

Prof. AYHAN GÜRBÜZ

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAA-2401-2021

ScopusID: 56544139400

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Education Information

Doctorate, University Of Massachusetts, United States Of America 2004 - 2007

Postgraduate, University of Illinois at Urbana-Champaign, Engineering, Civil Eng., United States Of America 1993 - 1995

Undergraduate, Istanbul Technical University, İnşaat, Turkey 1986 - 1990

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, The Uncertainty in Displacement Evaluation of Deep Foundations, University Of Massachusetts, İnşaat Mühendisliği, 2007

Research Areas

Geotechnical, Foundation Engineering, Soil Mechanics, Ground Improvement, Soil Dynamics

Academic Titles / Tasks

Professor, Gazi University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2019 - Continues

Associate Professor, Gazi University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2017 - 2019

Associate Professor, The University of Texas at Austin, Mühendislik Fakültesi, İnşaat Müh, 2016 - 2017

Associate Professor, Gazi University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2014 - 2016

Assistant Professor, Gazi University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2013 - 2014

Assistant Professor, Atılım University, Faculty Of Engineering, Department Of Civil Engineering, 2008 - 2013

Research Assistant, University of Massachusetts Lowell, Mühendislik Fakültesi, İnşaat, 2004 - 2007

Research Assistant, University of Illinois at Urbana-Champaign, Mühendislik Fakültesi, İnşaat Müh, 1994 - 1995

Academic and Administrative Experience

Deputy Director of the Center, Gazi University, 2017 - 2020

Courses

Derin Temeller, Postgraduate, 2021 - 2022

Temel Müh. I, Undergraduate, 2022 - 2023

Soil Mechanics 2, Undergraduate, 2017 - 2018

Advising Theses

GÜRBÜZ A., Assessment Of Pullout Capacity Of Geocell By Laboratory Pullout Tests, Doctorate, A.İŞİK(Student), 2020

GÜRBÜZ A., Comparison Of Undrained Shear Strength Of Cohesive Soils From Laboratory Tests, Postgraduate, T.ÖMÜR(Student), 2020

GÜRBÜZ A., Kohezyonsuz Zeminlere Gömülü Hücresel Yapı Elemanları İle Güçlendirilmiş Yatay Sığ Plaka Ankajların Çekme Davranışlarının İncelenmesi, Postgraduate, K.YÜNKÜL(Student), 2019

Gürbüz A., DESIGN OF FOUNDATIONS WITH MODULUS OF SUBGRADE REACTION, Postgraduate, B.AVCI(Student), 2015

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Determination of shear stress-shear strain behavior of polymeric geostrip reinforced MSE wall**
Yüncül K., Gürbüz A.
Geotextiles and Geomembranes, vol.52, no.2, pp.184-195, 2024 (SCI-Expanded)
- II. **3D-printed geocells in footing systems: A comprehensive physical and numerical studies on scaling and performance under centric and eccentric loading scenarios**
Demirdöğen S., Gürbüz A., Yüncül K.
Transportation Geotechnics, vol.45, 2024 (SCI-Expanded)
- III. **Performance of eccentrically loaded strip footings on geocell-reinforced soil**
Demirdöğen S., Gürbüz A., Yüncül K.
Geotextiles and Geomembranes, 2024 (SCI-Expanded)
- IV. **Seismic performance of gravity retaining walls**
Yüncül K., Gürbüz A.
Earthquake Engineering and Structural Dynamics, vol.52, no.6, pp.1635-1657, 2023 (SCI-Expanded)
- V. **Force distribution on polymeric geostrip reinforcements in MSE walls under seismic excitation**
Yüncül K., Gürbüz A.
Journal of Reinforced Plastics and Composites, 2023 (SCI-Expanded)
- VI. **Practical transitions among undrained shear strengths of remolded samples from pocket penetrometer tests and other laboratory tests**
Budak T. O., GÜRBÜZ A., Eksioğlu B.
Catena, vol.213, 2022 (SCI-Expanded)
- VII. **Proposed novel bond-slip model for geocell reinforcement under pull-out loading condition**
IŞIK A., ANIL Ö., GÜRBÜZ A.
GEOTECHNIQUE, vol.73, no.11, pp.961-973, 2022 (SCI-Expanded)
- VIII. **Shaking table study on seismic behavior of MSE wall with inclined backfill soils reinforced by polymeric geostrips**
Yüncül K., Gürbüz A.
GEOTEXTILES AND GEOMEMBRANES, vol.50, no.1, pp.116-136, 2022 (SCI-Expanded)

