

## **ALI KHOSRAVI, PH.D., P.E. (OR)**

Auburn University, Auburn, AL  
(334) 844-6208  
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### **EDUCATION**

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- Doctor of Philosophy, Civil Engineering** Jan. 2011  
University of Colorado Boulder, Boulder, CO – Specialization in Geotechnical Engineering  
Dissertation: Small Strain Shear Modulus of Unsaturated, Compacted Soils under Hydraulic Hysteresis  
Advisor: John S. McCartney
- Master of Science, Civil Engineering** Dec. 2005  
Sharif University of Technology, Tehran, Iran – Specialization in Geotechnical Engineering  
Thesis: Experimental Measurement of Shear Strength of Fractured Rocks  
Advisor: Mohammad H. Sadaghiani
- Bachelor of Science, Civil Engineering** Aug. 2003  
Sharif University of Technology, Tehran, Iran

### **ACADEMIC POSITIONS HELD**

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- Assistant Professor**, Auburn University, Auburn, AL Jan. 2022 – Present  
Department of Civil and Environmental Engineering
- Research Associate**, Oregon State University, Corvallis, OR Oct. 2019 – Dec. 2021  
School of Civil and Construction Engineering, Geotechnical Engineering Group  
*Project*: Bridge Column Footing Performance and Seismic Retrofit Evaluation Considering Soil-Structure Interaction  
*Project Advisors*: Armin W. Stuedlein  
Christopher C. Higgins  
College of Earth, Ocean, and Atmospheric Sciences  
*Project*: Discrete Element Modeling of Arctic Sea Ice  
*Project Advisors*: Jennifer Hutchins
- Research Associate**, University of California, Davis, CA Mar. 2017 – April 2019  
Department of Civil, Environmental and Architectural Engineering, Geotechnical Engineering Group  
*Project*: Bioinspired Burrowing Robot for Natural and Human-Made Geologic Hazard Assessment  
*Project Advisors*: Jason DeJong  
Alejandro Martinez
- Visiting Researcher**, University of California, Davis, CA Jan. 2016 – Mar. 2017  
Department of Civil, Environmental and Architectural Engineering, Geotechnical Engineering Group  
*Project*: Remediation of Liquefaction Effects for a Dam using Soil-Cement walls  
*Project Advisor*: Ross Boulanger  
Dan Wilson
- Assistant Professor**, Sharif University of Technology, Tehran, Iran Aug. 2012 – Jan. 2016  
Department of Civil Engineering, Geotechnical Engineering Group
- Postdoctoral Researcher**, University of Colorado Boulder, Boulder, CO Jan. 2011 – Jan. 2012  
Department of Civil, Environmental and Architectural Engineering, Geotechnical Engineering Group  
*Project*: Non-Destructive Evaluation of Energy Foundations Subjected to Cycles of Heating and Cooling  
*Research Advisor*: John S. McCartney
- Graduate Researcher**, University of Colorado Boulder, Boulder, CO Aug. 2007 – Jan. 2011  
Department of Civil, Environmental and Architectural Engineering, Geotechnical Engineering Group  
*Project*: Impact of Hydraulic Hysteresis on the Small-Strain Shear Modulus of Unsaturated Soils  
*Research Advisor*: John S. McCartney

## **PROFESSIONAL CERTIFICATIONS & LICENSURE**

P.E. (Professional Engineering) License, OR

## **PROFESSIONAL AFFILIATIONS**

- American Society of Civil Engineers (ASCE)
- Engineers without Borders (EWB-USA)

