SHIDEH DASHTI, Ph.D.
Professor & Associate Chair for Administration
Department of Civil, Environmental, and Architectural Engineering
College of Engineering and Applied Science
University of Colorado Boulder (CU)

1111 Engineering Drive, 428 UCB, ECOT 514 Boulder, CO 80309-0428 USA
Email: shideh.dashti@colorado.edu

Academic Background

University of California at Berkeley	Civil/Geotechnical Engineering	PhD	2009
University of California at Berkeley	Civil/Geotechnical Engineering	MS	2005
Cornell University	Civil and Environmental Engineering	BS	2004

Professional History

Professor, Civil, Environmental, and Architectural Eng., CU, Boulder, CO *08/2025-Present*

Associate Chair for Administration, Civil, Environmental, and Architectural Eng., University of Colorado Boulder (CU), Boulder, CO *07/2023-Present*

Acting Associate Dean for Research, College of Engineering and Applied Science, CU, Boulder, CO *05/2022-07/2023*

Associate Professor, Civil, Environmental, and Architectural Eng., CU, Boulder, CO *06/2018-08/2025*

Visiting Professor (on sabbatical) at ETH-Zurich, Switzerland *01/2019-09/2019*

Assistant Professor, Civil, Environmental, and Architectural Eng., CU, Boulder, CO *2011-2018*

Shideh Dashti joined the faculty of Civil, Environmental, and Architectural Engineering (CEAE) at the University of Colorado Boulder (CU) in January 2011. Her research is at the intersection of disaster resilience, environmental sustainability, and environmental justice, with specific projects spanning dynamic physical and numerical modeling, performance-based design of soil-structure systems, resilience and adaptation of geotechnical infrastructure to seismic hazards and climatic extremes, underground structures in urban settings, seismic and multi-hazard soil-structure interaction, liquefaction consequences and mitigation under single or compound seismic-climatic hazards, extreme events reconnaissance, and characterization of hazard and vulnerability for extreme-risk communities (e.g., the incarcerated). She served as the director of the *Geotechnical Centrifuge Facility* 2015-2022, co-director of the *Center for Infrastructure, Energy, and Space Testing* at CU 2017-2022, and director of the college supported Interdisciplinary Research Theme (IRT) *RISE: Resilient Infrastructure with Sustainability and Equity* since 2020.

Postdoctoral Scholar, University of California at Berkeley, Berkeley, CA *2009-2010*

Dashti served as the lead post-doctoral scholar and project manager of a USGS funded research project titled "iShake: using cell phones as seismic sensors during earthquakes," for 9 months at UC Berkeley. This research included planning and performing of 1-D and 3-D shaking table tests at the UC San Diego and UC Berkeley earthquake testing facilities. She also performed fully-coupled nonlinear dynamic simulations of building performance on liquefiable ground using FLAC, validated with centrifuge experimental results.

Doctoral Researcher, University of California at Berkeley, Berkeley, CA *2006-2009*

Doctoral research: "NEESR-II: Towards Developing an Engineering Procedure for Evaluating Building Performance on Softened Ground," PI: Prof. Jonathan Bray, funded by NSF. Dashti performed a series of four centrifuge experiments at the NEES facility at UC Davis Center for Geotechnical Modeling (CGM), during which she led teams of professionals, student researchers, and faculty at CGM.

Geotechnical Engineer, Bechtel National, Inc., San Francisco, CA *2005-2006*

After completing her M.S. degree and before pursuing Ph.D., Dashti joined Bechtel's Geotechnical group, where she worked on several engineering projects in the US and around the world: she performed numerical analyses on the Bay

Area Rapid Transit (BART) tunnel project; performed seismic slope stability analyses for the retrofit of the BART immersed tube; and worked with engineering seismologists to develop design ground motions for projects internationally.

Awards and Honors

Received after Joining University of Colorado

- Distinguished Lecture Award, Earthquake Engineering Research Institute, EERI (2025)
- Campus Sustainability Award, University of Colorado Boulder (2024)
- Walter L. Huber Civil Engineering Research Prize, ASCE (2021)
- Associate Editor of the Year, ASCE *Journal of Geotechnical and GeoEnvironmental* (2020)
- Provost Faculty Achievement Award, CU Boulder (2020)
- American Society of Civil Eng. (ASCE) Arthur Casagrande Professional Development Award (2018)
- ASCE *Journal of Geotechnical and GeoEnvironmental Engineering* Outstanding Reviewer Award (2016)
- National Science Foundation CAREER Award (2015)
- Departmental Young Researcher Award, Civil, Architectural, and Env. Engineering, CU Boulder (2015)
- Dean's Faculty Fellowship, College of Engineering and Applied Sciences, CU Boulder (2015)
- Departmental Teaching Award, Civil, Architectural, and Env. Engineering, CU Boulder (2014)
- National Science Foundation (NSF) Fellow for ENHANCE (since December 2012)

Received as a Student

- Outstanding Graduate Student Instructor Award from the Department of Civil and Environmental Engineering, UC Berkeley (2009)
- Graduate Full Fellowship in GeoEngineering, UC Berkeley (2004-2005)
- Magna cum Laude distinction from Cornell University (May 2004)
- Distinguished Leadership Award, Cornell University (April 2004)

Publications

Underline denotes Dashti's student or post-doctoral advisee.

*Denotes Dashti's PhD Advisor +Denotes corresponding authorship

Refereed Journal Articles Accepted or Published

[J75] Hwang, Y.W., **Dashti, S.** (2025). "Liquefaction Mitigation in Urban Settings with Drainage and Densification," *Bulletin of Earthquake Engineering* (Accepted and In Press).

[J74] Bessette, C., **Dashti, S.+,** Liel, A., Hwang, Y.W. (2025). "Machine learning-based settlement models for shallow-founded structures on interbedded sites considering dense granular columns," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering* (Accepted and In Press).

[J73] Klingaman, J., Wham, B.P., Dixon, P.G., **Dashti, S.** (2025). "External loading-induced deformations of deteriorated pipelines rehabilitated with internal replacement technologies," *Tunneling and Underground Space Technology Journal*, Vo. 157, https://doi.org/10.1016/j.tust.2024.106272.

[J72] Bessette, C., **Dashti, S.+**, Liel, A., Brito, L. (2025). "Influence of Stratigraphic Variability and Ground Motion Properties on the Effectiveness of Dense Granular Columns as Liquefaction Mitigation for Structures," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 151(5), https://doi.org/10.1061/JGGEFK.GTENG-127.

[J71] Hwang, Y.W., **Dashti, S.**, Bessette, C. (2025). "Mitigation of Liquefaction Damage to Shallow-founded Structures with In-Ground Structural Walls," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 151(2), https://doi.org/10.1061/JGGEFK.GTENG-124.

[J70] Brito, L., **Dashti, S.+,** Liel, A., Wham, B., Bessette, C. (2024). "Deformation Mechanisms in Stratigraphically-Variable Liquefiable Deposits Near Buildings on Shallow Foundations," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering,* 151(3), 10.1061/jggefk.gteng-12741.

[J69] Barron, B., Roudbari, S., Pezzulo, P. **Dashti, S**., Liel, A., Glade, S. (2024). "'Because We're Dying in Here': A Study of Environmental Vulnerability and Climate Risks in Incarceration Infrastructure," *Journal of Environment and Planning E: Nature and Space*, 7 (6): 2437-2465.

[J68] Bessette, C., Brito, L., **Dashti, S.+**, Liel, A., Wham, B. (2024). "Development of Dynamic Centrifuge Models for Measurement and Visualization of Deformation Mechanisms in Interlayered Liquefiable Soils," *Journal of Soil Dynamics and Earthquake Engineering*, 181, ARTN 108651.

[J67] Rose, H.R., Wham, B.P., Liel, A.B., **Dashti, S.** (2024). "Centrifuge Model Design for Axially Loaded Structures Under Large Ground Movements," *Geotechnical Testing Journal*, 47 (5), 1045-1064.

[J66] Rose, H.R., Wham, B.P., **Dashti, S.**, Liel, A.B. (2024). "Axial resistance of pipelines with enlarged joints," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 150 (9), ARTN 04024077.

[J65] Glade, S., Schmitz, C., Barron, B.N., **Dashti, S.**+, Roudbari, S., Liel, A. B., Pezzullo, P.C., & Miller, S. L. (2024). "Hazards and incarceration facilities: Evaluating facility-level exposure to floods, wildfires, extreme heat, and landslides in Colorado," *Natural Hazards Review*, 10.1061/NHREFO.NHENG-1556.

[J64] Pinto, F., **Dashti, S.**, Ledezma, C., Abell, J. (2023). "How do tall buildings affect seismic earth pressures on their basement walls?," *Soil Dynamics and Earthquake Engineering*, https://doi.org/10.1016/j.soildyn.2023.107968.

[J63] Hwang, Y.W., **Dashti, S.**+ (2023). "Seismic Interactions Among Multiple Structures Founded on Liquefiable Soils in a City Block," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, https://doi.org/10.1061/JGGEFK.GTENG-10262. Paper **nominated** by the Geo-Institute *Earthquake Engineering and Soil Dynamics* Subcommittee for the *Middlebrook Award*.

[J62] Hwang. Y.W., **Dashti, S.** +, Tiznado, J.C. (2023). "Seismic Performance of Mat-Founded Building Clusters on Liquefiable Soils Treated with Ground Densification," *Soil Dynamics and Earthquake Engineering*, https://doi.org/10.1061/JGGEFK.GTENG-1026.

[J61] Cabas, A., Lorenzo-Velazquez, C., Abayo, N.I., Ji, C., Ramirez, J., Garcia, F.E., Perodin, J., Hwang, Y.W., **Dashti, S.**, Ganapati, N.E., Nicolas, S., Whitworth, M.R.Z. Guerrier, K., Fleur, N.S., Contreras, S., Largesse, R., Marcelin, L.H., Remington, C.L. (2023). "Intersectional impacts of the 2021 Mw 7.2 Nippes, Haiti, Earthquake from Geotechnical and Social Perspectives," *Bulletin of the Seismological Society of America* (BSSA), https://doi.org/10.1785/0120220118;

[J60] Dixon, P.G., Tafsirojjaman, T., Klingaman, J., Hubler, M.H., **Dashti, S.**, O'Rourke, T.D., Farrag, K., Manalo, A., Wham, B.P. (2023). "State-of-the-art Review of Performance Objectives for Legacy Natural Gas Pipeline Renewal Technologies," *ASCE Journal of Pipeline Systems Engineering and Practice*, 14(2).

[J59] Anderson, D.J., Franke, K.W., Kayen, R.E., **Dashti, S.**, Badanagki, M. (2022). "The over-prediction of seismically induced liquefaction during the 2016 Kumamoto, Japan earthquake sequence," *Geosciences* 13(7), https://doi.org/10.3390/geosciences13010007.

