group of Piles*
Advisor: Dr. Jean-Louis Briaud

Tehran Polytechnic, Tehran, Iran
M.Sc. in Civil Engineering, Structural-Earthquake Engineering (Dec. 2009)

EMPLOYMENT HISTORY

- Assistant Professor, Texas State University, Ingram School of Engineering, August 2025 - Present
- Research Assistant Professor, University of Nebraska-Lincoln, Department of Civil and Environmental Engineering, January 2020 - July 2025
- Assistant Professor, University of Nevada, Las Vegas, Department of Civil and Environmental Engineering and Construction, August 2018 - December 2019
- Post-Doctoral Research Associate, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, December 2015 - August 2018
- Lecturer, Texas A&M University, Department of Civil Engineering, January 2015 - May 2015

RESEARCH INTERESTS

- Design, Evaluation, and Development of Infrastructure Systems under Extreme Loads
- Component Level and Large-Scale Testing of Geo-Structure Systems
- Transportation Safety, Design of Roadside Safety Hardware & Infrastructure Security Research
- Computational Geomecahnics and Numerical Simulation of Crash Events
- Educational Engineering and Culturally Responsive Teaching

RESEARCH FUNDING RECORD

- **NCHRP 17-105: MASH Crashworthiness of Luminaire Poles**, Awarded by *National Cooperative Highway Research Program*, [September 2023 - June 2026, $600,000, PI]
- **NCHRP 22-43: Proposed AASHTO Guidelines for Implementation of MASH for Sign Supports, Breakaway Poles, and Work Zone Traffic Control Devices**, Awarded by *National Cooperative Highway Research Program*, [August 2020 - May 2023, $500,000, PI]
- **Collaborative Research: We are thriving: Challenging negative discourse through voices of women in project teams**, Awarded by *National Science Foundation*, Award #2015909, [September 2020 - August 2023, $100,845, PI]

- **Advancement of Gender Equity in Transportation Safety, Design, Development, and Evaluation of Roadside Safety Hardware, Phase I and II**, Awarded by *Mid-America Transportation Center*, [August 2023 - December 2025, $170,000, PI]
- **NCHRP 22-51, Impact of Soil Stiffness on the Performance of Crash Testing and Roadside Safety**, Awarded by *National Cooperative Highway Research Program*, [September 2023 - September 2025, $105,000, Co-PI]
- **NCHRP 22-55: Implementation of MASH Surrogate Test Vehicles for Sign Supports, Breakaway Poles, and Work Zone Traffic Control Devices**, Awarded by *National Cooperative Highway Research Program*, [August 2022 - October 2026, $750,000, Co-PI]
- **NCHRP 03-119: Application of MASH Test Criteria to Breakaway Sign and Luminaire Supports and Crashworthy Work-Zone Traffic Control Devices**, Awarded by *National Cooperative Highway Research Program*, [August 2021 - April 2025, $415,000, Co-PI]
- **Evaluation of Light Pole Foundation Embedment**, Awarded by *Alaska Department of Transportation and Public Facility* [April 2020 – June 2023, $248,261, Co-PI]
- **Crashworthy Foundations for Soil-Embedded Roadside Safety Hardware**, Awarded by *Mid-America Transportation Center* [September 2020 – February 2022, $122,152, Co-PI]
- **Development of New Generation of Portable Concrete Barriers**, Awarded by *Mid-America Transportation Center*, [April 2020 - December 2021, $119,819, PI]
- **Enhancing Critical Transitions in Undergraduate Civil Engineering Education**, Awarded by *National Science Foundation*, Award #1928409, [October 2019 – October 2024, $2,483,977, Co-PI]
- **MASH Testing of Single Sign Supports - Phase II**, Awarded by *Florida Department of Transportation*, [April 2024 - June 2027, $750,000, Co-PI]
- **Evaluation of Temporary Traffic Control Devices (TTCD) in the National Transportation Product Evaluation Program**, Awarded by *American Association of State Highway & Transportation Officials AASHTO*, [July 2023 - July 2025, $316,333, Co-PI]
- **Guidance for MGS Installed Adjacent to Steep Slopes at Variable Offsets – Phase I**, Awarded by *Wisconsin Department of Transportation*, [October 2023 - October 2026, $239,647, Co-PI]
- **Design and Evaluation of Vehicle Side-Impact Testing Setup**, Awarded by *Layman Seed Funds*, [August 2021 - July 2022, $10,000, PI]
- **Midwest State Pooled Fund Roadside Safety Program FY2024**, Awarded by *21 State DOTs*, [October 2023 - October 2026, $1,515,000, Co-PI]
- **Crash Testing of Various Bridge Guardrails, Transitions, and Other Highway Safety Features - Phase III**, Awarded by *Hawaii Dept of Transportation*, [January 2021 – December 2024, $2,369,485, Co-PI]
- **MASH Testing of Single Sign Supports - Phase I**, Awarded by *Florida Department of Transportation*, [July 2019 - June 2023, $750,000, Co-PI]
- **Midwest State Pooled Fund Roadside Safety Program FY2023**, Awarded by *21 State DOTs*, [October 2022 - October 2025, $1,365,000, Co-PI]
- **Crash Testing of Various Bridge Guardrails, Transitions, and Other Highway Safety Features - Phase II**, Awarded by *Hawaii Dept of Transportation*, [January 2020 – April 2022, $2,100,000, Co-PI]