## **RESEARCH PUBLICATION**

### **Journal Publication**

- 24- **Khosravi, A.**, Stuedlein, A. W., and Higgins, C. (2022) "Titanium Seismic Substructure Retrofit to Enable Rocking of Bridge Foundations Considering Soil-Structure Interaction: Experiments and Numerical Simulations" Submitted to ASCE Journal of Structural Engineering (under review).
- 23- Ghorbani Z., **Khosravi, A.**, Maghsoodi, Y., Mojtahedi, S. F. F, Javadnia, E., and Nazari, A. (2022) "Use of InSAR Data for the Measurement of Land Subsidence in Response to Groundwater Fluctuations and Climate Change (Case Study: Ardabil Plain, Iran)" Submitted to Scientific Reports (under review).
- 22- Khosravi, M. Khosravi, A., Boulanger, R., DeJong, J., Wilson, D., Hajjalilue Bonab, M. (2022). "Centrifuge Tests of Cone Penetration Test of Layered Soil" Submitted to ASCE Journal of Geotechnical and Environmental Engineering (in press).
- 21- **Khosravi, A.**, Stuedlein, A. W., and Higgins, C. (2021) "New Formulation for Estimating the Moment Capacity of Rocking Shallow Foundations Resting on Variably Saturated Soil" ASCE Journal of Bridge Engineering, 26(11), 04021084.
- 20- Chen, Y., **Khosravi, A.**, Martinez, A., and DeJong, J. (2021) "Modeling the Self-Penetration Process of a Bio-Inspired Probe in Granular Soils" Bioinspiration and Biomimetics, 16(4). 16(4), 046012.
- 19- Moradshahi, A., **Khosravi, A.**, McCartney, J. S. and Bouazza, A (2020). "Axial Load Transfer Analyses of Energy Piles at a Rock Site." Journal of Geotechnical and Geological Engineering, 1-23.
- 18- **Khosravi, A.**, Hashemi, A. H., and Ghadirian, S. (2020). "Variation of the Small Strain Shear Modulus of Unsaturated Silt under Successive Cycles of Drying and Wetting." Journal of Geotechnical and Geoenvironmental Engineering, 146 (7).
- 17- **Khosravi, A.**, Martinez, A., DeJong, J., and Wilson, D. (2020). "Discrete Element Model (DEM) Simulations of Cone Penetration Test (CPT) Measurements and Soil Classification" Canadian Geotechnical Journal, 57, 1369 - 1387.
- 16- Martinez, A., DeJong, J., Jaeger, R., and **Khosravi, A.** (2020). "Evaluation of Self-penetration Potential of a Bioinspired Site Characterization Probe by Cavity Expansion Analysis." Canadian Geotechnical Journal, 57(5), 706-716.
- 15- Boulanger, R. W., Khosravi, M., **Khosravi, A.**, and Wilson, D. W. (2018). "Remediation of Liquefaction Effects for an Embankment using Soil-Cement Walls" Soil Dynamics and Earthquake Engineering, 114, 38-50.
- 14- **Khosravi, A.**, Shahbazan, P., and Pak, A. (2018). "Impact of Hydraulic Hysteresis on the Small Strain Shear Modulus of Unsaturated Sand." Journal of Soils and Foundations, 58(2), 344-354.
- 13- Ghayoomi, M., Ghadirian, S., **Khosravi, A.**, and Mirshekari, M. (2018). "Seismic Behavior of Pile-Supported Superstructures in Unsaturated Sand." Soil Dynamics and Earthquake Engineering, 112, 162-173.
- 12- Shakeri, M. R., Haeri, S. M., Shahrabi, M. M., **Khosravi, A.**, Sajadi A. A. (2018) "An Experimental Study on Mechanical Behavior of a Calcite Cemented Gravelly Sand." ASTM Geotechnical Testing Journal, 41(3).
- 11- **Khosravi, A.**, Rahimi, M., and Gheibi, A. (2017). "Impact of Plastic Compression and Void Ratio on the Small Strain Shear Modulus of Unsaturated Silts." International Journal of Geomechanics, 18(2).
- 10- **Khosravi, A.**, Dadashi, A., Mousavi, M., Haeri, S. M. (2016). "Impact of Hydraulic Hysteresis and Degree of Saturation of Infill Materials on the Behavior of Infilled Rock Fractures." International Journal

