

Res. Asst. PhD Tolga Yılmaz Özüdođru

Personal Information

Office Phone: [+90 212 285 6628](tel:+902122856628)

Fax Phone: [+90 212 285 6587](tel:+902122856587)

Email: ozudogru@itu.edu.tr

Web: <https://avesis.itu.edu.tr/ozudogru>

Address: İTÜ İnşaat Fakültesi Geoteknik Laboratuvarı Oda No 140411 Maslak Sarıyer/İstanbul

International Researcher IDs

ScholarID: uDlq1_QAAAAJ

ORCID: 0000-0002-4630-4750

Publons / Web Of Science ResearcherID: D-3732-2014

ScopusID: 15136931400

Yoksis Researcher ID: 154473

Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Zemin Mekaniđi Ve Geoteknik Mühendisliđi (Dr), Turkey 2007 - 2015

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Zemin Mekaniđi Ve Geoteknik Mühendisliđi (YI), Turkey 2004 - 2007

Undergraduate, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliđi Bölümü, Turkey 2000 - 2004

Foreign Languages

English

Dissertations

Doctorate, The use of geothermal heat exchanger piles for sustainable design, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Zemin Mekaniđi Ve Geoteknik Mühendisliđi (Dr), 2015

Postgraduate, Determination of pile quality using low strain integrity testing and automatic signal matching, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Zemin Mekaniđi Ve Geoteknik Mühendisliđi (YI), 2007

Research Areas

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

Academic Titles / Tasks

Research Assistant PhD, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliđi Bölümü, 2015 - Continues

Research Assistant, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliđi Bölümü, 2005 - 2015

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Selection of the design temperature change for energy piles**
Abdelaziz S. L., Özüdođru T. Y.
APPLIED THERMAL ENGINEERING, vol.107, pp.1036-1045, 2016 (SCI-Expanded)
- II. **Non-uniform thermal strains and stresses in energy piles**
Abdelaziz S., Özüdođru T. Y.
ENVIRONMENTAL GEOTECHNICS, vol.3, pp.237-252, 2016 (SCI-Expanded)
- III. **Long-term performance of heat exchanger piles**
Olgun C. G., Ozudogru T. Y., Abdelaziz S. L., Şenol A.
ACTA GEOTECHNICA, vol.10, no.5, pp.553-569, 2015 (SCI-Expanded)
- IV. **Thermo-mechanical radial expansion of heat exchanger piles and possible effects on contact pressures at pile-soil interface**
Olgun C. G., Ozudogru T. Y., Arson C. F.
GEOTECHNIQUE LETTERS, vol.4, pp.170-178, 2014 (SCI-Expanded)
- V. **3D numerical modeling of vertical geothermal heat exchangers**
Özüdođru T. Y., Olgun C. G., Şenol A.
GEOTHERMICS, vol.51, pp.312-324, 2014 (SCI-Expanded)
- VI. **Multilayer finite line source model for vertical heat exchangers**
Abdelaziz S. L., Ozudogru T. Y., Olgun C. G., Martin J. R.
GEOTHERMICS, vol.51, pp.406-416, 2014 (SCI-Expanded)
- VII. **Pile Integrity Testing and Drivability Analysis**
Özüdođru T. Y., Şenol A., TAYLAN Z. N.
TEKNIK DERGI, vol.20, no.3, pp.4793-4810, 2009 (SCI-Expanded)

Articles Published in Other Journals

- I. **Analysis of Friction Induced Thermo-Mechanical Stresses on a Heat Exchanger Pile in Isothermal Soil**
Özüdođru T. Y., Olgun C. G., Arson C. F.
GEOTECHNICAL AND GEOLOGICAL ENGINEERING, vol.33, no.2, pp.357-371, 2015 (ESCI)
- II. **Numerical Modeling of Vertical Geothermal Heat Exchangers Using Finite Difference and Finite Element Techniques**
Özüdođru T. Y., Ghasemi-Fare O., Olgun C. G., Basu P.
GEOTECHNICAL AND GEOLOGICAL ENGINEERING, vol.33, no.2, pp.291-306, 2015 (ESCI)

Books & Book Chapters

- I. **Pile Integrity Testing: Determination of Pile Quality Using Low Strain Integrity Testing and Automatic Signal Matching**
Özüdođru T. Y.
Lap Lambert Academic Publishing, A.B.D., 2011