- **Approach Guardrail Transition Retrofit to Existing Concrete Parapets and Bridges**, Awarded by *Nebraska Department of Transportation*, [May 2023 – December 2023, $25,929, Co-PI]
- **MASH 2016 TL-3 Design and Evaluation of the Indiana F-Shape PCB in Free-Standing, Asphalt Anchored Configurations, and Transitions**, Awarded by *Indiana Department of Transportation*, [January 2022 – December 2026, $530,131, co-PI]
- **Midwest State Pooled Fund Roadside Safety Program FY2022**, Awarded by *21 State DOTs*, [October 2021 - October 2024, $1,365,000, Co-PI]
- **NCHRP 22-43: Determination of Zone of Intrusion Envelopes under MASH Impact Conditions for Rigid Barrier**, Awarded by *National Cooperative Highway Research Program (NCHRP)* [July 2018 – July 2021, $400,000, Co-PI]
- **FY-2021 Midwest Pooled Fund Program Year 30**, Awarded by *Midwest Pooled Fund State DOTs* [October 2020 – October 2023, $1,350,000, Co-PI]
- **New York State DOT Transition between Box-Beam & W-Beam Guide Rail under AASHTO MASH 2016 TL-3 Guidelines**.Awarded by *New York State Department of Transportation*, [October 2017 - July 2021, $236,626, Co-PI]
- **Testing Non-Proprietary Devices to MASH 2016 Criteria**, Awarded by *Iowa Department of Transportation and the Smart Work-Zone Deployment Initiative* Iowa State University [May 2017 - April 2018, $63,811, Co-PI]

RESEARCH AWARDS

- **Nominee for 2025 College of Engineering Edgerton Rising Faculty Award**, Nominated for recognition of contribution to public safety and national safety standards.
- **Gold Star Employee Recognition Award**, Midwest Roadside Safety Facility, 4th Quarter 2022, For dedicated service toward demonstrating highest professional practices for MwRSF's research & testing program and notable achievement in wrapping up Hawaii DOT project final reports and FHWA letters at Year-End.
- **Best Paper Award**, TRB AKD20 Committee on Roadside Safety, *Development, Crash Testing, and Evaluation of Steel-Post, Trailing-End, Guardrail Anchorage System*, Pajouh, M. A., Lechtenberg, K.A., Faller, R.K., Yosef, T., Presented at the 2021 Annual TRB Meeting.
- **2021 Recognition of Grit and Glory**, College of Engineering, University of Nebraska-Lincoln, April 2021– For rising to the challenge during the pandemic.
- **College of Engineering Excellence in Research Award**, University of Nebraska-Lincoln, November 2020.
- **Nominee for Outstanding Postdoc Award**, University of Nebraska–Lincoln, Nebraska, September 2017.
- **Academic Excellence Award**, Texas A&M University, two consecutive years 2014 and 2015.
- **USUCGER Grant**, the United States Universities Council on Geotechnical Education and Research, International Foundation Conference and Equipment Expo (IFCEE) 2015.
- **SIAWE Scholarship**, Society of Women for Education, Texas A&M University, August 2014.

RESEARCH FEATURED IN NEWS

- MATC Project Advancement of Gender Equity in Transportation Safety, Design, Development, and Evaluation of Roadside Safety Hardware https://www.1011now.com, Female Drivers Safety Senator Deb Fischer reintroduces bill to use female dummies in vehicle safety testing.
- Development, Crash Testing, and Evaluation of Portable Concrete Barriers Gap-Spanning Hardware Nebraska Today

PUBLICATIONS RECORD

Book

B1 **Pajouh, M. A.**, Bielenberg, R., Faller, R., Stolle, C., Fang, C., Ruskamp, R., and Kan, C. D. S., (2024) Guidelines for Evaluating Crashworthiness of Sign Supports and Breakaway Luminaire Poles NCHRP Research Report, (1123).

Peer-Reviewed Journal Publications

J16 Steelman, J., **Pajouh, M. A.**, Fang, C., Yosef, T. Y., Stolle, C., and Faller, R. K., "Impact Behavior of Alaska Breakaway Luminaire Poles with Frangible Couplings to Foundations in Weak Soils" (2025). *Transportation Research Record*, No. TRBAM-25-04663, Accepted, In print.

J15 Stolle, C., **Pajouh, M. A.**, Pafford, K., Iwuoha, J., and Lechtenberg, K. "Evaluation of Run-off-Road Crashes Involving Battery-Electric Vehicles" (2024). *Transportation Research Record*, https://doi.org/10.1177/03611981241255.

J14 **Pajouh, M. A.**, Lechtenberg, K. A., Faller, R. K., Rosenbaugh, S., and Bielenberg, R. "Evaluation of the Hawaii modified Delaware retrofit thrie-beam bridge railing and approach guardrail transition" (2024). *Transportation Research Record*, https://doi.org/10.1177/0361198123117192.

J13 Yosef, T. Y., Fang, C., Faller, R., Kim, S., Bielenberg, R., Stolle, C., and **Pajouh, M. A.**, "Adaptive coupling of FEM and SPH method for simulating dynamic post-soil interaction under impact loading" (2024). *Advances in Engineering Software*, https://doi.org/10.1016/j.advengsoft.2024.103707.

J12 **Pajouh, M. A.**, Lechtenberg, K., Faller, R., Rosenbaugh, S., and Bielenberg, R., "Evaluation of Hawaii Modified Delaware Retrofit Thrie-Beam Bridge Railing and Approach Guardrail Transition" (2023). *Journal of the Transportation Research Board*, https://doi.org/10.1177/03611981231171920.