[J58] Glade, S., Niles, S., Roudbari, S., Pezzullo, P. C., **Dashti, S**., Liel, A. B., & Miller, S. L. (2022). "Disaster resilience and environmental sustainability of incarceration infrastructures: A review of the literature," *International Journal of Disaster Risk Reduction*, https://doi.org/10.1016/j.ijdrr.2022.103190.

[J57] Pinto, F., Ledezma, C., Abell, J., **Dashti, S**., Astroza, R. (2022). "Soil-Basement Interaction Effects on the Seismic Response of Tall Buildings with Basement Levels," *Engineering Structures*, 263, 114406. https://doi.org/10.1016/j.engstruct.2022.114406.

[J56] Hwang, Y.W., Bullock, Z., **Dashti, S**.+, Liel, A.B. (2022). "A Probabilistic Predictive Model for Foundation Settlement on Liquefiable Soils Improved with Ground Densification," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 148(5).

[J55] Bullock, Z., **Dashti, S.**+, Liel, A.B., Porter, K. (2022). "Physics-Informed Probabilistic Models for Peak Pore Pressure and Shear Strain in Layered, Liquefiable Deposits," *Geotechnique*, https://doi.org/10.1680/jgeot.21.00110.

[J54] Bullock, Z., **Dashti, S.**+, Liel, A.B., Porter, K., and Maurer, B.W. (2022). "Probabilistic Liquefaction Triggering and Manifestation Models Based on Cumulative Absolute Velocity," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 148(3).

[J53] Hwang, Y.W., **Dashti, S.**+, Kirkwood, P. (2022). "Impact of Ground Densification on the Response of Urban Liquefiable Sites and Structures," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, DOI: 10.1061/(ASCE)GT.1943-5606.0002710.

[J52] Tiznado, J.C., **Dashti, S.**+, Ledezma, C. (2021). "A Probabilistic Predictive Model for Liquefaction Triggering in Layered Sites Improved with Dense Granular Columns," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, DOI: 10.1061/(ASCE)GT.1943-5606.0002609.

[J51] Nagula, S.S., Hwang, Y.W., **Dashti, S.**, Grabe, J. (2021). "Numerical investigation of liquefaction mitigation potential with vibroflotation," *Soil Dynamics and Earthquake Engineering*, Volume 146.

[J50] Bullock, Z., Liel, A.B., Porter, K., **Dashti, S.** (2021). "Site-Specific Liquefaction Fragility Analysis: Cloud, Stripe, and Incremental Approaches," *J. of Earthquake Eng. and Structural Dynamics*, Issue 9, DOI: https://doi.org/10.1002/eqe.3458.

[J49] Hwang, Y.W., Ramirez, J., **Dashti, S**.+, Kirkwood, P., Liel, A.B., Camata, G., Petracca, M. (2021). "Seismic Interaction of Adjacent Structures on Liquefiable Soils: Insight from Centrifuge and Numerical Modeling," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 147(8).

[J48] Bullock, Z., **Dashti, S.**, Liel, A., Porter (2021). "Can Geotechnical Liquefaction Indices Serve as Predictors of Foundation Settlement?" *Earthquake Spectra*, DOI: https://doi.org/10.1177/8755293021994844.

[J47] Tsai, C., Lin, C., **Dashti, S**., Kirkwood, P. (2021). "Influence of Container and Loading Characteristics on the Evaluation of Soil Dynamic Properties in the Geotechnical Centrifuge," *Soil Dynamics and Earthquake Engineering*, Vol. 142, DOI: https://doi.org/10.1016/j.soildyn.2020.106567.

[J46] Aghababaei, M. Okamoto, C., Koliou, M., Nagae, T., Pantelides, C.P., Ryan, K.L., Barbosa, A.R., Pei, S. van de Lindt, J.W., and **Dashti, S.** (2021). "Full-Scale Shake Table Test Damage Data Collection Using Terrestrial Laser-Scanning Techniques," *ASCE Journal of Structural Engineering*, 147(3).

[J45] Bullock, Z., Liel, A., **Dashti, S.**, Porter, K. (2020). "A Suite of Ground Motion Prediction Equations for Cumulative Absolute Velocity in Shallow Crustal Earthquakes Including Epistemic Uncertainty," *Earthquake Spectra*, 10.1177/8755293020957342.

[J44] Tiznado, J.C., **Dashti, S.**+**,** Ledezma, C., Wham, B. (2020). "Performance of Embankments on Liquefiable Soils Improved with Dense Granular Columns: Observations from Case Histories and Centrifuge Experiments," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 146(9).

[J43] Paramasivam, B., **Dashti, S.** +**,** Liel, A. (2020). "In-Ground Gravel-Rubber Panel Walls to Mitigate and Base Isolate Shallow-Founded Structures on Liquefiable Ground," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 146(9).

[J42] Roudbari, S., Heris, M., Hakhamaneshian, M., **Dashti, S.** (2020). "Mediating Design Claims: Social Media and the Housing Disaster of the 2017 Halabja Earthquake," *Natural Hazards Review*, 21(2).

[J41] Badanagki, M., **Dashti, S**.+, Paramasivam, B., Tiznado, J.C. (2019). "How Do Granular Columns Affect the Seismic Performance of Non-Uniform Liquefiable Sites and Their Overlying Structures?" *Soil Dynamics and Earthquake Engineering*, 125.

[J40] Bullock, Z., **Dashti, S.**+**,** Liel, A., Porter, K., Karimi, Z. (2019). "Assessment Supporting the Use of Outcropping Rock Evolutionary Intensity Measures for Prediction of Liquefaction Consequences," *Earthquake Spectra*, 35(4), 1899-1926.

[J39] Paramasivam, B., **Dashti, S.**+**,** Liel, A. (2019). "Impact of Spatial Variations in Permeability of Liquefiable Deposits on the Seismic Performance of Structures and Effectiveness of Drains," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 145(8).

[J38] Stewart, J.P., Zimmaro, P., Lanzo, G., Mazzoni, S., Ausilio, E., Aversa, S., Bozzoni, F., Cairo, R., Capatti, M.C., Castiglia, M., Chiabrando, F., Chiaradonna, A., d'Onofrio, A., **Dashti, S.,** De Risi, R., De Silva, F., Della Pasqua, F., Dezi, F., Di Domenica, A., Di Sarno, L., Durante, M.G., Falcucci, E., Foti, S., Franke, K.W., Galadini, F., Giallini, S., Gori, S., Kayen, R.E., Kishida, T., Lingua, A., Passeri, F., Pelekis, P., Pizzi, A., Reimschiissel, B., Santo, A., Magistris, F., Scasserra, G., Sextos, A., Silvestri, F., Simonelli, A.L., Spano, A., Tommasi, P., Tropeano, G. (2019). "Reconnaissance of 2016 Central Italy Earthquake Sequence," *Earthquake Spectra* (Accepted and in press).

[J37] Kirkwood, P., and **Dashti, S.**+ (2019). "Influence of Prefabricated Vertical Drains on the Seismic Performance of Similar Neighboring Structures Founded on Liquefiable Deposits," *Geotechnique*, DOI: https://doi.org/10.1680/jgeot.17.P.077.

[J36] Bullock, Z., **Dashti, S.**+**,** Karimi, Z., Liel, A., Porter, K., Franke, K. (2019b). "Probabilistic Models for the Residual and Peak Transient Tilt of Mat-Founded Structures on Liquefiable Soils," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 145(2).

[J35] Bullock, Z., Karimi, S., **Dashti, S.**+, Porter, K., Liel, A., Franke, K. (2019a). "A Physics-Informed Semi-Empirical Probabilistic Model for the Settlement of Shallow-Founded Structures on Liquefiable Ground," *Geotechnique*, https://doi.org/10.1680/jgeot.17.P.174.

[J34] Hashash, Y. M.A., **Dashti, S.,** Musgrave, M., Gillis, K., Walker, M., Ellison, K., Basra, Y.I. (2018). "Influence of Tall Buildings on the Seismic Response of Shallow Underground Structures," ASCE Journal of Geotechnical and GeoEnvironmental Engineering, 144(12), https://doi.org/10.1061/(ASCE)GT.1943-5606.0001963 (**Selected as Editor's Choice**).

[J33] Ramirez, J., Barrero, A., Chen, L., **Dashti, S.**+**,** Ghofrani, A., Taiebat, M., Arduino, P. (2018). "Site Response in a Layered Liquefiable Deposit: Evaluation of Different Numerical Tools and Methodologies with Centrifuge

Experimental Results," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 144(10), https://doi.org/10.1061/(ASCE)GT.1943-5606.0001947.

[J32] Badanagki, M., **Dashti, S.**[+]**,** Kirkwood, P. (2018). "An Experimental Study of the Influence of Dense Granular Columns on the Performance of Level and Gently Sloping Liquefiable Sites," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering,* 144(9), https://doi.org/10.1061/(ASCE)GT.1943-5606.0001937.

[J31] Paramasivam, B., **Dashti, S.**[+]**,** Liel, A. (2018). "Influence of Prefabricated Vertical Drains on the Seismic Performance of Structures Founded on Liquefiable Soils," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 144(10), DOI: 10.1061/(ASCE)GT.1943-5606.0001950 (**Selected as Editor's Choice**).

[J30] Karimi, Z., **Dashti, S.**[+], Bullock, Z., Porter, K., Liel, A. (2018). "Key Predictors of Structure Settlement on Liquefiable Ground: A Numerical Parametric Study," *Soil Dynamics and Earthquake Engineering*, 113, 286-308, DOI: https://doi.org/10.1016/j.soildyn.2018.03.001.

[J29] Esmaeilzadeh, E., Jeong, C., **Dashti, S.,** Hushmand, A., Taciroglu, E. (2018). "Seismic response of buried reservoir structures: a comparison of numerical simulations with centrifuge experiments," *Soil Dynamics and Earthquake Engineering*, 109, 89-101, DOI https://doi.org/10.1016/j.soildyn.2018.03.003.

[J28] Kirkwood, P., and **Dashti, S.**[+] (2018). "A Centrifuge Study of Seismic Structure-Soil-Structure Interaction on Liquefiable Ground and the Implications for Structural Performance," *Earthquake Spectra*, 34(3), 1-22, DOI: 10.1193/052417EQS095M.

[J27] Kirkwood, P., and **Dashti, S.**[+] (2018). "Considerations for Mitigation of Earthquake-Induced Soil Liquefaction in Urban Environments," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 144(10), DOI: 10.1061/(ASCE)GT.1943-5606.0001936.

[J26] Li, P., **Dashti, S.,** Badanagki, M., Kirkwood, P. (2018). "Evaluating 2-D Numerical Simulations of Dense Granular Columns in Level and Gently Sloping Liquefiable Sites using Centrifuge Experiments," *Soil Dynamics and Earthquake Engineering*, 110, 232-243.

[J25] Olarte, J., **Dashti, S.**[+]**,** Liel, A., Paramasivam, B. (2018). "Effects of Drainage Control on Densification as a Liquefaction Mitigation Technique," *Soil Dynamics and Earthquake Engineering*, 110, 212-231.

