

Assoc. Prof. NABI KARTAL TOKER

Personal Information

Email: toker@metu.edu.tr

Web: <https://avesis.metu.edu.tr/toker>

Education Information

Doctorate, Massachusetts Institute of Technology, Civil and Environmental Engineering, United States Of America 2002 - 2007

Post Graduate, Massachusetts Institute of Technology, Civil and Environmental Engineering, United States Of America 1999 - 2002

Under Graduate, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, Turkey 1995 - 1999

Foreign Languages

English, C2 Proficiency

Dissertations

Doctorate, Modeling the Relation between Suction, Effective Stress and Shear Strength in Partially Saturated Granular Media, Massachusetts Institute Of Technology, İnşaat Ve Çevre Mühendisliği Bölümü, 2007

Post Graduate, Improvements and Reliability of MIT Tensiometers and Studies on Soil Moisture Characteristic Curves, Massachusetts Institute Of Technology, İnşaat Ve Çevre Mühendisliği Bölümü, 2002

Research Areas

Civil Engineering, Geotechnical, Foundation Engineering, Soil Mechanics, Deep Excavation, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2018 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2014 - 2018

Lecturer PhD, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2008 - 2014

Research Assistant, Massachusetts Institute Of Technology, Mühendislik, İnşaat Ve Çevre Mühendisliği, 2004 - 2006

Lecturer, Massachusetts Institute Of Technology, Mühendislik, İnşaat Ve Çevre Mühendisliği, 2000 - 2003

Professional Experience

Deputy Head of Department, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering,

Advising Theses

- HUVAJ SARIHAN N., TOKER N. K. , Numerical simulation of infiltration and evaporation for unsaturated infinite soil slopes, Post Graduate, M.BİRHAN(Student), 2017
- TOKER N. K. , Hydro-mechanical behavior of unsaturated specimens isotropically reconstituted from slurry and compacted specimens, Doctorate, R.AHMADI(Student), 2016
- TOKER N. K. , Development of computer-controlled triaxial test setup and study on multistage triaxial test on sand, Post Graduate, M.ALYOUSIF(Student), 2015
- TOKER N. K. , Obtaining soil-water characteristic curves by numerical modeling of drainage in particulate media, Post Graduate, A.SHOARIAN(Student), 2014
- TOKER N. K. , A preliminary study on construction of a high capacity tensiometer and its use in measurement of matric suction in unsaturated soils, Post Graduate, A.OKAN(Student), 2013
- TOKER N. K. , Three dimensional finite element analysis of a novel bracing system in small deep excavations, Post Graduate, P.ÖZLÜ(Student), 2012
- TOKER N. K. , Cataloging and statistical evaluation of common mistakes in geotechnical investigation reports for buildings on shallow foundations, Post Graduate, G.ÖZYURT(Student), 2012
- TOKER N. K. , Comparison of factor of safety obtained from limit equilibrium methods with strength reduction factors in finite element modeling, Post Graduate, V.ENGİN(Student), 2012