J11 Ruskamp, R. J., **Pajouh, M. A.** ., Bielenberg, R. W., Rosenbaugh, S. K., and Faller, R. K. (2022). Development, Crash Testing, and Evaluation of Portable Concrete Barriers Gap-Spanning Hardware. *Journal of the Transportation Research Board*.

J10 **Pajouh, M. A.**., Rosenbaugh, S., and Faller, R. (2022). Development and Evaluation of Top-Mounted Sockets for Weak-Post, Midwest Guardrail System on Culverts. *Journal of the Transportation Research Board*, 03611981221089296.

J9 **Pajouh, M. A.**, Lechtenberg, K.A., Faller, R.K., Yosef, T. (2021) Development, Crash Testing, and Evaluation of Steel-Post, Trailing-End, Guardrail Anchorage System, *Journal of the Transportation Research Board*, No. TRBAM-21-04171.(Received TRB AKD20 Best Paper Award)

J8 **Pajouh, M. A.**, Bielenberg, R.W., Rasmussen, J.D., and Faller, R.K. (2020) Crash Testing and Evaluation of Culvert-Mounted Midwest Guardrail System, *Journal of the Transportation Research Board*, DOI: 10.1177/0361198120921168.

J7 Bielenberg, R.W., Schmidt, J.D., Faller, R.K., **Pajouh, M. A.**, Reid, J. D., and Emerson, E. (2019) Development of Retrofit, Low-Deflection Portable Concrete Barrier System, *Journal of Transportation Safety and Security*, DOI: 10.1080/19439962.2017.1420717.

J6 **Pajouh, M. A.**, Schmidt, J.D., Bielenberg, R.W., Faller, R.K., Reid, J. D., and Emerson, E. (2018) Development of a Transition between Free-Standing and Reduced-Deflection Portable Concrete Barriers. *Journal of Transportation Research Board*, No. 18-05516.

J5 **Pajouh, M. A.**, Briaud, J. L., Lim, S. G., and Mirdamadi, A. (2017). Dynamic Response of In-Line Pile Groups Subjected to Vehicle Impact. *ASCE Journal of Geotechnical and Geoenvironmental Engineering*, 143(7), 04017024.

J4 **Pajouh, M. A.**, Ramen, J.D., Stolle, C.S., Reid, J. D., and Faller, R.K. (2017). Rail Height Effects on Safety Performance of Midwest Guardrail System. *Journal of Traffic Injury Prevention.* Taylor & Francis, DOI: 10.1080/15389588.2017.1353687.

J3 **Pajouh, M. A.**, Bielenberg, R.W., Schmidt J., Faller, R.K. (2017). Safe Placement of Breakaway Luminaire Poles behind Midwest Guardrail System. *International Journal of Crashworthiness.* DOI: 10.1080/13588265.2017.1359367.

J2 **Pajouh, M. A.**, Schmidt J.D., Meyer, C.L., Lechtenberg, K.A., Faller, R.K. (2017). Crash Reconstruction Technique for Cable Barrier Systems. *Journal of Transportation Safety and Security.* DOI:10.1080/19439962.2017.1386251.

J1 Mirhosseini, S.M., **Pajouh, M. A.** (2012). A Comparative Study on Equivalent Linear and Fully Nonlinear Site Response Analysis. *Arabian Journal of Geosciences.* Vol. 5, Issue 4, pp 587-597.

Peer-Reviewed Conference Proceedings

C18 Yosef, T.Y., Fang, C., Steelman, J.S., Faller, R.K., and **Pajouh, M. A.** (2025) "Optimizing Luminaire Pole Foundation Designs with Hybrid FEM+ALE Impact Simulations" *ASCE Geotechnical Frontiers 2025, Soil Dynamics and Earthquake Engineering.*

C17 LYosef, T.Y., **Pajouh, M. A.**, Bielenberg, R.W., and Faller, R.K. (2024) "Impact performance evaluation of W-beam guardrail systems for low-fill culverts application" *IRF R2T Conference and Exhibition*, December 10–13, Orlando, FL, USA.

C16 Liang, G.J., Evans, R., **Pajouh, M. A.**, Kulesza S.E., and Evans, A.G., (2023) "A Qualitative Study of Undergraduate Women in Engineering Project Teams" *ASEE Annual Conference & Exposition.*

C15 **Pajouh, M. A.**, Yosef, T. Y., Bielenberg, R.W., and Faller, R. K.(2023) "Soil-Embedded Guardrail Post Modeling under Vehicle Impacts" *ASCE Geo-Congress 2023, American Society of Civil Engineers*, pp. 151-162.

C14 Redmond, K., Panther, G., **Pajouh, M. A.** ,Evans, R., Kulesza, S., and Liang, G. (2022) "We Are Thriving: Increasing the Number of Women in Engineering" *ASEE Annual Conference & Exposition*, Minneapolis, MN.

C13 Lechtenberg, K.A., Faller, R. K., Rasmussen, J. D., and **Pajouh, M. A.** (2021) "Safety performance evaluation of a non-proprietary type III barricade for use in work zones" *International Road Federation World Meeting & Exhibition*, pp. 868-878.

C12 Evans, R., Liang, J.G., **Pajouh, M. A.**, and Kulesza, S., (2021) "Women Thriving in Engineering: Listening to and learning from women who flourish in undergraduate engineering project teams" *IEEE Frontiers in Education Conference (FIE)*, Lincoln, NE.