- of Rock mechanics and Mining Sciences, 88. 10 pg.
- 9- **Khosravi, A.**, Salam, S., McCartney, J. S., Dadashi, A. (2015). "Suction-induced Hardening Effects on the Shear Modulus of Unsaturated Silt." *International Journal of Geomechanics* 16(6), D4016007.
  - 8- Haeri, S. M., **Khosravi, A.**, Akbari Garakani, A., Ghazizadeh, S. (2015). "Effect of Soil Structure and Disturbance on Hydro-mechanical Behavior of Collapsible Soils." *International Journal of Geomechanics*, 17(1), 04016021.
  - 7- Akbari Garakani, A., Haeri, S. M., **Khosravi, A.**, Habibagahi, G. (2015). "Hydro-Mechanical Behavior of Undisturbed Loessial Soil under Different Stress State Conditions." *Engineering Geology* Volume 195, 14 pg.
  - 6- Haeri, S. M., Akbari Garakani, A., **Khosravi, A.**, Meehan, C. L., (2014). "Assessing the Hydro-mechanical Behavior of Collapsible Soils Using a Modified Triaxial Test Device." *ASTM Geotechnical Testing Journal*, 37(2). 15 pg.
  - 5- **Khosravi, A.**, Sadaghiani, M. H., Khosravi, M., and Meehan, C. L., (2013). "The Effect of Asperity Roughness and Orientation on the Shear Behavior of Rock Joints." *ASTM Geotechnical Testing Journal*, 36(3). 14 pg.
  - 4- McCartney, J. S. and **Khosravi, A.** (2012). "Field Monitoring System for Suction and Temperature Profiles under Pavements." *Journal of Performance of Constructed Facilities*, 27(6), 8 pg.
  - 3- **Khosravi, A.** and McCartney, J. S. (2012). "Impact of Hydraulic Hysteresis on the Small Strain Shear Modulus of Compacted Silt." *Journal of Geotechnical and Geoenvironmental Engineering*, 138(11), 8 pg.
  - 2- **Khosravi, A.**, Alsherif, N., Lynch, C., and McCartney, J. S. (2012). "Use of Multistage Triaxial Testing to Define Effective Stress Relationships for Unsaturated Soils." *Special Issue on Advances in Experimental Characterization of Unsaturated Soils, Volume 2, ASTM Geotechnical Testing Journal*, 35(1), 10 pg.
  - 1- **Khosravi, A.** and McCartney, J. S. (2011). "Suction-Controlled Resonant Column Device for Unsaturated Soils." *ASTM Geotechnical Testing Journal*, 34(6), 10 pg.

#### ***Conference Proceeding***

- 35- Jebeli M., Mohsen Haeri S., Khosravi A. (2022) Characterizing the Effect of Fines Content on the Small Strain Shear Modulus of Sand-Silt Mixtures During Hydraulic Hysteresis. *Advances in Transportation Geotechnics IV. Lecture Notes in Civil Engineering*, vol 165. Springer, Cham. [https://doi.org/10.1007/978-3-030-77234-5\\_69](https://doi.org/10.1007/978-3-030-77234-5_69).
- 34- Rahimi, M., Shahbazan, P., Gheibi, A., Khosravi, A., Pak, A., and Yarmahmoodi, M. (2020). An Experimental Study on the Clarity of Transmitted Bender Element Signals in Unsaturated Silt and Sand. *Geo-Congress 2020* Feb 24-27, Minneapolis, MN.
- 33- Chen, Y., **Khosravi, A.**, Martinez, A., DeJong, J., and Wilson, D. (2020) "Analysis of the Self-Penetration Process of a Bio-Inspired In-Situ Testing Probe" *Geo-Congress 2020*, Feb 24-27, Minneapolis, MN.
- 32- Banar, S., **Khosravi, A.**, Haeri, S.M., and Khosravi, M. (2019) "Evaluation of Strain Dependent Shear Modulus and Damping Ratio of Unsaturated Silty Soil during Drying Path with Resonant-Column-Torsional Shear" 7<sup>th</sup> ICEGE (International Conference on Earthquake Geotechnical Engineering), June 17-19, Rome, Italy.
- 31- Arabi, M. G., Farhadzadeh, A., **Khosravi, A.** (2018) "Recession of Predominantly Sandy Bluffs" *Coastal Engineering Proceedings*, p. 78.
- 30- Khosravi, M., Boulanger, R. W., DeJong, J., **Khosravi, A.**, Hajjalilue-Bonab, M., and Wilson, D. (2018) "Centrifuge Modeling of Cone Penetration Testing in Layered Soil" *Geotechnical Earthquake Engineering and Soil Dynamics V GSP 290*, June 10–13, Austin, TX.
- 29- **Khosravi, A.**, Martinez, A., DeJong, J., and Wilson D. (2018) "Discrete Element Simulations of Bio-Inspired Self-Burrowing Probes in Sands of Varying Density" *IS Atlanta 2018 & B2G Atlanta 2018*, September 10-13, Atlanta, GA.
- 28- Ghasemi, P. and **Khosravi, A.** (2018) "Variation of Shear Strength of an Unsaturated Silica Sand during Drying" *The 7th International Conference on Unsaturated Soils (UNSAT2018)*, Aug. 3-5, Hong Kong.

