## Reza Ahmadi-Naghadeh, Ph.D.

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#### **Education**

- Middle East Technical University, Ankara, Turkey
  - Ph.D. in Geotechnical Engineering 2016
    - English Curriculum TOEFL (IBT) (2010): 89
    - Dissertation: Hydro-Mechanical Behavior of Unsaturated Specimens Isotropically Reconstituted from Slurry and Compacted Specimens.

#### • IAU, Iran

| • | M.Sc. in Geotechnical Engineering | 2008 |
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B.S. in Civil Engineering 2006

#### **Publications**

<u>Journal</u>

 Ahmadi-Naghadeh, R., Toker, N. K., Volume Change Measurement in Triaxial Tests by Monitoring Cell Fluid Volume Based on Viscoelastic Behavior of the Test Setup, Geotechnical Testing Journal, Vol. 40, No. 4, 2017, pp. 1–15, http://dx.doi.org/10.1520/GTJ20160093. ISSN 0149-6115.

Ahmadi-Naghadeh, R., Toker, N. K. and Ahmadi-Adli, M., *Water content controlled instead of suction controlled tests*. Life Science Journal, 10, (2013), p.2023-2030.

## **Conference Proceedings**

- Ahmadi-Naghadeh, R. and Toker, N. K, *Volume change measurement in triaxial testing of unsaturated soils*. 3rd International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, 2012, Cyprus.
- Ahmadi-Naghadeh, R., Toker, N. K. and Ahmadi-Adli, M., *Water content variability of unsaturated soil specimens in conventional strength tests*. 10th International Congress on Advances in Civil Engineering, 2012, Ankara, Turkey.
- Maghsoudloo, A., Ahmadi-Naghadeh, R., Toker, N.K., Numerical comparison of retaining system behavior for a deep excavation case with and without ground improvement, International Conference on Ground Improvement and Ground Control (ICGI 2012), 30 Oct.- 2 Nov. 2012, University of Wollongong, Wollongong, Australia.
- Ahmadi-Naghadeh, R., *Numerical analyze of Geotextile-Encased sand/gravel Columns*, 1st international conference of civil engineering, University of Semnan, IRAN, July 14, 2008, (In Persian).

- Ahmadi-Naghadeh, R., *Numerical analyze of pipe roof method in reduce of ground settlement*, 1st international conference of civil engineering, University of Semnan, IRAN. July 14, 2008, (In Persian).
- Ahmadi-Naghadeh, R., *Numerical analyze of jet grouting slab for deep excavation in soft soil*, 1st international conference of civil engineering, University of Semnan, IRAN, July 14, 2008, (In Persian).
- Toker, N.K, Ozlu, P., Maghsoudloo, A., Ahmadi Naghadeh, R., Metro tünellerinin yanında ankrajlı derin kazı iksası tasarımı. "Prof.İsmet Ordemir i Anma Toplantısı ve 6. ODTÜ Geoteknik Mühendisliği Sempozyumu", (2011), s.1-20., Ankara, Turkey.

# **Research Experience**

## Research Assistant (Ph.D. Research)

Projects

- Modifying the conventional triaxial setup to perform unsaturated soils tests (Matric suction control; volume changes measurement), 2013-2014, (No.: BAP-07-02-2012-101-120,).
  - Development of novel volume-change measurement technique in triaxial testing of unsaturated soil by monitoring cell fluid volume based on viscoelastic behavior of the test setup.
  - Design and development of the triaxial base to apply and control matric suction.
  - Design and development of a diffused air volume indicator (DAVI) system.
  - Developed a new procedure for preparation of specimens that are isotropically reconstituted from the slurry to be used in both saturated and unsaturated soil testing.
- Coupled hydro-mechanical behavior of unsaturated soils prepared from slurry, 2014-2015, (No.: BAP-07-02-2014-007-138).
  - Performed a comprehensive laboratory-based study on both saturated and unsaturated compacted and reconstituted specimens from slurry with drying-wetting cycles.
  - Proposed an exponential equation to predict shear strength of unsaturated soils.

## Honors and Awards

- Graduate fellowship, The Scientific and Technological Research Council of Turkey (Tubitak), 2010-2014.
- Full grant for summer school participation,
  O Unsaturated Soil Mechanics: From Fundamentals to Applications, <u>Barcelona, Spain</u>, 2015.
- Aff. Member, American Society of Civil Engineers (ASCE), Geotechnical Engineering Institute.
- Young Researchers and Elite Club, (2008-2010),
  - $\circ$  Three travel grant for attending national conferences.

# **Teaching Experience**

#### Istanbul Aydin University

- Soil mechanics 1
- Soil mechanics 2
- Foundation Engineering
- Ground Improvement
- Geotechnical design
- Advanced soil mechanics

## Middle East Technical University

- Teaching assistant of CE 7009, Geotechnical laboratory techniques,
- Teaching assistant of laboratory session of CE363, CE364 (undergraduate soil mechanics)

#### Laboratory Experience

All commonly practiced soil testing methods, Triaxial testing of saturated and unsaturated soil (along with axis translation and volume change measurement), Permeability tests, high-capacity tensiometer, computerautomated data acquisition systems and calibration, equipment modification and design, measurement of soil moisture characteristic curves.

## **Working Experience**

- Geotechnical Engineer, SONAR Drilling, Turkey, 2016.
  - Tender Works involving preliminary design and evaluation of suitable methodology.
  - Geotechnical evaluation of soil reports and design of suitable deep foundation, ground improvement, and retaining systems.
- Project assistant, Kirikkale Independent Power Plant Project, Turkey, 2015.
  - o Numerical simulation for cooling tower foundation using finite element software PLAXIS 2D
  - Soil mechanics laboratory tests
  - Assisting in preparing Geotechnical report
- Project Engineer/Navrood Company/Asaluyeh-Iran 2009 2010
  - o Construction of Main Pipe-rack Area, Phases 17 & 18 South Pars Gas
  - o Design, planning, implementing and managing concrete batching plant
  - o Project Engineer/Goupleh Company/ Tehran-Iran 2008 2009
  - Road construction
  - Document preparation for tenders and Cost Estimation of the projects

# **Computer Skills**

- Engineering software:
  - GeoStudio
  - Slide (Rocscience)
- Programming software:
  - MATLAB

- PLAXIS 2D
- Phase2
- Python (Elementary)