C11 **Pajouh, M. A.**, Lechtenberg, K.A., Bielenberg, R.W., and Faller, R.K., (2019) "Pile Design for Use in High-Tension Cable Median Barriers" *ASCE 8th International Conference on Case Histories in Geotechnical Engineering, Geo-Congress 2019*, pp. 33-41.

C10 **Pajouh, M. A.**, Mirdamadi, A., Seok Gyu, L., Briaud J.L. (2018) "Protection of Civil Infrastructure against Extreme Vehicle Crashes" *ASCE International Foundation Conference and Equipment Expo IFCEE 2018.*

C9 **Pajouh, M. A.** Schmidt, J.D., Bielenberg, R.W., Reid, J. D., and Faller, R.K. Simplified Soil-Pile Interaction Modeling under Impact Loading. *Proceedings of 5th Geotechnical Earthquake Engineering and Soil Dynamics Conference, ASCE GEESDV 2018*, June 2018.

C8 **Pajouh, M. A.**, and Briaud J.L. (2017). Reliability Analysis of TAMU-POST: a Tool for Analysis of Vehicle Impact on In-line Pile Group. *Proceedings of 6th International Symposium on Geotechnical Safety and Risk, ASCE GeoRisk 2017*, pp. 598-608.

C7 **Pajouh, M. A.**, Reid, J. D., Bielenberg, R.W., Schmidt, J.D., and Faller, R.K. (2017). Pole Placement near The Midwest Guardrail System. *Proceedings of ASME International Mechanical Engineering Congress and Exposition IMECE2017.*

C6 **Pajouh, M. A.**, Stolle C.S., Reid, J.D., Faller, R.K., and Emerson, E. (2017). An Initial Investigation into Traversability of Rock Ditch Liners. Transportation Research Circular Number E-C220, *First International Roadside Safety Conference*, TRB AFB20 Committee on Roadside Safety Design, Transportation Research Board, June 2017, ISSN 0097-8515.

C5 **Pajouh, M. A.**, Stolle C.S., Weiland N., Reid, J.D., and Faller, R.K. (2017). MGS Dynamic Deflections and Working Widths at Lower Speeds. Transportation Research Circular Number E-C220, *First International Roadside Safety Conference*, TRB AFB20 Committee on Roadside Safety Design, Transportation Research Board, June 2017.

C4 Faller, R.K., Rosenbaugh S., Bielenberg, R.W., Lechtenberg, K.A., Holloway, J., Stolle C.S., Schmidt, J.D., Reid, J.D., and **Pajouh, M. A.** (2017). Investigation and Mitigation of Post Penetration into Floorpan of 1100C Small Cars. Transportation Research Circular Number E-C220, *First International Roadside Safety*, TRB AFB20 Committee on Roadside Safety Design, Transportation Research Board, June 2017, ISSN 0097-8515.

C3 **Pajouh, M. A.**, Briaud J.L., Alberson D. and Arrington D. (2015). Full Scale Crash Test on a Group of Piles in Clay. *Proceedings of ASCE International Foundation Conference and Equipment Expo., IFCEE 2015*, pp. 1132-1141, DOI: 10.1061/9780784479087.101.

C2 **Pajouh, M. A.**, Lim S.G. and Mirdamadi A. (2014). Full-Scale Impact Test and Numerical Simulation of Truck against Group of Piles. *Proceedings of ASCE GeoCongress: Geo-Characterization and Modeling for Sustainability*, pp 1750-1760, DOI:10.1061/9780784413272.172.

C1 Briaud J.L., Mirdamadi A., and **Pajouh, M. A.**, (2014). Modeling Single Piles under Lateral Impact. *International Conference on Geotechnical Engineering, Soil-Structure Interaction Underground Structures and Retaining Walls*, Saint Petersburg, Russia.

Research Project Reports

R22 **Pajouh, M. A.**, Bielenberg, R.W, Faller, R.K., Stolle C., Fang, C., Ruskamp, R., Rajaee, M., Marzoughi, D., Tahan, F., and Kan, S., "Guidelines for Evaluating Crashworthiness of Sign Supports and Breakaway Luminaire Poles", *NCHRP Research Report*, Issue 1123, 2024.

R21 Yosef, T., **Pajouh, M. A.**, Bielenberg, and Faller, R.K., "Evaluation of Midwest Guardrail System with Reduced Embedment and Reduced Post Spacing for Low-Fill Culverts and Other

Applications", Report to Midwest Pooled Fund Program, Transportation Research Report No. TRP 03-468-23, Midwest Roadside Safety Facility, University of Nebraska Lincoln, Lincoln, Nebraska, April 24, 2023.

R20 **Pajouh, M. A.**, Habib, Z., Kumar, G. S., Lechtenberg, K.A., Faller, R.K., Urbank, E. L., Rosenbaugh, S.K., and Bielenberg, R.W, "MASH TL-3 Evaluation of Transition to Hawaii Modified Delaware Retrofit Thrie-beam Bridge Rail", *Report to Mid-America Transportation Center, US DOT*, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2022.

R19 Bielenberg, R.W, Lingenfelter, J. L., Stolle C., Ruskamp, R., **Pajouh, M. A.**, Faller, R.K., and Stolle, C., Development of a New, MASH 2016 TL-3 Portable Barrier System: Phase I, *Report to Mid-America Transportation Center, US DOT*, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2022.

R18 Storf, C., **Pajouh, M. A.**, Lechtenberg, K.A., Faller, R.K., Urbank E., and Revell J., "Crash Testing and Evaluation of the Hawaii Modified Delaware Retrofit Thrie-beam Bridge Rail on Sidewalk: MASH Tests No. 3-10 and 3-11, *Report to Hawaii Department of Transportation*, Research Report No. TRP 03-448-21, Research Project No. STP-1500(092)-Phase II, Midwest Roadside Safety Facility, University of Nebraska Lincoln, Nebraska, November 12, 2021.