- IX. **Uplift behavior of shallow horizontal plate anchors reinforced with geocells in cohesionless soil**
Yünkül K., Gürbüz A.
European Journal of Environmental and Civil Engineering, vol.26, no.4, pp.1243-1266, 2022 (SCI-Expanded)
- X. **Pullout behavior of geocell reinforcement in cohesionless soils**
Isik A., GÜRBÜZ A.
GEOTEXTILES AND GEOMEMBRANES, vol.48, no.1, pp.71-81, 2020 (SCI-Expanded)
- XI. **Assessment of soil-geocell interaction behavior by laboratory pullout tests**
Isik A., GÜRBÜZ A., ANIL Ö.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.35, no.1, pp.27-38, 2020 (SCI-Expanded)
- XII. **Modulus of subgrade reaction that varies with magnitude of displacement of cohesionless soil**
Avci B., GÜRBÜZ A.
ARABIAN JOURNAL OF GEOSCIENCES, vol.11, no.13, 2018 (SCI-Expanded)
- XIII. **MODIFIED COEFFICIENT OF SUBGRADE REACTION TO LATERALLY LOADED PILES**
GÜRBÜZ A.
ACTA GEOTECHNICA SLOVENICA, vol.15, no.1, pp.76-85, 2018 (SCI-Expanded)
- XIV. **The application of distributed fibre sensors in determination of seepage in Derince Dam**
GÜRBÜZ A., Peker I., Aydin K., Tugcu O., Acan S.
INTERNATIONAL JOURNAL OF SENSOR NETWORKS, vol.25, no.3, pp.176-183, 2017 (SCI-Expanded)
- XV. **Monitored Performance of a Concrete-Faced Sand-Gravel Dam**
Gürbüz A., Peker I.
JOURNAL OF PERFORMANCE OF CONSTRUCTED FACILITIES, vol.30, no.5, 2016 (SCI-Expanded)
- XVI. **New Simple Approach to Prediction of Axial Settlement of Single Piles under Design Load**
GÜRBÜZ A., Paikowsky S. G.
JOURNAL OF BRIDGE ENGINEERING, vol.21, no.10, 2016 (SCI-Expanded)
- XVII. **Assessment of liquefaction potential of fethiye based on spt and shear wave velocity**
Isik A., ÜNSAL N., GÜRBÜZ A., Sisman E.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.31, no.4, pp.1027-1037, 2016 (SCI-Expanded)
- XVIII. **Bacteria-Induced Cementation in Sandy Soils**
Gürbüz A., Sarı Y. D., Yuksekdağ Z.
GEOMICROBIOLOGY JOURNAL, vol.32, pp.853-859, 2015 (SCI-Expanded)
- XIX. **Marble powder to stabilise clayey soils in sub-bases for road construction**
Gurbuz A.
ROAD MATERIALS AND PAVEMENT DESIGN, vol.16, no.2, pp.481-492, 2015 (SCI-Expanded)
- XX. **Interaction between assembled 3D honeycomb cells produced from high density polyethylene and a cohesionless soil**
Gurbuz A., Mertol H. C.
JOURNAL OF REINFORCED PLASTICS AND COMPOSITES, vol.31, no.12, pp.828-836, 2012 (SCI-Expanded)
- XXI. **Evaluation of Boron Ore in Cement Production**
Yesilmen S., Gurbuz A.
MATERIALS AND MANUFACTURING PROCESSES, vol.27, no.11, pp.1245-1250, 2012 (SCI-Expanded)
- XXII. **A new approximation in determination of vertical displacement behavior of a concrete-faced rockfill dam**
Gurbuz A.
ENVIRONMENTAL EARTH SCIENCES, vol.64, no.3, pp.883-892, 2011 (SCI-Expanded)
- XXIII. **Cementation in a matrix of loose sandy soil using biological treatment method**
Gurbuz A., Sarı Y. D., Yuksekdağ Z., Cinar B.
AFRICAN JOURNAL OF BIOTECHNOLOGY, vol.10, no.38, pp.7432-7440, 2011 (SCI-Expanded)
- XXIV. **Determination of lateral displacements of laterally loaded steel piles in cohesionless soils using elastic curve equation Kohezyonsuz zeminler içerisinde yatay yüklenmiş çelik kazıkların**