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- **Simulation of hysteresis in soil-water retention with a correlation between the invading pressure to the governing effective flow area**
Sattari A. S. , Siebelist M., TOKER N. K. , Wuttke F.
GRANULAR MATTER, vol.22, 2020 (Journal Indexed in SCI)
- **Exponential Equation for Predicting Shear Strength Envelope of Unsaturated Soils**
Ahmadi Naghadeh R., TOKER N. K.
International Journal of Geomechanics, vol.19, 2019 (Journal Indexed in SCI)
- **A New Isotropic Specimen Preparation Method from Slurry for both Saturated and Unsaturated Triaxial Testing of a Low-Plasticity Silt**
Ahmadi-Naghadeh R., TOKER N. K.
GEOTECHNICAL TESTING JOURNAL, vol.42, pp.854-879, 2019 (Journal Indexed in SCI)
- **Effect of Unsaturated Soil Properties on the Intensity-Duration Threshold for Rainfall Triggered Landslides**
Kenanoğlu M. B. , Ahmadi-Adli M., Toker N. K. , Huvaj N.
TEKNIK DERGI, vol.30, pp.9009-9027, 2019 (Journal Indexed in SCI)
- **Rainfall-triggered landslides in an unsaturated soil: a laboratory flume study**
Ahmadi-Adli M., Huvaj Sarihan N., Toker N. K.
ENVIRONMENTAL EARTH SCIENCES, vol.76, 2017 (Journal Indexed in SCI)
- **Volume Change Measurement in Triaxial Tests by Monitoring Cell Fluid Volume Based on Viscoelastic Behavior of the Test Setup**
Ahmadi-Naghadeh R., TOKER N. K.
GEOTECHNICAL TESTING JOURNAL, vol.40, pp.683-697, 2017 (Journal Indexed in SCI)
- **Obtaining soil-water characteristic curves by numerical modeling of drainage in particulate media**
Sattari A. S. , TOKER N. K.
COMPUTERS AND GEOTECHNICS, vol.74, pp.196-210, 2016 (Journal Indexed in SCI)
- **Effective Stress and Shear Strength of Moist Uniform Spheres**

TOKER N. K. , Germaine J. T. , Culligan P. J.

VADOSE ZONE JOURNAL, vol.13, 2014 (Journal Indexed in SCI)

A new technique for rapid measurement of continuous soil moisture characteristic curves

Toker N. K. , Germaine J., Sjoblom K., Culligan P.

Geotechnique, vol.54, pp.179-186, 2004 (Journal Indexed in SCI)

Comment on "Cavitation during desaturation of porous media under tension" by Dani Or and Markus Tuller

Toker N. K. , Germaine J., Culligan P.

WATER RESOURCES RESEARCH, vol.39, 2003 (Journal Indexed in SCI)

Articles Published in Other Journals

A Formulation for Scanning Soil-water Characteristic Curves

Kenanoğlu M. B. , Toker N. K.

JOURNAL OF POLYTECHNIC-POLITEKNİK DERGİSİ, vol.21, pp.901-906, 2018 (National Refreed University Journal)

Water content controlled instead of suction controlled tests

Ahmadinaghadeh R., Toker N. K. , Ahmadiadli M.

Life Science Journal-Acta Zhengzhou University Overseas Edition, vol.10, pp.2023-2030, 2013 (International Refereed University Journal)

Geoteknik etüt raporlarındaki yaygın hataların belirlenmesi ve istatistiksel değerlendirilmesi

Toker N. K. , Özyurt G.

Türkiye Mühendislik Haberleri, pp.28-35, 2013 (National Non-Refereed Journal)

Refereed Congress / Symposium Publications in Proceedings

Characterization of transverse anisotropy in Poisson's ratio using radial deformation measurements

Toker N. K. , Büyükyılmaz K. S.

7th International Symposium on Deformation Characteristics of Geomaterials, Glasgow, Scotland, 26 - 29 June 2019, pp.1-6

Kum numuneler için çok aşamalı üç eksenli deney yöntemleri

ALYOUSİF M., TOKER N. K.

Zemin Mekaniği ve Temel Mühendisliği 17. Ulusal Kongresi, İstanbul, Turkey, 26 - 28 September 2018, vol.2, pp.451-462

Changing and equilibrating water content of test specimens without suction control

KENANOĞLU M. B. , TOKER N. K.

7th International Conference on Unsaturated Soils, Hong Kong, Hong Kong, 3 - 05 August 2018, vol.2, pp.419-424

Empirical Prediction Models for the Seismic Response of Pile Foundations

UNUTMAZ B., GÜLERCE Z., SANDIKKAYA M. A. , TOKER N. K.

16th European Conference on Earthquake Engineering (16ECEE), 18 - 21 June 2018

Rainfall threshold to trigger landslides in unsaturated soils: A laboratory model study

Ahmadi-Adli M., Huvaj Sarihan N., Toker N. K.