R17 Ranjha S.A., **Pajouh, M. A.**, Bielenberg, R.W, Rosenbaugh, S.K., Faller, R.K., Development of a PCB Steel Cover Plate for Large Open Joints – Phase I, *Report to Midwest States Pooled Fund Program*, Transportation Report No. TRP-03-387a-21, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2021.

R16 Yosef, T.Y., Lechtenberg, K.A., **Pajouh, M. A.**, Faller, R.K., Steel Post Version of Trailing-End Anchorage System – Phase I, *Report to Midwest States Pooled Fund Program*, Transportation Report No. TRP-03-370a-20, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2021.

R15 Lechtenberg, K.A., **Pajouh, M. A.**, Lingenfelter, J.L., Faller, R.K., Holloway J.C. MASH Evaluation of the Steel-Post, Trailing-End Anchorage System, *Report to Midwest States Pooled Fund Program*, Transportation Report No. TRP-03-370b-20, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2021.

R14 **Pajouh, M. A.**, Bielenberg, R.W, Rasmussen, J.D., Bai F., Faller, R.K., Holloway J.C., Dynamic Testing and Evaluation of Culvert-Mounted, Strong-Post MGS to TL-3 Guidelines of MASH 2016, Report to Midwest States Pooled Fund Program Nebraska Department of Roads, Transportation Report No. TRP-03-383-20-R1, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2020.

R13 Rasmussen, J. D., Flores J., **Pajouh, M. A.**, Faller, R.K., and Lechtenberg, K.A., "MASH 2016 Evaluation of a Non-Proprietary Type III Barricade: MASH Test Designation No. 3-72", Transportation Research Report No. TRP 03-468-23, Midwest Roadside Safety Facility, University of Nebraska Lincoln, Lincoln, Nebraska, 2020.

R12 Lechtenberg, K.A., Faller, R.K., Stolle, C., **Pajouh, M. A.**, and Urbank, E. L., "Design and Evaluation of Sleeve Nut through Tensile Testing", Report to Midwest States Pooled Fund Program, Transportation Report No. TRP-03-419-19, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2019.

R11 **Pajouh, M. A.**, Lechtenberg, K.A., Faller, R.K., Holloway, J., and Bielenberg, R.W, "Design of Closed-Section Post For Use in a Non-Proprietary High-Tension Cable Median Barrier", Report to Midwest States Pooled Fund Program, Transportation Report No. TRP-03-380-19, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2019.

R10 **Pajouh, M. A.**, Lechtenberg, K.A., Faller, R.K., Holloway J.C., Bielenberg, R.W, Rosenbaugh, S.K., and Reid, J.D., MASH Test No. 3-10 of a Non-Proprietary, High-Tension, Cable Median Barrier for Use in 6H:1V V-Ditch (Test No. MWP-9), *Report to Midwest States Pooled Fund Program*, Transportation Report No. TRP-03-360-18, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2018.

R9 Schmidt, J., Langel, T., Asselin, N., **Pajouh, M. A.**, Faller, R., MASH 2016 Evaluation of a Non-Proprietary Type III Barricade, *Report to Smart Work Zone Deployment Initiative*, University of Nebraska-Lincoln, Nebraska, 2018.

R8 **Pajouh, M. A.**, Bielenberg, R.W., Schmidt, J., Lingenfelter, J.L., Faller, R.K., and Reid, J.D., Placement of Breakaway Light Poles Located Directly Behind Barrier, *Report to Illinois Tollway*, Transportation Report No. TRP-03-361-17, University of Nebraska-Lincoln, Nebraska, 2017.

R7 **Pajouh, M. A.**, Reid, J.D., Stolle, C.S., and Faller, R.K., Phase II: Vehicle Dynamics Testing of Rock Ditch Liners, *Report to Wisconsin Department of Transportation*, Transportation Report No. TRP-03-364-17, University of Nebraska-Lincoln, Nebraska, 2017.

R6 **Pajouh, M. A.**, Schmidt, J.D.,Bielenberg, R.W., and Faller, R.K., Development of a Transition Between Free-Standing and Reduced Deflection Portable Concrete Barriers, *Report to Wisconsin Department of Transportation*, Report No. TRP-03-366-17, University of

R5 Rosenbaugh, S.K., **Pajouh, M. A.**, Bielenberg, R.W., Faller, R.K., and Schmidt, J.D., Development of Top-Mounted Socket for Weak-Post Guardrail on Culverts, *Report to Nebraska Department of Roads*, Transportation Report No. TRP-03-386-17, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2017.

R4 Meyer, D.T., **Pajouh, M. A.**, Lechtenberg, K.A., Faller, R.K., Bielenberg, R.W., Holloway, J.C., and Rosenbaugh, S.K., Phase II Evaluation of Floorpan Tearing for Cable Barrier Systems, *Report to Midwest States Pooled Fund Program Nebraska Department of Roads*, Transportation Report No. TRP-03-359-17, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2017.

R3 Ammon, T.J., **Pajouh, M. A.**, Lechtenberg, K.A., Faller, R.K., Bielenberg, R.W., Rosenbaugh, S.K., and Reid, J.D.., MASH Test No. 3-10 of a Non-Proprietary, High-Tension, Cable Median Barrier for Use in 6H:1V V-Ditch (Test No. MWP-8), *Report to Midwest States Pooled Fund Program Nebraska Department of Roads*, Transportation Report No. TRP-03-360-17, Midwest Roadside Safety Facility, UNL, Lincoln, Nebraska, 2017.