[J24] Olarte, J., **Dashti, S.**[+]**,** Liel, L. (2018). "Can Ground Densification Improve Seismic Performance of Inelastic Structures on Liquefiable Soils?" *Journal of Earthquake Engineering and Structural Dynamics*, DOI: 10.1002/eqe.3012.

[J23] Bullock, Z., **Dashti, S.**[+], Liel, A., Karimi, Z., Bradley, B. (2017). "Ground Motion Prediction Equations for Arias Intensity, Cumulative Absolute Velocity, and Peak Incremental Ground Velocity for Rock Sites in Different Tectonic Environments," *Bulletin of the Seismological Society of America*, 107 (5): 2293-2309. DOI: https://doi.org/10.1785/0120160388

[J22] Olarte, J., Paramasivam, B., **Dashti, S.**[+], Liel, L., Zannin, J. (2017). "Centrifuge Modeling of Mitigation-Soil-Foundation-Structure Interaction on Liquefiable Ground," *Soil Dynamics and Earthquake Engineering*, 97, 304-323.

[J21] Karimi, Z., and **Dashti, S.**[+] (2017). "Ground Motion Intensity Measures to Evaluate II: the Performance of Shallow-Founded Structures on Liquefiable Ground," *Earthquake Spectra Journal*, EERI, Vol. 33, No. 1, pp. 277-298. doi: http://dx.doi.org/10.1193/103015EQS163M.

[J20] **Dashti, S.**[+]**,** and Karimi, Z. (2017). "Ground Motion Intensity Measures to Evaluate I: the Liquefaction Hazard in the Vicinity of Shallow-Founded Structures," *Earthquake Spectra Journal*, EERI, Vol. 33, No. 1, pp. 241-276. doi: http://dx.doi.org/10.1193/103015EQS162M.

[J19] Deniz, D., Arneson, E.E., Liel, A.B., **Dashti, S.,** Javernick-Will, A. (2016). "Flood Loss Models for Residential Buildings Based on the 2013 Colorado Floods," *Natural Hazards Journal*, doi: 10.1007/s11069-016-2615-3.

[J18] Arneson, E., Deniz, D., Javernick-Will, A., Liel, A., and **Dashti, S.** (2016). "Information Deficits and Post-Disaster Recovery," *Natural Hazards Review*, 1546-1555.

[J17] Hushmand, A., **Dashti, S.**[+]**,** Davis, C., McCartney, J.S. Hushmand, B. (2016). "A Centrifuge Study of the Influence of Site Response, Relative Stiffness, and Kinematic Constraints on the Seismic Performance of Buried Reservoir Structures," *Soil Dynamics and Earthquake Engineering Journal, 88, 427-438.*

[J16] Hushmand, A., **Dashti, S.**[+], Davis, C., Hushmand, B., McCartney, J., Hu, J., Lee, Y. (2016). "Seismic Performance of Underground Reservoir Structures: Insight from Centrifuge Modeling on the Influence of Backfill Soil Type and Geometry," *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE 10.1061/(ASCE)GT.1943-5606.0001544 , 04016058.

[J15] **Dashti, S.**[+]**,** Hashash, Y., Gillis, K., Musgrove, M., and Walker, M. (2016). "Development of Dynamic Centrifuge Models of Underground Structures near Tall Buildings," *Soil Dynamics and Earthquake Engineering Journal*, 86, 89-105.

[J14] Deng, Y.H., **Dashti, S.**+**,** Hushmand, A., Davis, C., Hushmand, B (2016). "Seismic Response of Underground Reservoir Structures in Sand: Evaluation of Numerical Simulations using Centrifuge Experiments," *Soil Dynamics and Earthquake Engineering Journal*, 85, 202-216.

[J13] Karimi, Z., and **Dashti, S.**+ (2016). "Seismic Performance of Shallow Founded Structures on Liquefiable Ground: Validation of Numerical Simulations Using Centrifuge Experiments ," *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 10.1061/(ASCE)GT.1943-5606.0001479.

[J12] Hushmand, A., **Dashti, S.**+**,** Davis, C., Hushmand, B., Zhang, M., Ghayoomi, M., McCartney, J., Lee, Y., Hu, J. (2016). "Seismic Performance of Underground Reservoir Structures: Insight from Centrifuge Modeling on the Influence of Structure Stiffness," *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 10.1061/(ASCE)GT.1943-5606.0001477.

[J11] Hashash, Y., **Dashti, S.**+**,** Romero Arduz, M.I., Ghayoomi, M. (2015). "Evaluation of 1-D Seismic Site Response Modeling of Sand using Centrifuge Experiments," *Soil Dynamics and Earthquake Engineering Journal,* 78, 19-31.

[J10] Karimi, Z., and **Dashti, S.**+ (2015). "Numerical and Centrifuge Modeling of Seismic Soil-Foundation-Structure-Interaction on Liquefiable Ground," *Journal of Geotechnical and Geoenvironmental Engineering*, ASCE, 142(1), 1-14.

[J9] Gillis, K., **Dashti, S.**+, Hashash, Y. (2015). "Dynamic Calibration of Tactile Sensors for Measurement of Soil Pressures in Centrifuge," *ASTM Geotechnical Testing Journal*, 38(3), 1-14.

[J8] Ghayoomi, M., and **Dashti, S.** (2015). "Effect of Ground Motion Characteristics on Seismic Soil-Foundation-Structure Interaction," *Earthquake Spectra Journal*, Earthquake Engineering Research Institute, 31(3), 1-24.

[J7] Bray, J.D.*, and **Dashti, S.** (2014). "Liquefaction Induced Building Movement," *Bulletin of Earthquake Engineering*, 2(3), 1129-1156.

[J6] **Dashti, S**.+, Bray, J.D.*, Reilly, J., Glaser, S., Bayen, A., Ervasti, M. (2014). "Evaluating the Reliability of Mobile Phones as Seismic Monitoring Instruments," *Earthquake Spectra,* Earthquake Engineering Research Institute, 30(2), 1-22.

[J5] Ghayoomi, M., **Dashti, S**., and McCartney, J.S., (2013). "Performance of a Transparent, Flexible Shear Beam-Type Container in Dynamic Centrifuge Modeling of Geotechnical Systems," *Journal of Soil Dynamics and Earthquake Engineering*, 53, 230-239.

[J4] **Dashti, S**.+, and Bray, J.D.* (2013). "Numerical Simulation of Building Response on Liquefiable Sand," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 139 (8), 1235-1249.

[J3] Reilly, J., **Dashti, S**., Ervasti, M., Bray, J.D.*, Glaser, S., and Bayen, A. (2013). "iShake: Using Mobile Phones as Seismologic Sensors," *Journal of IEEE Transactions on Automation Science and Engineering,* IEEE Robotics and Automation Society, 10 (2), 242.

[J2] **Dashti, S**., Bray, J.D.*, Pestana, J., Riemer, M.R., and Wilson, D. (2010b). "Centrifuge Testing to Evaluate and Mitigate Liquefaction-Induced Building Settlement Mechanisms," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering,* 136 (7), pp. 918-929.

[J1] **Dashti, S**., Bray, J.D.*, Pestana, J.M., Riemer, M.R. and Wilson, D. (2010a). "Mechanisms of Seismically-Induced Settlement of Buildings with Shallow Foundations on Liquefiable Soil," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering*, 136 (1), pp. 151-164.

Refereed Journal Articles Submitted and Under Review

[J77] Schmidt, J., **Dashti, S.**+, Torres-Machi, C. (forthcoming). "Next Generation Probabilistic Liquefaction Modeling at the Regional Scale," *Earthquake Spectra* (under review).

[J76] Brito, L., **Dashti, S.**+, Liel, A., Wham, B. (forthcoming). "A machine learning-based predictive model for liquefaction ejecta manifestation in stratigraphically variable sites," *ASCE Journal of Geotechnical and GeoEnvironmental Engineering* (under review).

Refereed Conference Proceedings Accepted or Published

[C65] Senji S.G., Pawaskar, D., Dixon, P.G., Ihnotic, C., **Dashti, S.**, O'Rourke, T.D., Wham, B.P. (2024). "Experimental Investigation on Mechanical Response of Rehabilitated Pipelines under Cyclic Axial Deformation." PIPELINES 2024: CONSTRUCTION AND REHABILITATION (American-Society-of-Civil-Engineers (ASCE)/Utility-Engineering-and-Surveying-Institute (UESI) Pipelines Conference on Utility Infrastructure - Moving Onward to a Sustainable Future.

[C64] Pinto, F., **Dashti, S**., Ledezma, C., Abdell, J. (2024). "The impact of tall buildings on seismic earth pressures acting on basement walls," *Proceedings of the World Conference in Earthquake Engineering*, Milan, Italy.

[C63] **Dashti, S**., Hwang, Y.W., Bessette, C. (2024). "Complications in addressing liquefaction vulnerability in stratified soils from building to cluster to community," *Proceedings of the 8th International Conference in Earthquake Geotechnical Engineering,* Osaka, Japan (invited keynote paper and lecture).

[C62] Brito, L., Besseette, C., **Dashti, S**., Liel, A., Wham, B. (2024). "Efficiency and Sufficiency of Ground Motion Intensity Measures in Predicting Ejecta Potential and Peak Pore Pressures," *Proceedings of the 8th International Conference in Earthquake Geotechnical Engineering,* Osaka, Japan.

[C61] Brito, L., Besseette, C., **Dashti, S**., Liel, A., Wham, B. (2024). "Influence of stratigraphic variability and layering on liquefiable soils near and away from structures," *Proceedings of Geo-Congress 2024*, Vancouver, Canada.

[C60] Hwang, Y.W., and **Dashti, S.** (2024). "Influence of bidirectional horizontal shaking on seismic response of structure on liquefiable soils," *Proceedings of Geo-Congress 2024*, Vancouver, Canada.

[C59] Bessette, C., **Dashti, S**., Liel, A., Brito, L. (2024). "Influence of stratigraphic variations on the effectiveness of dense granular columns in liquefiable deposits," *Proceedings of Geo-Congress 2024*, Vancouver, Canada.

[C58] Hwang, Y.W., and **Dashti, S.** (2023). "A machine learning-based approach for predicting structural settlement on layered liquefiable soils improved with densification," *Proceedings of Geo-Congress 2023*, Los Angeles, CA.

[C57] Bessette, C., Brito, L., **Dashti, S**., Wham, B., Kamai, R., Liel, A., Westcott, J., Madabhushi, S.S.C. (2022). "Duct seal design considerations in a rigid container for dynamic centrifuge modeling of liquefiable deposits," *Proceedings of 10th International Conference on Physical Modeling in Geotechnics* (ICPMG), Daejeon, Korea.

[C56] **Dashti, S.,** Bullock, Z., Hwang, Y.W. (2022). "Performance-Based Assessment and Design of Structures on Liquefiable Soils: from Triggering to Consequence and Mitigation," Theme Paper, Proceedings of the Fourth Performance Based Design Conference, Beijing, China.