Refereed Congress / Symposium Publications in Proceedings

- I. **Long-term performance of heat exchanger boreholes at different climatic conditions**
Olgun C. G., Geyin M., Özüdođru T. Y.
Geotechnical Frontiers 2017, Florida, United States Of America, 12 - 15 March 2017, pp.153-164
- II. **Kayma Dalgası Hızının PS Logging Yöntemi ile Belirlenmesi**
İyisan R., Çevikbilen G., Hatipođlu M., Özüdođru T. Y.
Zemin Mekaniđi ve Geoteknik Mühendisliđi 16. Ulusal Kongresi, Erzurum, Turkey, 13 - 14 October 2016, vol.1, pp.301-310
- III. **Thermal conductivity testing of energy piles: Field testing and numerical modeling**
Ozudogru T. Y., Brettmann T., Guney Olgun C., Martin J. R., Şenol A.
GeoCongress 2012: State of the Art and Practice in Geotechnical Engineering, Oakland, CA, United States Of America, 25 - 29 March 2012, pp.4436-4445
- IV. **STABILIZATION OF A LOW PLASTICITY CLAY SOIL BY ALTERNATIVE MATERIALS**
Şenol A., Etminkan E., Özüdođru T. Y., Yıldırım H.
Symposium on Advances in Grounded Technology and Geo-Information / Annual General Meeting of the Geotechnical-Society-of-Singapore, Singapore, Singapore, 1 - 02 December 2011, pp.271-277
- V. **A Case Study on the Determination of Pile Discontinuities by Using the Low Strain Pile Integrity Testing and Signal Matching**
Özüdođru T. Y., Şenol A.
19th EYGEC Conference, Györ, Hungary, 3 - 06 September 2008, pp.233-241
- VI. **Determination of Pile Discontinuities by Using The Low Strain Pile Integrity Testing and Signal Matching**
Özüdođru T. Y., Şenol A., Deneç G.
1st International Conference on Soil and Rock Engineering, Colombo, Sri Lanka, 6 - 11 August 2007, pp.1-5
- VII. **Düşük Plastisiteli Killerin Önkonsolidasyon Basıncının Çeşitli Yöntemlerle Belirlenmesi**
Şenol A., Hatipođlu M., Özüdođru T. Y., Taylan Z. N.
Zemin Mekaniđi ve Temel Mühendisliđi Onbirinci Ulusal Kongresi, Trabzon, Turkey, 7 - 08 September 2006, pp.476-481
- VIII. **Effect of sample size on pre-consolidation pressure determined in laboratory tests**
Şenol A., Taylan Z., Özüdođru T. Y., Hatipođlu M.
6th International Conference on Physical Modelling in Geotechnics - Physical Modelling in Geotechnics - 6th ICPMG '06, Hong Kong, China, 4 - 06 August 2006, vol.2, pp.1367-1370
- IX. **The evaluation of pre-consolidation pressure in terms of various determination methods for different clay subgrades**
Şenol A., Özüdođru T. Y., Hatipođlu M.
Soil and Rock Behavior and Modeling, Shanghai, China, 6 - 08 June 2006, pp.70-75
- X. **The Evaluation of Pre-consolidation Pressure Results of "CL" Subgrades**
Şenol A., Hatipođlu M., Özüdođru T. Y.
Geoprob 2005: International Conference on Problematic Soils, Gazimagusa, Cyprus (Kktc), 25 - 27 May 2005, no.3, pp.1269-1274

Other Publications

- I. **A Feasibility Study of Bridge Deck Deicing using Geothermal Energy**
Ghasemi-Fare O., Bowers G. A., Kramer C. A., Özüdođru T. Y., Basu P., Olgun C. G., Bülbül T., Sütman M.
Technical Report, pp.111, 2015

Scientific Refereeing

MEASUREMENT, Journal Indexed in SCI-E, January 2020

APPLIED THERMAL ENGINEERING, Journal Indexed in SCI-E, October 2019
COLD REGIONS SCIENCE AND TECHNOLOGY, SCI Journal, June 2019
COMPUTERS AND GEOTECHNICS, Journal Indexed in SCI-E, June 2019
SOILS AND FOUNDATIONS, Journal Indexed in SCI-E, March 2019
SOILS AND FOUNDATIONS, Journal Indexed in SCI-E, January 2019
GEOTHERMICS, Journal Indexed in SCI-E, November 2018
SOILS AND FOUNDATIONS, Journal Indexed in SCI-E, October 2018
GEOTHERMICS, Journal Indexed in SCI-E, June 2018
GEOMECHANICS FOR ENERGY AND THE ENVIRONMENT, Journal Indexed in ESCI, January 2018
GEOTHERMICS, Journal Indexed in SCI-E, December 2017
SOILS AND FOUNDATIONS, Journal Indexed in SCI-E, September 2017
SOILS AND FOUNDATIONS, Journal Indexed in SCI-E, March 2017
SOILS AND FOUNDATIONS, Journal Indexed in SCI-E, July 2016
SOILS AND FOUNDATIONS, Journal Indexed in SCI-E, January 2016
SOILS AND FOUNDATIONS, Journal Indexed in SCI-E, May 2015
GEOTECHNICAL AND GEOLOGICAL ENGINEERING, Journal Indexed in ESCI, January 2015
GEOTECHNICAL AND GEOLOGICAL ENGINEERING, Journal Indexed in ESCI, April 2014
GEOTECHNICAL AND GEOLOGICAL ENGINEERING, Journal Indexed in ESCI, April 2014
GEOTECHNICAL AND GEOLOGICAL ENGINEERING, Journal Indexed in ESCI, February 2014
ACTA GEOTECHNICA, SCI Journal, December 2013
ACTA GEOTECHNICA, SCI Journal, December 2013

Metrics

Publication: 26
Citation (WoS): 252
Citation (Scopus): 297
H-Index (WoS): 8
H-Index (Scopus): 9

Scholarships

Araştırma Görevlileri için Yurtdışı Doktora Araştırma Bursu, YOK, 2011 - 2012
Uzun Süreli Yurtdışı Araştırma Etkinliklerine Katılımı Destekleme Programı, University, 2011 - 2012