- 27- Khosravi, M., Boulanger, R. W., **Khosravi, A.**, DeJong, J., and Hajjalilue-Bonab, M. (2018). "Centrifuge Modeling of Cone Penetration Testing (CPT) in Layered Soil" Geotechnical Earthquake Engineering and Soil Dynamics V, June 10–13, Austin, TX.
- 26- Mojtahedi, S. F. F, **Khosravi, A.**, Nazari1, A., Rezvani, S., Khatami, A., and Ahmadi, N. (2018). "Measurement of Moisture and Temperature Profiles in Different Layers of Soil" IFCEE2018, March 6-10, Orlando, FL.
- 25- Shahbazan, P., **Khosravi, A.**, Toomani, P., and Pak, A. (2017). "Impact of Grain Size Distribution Curve on the Small Strain Shear Modulus of Unsaturated Sand" PanAm-UNSAT 2017: Unsaturated Soil Mechanics for Sustainable Geotechnics, Nov. 12-15, Addison, Texas.
- 24- Ghadirian, S., **Khosravi, A.**, Mirshekari, M., and Ghayoomi, M. (2017). "Earthquake Induced Lateral deformation of a Pile-Supported System in Unsaturated Sand." 3rd International Conference on Performance-based Design in Earthquake Geotechnical Engineering (PBD-III). July 16-19, 2017 Vancouver, BC, Canada.
- 23- **Khosravi, A.**, Khosravi, M., Boulanger, R. W., Wilson, D. W., and Pulido, A. (2017). "Dynamic Centrifuge Test of an Embankment Dam on Liquefiable Soil Reinforced with Soil-Cement Walls." 3rd International Conference on Performance-based Design in Earthquake Geotechnical Engineering (PBD-III). July 16-19, 2017 Vancouver, BC, Canada.
- 22- Boulanger, R. W., Khosravi, M., **Khosravi, A.**, Wilson, D. W., Pulido, A., Wang, Y. (2017). "Remediation of liquefaction effects for a dam using soil-cement-grids: Centrifuge and numerical modeling." 19th International Conference on Soil Mechanics and Geotechnical Engineering (ICSMGE 2017). September 17 to 22, Seoul, Republic of Korea.
- 21- **Khosravi, A.**, Mousavi, S. M., and Khosravi, M. (2017). "A Semi-Empirical Shear Strength Model for Infilled Rock Fractures with Infills in an Unsaturated State." Geo-Congress 2017: Innovation and Collaboration in Technology and Practice, March 12-15, Orland, FL.
- 20- Mojtahedi, S. F. F, **Khosravi, A.**, Naeimian, B., Hosseini, S. A. A. (2017). "Comparison of Different Techniques to Estimate Surface Soil Moisture." ICEGE 2017: International Conference on Earthquake Geotechnical Engineering, February 23-24, Paris, France.
- 19- **Khosravi, A.**, Rahimi, M., Shahbazan, P., Pak, A., and Gheibi, A. (2016). "Characterizing the Variation of Small Strain Shear Modulus for Silt and Sand during Hydraulic Hysteresis." E-UNSAT 2016 - 3rd European Conference on Unsaturated Soils. Sept. 12-14, Paris, France.
- 18- **Khosravi, A.**, Moradshahi, A., McCartney, J. S., and Kabiri, M. (2016). "Numerical Analysis of Energy Piles under Different Boundary Conditions and Thermal Loading Cycles." E-UNSAT 2016 - 3rd European Conference on Unsaturated Soils. Sept. 12-14, Paris, France.
- 17- **Khosravi, A.**, Ghadirian, S., and McCartney, J. S. (2016). "Effect of Subsequent Drying and Wetting on the Small Strain Shear Modulus of Unsaturated Soils." ICEGE 2016: International Conference on Earthquake Geotechnical Engineering, February 01-02, Rio de Janeiro, Brazil.
- 16- **Khosravi, A.**, Mousavi, S. M., and Dadashi Serej, A. (2016). "Hydraulic Behavior of Infilled Rock Fractures under Unsaturated Conditions." Geotechnical and Structural Engineering Conference (GeoSei2016), February 14-17, Phoenix, AZ.
- 15- **Khosravi, A.**, Gheibi, A., Rahimi, M., and Haeri, S. M. (2015) "Effect of Stress Path on the Small Strain Shear Modulus of an Unsaturated Silty Soil" The 15th Asian Regional Conference on Soil Mechanics (15ARC), November 9-13, Fukuoka, Japan.
- 14- Haeri, S. M., **Khosravi, A.**, and Ghaizadeh, S., (2015). "The Measurement of Suction Stress Characteristic Curve for a Highly Collapsible Loessial Soil" The 2015 International Foundations Congress & Equipment Exposition (IFCEE2015), March 17-21, San Antonio, Texas.
- 13- Haeri, S. M., **Khosravi, A.**, Ghaizadeh, S., Akbari Garakani, A., and Meehan, C. L. (2014). "Characterization of the Effect of Disturbance on the Hydro-mechanical Behavior of a Highly Collapsible Loessial Soil." UNSAT2014: Unsaturated Soils: Research & Applications, July 2-4, Sydney, Australia.
- 12- **Khosravi, A.**, Khosravi, M., Sadaghiani, M. H., and Meehan, C. L., and Amini, E. (2014)." Assessing the Shear Behavior of Oriented Rock Joints under Constant Normal Loading Conditions." Geo-Congress