R2 **Pajouh, M. A.**, Briaud J.L., Mirdamadi, A. Simple Analysis of Any Vehicle Impact on Any Post in Any Soil. *Report to the U.S. Department of State*, Texas A&M Transportation Institute, College Station, Texas, 2015.

R1 **Pajouh, M. A.**, Briaud J.L., Mirdamadi, A. TAMU-POST: A Program for Analysis of Any Vehicle Impact on Any Post in Any Soil: User's Manual for Group of Posts. *Report to the U.S. Department of State*, Texas A&M Transportation Institute, College Station, Texas, 2015.

TEACHING/MENTORING EXPERIENCE

Instructor - UNLV Undergraduate Courses

- CEE 334 - Soil Mechanics, Spring 2019, Evaluation score: 4.55/5.0, Department score: 4.19
- CEE 334L - Soil Mechanics Laboratory, Spring 2019

Instructor - UNLV Graduate Courses

- CEE 734 - Advanced Soil Mechanic, Fall 2018, Score: 4.77/5.0, Department score: 4.28
- CEE 736 - Earth Slopes, Fall 2019, Score: 4.93/5.0, Department score: 4.34

Instructor - Texas A&M University, Undergraduate Course
- CVEN 305 - Mechanics of Materials, Number of students: 90, Evaluation score: 4.4/5.0

Undergraduate/Graduate Students & Postdoctoral Researchers Mentoring
University of Nebraska–Lincoln
- Postdoctoral Research Associate, Qusai Alomari, Ph.D., Supervisor, August 2024 - Present
- Postdoctoral Research Associate, Chen Fang, Ph.D., Supervisor, May 2021 - August 2024
- Postdoctoral Research Associate, Tewodros Yosef, Ph.D., Supervisor, May 2021 - August 2024
- MSc Student, Riley Ruskamp, advisor, Graduated May 2023
- MSc Student, Jacob Conway, advisor, Graduated May 2024
- MSc Student, Mohammadreza Rajaiee, advisor, To be graduated May 2025
- MSc Student, Sabrina Moore, advisor, Graduated May 2020
- BSc Student, Samuel Whitney, Research Supervisor, Spring, Summer, and Fall 2022
- BSc Student, Gnyarienn Kumar, Research Supervisor, Fall 2022
- BSc Student, Caleb Osmond, Research Supervisor, Fall 2022
- BSc Student, Jada Iwoua, Research Supervisor, UNL NSF REU student, Summer 2023

University of Nevada, Las Vegas
- MSc Student, Sabrina Moore, advisor, Graduated May 2020
- Ph.D. student, Visar Farhangi, co-advisor

Served as Member of Committee
- UNL, MSc Student, Sam Hovde, Graduated May 2021
- UNL, MSc Student, Nathan Dowler, Graduated Summer 2021
- UNL, MSc Student, Andy E. Loken, Graduated Fall 2020
- UNL, MSc Student, Jared Duren, Graduated Summer 2021
- UNL, PhD Student, Andy E. Loken, Graduated Summer 2023
- UNL, PhD Student, Qusai Alomari, Graduated Summer 2023
- UNL, MSc Student, Russel Masterson, Graduated Spring 2023
- UNL, MSc Student, Rodrigo Quintero Paez, Graduate Summer 2023
- UNL, MSc Student, Mahfuza Rahman Doreen, To be graduated Fall 2024
- UNLV, PhD Student, Shaimaa Ali Abd El Haleem, Fall 2018
- UNLV, PhD Student, Negasi Gebremichael, Soring 2019

Teaching Training

- ASCE ExCEEd Teaching Workshop Graduate, University of Nebraska-Lincoln, June 2019
- Received Graduate Teaching Academy Certificate, Center of Teaching Excellence, Texas A&M University Fall 2014
- Selected to participate in STEM Faculty Launch Program, Worcester Polytechnic Institute (WPI), Boston, MI. Sept. 2015
- Participated in National Science Foundation (NSF) Workshop, Career Development from Senior Undergraduates to Navigating Assistant Professorship, University of Houston 2015
- Reviewed Program of Undergraduate Creative Activities and Research Experiences 2016-17

PROFESSIONAL PRESENTATIONS

Invited Talks

- **Pajouh, M. A.**, Lechtenberg, K.A., Faller, R.K., and Reid J.D. Development, Crash Testing, and Evaluation of Steel-Post, Trailing-End, Guardrail Anchorage System, American Traffic Safety Services Association (ATSSA), January 2021.

- **Pajouh, M.A.**, Update on NCHRP 03-119 Application of MASH Test Criteria to Breakaway Sign and Luminaire Supports and Crashworthy Work-Zone Traffic Control Devices, Presented at the Transportation Research Board AFB20 Committee on Roadside Safety Design Summer Meeting and Workshop, Session: MASH Updates and Implementation Session, August 2020.

- **Pajouh, M. A.**, Bielenberg, R.W., Schmidt, J.D., Faller, R.K., and Reid J.D. "Safe Placement of Luminaire Poles behind Guardrails", Annual Meeting of the Transportation Research Board AFB20 Committee on Roadside Safety Design, Washington DC, January 2018.