19th International Conference on Soil Mechanics and Geotechnical Engineering (19th ICSMGE), Seoul, South Korea, 17 - 22 September 2017, pp.3485-3488

Elastic-plastic behavior of an unsaturated compacted non-plastic silt

AHMADI NAGHADEH R., TOKER N. K.

9th International Conference on Porous Media, Rotterdam, Netherlands, 8 - 11 May 2017

Suya doygün olmayan yamaçlarda yağmurla oluşan heyelanlar ve erken uyarı

Huvaj Sarihan N., Ahmadiadli M., Toker N. K.

Ulusal Heyelan Sempozyumu, Ankara, Turkey, 27 - 29 April 2016

● **Yağmurla Tetiklenen Heyelanların Önceden Tahmini: Bir Laboratuvar Model Çalışması**

Ahmadi-Adli M., Huvaj Sarihan N., Toker N. K.

6. Geoteknik Sempoiumu, Adana, Turkey, 26 - 27 November 2015, vol.1, pp.1-10

● **Sensitivity of rainfall threshold to unsaturated material properties**

Huvaj Sarihan N., Kenanoğlu M. B. , Ahmadiadli M., Toker N. K.

4th Italian Workshop on Landslides, Naples, Italy, 23 - 25 November 2015

● **An analytical approach to link effective stress shear strength and moisture at the micro scale**

TOKER N. K. , GERMAİNE J. T. , CULLİGAN P. J.

SIAM Conference on Mathematical and Computational Issues in the Geosciences, San-Francisco, United States Of America, 29 June - 02 July 2015, pp.127-128

● **Effects of the size of particles on rainfall-induced slope instability in granular soils**

Ahmad-Adli M., Huvaj N., Kartal Toker N. K.

2014 Congress on Geo-Characterization and Modeling for Sustainability, Geo-Congress 2014, Atlanta, GA, United States Of America, 23 - 26 February 2014, pp.4027-4036

● **Effects of the size of particles on rainfall induced slope instability in granular soils**

Ahmadi-Adli M., Huvaj Sarihan N., Toker N. K.

ASCE Geo-Congress 2014, Geotechnical Special Publication 234: Geo-Characterization And Modeling For Sustainability, Georgia, United States Of America, 23 - 26 February 2014, vol.1, pp.4027-4036

● **Prediction of seepage and slope stability in a flume test and an experimental field case**

Ahmadi-Adli M., TOKER N. K. , Huvaj N.

3rd Italian Workshop on Landslides (IWL) - Hydrological Response of Slopes through Physical Experiments, Field Monitoring and Mathematical Modeling, Naples, Italy, 23 - 24 October 2013, vol.9, pp.189-194

● **Numerical comparison of retaining system behavior for a deep excavation case with and without ground improvement**

MAGHSOUDLOO A., AHMADİNAGHADEH R., TOKER N. K.

International Conference on Ground Improvement and Ground Control, Wollongong, Australia, 30 October - 02 November 2012

● **Rainfall triggered landslides in unsaturated soils A numerical sensitivity analysis**

Ahmadiadli M., Huvaj Sarihan N., Toker N. K.

10th International Congress on Advances in Civil Engineering, Ankara, Turkey, 17 - 19 October 2012

● **Water content variability of unsaturated soil specimens in conventional strength tests**

AHMADİNAGHADEH R., TOKER N. K. , AHMADIADLI M.

10th International Congress on Advances in Civil Engineering, Ankara, Turkey, 17 - 19 October 2012

● **Comparative study of soil water characteristic curve prediction methods**

Ahmadiadli M., Huvaj Sarihan N., Toker N. K. , Kürkcü M. G.

3rd International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, Lefkoşa, Cyprus (Kkct), 28 - 30 June 2012

● **Comparison of formulae for shear strength of unsaturated soils**

ZEHTAB K. H. , TOKER N. K. , AHMADIADLI M.