2014: Geo-Characterization and Modeling for Sustainability, Feb. 23-26, Atlanta, GA.

- 11- Khosravi, M., Meehan, C. L., Cacciola, D., and **Khosravi, A.** (2013). "Displacement-Rate Effect on the Residual Shear Strengths Measured Along Pre-Existing Shear Surfaces." Geo-Congress 2013: Stability and Performance of Slopes and Embankments, March 3-6, San Diego, CA.
- 10- Khosravi, M., Leshchinsky, D., Meehan, C. L., and **Khosravi, A.** (2013). "Stability Analysis of Seismically Loaded Slopes Using Finite Element Techniques." Geo-Congress 2013: Stability and Performance of Slopes and Embankments, March 3-6, San Diego, California.
- 9- **Khosravi, A.**, Khosravi, M., and Meehan, C. L. (2013). "The Hydro-Mechanical Behavior of Infilled Rock Joints with Fill Materials in Unsaturated Conditions." Geo-Congress 2013: Stability and Performance of Slopes and Embankments, March 3-6, San Diego, California.
- 8- McCartney, J. S. and **Khosravi, A.** (2012). "Field Monitoring System for Suction and Temperature Profiles under Pavements." Transportation Research Board (TRB) 91<sup>st</sup> Annual Meeting, January 22-26, Washington, D.C.
- 7- **Khosravi, A.**, Abdelrahman, S., McCartney, J. S. (2012). "Non-Destructive Evaluation of Energy Foundations Subjected to Cycles of Heating and Cooling." Proc., Geo-Congress 2012: State of the Art and Practice in Geotechnical Engineering, Geotechnical Special Publication No. 225, Oakland, CA, March 25-29, 2012, ASCE, Reston, VA.
- 6- McCartney, J. S., Cox, B. R., Trowler, C., Wood, C.M. and **Khosravi, A.** (2011). "Seasonal Effects on the Dynamic Deformation of Geosynthetic-Reinforced Pavements." Geo-Frontiers 2011: Advances in Geotechnical Engineering, March 13-16, Dallas, TX.
- 5- Ghayoomi, M., **Khosravi, A.**, McCartney, J.S., and Ko, H.Y. (2010). "Challenges in Predicting Earthquake-Induced Settlements of Partially Saturated Sands." Geo-Florida 2010: Advances in Analysis, Modeling & Design, February 20-24, West Palm Beach, FL.
- 4- **Khosravi, A.**, Ghayoomi, M., and McCartney, J.S. (2010). "Impact of Effective Stress on the Dynamic Shear Modulus of Unsaturated Sand." Geo-Florida 2010: Advances in Analysis, Modeling & Design, February 20-24, West Palm Beach, FL (Nominated as the best paper).
- 3- **Khosravi, A.** and McCartney, J.S. (2009). "Impact of Stress State on the Dynamic Shear Modulus of Unsaturated, Compacted Soils." 4th Asia Pacific Conference on Unsaturated Soils, Nov. 23-25, Newcastle, Australia.
- 2- **Khosravi, A.**, Sadaghiani, M. H, Askari M., and Khosravi, M., (2007) "Effect of Shear Loading Direction on the Behavior of Rock Joints" CSCE Annual General Meeting & Conference, June, Yellowknife, Northwest Territories, Canada.
- 1- Khosravi, M., Jafarzadeh, F., and **Khosravi, A.** (2007) "Impact of Stress State and Moisture Content on Dynamic Properties of Babolsar Sand.", 4th International Conference on Earthquake Geotechnical Engineering, June, Thessaloniki, Greece.