- **Pajouh, M. A.**, Bielenberg, R.W., Schmidt, J.D., and Faller, R.K., "FEA Investigation into Safe Placement of Luminaire Poles behind Midwest Guardrail System." Summer Meeting of the Transportation Research Board AFB20 Committee on Roadside Safety Design, Baltimore, MD, June 2016.

Conference Presentations

- **Pajouh, M.A.**, Yosef, T.4, Bielenberg, R.W., and Faller, R.K., Soil-Embedded Guardrail Post Modeling under Vehicle Impacts, presented at ASCE Geo-Congress 2023, Los Angeles, CA, March 2023.

- **Pajouh, M.A.**, Lechtenberg, K.A., Faller, R.K., Rosenbaugh, S.K., and Bielenberg, R.W., Evaluation of the Hawaii Modified Delaware Retrofit Thrie-Beam Bridge Railing and Approach Guardrail Transition, Presented at the Transportation Research Board 2023 Annual Meeting, Lectern Session 4010: Roadside Barrier System Development, Washington D.C., January 11, 2023.

- **Pajouh, M.A.**, Fang, Ch., Ruskamp, R., Faller, R.K., Marzoughi, D., and Bielenberg, R.W., Investigation of MASH Crashworthiness for Breakaway Luminaire Poles Supported with TB1-17 Transformer Bases, Presented at the Transportation Research Board 2023 Annual Meeting, Poster No. TRBAM-23-03714, Washington D.C., January 9, 2023.

- **Pajouh, M.A.**, Bielenberg, R.W., Rasmussen, J.D. and Faller, R.K., Development, Crash Testing, and Evaluation of Portable Concrete Barriers Gap-Spanning Hardware, Presented at the Transportation Research Board 2020 Annual Meeting, Session 1207: Advances in Roadside Safety Design, Washington D.C., January 11, 2022.

- **Pajouh, M.A.**, Lechtenberg, K.A., Faller, R.K., Yosef, T., Development, Crash Testing, and Evaluation of Steel-Post, Trailing-End, Guardrail Anchorage System, Paper No. TRBAM-21-04171, Accepted for Presentation at the 2021 100th Annual Meeting of the Transportation Research Board, ***Best Paper Award*** - TRB AKD20 Committee on Roadside Safety Design, Transportation Research Board, Washington, D.C., January 2021.

- **Pajouh, M.A.**, Crash Testing and Evaluation of Culvert-Mounted Midwest Guardrail System, Presented at the Transportation Research Board 2020 Annual Meeting, Session 1747: Design and Analysis of Roadside Barrier Systems, Washington D.C., January 15, 2020.

- **Pajouh, M. A.**, Schmidt, J.D., Bielenberg, R.W., Faller, R.K., Pile design for use in high-tension cable median barriers. *Geo-Congress 2019*, Philadelphia, PA, March 2019.

- **Pajouh, M. A.**, Schmidt, J.D., Bielenberg, R.W., Faller, R.K., Vehicle Impact Zone of Intrusion on Rigid Barriers. *IRF Global R2T Conference & Exhibition* , Las Vegas, NV, November 2018.

- **Pajouh, M. A.**, Schmidt, J.D., Bielenberg, R.W., Faller, R.K., Reid, J. D., and Emerson, E. Development of a Transition between Free-Standing and Reduced-Deflection Portable Concrete Barriers. *Transportation Research Board*, Washington DC, January 2018.

- **Pajouh, M. A.**, Reid, J. D., Bielenberg, R.W., Schmidt, J.D., and Faller, R.K. Pole Placement near The Midwest Guardrail System. *ASME International Mechanical Engineering Congress and Exposition IMECE2017*, Tampa Florida, November 2017.

- **Pajouh, M. A.**, and Briaud J.L. Reliability Analysis of TAMU-POST: a Tool for Analysis of Vehicle Impact on In-line Pile Group. *ASCE GeoRisk2017, 6^{th} International Symposium on Geotechnical Safety and Risk*, Denver, Co. June 2017.

- **Pajouh, M. A.**, Stolle C.S., Reid, J.D., Faller, R.K., and Emerson, E. An Initial Investigation into Traversability of Rock Ditch Liners. *First International Roadside Safety Conference (IRSC)*, San Francisco, California, June 2017.

- **Pajouh, M. A.**, Stolle C.S., Weiland N., Reid, J.D., and Faller, R.K. MGS Dynamic Deflections and Working Widths at Lower Speeds. *First International Roadside Safety Conference (IRSC)*, San Francisco, California, June 2017.

- **Pajouh, M. A.**, Julin, R., Stolle, C.S., Reid, J.D., and Faller, R.K., Maximum Mounting Height for Midwest Guardrail System (MGS), TRB AFB20 Committee on Roadside Safety Design, *Transportation Research Board*, Washington D.C., January 2017.

- **Pajouh, M. A.**, Briaud J.L., Alberson D. and Arrington D. Full Scale Crash Test on a Group of Piles in Clay. *ASCE International Foundation Conference and Equipment Expo. IFCEE 2015*, San Antonio, TX, March 2015.

- **Pajouh, M. A.**, Lim S.G. and Mirdamadi A. Full-Scale Impact Test and Numerical Simulation of a Truck against a Group of Piles.*GeoCongress: Geo-Characterization and Modeling for Sustainability*, Atlanta, GA, February 2014.