[C55] Glade, S., **Dashti, S.**, Liel, A. B., Roudbari, S., Miller, S. L., Schmitz, C., & Stewart, Z. (2022). "Critical but Neglected: Analyzing the Exposure of Incarceration Infrastructure and Populations to Hazards Including Earthquakes," Proceedings of the 12th National Conference on Earthquake Engineering, Hosted by the Earthquake Engineering Research Institute, Salt Lake City, Utah.

[C54] Hwang, Y.W., Bullock, Z., Tsai, C.C., and **Dashti, S.** (2022). "LPI-based Probabilistic Predictive Model for Foundation Settlement on Liquefiable Sites," *Proceedings of the 12th US National Conference on Earthquake Engineering*, Utah, USA. 2022.

[C53] Hwang, Y.W., Tiznado, J.C., and Dashti, S. (2022). "Seismic Interactions Among Multiple Structures on Liquefiable Soils Improved with Ground Densification," *Proceedings of the 4th International Conference on Performance-based Design in Earthquake Geotechnical Engineering*, Beijing, China.

[C52] Bessette, C., Hwang, Y. W., Brito, L., **Dashti, S**., Wham, B., Liel, A., Westcott, J. (2022). "Influence of Domain Boundaries on the Response of Isolated Structures on Liquefiable Soils," *Proceedings of Geo-Congress 2022, Charlotte (NC)*, United States.

[C51] Brito, L., Bessette, C., **Dashti, S.**, Wham, B., Liel, A., Westcott, J. (2022). "Design and Construction of a Deformation Measurement System for Dynamic Centrifuge Modeling of Layered Liquefiable Soils," *Proceedings of the 12th National Conference on Earthquake Engineering*, Salt Lake City (UT), United States, June 27th to July 1st, 2022.

[C50] Bessette, C., Brito, L., **Dashti, S.**, Wham, B., Kamai, R., Liel, A., Westcott, J. (2022). "Duct Seal Design in a Rigid Container for Dynamic Centrifuge Modeling of Layered Liquefiable Deposits," Proceedings of the 10th International Conference on Physical Modelling in Geotechnics, KAIST, Daejeon, Korea, September 19th to 23rd 2022.

[C49] Klingaman, J., Dixon, P., Wham, B.P., **Dashti, S.,** Hubler, M.H. (2022). "Traffic Loading Effects on Rehabilitated Case Iron Distribution Pipelines," Proceedings of the UESI Pipelines, Indanapolis, Indiana.

[C48] Bullock, Z., **Dashti, S.,** Liel, A., Porter, K. (2019). "A Framework for Machine Learning-Assisted Design and Execution of Numerical Parametric Studies in Evaluating the Seismic Response of Soil-Structure Systems," Proceedings of the 12th Canadian Conf. on Earthtquake Engineering, Quebec, QC, Canada.

[C47] Bullock, Z., **Dashti, S.,** Liel, A., Porter, K. (2019). "A Framework for the Evaluation of Liquefaction Consequences for Shallow-Founded Structures," Proceedings of 13th International Conf. on Applications of Statistics and Probability in Civil Engineering, Seoul, South Korea.

[C46] Bullock, Z., **Dashti, S.,** Liel, A., Porter, K. (2019). "Generating Synthetic Borehole Data for Applications in Site-Specific and Regional Evaluation of Liquefaction Consequences," ASCE Geo-Congress, Philadelphia, USA.

[C45] Bullock, Z., **Dashti, S.,** Liel, A., Porter, K. (2019). "Physics-informed and semi-empirical probabilistic models for structure's average and differential settlement on liquefiable ground with extensions to regional analysis," Proceedings of the 7th International Conf. on Earthquake Geotechnical Engineering, Rome, Italy.

[C44] Ramirez, J., Petracca, M., **Dashti, S.,** Liel, A., Camata, G. (2019). "Centrifuge study of the seismic response of embankments on liquefiable soils improved with dense granular columns," Proceedings of the 7th International Conf. on Earthquake Geotechnical Engineering, Rome, Italy.

[C43] Tiznado, J.C., Dashti, S., Wham, B.P., Ledezma, C. (2019). "Centrifuge study of the seismic response of embankments on liquefiable soils improved with dense granular columns," Proceedings of the 7th International Conf. on Earthquake Geotechnical Engineering, Rome, Italy.

[C42] Bowman, A., Kirkwood, P., and **Dashti, S.** (2019). "The use of surface surcharging around structures in urban settings to mitigate seismic hazards," Proceedings of the 2nd International Conf. on Natural Hazards & Infrastructure, Chania, Greece.

[C41] Kirkwood, P., **Dashti, S.** (2018). "An experimental study on the effects of enhanced drainage for liquefaction mitigation in dense urban environments," Proceedings of the 5th Conference on Geotechnical Earthquake Engineering and Soil Dynamics, Austin, TX.

[C40] Badanagki, M., **Dashti, S.**, Kirkwood, P. (2018). "A centrifuge study of the effects of dense granular columns on the performance of gently sloping liquefiable sites," Proceedings of the 5th Conference on Geotechnical Earthquake Engineering and Soil Dynamics, Austin, TX.

[C39] Bullock, Z., Karimi, Z., **Dashti, S.**, Liel, A., Porter, K. (2018). "Key parameters for predicting residual tilt of shallow-founded structures due to liquefaction," Proceedings of the 5th Conference on Geotechnical Earthquake Engineering and Soil Dynamics, Austin, TX.

[C38] Ramirez, J.C., Barrero, A.R., Chen, L., Ghofrani, A., **Dashti, S.**, Taiebat, M., Arduino, P. (2018). "Capabilities and limitations of different numerical tools in capturing seismic site performance in a layered liquefiable site," Proceedings of the 5th Conference on Geotechnical Earthquake Engineering and Soil Dynamics, Austin, TX.

[C37] Paramasivam, B., **Dashti, S.,** Liel, A., Olarte, J. (2018). "Centrifuge modeling of mitigation-soil-structure-interaction on layered liquefiable soil deposits with a silt cap," *Proceedings of the 9th International Conference on Physical Modelling in Geotechnics,* London, UK.

[C36] Kirkwood, P., and **Dashti, S.** (2018). "An Experimental Study on the Effects of Enhanced Drainage for Liquefaction Mitigation in Dense Urban Environments," *Proceedings of the 9th International Conference on Physical Modelling in Geotechnics*, London, UK.

[C35] Bullock, Z., **Dashti, S.,** Liel, A. Porter, K. (2018). "Efficiency, sufficiency, and predictability of intensity measures for predicting the consequences of liquefaction on buildings," *11th National Conference on Earthquake Engineering*, EERI, Los Angeles, CA.

[C34] Bullock, Z., Karimi, S., **Dashti, S.**, Liel, A. Porter, K. (2018). "Key Parameters for Predicting Residual Tilt of Shallow-Founded Structures Due to Liquefaction," *Proceedings of the Fifth Conf. on Geotechnical Earthquake Engineering and Soil Dynamics*, Austin, Texas.

[C33] Hashash, Y.M.A., Musgrove, M., **Dashti, S.,** and Chang, P. (2017). "Seismic performance evaluation of underground structures – past practice and future trends," *Proceedings of the Third Conference in Performance-Based Design in Earthquake Geotechnical Engineering*, Vancouver, Canada.

[C32] Kirkwood, P., and **Dashti, S.** (2017). "Influence of vertical prefabricated drains on the response of two adjacent structures founded on liquefiable ground," *Proceedings of the Third Conference in Performance-Based Design in Earthquake Geotechnical Engineering*, Vancouver, Canada.

[C31] Paramasivam, B., **Dashti, S.,** Liel, A., Olarte, J. (2017b). "Effects of Drains on the Performance and Damage Potential of Shallow-Founded Structures," *Proceedings of the 3rd Performance Based Design Conference in Earthquake Geotechnical Engineering*, Vancouver, Canada.

[C30] Karimi, Z., Bullock, Z., **Dashti, S.,** Liel, A., Porter, K. (2017c). "Influence of Soil and Structural Parameters on Liquefaction-Induced Settlement of Foundations," *Proceedings of the Third Conference in Performance-Based Design in Earthquake Geotechnical Engineering*, Vancouver, Canada.

[C29] Karimi, Z., Bullock, Z., **Dashti, S.**, Liel, A., Porter, K. (2017b). "Seismic Settlement of Shallow-Founded Structures on Liquefiable Ground," *Proceedings of ASCE Geo-Risk*, Denver, CO.

[C28] Deniz, Derya, Bruce Ellingwood, Abbie Liel, and **Shideh Dashti** (2017). "Flood Loss and Recovery Models for Residential Housing Stock: A Case Study of the 2013 Boulder, Colorado Floods," *ICOSSAR 2017*, Vienna, Austria.

[C27] Kayen, R., **Dashti, S**., Franke, T.K, Oettle, N.K., Wham, B., Kokusho, T, Hazarika, H., Calderon, J.R. (2017). "Case Histories of Geotechnical Engineering Damage from the 2016 MW 6.0, MW 6.2, and MW 7.0 Kumamoto Earthquakes," *Proceedings of 16th World Conference on Earthquake Engineering*, Santiago, Chile.

[C26] Olarte, J.S., Liel, A.B., **Dashti, S**., Paramasivam, B., Scheetz, R., Elfejji, J., Valigura, J. (2017). "Structural Models for Centrifuge Testing of Liquefaction-Related Building Damage," *Proceedings of 16th World Conference on Earthquake Engineering*, Santiago, Chile.

[C25] Paramasivam, B., **Dashti, S**., Liel, A.B., Olarte, J.C., Souza Junior, L.D., Gomes, L.S. (2017). "Performance of Inelastic, Shallow Founded Structures on Liquefiable Ground and the Effectiveness of Mitigation Strategies," *Proceedings of 16th World Conference on Earthquake Engineering*, Santiago, Chile.

[C24] Musgrave, M., Hashash, Y.M.A., **Dashti, S.**, Gillis, K., Walker, M., Ellison, K. (2017). "Centrifuge and Numerical Modeling of Shallow Underground Structures Adjacent to Tall Buildings," *Proceedings of 16th World Conference on Earthquake Engineering*, Santiago, Chile.

[C23] Karimi, Z., **Dashti, S.,** Bullock, Z. (2017). "Influence of Soil and Structural Properties on the Response of Shallow-Founded Structures on Layered Liquefiable Deposits," *Proceedings of 2017 GeoFrontiers*, Orlando, Florida, USA.

[C22] Ramirez, J.C., Badanagki, M. Rahimi, M., ElGhoraiby, M.A., Manzari, M.T., Dashti. S., Barrero, A., Taiebat, M., Ziotopoulou, K., Liel, A. (2017). "Seismic Performance of a Layered Liquefiable Site: Validation of Numerical Simulations Using Centrifuge Modeling," *Proceedings of 2017 GeoFrontiers*, Orlando, Florida, USA.