#### **Technical Report**

- 7- Khosravi, M. **Khosravi, A.**, Boulanger, R., DeJong, J., Wilson, D., Hajjalilue Bonab, M. (2021). "Test MKH05 - Centrifuge Modeling of Cone Penetration Testing in Layered Soil" Liquefaction Evaluations of Finely Interlayered Sands, Silts and Clays. DesignSafe-CI. doi.: 10.17603/ds2-t4kz-0c30.
- 6- **Khosravi, A.**, Stuedlein, A. W., and Higgins, C. (2020) "A Review on Rocking Response of Shallow Foundations Resting on Variably Saturated Soil" Oregon Department of Transportation (ODOT).
- 5- **Khosravi, A.**, Mojtahedi, S. F. F, Nazari, A. (2019) "Ardabil Plain Subsidence Measurements using Field Monitoring and Remote Sensing Techniques" Ardebil Regional Water Authority, Ardebil, Iran.
- 4- **Khosravi, A.**, Martinez, A., DeJong, J., and Wilson, D. W. (2018), "Bioinspired Self-Burrowing Probes: A Review on the Burrowing Mechanisms of Different Invertebrates" Center for Bio-Mediated and Bio-Inspired Geotechnics, Davis, CA.
- 3- **Khosravi, A.**, Khosravi, M., Pulido, A., Wilson, D. W., and Boulanger R. W. (2016), "Remediation of Liquefaction Effects for a Dam using Soil-Cement- Walls" Center for Geotechnical Modeling, Davis,

CA.

- 2- **Khosravi, A.**, Khosravi, M. (2013), “Lime Stabilization of the Subgrade Layers in Pavement Systems” South Khorasan Highway and Civilization Department, Birjand, South Khorasan, Iran.
- 1- McCartney, J.S., Selvam, R.P.S., King, J., and **Khosravi, A.** (2010), “Validation of the Enhanced Integrated Climate Model for Pavement Design in Arkansas” Arkansas State Highway and Transportation Department, Fayetteville, AR

### **RESEARCH GRANTS**

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- \$30,000 – “Field Monitoring System for the Measurement of Land Subsidence in Ardebil Plain” Ardebil Regional Water Authority, Ardebil, Iran 02/01/16 to 02/01/2018.
- \$40,000 – “Element Scale Measurements of Dynamic Properties of Unsaturated Soils.” Sharif University of Technology, Tehran, Iran. 05/30/15 to 01/31/2017.
- \$20,000 – “Lime Stabilization of the Subgrade Layers in Pavement Systems” South Khorasan Highway and Civilization Department, Birjand, South Khorasan, Iran. 06/30/13 to 02/10/2015.