deplasmanlarının elastik eğri denklemi yardımı ile bulunması

GÜRBÜZ A.

Journal of the Faculty of Engineering and Architecture of Gazi University, vol.26, no.1, pp.205-212, 2011 (SCI-Expanded)

Articles Published in Other Journals

I. Numerical Analysis of Geocell Reinforced Square Shallow Horizontal Plate Anchor

Yünkül K., Usluogullari O. F., Gürbüz A.

GEOTECHNICAL AND GEOLOGICAL ENGINEERING, vol.39, no.4, pp.3081-3099, 2021 (ESCI)

II. Prediction and reliability of pipe piles response to lateral loading

Paikowsky S., Lu Y., GÜRBÜZ A.

Geotechnical Special Publication, no.158, 2007 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

I. Kohezyonsuz zemine gömülü hücresel yapı elemanları ile güçlendirilmiş sıg yatay plaka ankrajların çekme davranışlarının incelenmesi

GÜRBÜZ A., YÜNKÜL K.

8. Uluslararası Geoteknik Sempozyumu, 13 - 15 November 2019

II. Cep penetrometresi ve laboratuvar Veyn testleri ile elde edilen drenajsız kayma dayanımlarının karşılaştırılması

GÜRBÜZ A., Budak T.

8.Uluslararası Geoteknik Sempozyumu, 13 - 15 November 2019

III. THE INVESTIGATION UPLIFT BEHAVIOUR OF SHALLOW HORIZONTAL PLATE ANCHOR REINFORCED WITH GEOCELL IN COHESIONLESS SOIL

Yünkül K., Gürbüz A.

8. Uluslararası Geoteknik Sempozyumu, İstanbul, Turkey, 13 - 15 November 2019, pp.591-600

IV. YEREL ZEMİN ARAŞTIRMALARINDA STANDART PENETRASYON DENEYİ VE KONİ PENETRASYON DENEYİ SONUÇLARININ İNCELENMESİ

GÜRBÜZ A., Anafarta D.

ULUSLARARASI 19 MAYIS MULTİDİSİPLİNER ÇALIŞMALAR KONGRESİ, 17 - 19 May 2019

V. Determination of effect of cellular elements (geocell) on the uplift capacity of horizontal anchors

Yünkül K., Gürbüz A.

International Congress on Engineering and Arhitecture, Antalya, Turkey, 14 - 16 November 2018, pp.49-62

VI. Determination of Effect of Cellular Elements (Geocell) on The Uplift Capacity of Horizontal Anchors

Yünkül K., Gürbüz A.

International Congress on Engineering and Arhitecture, Antalya, Turkey, 15 - 16 November 2018, pp.49-62

VII. Assessment of behavior of soil-geocell pullout capacity

GÜRBÜZ A., IŞIK A.

1th International Conference on Geosynthetics Seoul, Kore, 16 - 21 September 2018

VIII. Hücresel Dolguların Kullanım Alanları ve Çalışma Mekanizması

YÜNKÜL K., GÜRBÜZ A.