3rd International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, Lefkoşa, Cyprus (Kkct), 28 - 30 June 2012

● **Volume change measurement in triaxial testing of unsaturated soils**

AHMADİNAGHADEH R., TOKER N. K.

3rd International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, Lefkoşa, Cyprus (Kkct), 28 - 30 June 2012

● **Comparison of safety factors obtained from limit equilibrium methods and finite element analyses**

ENGİN V., TOKER N. K.

3rd International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, Lefkoşa, Cyprus (Kkct), 28 - 30 June 2012

● **Rainfall triggered landslides in unsaturated soils a numerical sensitivity analysis for rainfall threshold**

Ahmadiadli M., Huvaj Sarihan N., Toker N. K.

General Assembly 2012 of the European Geosciences Union, Vienna, Austria, 22 - 27 April 2012

● **Metro tünellerinin yanında ankrajlı derin kazı iksası tasarımı**

TOKER N. K. , ÖZLÜ P., MAGHSOUDLOO A., AHMADI NAGHADEH R.

Prof.İsmet Ordemir'i Anma Toplantısı ve 6. ODTÜ Geoteknik Mühendisliği Sempozyumu, Ankara, Turkey, 23

November 2011, pp.1-20

Other Publications

● **Comment on "Cavitation during desaturation of porous media under tension" by Dani Or and Markus Tuller**

Toker N. K. , Germaine J. T. , Culligan P. J.

Other, pp.1305-1307, 2003

Supported Projects

TOKER N. K. , TUBITAK Project, Doygun Olmayan Zeminlerin Statik Davranışlarının Bünyesel Modellenmesi ve Mühendislik Uygulamalarında Kullanımı, 2017 - Continues

TOKER N. K. , Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2016

TOKER N. K. , Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

TOKER N. K. , Project Supported by Other Private Institutions, Bilgisayar Kontrollü Otomatik Üç Eksenli Deney Düzeneği Geliştirme, 2013 - 2014

TOKER N. K. , AHMAD NAGHADEH R., Project Supported by Higher Education Institutions, DOYGUN OLMAYAN ZEMİNLERDE ÜÇ EKSENLI DENEYLERLE BÜNYE MODELLEMESİ, 2013 - 2013

Huvaj Sarihan N., Toker N. K. , Egeli İ., TUBITAK Project, TÜBİTAK 1001 PROJESİ: Yağmurla Tetiklenen Sığ Heyelanların Mekanizması Ve Modellenmesi, 2010 - 2013

Memberships / Tasks in Scientific Organizations

ISSMGE Technical Committee 101 - Laboratory Testing, Principal Member, 2018 - Continues

ISSMGE Technical Committee 106 - Unsaturated Soils, Principal Member, 2018 - Continues

Scientific Refereeing

INTERNATIONAL JOURNAL OF GEOMECHANICS, Journal Indexed in SCI-E, October 2019

PHYSICS AND CHEMISTRY OF THE EARTH, Journal Indexed in SCI-E, August 2019

INTERNATIONAL JOURNAL OF GEOMECHANICS, Journal Indexed in SCI-E, June 2019

TEKNİK DERGİ, National Scientific Refreed Journal, November 2018

JOURNAL OF POROUS MEDIA, Journal Indexed in SCI-E, May 2018

7th International Conference on Unsaturated Soils, Conference Paper (Full Text), January 2018

Scientific Consultations

ALFA Test Ekipmanları Ltd.Şti., Scientific Consultancy, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey, 2019 - Continues

Toker Drilling and Construction, Scientific Consultancy, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey, 2017 - 2019

TOKER Drilling & Construction, Scientific Consultancy, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey, 2018 - 2018

Gümrük ve Turizm İşletmeleri Tic.A.Ş., Scientific Consultancy, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey, 2018 - 2018

ALFA Testing Equipment, Scientific Consultancy, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey, 2018 - 2018

Citations

Total Citations (WOS):71

h-index (WOS):4