SERVICE, OUTREACH, AND PROFESSIONAL ACTIVITIES

Professional Licensure

Licensed Professional Engineer in the State of Texas (PE 128243), April 2017

Service and Leadership

- National Service, Panel Member, NCHRP 22-50 Crashworthiness of Roadside Hardware (2021 - Present)

- National Service, Transportation Research Board Committee AKB20, Culverts, Buried Bridges, and Soil-Structure Interaction, Committee Member and Research Coordinator (2025 - 2028)

- National Service, Transportation Research Board Committee AKG20, Geotechnical Site Characterization, Committee Member (2017 - 2021)

- National Service, Committee Member – ASCE Geo-Institute Committee on Computational Geotechnics, November 2019 – present

- National Service, Planning Committee member, 2024 IRSC International Roadside Safety Conference, Florida

- UNL, Diversity, Equity, and Inclusion Committee, Civil and Environmental Engineering Department, August 2021 – present.

- Search Committee for Research Assistant Professor, Midwest Roadside Safety Facility, Civil and Environmental Engineering Department, May 2023-December 2023.

- UNL, Institute for International Teaching Assistants, Evaluation panel member, August 2017

- UNL, Undergraduate Creative Activities and Research Experiences (UCARE), 2017-2018 School Year, Selection Committee
- UNL, Search Committee for Research Engineer, Midwest Roadside Safety Facility, Civil and Environmental Engineering Department, August 2021.
- UNL, Communication and Outreach Committee, Civil and Environmental Engineering Department, member, January – August 2021
- Search Committee for Research Engineer, Midwest Roadside Safety Facility, Civil and Environmental Engineering Department, May 2021-August 2021.
- UNL, Nebraska Summer Research Symposium, Final Evaluation and Judge, August 2021
- UNLV, Fundamentals of Engineering Preparation Review, Lecturer (2018 – Present)
- UNLV, CEEC Structural Engineering Faculty Search Committee, Member (2019)
- UNLV, CEEC Transportation Engineering Faculty Search Committee, Member (2019)
- UNL, Postdoc Advisory Council, Chair (2017 – Present)
- TAMU, Geo-Institute, President (2014-2015)
- TAMU, Society for Underwater Technology, Board Member (2013 – 2014)

Editorship and Review of Journal Papers

– Journal of Earth Sciences and Geotechnical Engineering, Member of Editorial Board (2017- Present)

– Journal of Geotechnical and Transportation Engineering, Member of Editorial Board (2019 - Present)

– Journal of Architectural Design and Construction Technology, Member of Editorial Board (2019 - Present)

– Journal of Transportation Research Board (Average 2 reviews per year)

– International Journal of Crashworthiness (Average 1 review per year)

– Journal of Geotechnical and Transportation Engineering (Average 1 review per year)

– International Journal of Geotechnical Engineering- Springer (2 reviews in 2020)

– Journal of the Earthquake Engineering and Engineering Vibration - Springer (1 review in 2021 and one 1 review in 2020)

– Journal of the Traffic Injury Prevention - Taylor and Francis (1 review in 2019)

Reviewer of Conference Papers

– GeoRisk Conference, International Symposium on Geotechnical Safety and Risk

– International Roadside Safety Conference IRSC-2017, TRB AFB20 Committee on Roadside Safety Design, Transportation Research Board

– International Foundation Conference and Equipment Expo. IFCEE 2018 Conference

Service Awards and Recognition

– Geo-Institute Organizational Member Council Grant, awarded by Geo-Institute

– Graduate Council Student Grant, Zachry Department of Civil Engineering, Texas A&M University, 2014

– Graduate Climate Award by Dwight Look College of Engineering, Texas A&M University, 2014

CONSULTING/INDUSTRY EXPERIENCE

- Civil Engineer, Shaloodeh-Khak Consulting Engineering Company, Tehran, Iran (Feb. 2009 – June 2010)
  - Seismic retrofitting of a 25-story reinforced concrete building, located in Tehran
  - Geotechnical site characterization and site response analyses for a number of projects
  - Retrofitting of masonry school buildings, Province of Kerman, Iran
- Intern, Sharif Industrial Research Institute, Tehran, Iran (June 2006 – Aug. 2006)

Professional Training

- Participated in Advanced LS-DYNA for Civil Engineering Training Class, Livermore Software Technology Corporation (LSTC), August 2023
- Participated in Faculty Success Program (FSP) Summer 2023 offered by the National Center for Faculty Development & Diversity.
- Participated in Kansas Geological Survey Training Short Course: Multichannel Analysis of Surface Waves (MASW) method, Lawrance, KS, September 2019.
- Participated in an LS-DYNA Introductory Training Class, A Short Course Taught by Livermore Software Technology Corporation (LSTC), July 2016.
- Participated in SciComm 2016 - Science Communication Symposium and Broader Impacts Workshop, University of Nebraska–Lincoln, Sept. 2016
- Participated in an ASCE Short Course, Geophysical Methods for Geotechnical Site Characterization, Geocongress: Geo-Characterization and Modeling for Sustainability February 2014, Atlanta, GA.
- Participated in the COMSOL Multiphysics & Application Builder Workshop, University of Nebraska–Lincoln, April 2016.
- Participated in NURAMP Workshop Series, Proposal Writing and Research Management Program, Office of Research and Economic Development, University of Nebraska–Lincoln, 2016.

Professional Membership

- ASCE – Geo Institute – American Society of Civil Engineers
- ASME - American Society of Mechanical Engineers
- SWE – Society of Women Engineers and WE – Women in Engineering
- ASEE – American Society of Engineering Education
- ISSMGE – International Society for Soil Mechanics and Geotechnical Engineering
- ISI – Institute for Sustainable Infrastructure
- EERI – Earthquake Engineering Research Institute