I. Uluslararası Bilimsel Çalışmalarda Yenilikçi Yaklaşımlar Sempozyumu, Antalya, Turkey, 11 - 13 April 2018, vol.2, pp.354-360

IX. Use of Geocells and Working Mechanism

Yünkül K., Gürbüz A.

Ist International Symposium on Innovative Approaches in Scientific Studies, Antalya, Turkey, 11 - 13 April 2018, vol.2, pp.354-360

- X. **Effective width of geocell under strip footing**
GÜRBÜZ A.
6. European Geosynthetics Congress, Ljubljana, Slovenia, 25 September 2016
- XI. **Effect of pH level on bacterial induced cementation of sands**
GÜRBÜZ A., SARI Y. D., YUKSEKDAG Z.
International Conference on Civil and Environmental Engineering, Nevşehir, Turkey, 23 April 2015, pp.411
- XII. **The Lateral Response of Single Free Headed Piles in Sandy Soils Methods Measurements and Reliability**
GÜRBÜZ A., Paikowsky S.
Contemporary Topics in In Situ Testing, Analysis, and Reliability of Foundations, Orlando, Florida, United States, 15 - 18 March 2012
- XIII. **Long term behavior of staged construction of a dam on soft clay**
GÜRBÜZ A., Dincergok T.
17th International Conference on Soil Mechanics and Geotechnical Engineering, ICSMGE 2009, Alexandria, Egypt, 5 - 09 October 2009, vol.3, pp.1915-1918
- XIV. **Scale Effects in Lateral Load Response of Large Diameter Monopiles**
Lesny K., GÜRBÜZ A., Paikowsky S.
Contemporary Issues In Deep Foundations, Denver, Colorado, United States, United States Of America, 18 February 2007 - 20 February 2017

Supported Projects

Gürbüz A., Project Supported by Other Official Institutions, İSTİNAT (KLASİK KONSOL VE TOPRAKARME) DUVARLARINA ETKİYEN DİNAMİK YÜKLERİNİN BELİRLENMESİ (UDAP-Ç-19-08), 2019 - 2022

GÜRBÜZ A., Project Supported by Higher Education Institutions, Hücresel Dolgu Elementlerinin İstinat duvarlarında Kullanımı, 2018 - 2020

ANIL Ö., GÜRBÜZ A., Project Supported by Other Official Institutions, Sürdürülebilir Yapı ve Kent Tasarımı, 2018 - 2018

Akdoğan M. A., Adlı M. A., Usta Y., Temur N., Salamci M. U., Ercan L., ŞAHİN TOPTAŞ A., GÜRBÜZ A., Erasmus Project, Multilingual Professional Foreign Language Education Programme for Future Global Engineers("2014-1-TR01- KA202-013214" kodlu proje)Link (<http://www.future-eng.net/>), 2015 - 2018

GÜRBÜZ A., Other International Funding Programs, Asphalt Reinforcement Test Sections in US 77, 2016 - 2016

Gürbüz A., Caner A., TUBITAK Project, Türkiye Köprü Mühendisliğinde Tasarım ve Yapıma İlişkin Teknolojilerin Geliştirilmesi , 2011 - 2013

Yüksekdağ Z., Gürbüz A., Sarı Y. D., Çınar Acar B., Project Supported by Higher Education Institutions, An Improvement in Engineering Properties of Soils using Biological Method, 2011 - 2012

Scientific Refereeing

Frontiers in Built Environment, Journal Indexed in ESCI, April 2022

ACTA GEOTECHNICA, Journal Indexed in SCI-E, February 2022

Metrics

Publication: 42

Citation (WoS): 117

Citation (Scopus): 202

H-Index (WoS): 8

H-Index (Scopus): 9

Non Academic Experience

Ministry, Devlet Su İşleri Genel Müdürlüğü, General Directorate of State Hyd. Works

Devlet Su İşleri Genel Müdürlüğü

Ministry, Karayolları Genel Müdürlüğü, General Directorate of Highways

Karayolları Genel Müdürlüğü