### **PROFESSIONAL POSITIONS HELD**

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- Geotechnical Engineer**, PBS Env. and Eng., Portland, OR Summer 2012
  - Inspecting, planning and supervising geotechnical field explorations
- Geotechnical Engineer**, CDM Inc., Falls Church, VA Summer 2008
  - Inspecting and supervising geotechnical field explorations, in-situ and laboratory testing for a 10-mile CSO storage/conveyance and flood relief tunnel for the D.C. Water and Sewer Authority, Anacostia River CSO, Washington, D.C
- Civil Engineer**, Gomez Consulting Engineers Co. Tehran, Iran Aug. 2005 – Aug. 2007
  - Assistant project manager for the rehabilitation of structures of different types (masonry, concrete and steel structures)
  - Inspecting, planning and supervising geotechnical field explorations
  - Successful design delivery of several concrete and steel residential buildings

### **EDUCATIONAL CONTRIBUTIONS**

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#### **Doctoral Students Co/Advised**

Zahra Ghorbani (2020 - present) – Use of InSAR Data for the Measurement of Land Subsidence in Response to Groundwater Fluctuations and Climate Change (Case Study: Ardabil Plain, Iran)

Amir Akbari (2014) - Hydro-Mechanical Behavior of Undisturbed Loessial Soil under Different Stress State Conditions

#### **Master of Science Students Co/Advised**

Shaya Banar (2019) – Measurement of Dynamic Properties of Unsaturated Soils under different hydraulic and mechanical loading conditions.

Mahrooz Abed (2017) – Impact of Degree of Saturation on Treatment Process of Sandy Soil using Microbially-Induced Carbonate Precipitation (MICP) Technique

Amir Hossein Hashemi ( 2017) – Effect of Subsequent Drying and Wetting on Dynamic Properties of an Unsaturated Silty Soil.

Pooriya Toomani (2017) – Developing an Experimental Approach for the Measurement of Shear Modulus and Damping Ratio of Unsaturated Soils at Different Strain Levels.

Pegah Ghasemi (2016) – Measurement of Suction Stress Characteristic Curve for Sand during Hydraulic Hysteresis.

Farid Fazel Mojtahedi (2016) – Field Monitoring System for the Measurement of Land subsidence.

Sahar Ghadirian (2016) – Soil-Pile-Structure Interaction in Unsaturated Soils.

Aria Moradshahi (2016) – Use of Axial Load Transfer Analysis for Energy Piles.

Parisa Shahbazan (2016) – Characterizing Variations in the Small Strain Shear Modulus of Unsaturated Sand during Hydraulic Hysteresis.

Masoud Mousavi (2016) – Impact of Hydraulic Hysteresis and Degree of Saturation of Infill Materials on the

Behavior of Infilled Rock Fractures.

Amin Gheibi (2016) – Impact of Plastic Compression and Void Ratio on the Small Strain Shear Modulus of Unsaturated Silts.

Mehrzad Rahimi (2016) – Impact of Stress Path on the Small Strain Shear Modulus of Unsaturated Soils.

Ali Dadashi (2015) – Shear Strength of Infilled Rock Fractures in an Unsaturated State

Nina Zabihi (2014) – Characterization of the Effect of Disturbance on the Hydro-mechanical Behavior of a Highly Collapsible Loessial Soil.

Shahin Ghazizadeh (2014) – Effect of Soil Structure and Disturbance on Hydro-mechanical Behavior of Collapsible Soils.

Samiha Abdelrahman (2012) – Non-Destructive Evaluation of Energy Foundations Subjected to Cycles of Heating and Cooling.

### **Undergraduate Students Advised**

Behnaz Naeimian (2015-present) – Use of Remote Sensing MODIS Data for Estimating Soil Moisture at the Surface

Adel Ahmadi Hosseini (2015-present) – Use of Radar Remote Sensing for Estimating Surface Soil Moisture

Asieh Baghbani (2015) – A GIS Framework for the Estimation of Subsurface Soil Moisture

Sajjad Salam (2014) – Suction-induced Hardening Effects on the Shear Modulus of Unsaturated Silt

Farid Fazel Mojtahedi (2014) – The SWRC measurements of Soils under High levels of Mean Net Stresses

### **Courses Taught**

Adjunct Professor: Sharif University of Technology, International Branch, Kish, Iran