[C21] Davis, C., Hushmand, A., **Dashti, S.** (2016). "Dynamic Increment of Pressure on Underground Rigid Wall: Comparing Analytical and Physical Models," *Proceedings of the 2nd Huixian International Forum on Earthquake Engineering for Young Researchers*, Harbin, China.

[C20] Hushmand, A., **Dashti, S.,** Davis, C. (2016). "A Centrifuge Study: Influence of Site Response on the Seismic Performance of Buried Reservoir Structures," Proceedings of the 2nd Huixian International Forum on Earthquake Engineering for Young Researchers, Harbin, China.

[C19] Karimi, Z., and **Dashti, S.** (2016). "Effects of Ground Motion Intensity Measures on Liquefaction Triggering and Settlement near Structures," Proceedings of the 1st International Conference on Natural Hazards and Infrastructure, Chania, Greece.

[C18] Gillis, K., **Dashti, S.**, Hashash, Y., Jones, C., Musgrove, M., Walker, M. (2015). "Seismic Performance of Shallow Underground Structures Adjacent to Tall Buildings: A Centrifuge Experimental Study," *Proceedings of the 6th International Conference on Earthquake Geotechnical Engineering*, Christchurch, New Zealand.

[C17] Hushmand, A., **Dashti, S.**, Davis, C., Hushmand, B., Zhang, M., Lee, Y., Hu, J. (2015). "Centrifuge Study: Influence of Base Fixity on the Seismic Response of Buried Reservoir Structures," *Proceedings of the 6th International Conference on Earthquake Geotechnical Engineering*, Christchurch, New Zealand.

[C16] Karimi, Z., and **Dashti, S.** (2015). "Numerical Simulation of Earthquake Induced Soil Liquefaction: Validation against Centrifuge Experimental Results," *Proceedings of the 2015 Geo-Congress*, Geo-Institute, ASCE.

[C15] **Dashti, S.**, Palen, L., Heris, M., Anderson, K. M., Anderson, S., Anderson, J. T. (2014). "Supporting Disaster Reconnaissance with Social Media Data: A Design-Oriented Case Study of the 2013 Colorado Floods," *Proceedings of the 11th International Conference on Information Systems for Crisis Response and Management*, University Park, PA, USA.

[C14] Hushmand, A., **Dashti, S.,** Zhang, M., McCartney, J. S., Ghayoomi, M., Hushmand, B., Mokarram, N., Davis, C., Yangsoo, L., Hu, J. (2014). "Seismic Soil-Structure-Interaction and Lateral Earth Pressures on Buried Reservoir Structures," *Proceedings of the 2014 Geo-Congress*, Geo-Institute, ASCE, Oakland, CA.

[C13] Gillis, K., **Dashti, S.,** Hashash, Y., Arduz, M. I. R., Walker, M. C. (2014). "Dynamic Centrifuge Testing of a Temporary Braced Excavation in Dry Sand," P*roceedings of the 2014 Geo-Congress*, Geo-Institute, ASCE, Oakland, CA.

[C12] Ghayoomi, M., and **Dashti, S.** (2014). "Effects of Ground Motion Intensity Parameters on Soil-Foundation-Structure-Interaction and Site Response," *Proceedings of the 8th International Conference on Physical Modeling in Geotechnics*, Perth, Australia.

[C11] Gillis, K., **Dashti, S**., Hashash, Y., Arduz, M. I. R. (2014). "Seismic Response of a Cut-and-Cover Underground Structure in Dry Sand: Centrifuge Modeling," *Proceedings of the 8th International Conference on Physical Modeling in Geotechnics*, Perth, Australia.

[C10] **Dashti, S.,** Hushmand, A., Ghayoomi, M., McCartney, J. S., Zhang, M., Hushmand, B., Mokarram, N., Bastani, A., Davis, C., Yangsoo, L., Hu, J. (2013). "Centrifuge Modeling of Seismic Soil-Structure-Interaction and Lateral Earth Pressures for Large Near-Surface Underground Structures," *Proceedings of the 18th International Conference on Soil Mechanics and Geotechnical Engineering,* Paris, France.

[C9] **Dashti, S**., Gillis, K., Ghayoomi, M., and Hashash, Y. (2012). "Sensing of Lateral Seismic Earth Pressures in Geotechnical Centrifuge Modeling," *Proceedings of the 15th World Conference on Earthquake Engineering,* Lisbon, Portugal.

[C8] **Dashti, S**., Bray, J.D.*, Reilly, J., Glaser, S., Bayen, A. (2012). "iShake: Reliability of Phones as Seismic Sensors," *Proceedings of the 15th World Conference on Earthquake Engineering,* Lisbon, Portugal.

[C7] Bray, J.D.*, and **Dashti, S.** (2012). "Liquefaction-Induced Building Movements," Invited Keynote Paper, Proceedings of the 2nd International Conference on Performance-Based Design Earthquake Geotechnical Engineering, Taormina, Italy.

[C6] Ghayoomi, M., **Dashti, S**., McCartney, J.S. (2012). "Effect of Boundary Conditions on the Performance of a Transparent Flexible Shear Beam-Type Container," *Proceedings of the 2nd International Conference on Performance-Based Design Earthquake Geotechnical Engineering, Taormina, Italy*.

[C5] **Dashti, S**., and Bray, J.D.* (2012). "Numerical Insights into Liquefaction-Induced Building Settlement," Proceeding of the 2012 Geo-Congress, Geo-Institute, ASCE, Oakland, CA.

[C4] Ervasti, M., **Dashti, S**., Reilly, J., Glaser, S., Bayen, A., Bray, J.D.* (2011). "iShake: Mobile Phones as Seismic Sensors – User Study Findings," *Proceedings of 10th International Conference on Mobile and Ubiquitous Multimedia*, Beijing, China.

[C3] Bray, J.D.* and **Dashti, S**. (2010). "Liquefaction-Induced Movements of Buildings with Shallow Foundations," Invited Keynote Paper, *5th International Conference on Recent Advances in Geotechnical Earthquake Engineering and Soil Dynamics*, San Diego, CA, USA.

[C2] **Dashti, S**., Bray, J.D.*, Pestana, J., Riemer, M.R., and Wilson, D. (2010). "Experimental Insight into Liquefaction-Induced Building Settlement." *Proc., 9th US National and 10th Canadian Conference on Earthquake Engineering: Reaching Beyond Borders*, Toronto, Canada.

[C1] **Dashti, S**., Bray, J.D.*, Riemer, M.R., Wilson, D. (2008). "Centrifuge Experimentation of Building Performance on Liquefied Ground," *Proc., 4th Decennial Geotechnical Earthquake Engineering and Soil Dynamics Conference, Sacramento, CA, USA.*

Reports

[R9] Fischer, E., Wham, B., **Dashti, S.**, Javernick-Will, A., Liel, A., Whelton, A., Berty, N., Klingaman, J., Metz, A, Ramos, J., Rose, H.R. (2022). "2021 Marshall Wildfire," Geotechnical Extreme Event Reconnaissance (GEER) Report. doi:10.18118/G6KT04.

[R8] **Dashti, S.**, Ganapati, N.E., Abayo, N.I., Cabas, A., Calderon, J.R., Contreras, S., Desssable, J.E., Garcia, E., Guerrier, K., Hwang, Y.W., Jeannot, T., Ji, C., Lagesse, R., Logiste, M., Lorenzo-Velazquez, C., Nicolas, S., Remington, C., Perodin, J., Saint Fleur, N. Shriro, M., Vissiere, S., Whitworth, M. (2022). "Reconnaissance Following the August 14, 2021 Haiti Earthquake: Perspectives from Geotechnical Engineering and Social/Political Sciences," Geotechnical Extreme Event Reconnaissance (GEER) Report. doi:10.18118/G60090.

[R7] Stewart, J.P., Lanzo, G., Aversa, S., Bozzoni, F., Chiabrando, F., **Dashti, S.**, Sarno, L.D., Durante, M.G., Foti, S., Franke, K., Galadini, F., Falcucci, E., Gori, S., Kayen, R., Mylonakis, G., Katsiveli, E., Pagliaroli, A., Giallini, S., Scasserra, G., Magistris, F.S., Sica, S., Mucciacciaro, M., Silvestri, F., D'Onofrio, A., Chiaradonna, A., Silva, F., Simonelli, A., Penna, A., Tommasi, P., Zimmaro, P. (2016). "Engineering Reconnaissance following the 2016 M 6.0 Central Italy Earthquake," Geotechnical Extreme Event Reconnaissance (GEER) Report, September 2016, DOI:10.18118/G61S3Z.

[R6] Robert Kayen, **Shideh Dashti**, Takaji Kokusho, Hemanta Hazarika, Kevin Franke, Nicolas Oettle, Brad Wham, Jenny Ramirez Calderon, Dallin Briggs, Samantha Guillies, Katherine Cheng, Yutaka Tanoue, Katsuji Takematsu , Daisuke Matsumoto , Takayuki Morinaga, Hideo Furuichi, Yuuta Kitano, Masanori Tajiri, Babloo Chaudhary, Kengo Nishimura, Chu Chu. (2016). "Geotechnical Aspects of the 2016 MW 6.2, MW 6.0, and MW 7.0 Kumamoto Earthquakes," Geotechnical Extreme Event Reconnaissance (GEER) Report, July 2016, DOI:10.18118/G6JS3M.

[R5] Gillis, K., **Dashti, S**., Hashash, Y., and Jones, C. (2014). "Test-1 through 6: Seismic Response of an Isolated Cut and Cover Tunnel in Dry Sand." Network for Earthquake Engineering Simulation (NEES). Dataset. DOI: 10.4231/D3JQ0SW10, D3DZ0328H, D39882N7F, D35H7BV39.

[R4] Keaton, J., Anderson, S., Santi, P., **Dashti, S.** (2013). "Geotechnical Effects of Intense Precipitation on August 9, 2013, on Slopes above Manitou Springs, Colorado, that were Burned in the 2012 Waldo Canyon Fire," Geotechnical Extreme Event Reconnaissance (GEER) Report, December 2013.

[R3] EERI Special Earthquake Report (2011). "Geotechnical Effects of the M9.0 Tohoku, Japan Earthquake of March 11, 2011," Learning from Earthquakes EERI Newsletter, September 2011.

[R2] **Dashti, S**., Reilly, J., Bray, J.D./8, Bayen, A.M., Glaser, S., Mari, E. (2011). "iShake: Using Personal Devices to Deliver Rapid Semi-Quantitative Earthquake Shaking Information," GeoEngineering Report, Department of Civil and Environmental Engineering, University of California at Berkeley, Feb 28.

[R1] **Dashti, S**., Bray, J.D./8, Pestana, J., Riemer, M.R., Wilson, D. (2009). "NEESR-II Project: Towards Developing an Engineering Procedure for Evaluating Building Performance on Softened Ground – Centrifuge Data Reports for Test Series SHD01-04," reports on NEEShub available to the public.

Selected Invited Lectures and Seminars

Invited **keynote** speaker, Vancouver Geotechnical Society Symposium, Vancouver, Canada	Machine-Learning Based Models for Mitigation of the Liquefaction Hazard in Realistic Sites	2025
Invited **keynote** speaker, Conference on Computational Direct Soil-Structure Interaction (DSSI), Assisi, Italy	Liquefaction Mitigation in Stratigraphically Variable and Urban Sites	2024
Invited seminar, UNAM Institute of Engineering, Mexico City, Mexico	Liquefaction Mitigation in Stratigraphically Variable and Urban Sites	2024
Invited seminar, Indian Institute of Technology Roorkee	Liquefaction Mitigation in Stratigraphically Variable and Urban Sites	2024
Invited **keynote** speaker, 8th International Conference on Earthquake Geotechnical Engineering, Osaka, Japan	Addressing liquefaction vulnerability from building to cluster to community	2024
Invited **keynote** speaker, XIII Chilean Congress on Seismology and Earthquake Engineering	Assessment and Mitigation of the liquefaction Hazard near Structures and Lifelines	2023
Invited speaker by the Indian Geotechnical Society IIT Roorkee	Liquefaction and Soil-Structure Interaction in Interbedded Deposits	2024
Short course and invited **keynote** lecture in honor of Dr. Steven Kramer (Technical Symposium), University of Washington	Considerations for the Mitigation of Earthquake-Induced Liquefaction in Urban Environments	2023
Invited **keynote** speaker, 2nd International Conference on Earthquake and Seismic Geotechnical Engineering, Tabriz, Iran	Addressing seismic liquefaction triggering and consequence in urban settings	2023
13th GZA Lecturer, ASCE Geo-Institute, Metropolitan Section New York	Considerations for the Mitigation of Earthquake-Induced Liquefaction in Urban Environments	2023
The fourth International Conference on Performance Based Design, China (invited **theme lecture**)	Performance-based assessment and design of structures on liquefiable soils: from triggering to consequence and mitigation	2022
ASCE, Earthquake Engineering and Soil Dynamics Webinar for Western, Central, and Eastern US	Performance-Based Assessment of Structures on Liquefiable Soils: from Triggering to Mitigation	2022
College of Engineering and Applied Sciences Alumni Event on Research with High Impact, CU Boulder	Resilient Infrastructure with Sustainability and Equity	2021
Earthquake Engineering Research Institute (EERI) workshop on the 2021 Haiti Earthquake	The August 14, 2021 Haiti Earthquake: perspectives from geotechnical engineering and social sciences	2021
Texas A&M University	Probabilistic models for the assessment and mitigation of the liquefaction hazard near buildings	2021
ASCE Geo-Institute Irvine, CA Chapter	Prediction of Structural Settlement and Tilt on Liquefiable Soils	2020

ASCE Geo-Institute Portland, OR Chapter	Prediction of Structural Settlement and Tilt on Liquefiable Soils	2020
ETH-Zurich	Prediction of Structural Settlement and Tilt on Liquefiable Soils	2019
University of Cambridge, UK	Physics-Informed Semi-Empirical Probabilistic Models for Predicting Building Settlement and Tilt on Liquefiable Ground	2019
Norwegian Geotechnical Institute (NGI), Norway	Physics-Informed Semi-Empirical Probabilistic Models for Predicting Building Settlement and Tilt on Liquefiable Ground	2019
Università degli Studi di Napoli, Italy	Physics-Informed Semi-Empirical Probabilistic Models for Predicting Building Settlement and Tilt on Liquefiable Ground	2019
Scuola Universitaria Superiore Pavia & Rose School, Italy	Physics-Informed Semi-Empirical Probabilistic Models for Predicting Building Settlement and Tilt on Liquefiable Ground	2019
Imperial College London, UK	Physics-Informed Semi-Empirical Probabilistic Models for Predicting Building Settlement and Tilt on Liquefiable Ground	2019
EPFL, Switzerland	Physics-Informed Semi-Empirical Probabilistic Models for Predicting Building Settlement and Tilt on Liquefiable Ground	2019
Kenji Ishihara Colloquium Series on Earthquake Geotechnical Engineering, San Diego State University, San Diego, CA	Physics-Informed Semi-Empirical Probabilistic Models for Predicting Building Settlement and Tilt on Liquefiable Ground	2018
University of California, Los Angeles, Dept. of Civil and Environmental Eng., LA, CA	A Physics-Informed Semi-Empirical Probabilistic Model for the Settlement of Structures on Liquefiable Ground	2017
ASCE-GeoInstitute and Struct. Eng. Association of Utah, University of Utah, Salt Lake City, UT	A Physics-Informed Semi-Empirical Probabilistic Model for the Settlement of Structures on Liquefiable Ground	2017
US-New Zealand-Japan Workshop on Soil Liquefaction, Berkeley, CA	Current and Future Research Direction on Consequences of Liquefaction	2016
National Science Foundation, Washington DC	Research Directions on Seismic Response and Interaction of Infrastructure Systems.	2016
George Washington University, Department of Civil and Environmental Engineering, Washington DC	Performance of Shallow-Founded Structures on Liquefiable Sand: Evaluation and Mitigation	2016
2015 NHERI/E-Defense Meeting in Kobe, Japan	Seismic Response of Underground Structures and Liquefaction Mitigation in Dense Urban Environments	2015
2013 NEES/E-Defense Meeting in Kyoto, Japan	Seismic Response of Underground Structures in Dense Urban Environments	2013
United States Geological Survey (USGS), Golden, CO	Seismic Performance of Interacting Infrastructure Systems	2013
University of Cambridge, Department of Engineering, Cambridge, UK	Seismic Performance of Interacting Infrastructure Systems	2013
University of Chieti-Pescara, Pescara, Italy	Response of Shallow-Founded Structures on Liquefiable Sand	2012
United States Geological Survey (USGS), Menlo Park, CA	iShake: Phones as Seismic Sensors	2011

Externally Funded Research Projects

Total Funds (Internal + External) as PI: $4,025,391 ($2,227,081 after tenure, $1,801,681 of which from external funds); Total Funds (Internal + External) as Co-PI: $9,933,603 ($8,896,550 after tenure, $8,868,300 of which from external funds, $6,543, 315 excluding GAANN awards).

Funded as PI

Department of Education

Title: GAANN: Inclusive Engineering for Climate-Ready, Smart, Sustainable, and Equitable Infrastructure
Total Award: $1,263,863
Total Award Period Covered: 01/01/2025-12/31/2027
PI: Shideh Dashti; Co-PIs: A. Liel, C. Torres-Machi, B. Rajagopalan, and others (Univ. of Colorado Boulder)
PI Time Commitment Per Year: 0 Pay

National Institute of Standards and Technology (NIST)

Title: Multi-hazard Climatic-Seismic Assessment of Ground Failure and Impacts on Structures
Total Award: $289,243
Total Award Period Covered: 10/01/2024-09/30/2027
PI: Shideh Dashti. Co-PI: Abbie Liel.; PI Time Commitment Per Year: 0.20 Summer Month

National Institute of Standards and Technology (NIST) through PREP Agreement between NIST and CU Boulder

Title: Geotechnical Engineering Codes and Standards on Climate Change and Climatic Hazards
Total Award: $150,000 (exact value determined each semester based on salary rates)
Total Award Period Covered: 02/01/2024-05/30/2025

National Science Foundation (NSF)

Title: Collaborative Research: GEER Post Disaster Reconnaissance (Collaboration among Georgia Tech, UCLA, University of Illinois at Urbana Champaign, and CU Boulder)
Total Award: $1,023,970 ($66,575 CU Portion)
Total Award Period Covered: 07/01/2018-06/31/2025
PI from CU Boulder: Shideh Dashti. Other PIs: D. Frost (Georgia Tech), Jonathan Stewart (University of California, Los Angeles), Youssef Hashash (University of Illinois at Urbana Champaign).
PI Time Commitment Per Year: 0.25 Summer Month

National Science Foundation (NSF)

Title: CAREER: Toward a New Paradigm in Evaluating and Mitigating Urban Liquefaction
Total Award: $500,000 + $32,000 (REU Supplement)
Total Award Period Covered: 06/01/2015-05/31/2022
PI: Shideh Dashti (University of Colorado Boulder)
PI Time Commitment Per Year: 0.5 summer month in Years 1 through 5

National Science Foundation (NSF)

Title: RAPID: Collaborative Research – Investigating Unanticipated Geotechnical Phenomena in Kumamoto, Japan Observed from the April 2016 Earthquake Sequence
Total Award: $200,000 (CU Portion: $43,464)
Total Award Period Covered: 04/01/2017-03/31/2018
PI from CU Boulder: Shideh Dashti. Other PIs: K. Franke (Brigham Young University); R. Kayen (University of California at Berkeley)
Time Commitment Per Year: 0.25 Summer Month

National Science Foundation (NSF)

Title: Performance of Buildings on Liquefiable Soils: Evaluation and Mitigation
Total Award: $353,492 + $10,000 (REU Supplement)
Total Award Period Covered: 06/01/2014-05/31/2017 (extended at no cost to 2019)
Location of Project: University of Colorado Boulder
PI: Shideh Dashti (University of Colorado Boulder)

Co-PI: Abbie Liel (University of Colorado Boulder)
PI Time Commitment Per Year: 0.5 summer month in Year 1, 1 summer month in Year 2 and 3
Other Collaborators: University of Cambridge, UK

NSF's Network for Earthquake Engineering Simulation Research (NEESR)

Title: NEESR: Seismic Response of Shallow Underground Structures in Dense Urban Environments
Total Award: $704,843
Total Award Period Covered: 09/01/2011-08/31/2016
Location of Project: University of Colorado Boulder
PI: Shideh Dashti (University of Colorado Boulder)
Co-PI: Youssef Hashash (University of Illinois, Urbana Champaign)
PI Time Commitment Per Year: 1.25 summer month
Other Collaborators: Japan E-Defense, ARUP San Francisco

Geotechnical Consulting Company GeoEstudios

Title: Microzonation of Tarqui, Ecuador
Total Award: $40,005
Total Award Period Covered: 08/01/2016-2019
PI: S. Dashti (University of Colorado Boulder)
PI Time Commitment Per Year: 0.7 Summer Month

Los Angeles Department of Water and Power through Hushmand Associates Inc.