Term	Course	Title	Student
Fall 2014	CE 53411	Soil Mechanics	23
Fall 2014	CE 53413	Foundation Engineering	30
Fall 2014	CE 53451	Engineering Geology	3
Fall 2013	CE 20411	Soil Mechanics	30
Fall 2013	CE 20894	Foundation Engineering	15
Fall 2013	CE 20401	Engineering Geology	32

Assistant Professor: Sharif University of Technology, Tehran, Iran

Term	Course	Title	Student
Fall 2015	CE 20411	Soil Mechanics	35
Fall 2015	CE 20894	Mechanics of Unsaturated Soils	10
Fall 2015	CE 20401	Undergraduate Soil Mechanics Lab	40
Spring 2015	CE 20411	Soil Mechanics	30
Spring 2015	CE 20413	Foundation Engineering	40
Spring 2015	CE 20401	Undergraduate Soil Mechanics Lab	27
Fall 2014	CE 20411	Soil Mechanics	42
Fall 2014	CE 20894	Mechanics of Unsaturated Soils	18
Fall 2014	CE 20401	Undergraduate Soil Mechanics Lab	20
Spring 2014	CE 20411	Soil Mechanics	35
Spring 2014	CE 20888	Soil Mechanics II	14
Spring 2014	CE 20401	Undergraduate Soil Mechanics Lab	17
Fall 2013	CE 20413	Foundation Engineering	43
Fall 2013	CE 20888	Mechanics of Unsaturated Soils	10
Fall 2013	CE 20401	Undergraduate Soil Mechanics Lab	18

Spring 2013	CE 20413	Foundation Engineering	43
Spring 2013	CE 20888	Soil Mechanics II	10
Spring 2013	CE 20401	Undergraduate Soil Mechanics Lab	18
Fall 2012	CE 20411	Soil Mechanics	50
Fall 2012	CE 20898	Mechanics of Unsaturated Soils	6
Fall 2012	CE 20401	Undergraduate Soil Mechanics Lab	18

Teaching Assistant, University of Colorado Boulder, Boulder, CO,

Term	Course	Title	Student
Fall 2007	CVEN 3708-3	Undergraduate Soil Mechanics Lab (II)	40
Fall 2007	CVEN 3525-3	Structural Analysis (TA)	70
Spring 2008	CVEN 3525-3	Undergraduate Soil Mechanics Lab (I)	45

## **SERVICE**

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### **Department, College, and University Services**

Advanced Geotech. Lab. Manager, Sharif University of Technology, Tehran, Iran, 9/12 – 1/16  
 Undergraduate Advisor, Sharif University of Technology, Tehran, Iran, 9/12 – 1/16  
 Member, Graduate Committee, Sharif University of Technology, Tehran, Iran, 9/1/12 – 1/16  
 Graduate Geotech. Lab. Manager, University of Colorado Boulder, Boulder, CO, 9/10 – 12/11

### **Journal Papers Reviewer**

ASTM Journal of Testing and Evaluation (2017 – present)  
 European Geotechnical Journal (2016 – present)  
 Soils and Foundations (2016 – present)  
 Journal of Materials in Civil Engineering (2015-present)  
 Clean- Soil, Air Water (2014 – present)  
 Canadian Geotechnical Journal (2014 – present)  
 Canadian Journal of Soil Science (2014 – present)  
 ASCE Journal of Geotechnical and Geoenvironmental Engineering (2010 – present)  
 ASTM International Journal of Geotechnical Testing (2010 – present)

### **Conference Papers Reviewer/Session Chair**

ASCE GeoCongress Conference, Minneapolis, Minnesota (2020)  
 PanAm-UNSAT2017 Conference, Dallas, Texas (2017) (Session Chair and Reviewer)  
 PBDIII Conference, Vancouver, BC, Canada (2017)  
 ASCE GeoCongress Conference, Orlando, Florida (2017) (Session Co-Chair)  
 E-UNSAT2016 Conference, Paris, France (2016)  
 ASCE GeoCongress Conference, San Diego, California (2013)  
 ASCE GeoCongress Conference Oakland, California (2012)  
 ASCE GeoFlorida Conference, West Palm Beach, Florida (2010)  
 4th Int. Conference on Earthquake Geotechnical Engineering, Thessaloniki, Greece (2007)