Title: Centrifuge Testing to Investigate the Seismic Soil-Structure-Interaction Effects near Buried Rectangular Reinforced Concrete Reservoirs
Total Award: $150,691.21 (funding to centrifuge cost center, not through OCG)
Total Award Period Covered: 09/01/2011-06/01/2015, Location of Project: University of Colorado Boulder
PI's: Shideh Dashti and John McCartney (University of Colorado Boulder)
Time Commitment Per Year: approximately 1 summer month

Funded as Co-PI

National Science Foundation (NSF)

Title: RAPID: Collaborative Research: RAPID-Investigation of 2021 Marshall Fire Impacts on Physical Infrastructure and Decision-Making Processes
Total Award: $23,332 (CU portion)
Total Award Period Covered: 02/01/2022-01/31/2023
PI: E. Fischer (Oregon State University); Co-PIs: B. Wham, S. Dashti, A. Liel, A. Javernick-Will (University of Colorado Boulder).
Co-PI Time Commitment Per Year: 0.1 Summer Month

Department of Education

Title: GAANN: Resilient and Equitable Infrastructure through Inclusive Engineering
Total Award: $1,143,000
Total Award Period Covered: 10/01/2021-09/31/2024
PI: A. Javernick-Will; Co-PIs: A. Liel, S. Dashti, and others (Univ. of Colorado Boulder)
PI Time Commitment Per Year: 0 Pay

Department of Energy (ARPA-E)

Title: Testing and Analysis of Pipeline Encapsulation Technologies
Total Award: $6,304,733
Period Covered: 12/01/2020-11/31/2023
PI: B. Wham; Co-PIs: S. Dashti, M. Hubler (Univ. of Colorado Boulder)
PI Time Commitment Per Year: 0.5 Pay

Department of Education

Title: GAANN: Integrative Reengineering of Infrastructure for Tomorrow's Communities
Total Award: $1,210,235

Total Award Period Covered: 10/01/2018-09/31/2021
PI: A. Liel; Co-PIs: A. Javernick-Will, S. Dashti, and others (Univ. of Colorado Boulder)
PI Time Commitment Per Year: 0 Pay

National Science Foundation (NSF)

Title: RAPID: Collaborative Research – RAPID – U.S./Japan Collaboration on Seismic Resilience Assessment and Solutions for Wood Building Systems
Total Award: $187,000
Total Award Period Covered: 04/01/2018-03/31/2019
PI: M. Koliou (Texas A&M); Co-PIs: S. Dashti (University of Colorado Boulder), K. Ryan (University of Nevada, Reno)
Co-PI Time Commitment Per Year: 0.1 Summer Month

Department of Education

Title: Graduate Assistance in Areas of National Need (GAANN) Program: Engineering Community Resilience
Total Award: $885,834
Total Award Period Covered: 09/01/2015-08/31/2018
PI: R. Corotis; Co-PIs: S. Dashti, A. Liel, A. Javernick-Will, K. Porter, and others (Univ. of Colorado Boulder)
Co-PI Time Commitment Per Year: 0 Pay

National Science Foundation (NSF)

Title: RIPS Type 1—The Interdependence of Built, Social, and Information Infrastructures for Community Resilience: A Participatory Process
Total Award: $299,219
Total Award Period Covered: 10/01/2014-09/31/2015
Location of Project: University of Colorado Boulder
PI: Abbie Liel; Co-PI's: Shideh Dashti, Leysia Palen, Bruce Goldstein, and Amy Javernick-Will (University of Colorado Boulder)
Co-PI Time Commitment Per Year: 0.5 summer month

Internally Funded Research Grants

Total Internal Funds as PI: $431,215 ($425,400 after tenure); Total Internal Funds as Co-PI: $67,250 ($28,250 after tenure).

Funded as PI

University of Colorado Engineering Excellent Fund 2024

Title: Centrifuge Environmental Chamber for Climate Change Impacts on Infrastructure
Total Award: $50,400; PI: Shideh Dashti (University of Colorado Boulder)

University of Colorado Boulder's College of Engineering and Applied Sciences - Interdisciplinary Research Theme (IRT) 2022-2024

Title: RISE – Resilient Infrastructure with Sustainability and Equity
Total Award: $125,000
Total Award Period Covered: 01/01/2023-01/01/2024
PI and IRT director: Shideh Dashti (University of Colorado Boulder)

University of Colorado Boulder's College of Engineering and Applied Sciences - Interdisciplinary Research Theme (IRT) 2020-2022

Title: RISE – Resilient Infrastructure with Sustainability and Equity
Total Award: $250,000
Total Award Period Covered: 07/01/2020-06/31/2022
PI and IRT director: Shideh Dashti (University of Colorado Boulder)

Implementation of Multicultural Perspectives and Approaches in Research and Teaching (IMPART) Fellowship

Title: Locating Underrepresented Perspectives in Environmental Design Curriculum and Pedagogy
Total Award: $3,815.00
Total Award Period Covered: 07/01/2014-06/31/2015
PI: Shideh Dashti (University of Colorado Boulder)

Co-PI: Tori Derr, Sheryl Koutsis, Shawhin Roudbari (University of Colorado Boulder)

University of Colorado Engineering Excellent Fund Minor Award 2011

Title: Realistic Earthquake Simulation with a Tilted Shake Table
Total Award: $2,000; PI: Shideh Dashti (University of Colorado Boulder)

Funded as Co-PI

University of Colorado Engineering Excellent Fund Major Award 2019

Title: Digital Image Correlation in the CU Boulder 400-g ton Centrifuge
Total Award: $28,250
PI: April Bowman (Post-doctoral scholar, University of Colorado Boulder)
Co-PI: Shideh Dashti (University of Colorado Boulder)

University of Colorado Engineering Excellent Fund Major Award 2013

Title: Development of a Cyclic Triaxial Testing Device
Total Award: $20,000
PI: Parnaz Boodagh (PhD student at the time, University of Colorado Boulder)
Co-PI: Shideh Dashti (University of Colorado Boulder)

University of Colorado Engineering Excellent Fund Major Award 2011

Title: Large Laminar Container for Earthquake Simulation
Total Award: $19,000
PI: Majid Ghayoomi (Post-doctoral scholar, University of Colorado Boulder)
Co-PI: Shideh Dashti (University of Colorado Boulder)

Teaching

New Course Development

Spring 2011, CVEN4838/5838: Special Topics – Geotechnical Earthquake Engineering (changed to CVEN5818 in 2012)

Created a new cross-listed advanced undergraduate and graduate level course on Geotechnical Earthquake Engineering. The purpose of this course is to familiarize students with earthquake hazards and methods for seismic analysis and design: fundamentals of engineering seismology, site response, liquefaction assessment and mitigation design, seismic slope stability, and seismic design of retaining structures. This course was later formalized as CVEN5818 for graduate students.

Representative FCQ results for Geotechnical Earthquake Engineering (CVEN 5818) based on the new scoring system (out of 5).

Year	**Fall 2024**	**Fall 2023**	**Fall 2021**	**Fall 2020**
No. of students filling out survey	5	10	5	5
Respectful interaction	5	5	4.83	4.75
Learning reflection	4.8	5	4.17	5
Collaboration among students	4.4	5	4.17	4.5
Contribution to ideas & thoughts	4.8	5	4.67	5
Evaluate arguments, assumptions, conclusions	5	4.9	5	4.75
Respect for diverse students and viewpoints	4.8	5	4.83	5
Challenge to develop one's own knowledge	4.8	4.9	4.5	5
Opportunities to ask questions	4.8	5	4.83	5
Availability	4.8	5	4.83	5
Effective use of technology	4.6	5	4.76	5

Representative FCQ results for CVEN 5818 based on the old scoring system (out of 6).

Year	Fall 2019	Sp 2017	Sp 2016	Sp 2015	Sp 2014	Sp 2013	Sp 2012	Sp 2011
No. of students filling out survey	7	13	9	7	13	10	15	18
Course overall	5.8	5.8	5.9	5.9	5.6	5.6	4.8	5.3
Instructor overall	5.8	6	6	6	5.8	6	5	5.5
Instructor respect/professional treatment	5.8	6	6	6	6	6	5.7	5.9
Intellectual challenge	5	5.3	5	5.3	5	5.4	5	5.1
How much learned	5.6	5.5	5.9	5.7	5.3	5.5	5.2	5.4

Representative FCQ results for Foundation Engineering (CVEN 4728/5728) based on the old scoring system (out of 6).

Year	Fall 2016	Fall 2017
No. of students filling out survey	16	13
Course overall	5.9	5.5
Instructor overall	5.9	5.9
Instructor respect/professional treatment	6	5.0
Intellectual challenge	5.2	4.5
How much learned	5.9	5.2

Representative FCQ results for Geotechnical Engineering I (CVEN 3708) based on the new scoring system (out of 5).

Year	Fall 2024	Fall 2022	Fall 2021	Fall 2020*
No. of students filling out survey	28/48	43	52	52
Respectful interaction	4.89	4.85	4.9	4.19
Learning reflection	4.71	4.79	4.7	3.96
Collaboration among students	4.71	4.84	4.93	3.96
Contribution on ideas & thoughts	4.39	4.85	4.63	4.07
Evaluate arguments, assumptions, conclusions	4.25	4.66	4.7	3.89
Respect for diverse students and viewpoints	4.9	4.04	4.86	4.52
Challenge	4.79	4.79	4.9	3.89
Opportunities to ask questions	4.71	4.91	4.93	4.37
Availability	4.86	4.88	4.9	4.15
Effective use of technology	3.56	4.48	4.07	4
Preparing for analysis of technical problems in CE	4.67	4.83	4.83	4.22

*Taught remotely due to the pandemic.

Representative FCQ results for CVEN 3708 based on the old scoring system (out of 6).

Year	Fall 2017	Sp 2015	Fall 2014	Sp 2014	Fall 2013
No. of students filling out survey	48	23	60	34	38
Course overall	4.6	5.3	4.8	5.4	5.3
Instructor overall	5.1	5.7	5.5	5.9	5.6
Instructor respect/professional treatment	5.9	5.8	6	6	6
Intellectual challenge	4.6	4.5	4.3	4.4	4.7
How much learned	5.0	5.1	5	5.3	5.3

Representative FCQ results for Geotechnical Engineering II (CVEN 3718) based on the old scoring system (out of 6).

Year	Fall 2019	Sp 2016	Sp 2013	Fall 2012
No. of students filling out survey	12	39	72	31
Course overall	6	5.4	5.4	5.4
Instructor overall	6	5.6	5.8	5.7
Instructor respect/professional treatment	6	5.9	6	5.9
Intellectual challenge	5	4.8	4.3	4.7
How much learned	5.71	5.5	5.2	5.3

Student Advising

[1] MS thesis option [2] MS report option [3] MS course-work

*Current PhD Student Committee Chair (those marked with * are co-advised and co-chaired)*

Amir Sayari	"Evaluation of rainfall-seismic liquefaction triggering and consequence"	Expected 2028
Katharine Rhoades*	"An integrated study seismic retrofit of non-ductile concrete buildings"	Expected 2027
Jonathan Schmidt*	"Regional mapping of ground failure & impact on transportation"	Expected 2027
Sina G. Senji*	"Effects of calcite precipitation on liquefaction resistance"	Expected 2027
Ben Barron*	"Vulnerability of U.S. carceral system to climate change" - Geography	(temporary leave)

Past Doctoral Student Committee Chair or Co-Chair

Caroline Bessette*	"Liquefaction mitigation in stratigraphically variable liquefiable soils"	2024
Lianne Brito*	"Influence of interlayering on liquefaction consequences"	2024
Hailey-Rae Rose*	"Axial response of water distribution pipelines"	2023
Yu-Wei Hwang	"Numerical Modeling of Liquef. Mitigation in Urban Settings"	2021
Juan Carlos Tiznado	"Perf. Based Design of Gravel Columns in Embankments"	2021
Zachary Bullock*	"Perf. Based Eval. of Liquef. Effects on Buildings"	2020
Mahir Badanagki	"Centrifuge modeling of dense granular columns in liquef. soils"	2019
Jenny Ramirez*	"Numerical Modeling of Liquefaction, Mitigation, and Structures"	2019
Balaji Paramasivam*	"Effects of Drains on Building Perf. on Liquef. Ground"	2018
Juan Carlos Olarte*	"Effects of Densification on Building Perf on Liquef. Ground"	2017
Ashkaan Hushmand	"Seismic Performance of Buried Reservoir Structures"	2016
Zana Karimi	"Liquef. Induced Building Settlement and Tilt"	2016
Kenneth Gillis	"Seismic Resp. of Underground Struc in Dense Urban Env."	2015

Past MS Student Committee Chair (some co-advised)

Supreeth Prasad[3]	Coursework	2022
Jacob Klingaman[1]	"Seismic performance of pipelines in liquefiable gentle slopes"	2022
Aditya Jagadeesan[2]	"Design and testing of miniature cone penetrometer in centrifuge"	2021
Erin Alexandra Nebel[3]	Coursework	2020
David Provost[1]	"Influence of Irregular Cyclic Loading on Nevada Sand"	2020
Christina Jones[1]	"Seismic Perf. of Temp. Excavations in Dense Urban Env."	2015
Cyrus Hoda[2]	"Influence of Liquefaction Remediation Strategies on Buildings"	2015
Devon McLay[1]	"Physical and Num. Modeling of Seismic Perf. of Buried Struc."	2013
Kenneth Gillis[1]	"Tactile Sens. Calib and Data Anal. for Geotech Cent. Modeling"	2013

*Current and Past Post-Doctoral Scholars and Research Associates (those co-advised marked with *)*

Dr. Patrick Dixon*	Post-doctoral Scholar	2021-2023
Dr. Sara Glade*	Post-doctoral Scholar	2021-2022
Dr. Juan Carlos Tiznado	Post-doctoral Scholar	2021
Dr. April Bowman	Post-doctoral Scholar	2018-2019
Dr. Peter Kirkwood	Post-doctoral Scholar	2016-2018
Dr. Zana Karimi	Post-doctoral Scholar	2016-2017
Dr. Min Zhang*	Research Associate and Centrifuge Engineer	2012-2015
Dr. Derya Deniz*	Post-doctoral Scholar	2014-2015
Dr. Majid Ghayoomi	Post-doctoral Scholar	2011-2012

Graduate Committee Participation (other than the primary advisor)

Corey Flynn, PhD Comprehensive Exam Committee, Geological Sciences, CU Boulder, 2024
Shile Dong, PhD Defense Committee, Geotechnical Engineering, CU Denver, 2024
Yahya Binmahfouz, PhD Defense Committee, Geotechnical Engineering, CU Denver, 2024
Geng Chen, MS Defense Committee, Geotechnical Engineering, CU Denver, 2024
Kate Stelwagon, MS Defense Committee, Geotechnical Engineering, CU Boulder, 2024
Melina Farahmand, Undergraduate Honors Thesis Committee, Environmental Studies (ENVS), 2024
Golsa Mahdavi, PhD Defense Committee, Structural Engineering, 2023
Joelle Westcott, MS Thesis Defense, Geotechnical Engineering, 2023
Shile Dong, PhD comprehensive exam, Geotechnical Engineering, CU Denver, 2023

Yahya Binmahfouz, PhD comprehensive exam, Geotechnical Engineering, CU Denver, 2023
Heather Champeau, PhD dissertation defense committee, Department of Sociology, CU Boulder, 2022
Maria Jose Echeverria, PhD comprehensive exam, Structural Engineering, 2021
Yuamar Basarah, PhD defense, Geotechnical Engineering, University of Illinois at Urbana Champaign, 2021
Fracisco Pinto Vega, PhD research supervision and defense committee member, PUC, Chile, 2021
Luca Paolella, PhD defense, Geotechnical Engineering, University of Cassino and Southern Lazio, Italy, 2021
Joshua Hughes, MS defense, Geotechnical Engineering, 2021
Polly Murray, PhD defense, Structural Engineering, 2021
Dustin Cook, PhD Defense, Structural Engineering, 2020
Cory Ihnotic, MS Report Defense, Structural Engineering, 2019
Robert Chase, PhD Defense, Structural Engineering, 2018
Egbal Elmagre, PhD Defense, Geotechnical Engineering, UC Denver, 2018
Jungang Liu, PhD Defense, Geotechnical Engineering, UC Denver, 2018
Joon Soo Park, MS, Geotechnical Engineering, 2018
Gregory James Maris, MS, Geotechnical Engineering, 2018
Jakub Valigura, PhD Comprehensive Exam, Structural Engineering, 2017
Robert Chase, PhD Comprehensive Exam, Structural Engineering, 2017
Michael Musgrove, PhD Comprehensive Exam, Geotechnical Engineering, Univ. of Illinois at Urbana Champaign, 2016
Matthew Rankins, MS, Architectural Engineering, 2016
Carson Ellis Brown, MS, Architectural Engineering, 2016
Mohammad Amin Hariri Ardebili, PhD Candidate, Structural Engineering, 2015
Charles Coccia, PhD Candidate, Geotechnical Engineering, 2015
Meera Raghunandan, PhD, Structural Engineering, 2013
Karim Farokhnia, PhD, Structural Engineering, 2013
Holly Bonstrom, PhD, Structural Engineering, 2013
Jared Debock, PhD, Structural Engineering, 2013
Thamer Al Yacoub, PhD, Geotechnical Engineering, 2011
Sarah Joy Welsh-Huggins, MS, Structural Engineering, 2015
Cletus Blum, MS, Geotechnical Engineering, 2015
Hannah Iezzoni, MS, Geotechnical Engineering, 2014
Russell Dutta, MS, Geotechnical Engineering, 2014
Daniel Jewoong Hahn, MS, Structural Engineering, 2014
Alexander Vega, MS, Geotechnical Engineering, 2012
Takis Vlasakakis, MS, Geotechnical Engineering, 2012
Jack Thorpe, MS, Structural Engineering, 2012
Derek Bauer, MS, Structural Engineering, 2012

Undergraduate Student Research Advising

Ms. Alexandra Ivanova, SPUR Program, Summer 2025
Mr. Ian McLeod, SPUR Program, Summer 2025
Mr. Gionni Madrid, SPUR Program for Community College Students, Summer 2024
Ms. Ada Sanders, SPUR Program for Community College Students, Summer 2024
Mr. Gabriel Gonclaves, the SMART program, Summer 2023
Ms. Ariana Carmody, Fall 2022-2023
Mr. Caleb Schmidt, Summer 2022
Ms. Joelle Westcott, Summer 2018-2023
Ms. Eleanor Taylor, 2022-2023
Mr. Joshua MDuffie, the SMART Program, Summer 2018
Ms. Daniarely Loma Jasso, Summer 2017
Ms. Isabel McLeod, Summer 2017
Ms. Nicole Souder, Fall 2016
Ms. Samantha Guillies, Fall 2016-Spring 2017
Ms. Lianne Brito, the SMART Program, Summer 2016
Mr. Matthew Paul Egeler, Fall 2015-Spring 2016
Mr. Luciano De Oliveira Souza Junior, Fall 2015-Summer 2016
Mr. Leonardo Soligo Gomes, Fall 2015-Summer 2016
Ms. Rebecca Scheetz, August 2014-Spring 2016

Ms. Anisha Lamsal, September 2014-2015
Ms. Devon Marsh, September 2014-2015
Mr. Tiago De Oliveira Almeida, Summer 2014
Ms. Jalila Elfejji, the Summer Multicultural Access to Research Training (SMART) Program, 2014
Mr. Frias Miguel, the SMART Program, Summer 2013
Mr. Christian G. Hernandez Negron, the SMART Program, Summer 2012

Service Activities

National and International Society/Committee Membership

- American Society of Civil Engineers (American Society of Civil Engineers, ASCE)
- Earthquake Engineering Research Institute (EERI)
- ATC Building Seismic Safety Council (BSSC) Provisions Update Committees (PUC) on liquefaction, foundation design, and seismic soil-structure interaction.
- International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE TC104 committee member and one of two U.S. representative)
- Co-leader and Steering Committee member of GeoEngineering Extreme Event Reconnaissance (GEER) since 2018, also participated in 8 reconnaissance efforts since 2011 (leader of 3)
- Elected board member to the Earthquake Engineering and Soil Dynamics Committee (Vice Chair), ASCE Geo-Institute

Departmental/College/Campus Committee Participation

- Chair of JEDI committee, CEAE department, CU Boulder (2024-current)
- College of Engineering and Applied Science (CEAS) taskforce Co-Chair for School of Sustainability Engineering (2024-current)
- CEAE taskforce on Sustainability minor and major degrees (2024-current)
- Budget and finance committee, Boulder Faculty Assembly (2023-2024)
- Search committee for Vice Chancellor for Research and Dean of Institutes (2022-2023)
- National Security Initiatives (NSI) advisory board (2022-2023)
- Campus Misconduct Advisory Group, CMAG (2022-2023)
- Standing Committee on Research Misconduct, SCRM (2021-2023)
- TQF committee for CEAE (2020-2022)
- Curriculum Committee (2019-2020)
- Co-Director of Center for Infrastructure, Energy, and Space Testing, CIEST (2015-2022)
- ABET representation for Civil Engineering (2018-2022)
- Laboratory Facilities Committee (2017 – 2018)
- Graduate Committee (2013 – 2017)

Journal Article Editorial or Peer-Review Activities

- Associate Editor: ASCE Journal of *Geotechnical and GeoEnvironmental Engineering.*
- Reviewer for: ASCE Journal of Geotechnical and GeoEnvironmental Engineering, Geotechnique, Royal Society, EERI Journal of Earthquake Spectra, Canadian Geotechnical Journal, Journal of Earthquake Engineering, Geotechnical Testing Journal, Soils and Foundations, Soil Dynamics and Earthquake Engineering, Acta Geotechnica.

Proposal Reviewer and Panelist

- NSF's Engineering for Civil Infrastructure Program (ECI) panel
- NSF's Graduate Research Fellowship Program (GRFP) panel
- NSF's Network for Earthquake Engineering Simulation (NEES)
- NSF's Geotechnical Engineering and Geomechanics (GEGM) unsolicited proposal panel
- NSF's Engineering for Natural Hazards (ENH) unsolicited proposal panel
- US Geological Survey (USGS) Earthquake Engineering (EE) panel
- Swiss National Science Foundation and Canada Foundation for Innovation (John R. Evans Leaders Fund)