# Assoc. Prof. Cem Akgüner



#### **Personal Information**

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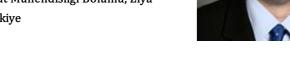
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Publons / Web Of Science ResearcherID: I-3887-2018

ScopusID: 25651373100 Yoksis Researcher ID: 10748



## **Education Information**

Doctorate, The University of Texas at Austin, Graduate School, Civil Engineering, United States Of America 1996 - 2007

Postgraduate, Bogazici University, Institute Of Science, Civil Engineering, Turkey 1992 -

Undergraduate, Istanbul Technical University, İnşaat, İnşaat Mühendisliği, Turkey 1988 - 1992

## Biography

Dr. Cem Akgüner has a Bachelor of Science Degree in Civil Engineering from İstanbul Technical University, a Master of Science in Geotechnical Engineering from the Boğaziçi University, and a Ph.D. in Geotechnical Engineering from the University of Texas at Austin. His Ph.D. work was focused on determining a practical methodology for varying soil conditions and layering to estimate the axial load-displacement behavior of single driven piles based on a synthesis of numerous pile load testing from California and additional in-situ/laboratory testing results. Dr. Akgüner has worked as a graduate research and teaching assistant for undergraduate/graduate courses at Yıldız Technical University (YTU) and UT-Austin during his studies. Prior to joining TED University in February 2014, he served as a lecturer/researcher between 2007 and 2014 at the YTU Civil Engineering Department. He has advised six masters' students and two PhD students. His recent research interests and projects are related to behavior of piles under axial/lateral loading, vertical/horizontal consolidation, soil improvement methods and their laboratory modeling, laboratory/in-situ testing, behavior of marginal/intermediate soils, multi-disciplinary works. He has published in numerous refereed journals and conference proceedings. He is a member of numerous national and international organizations related to Civil/Geotechnical Engineering.

## **Dissertations**

Doctorate, The Elastic Analysis of Axial Load-Displacement Behavior of Single Driven Piles, The University of Texas at

Austin, Graduate School, Civil Engineering, 2007

Postgraduate, Constant Head Test Analysis in Partially Penetrating Wells, Bogazici University, Institute Of Science, Civil Engineering, 1995

#### **Research Areas**

Foundation Engineering, Soil Mechanics, Ground Improvement

## **Academic Titles / Tasks**

Associate Professor, TED University, Faculty of Engineering, Department of Civil Engineering, 2014 - Continues Assistant Professor, TED University, Faculty of Engineering, Department of Civil Engineering, 2014 - 2014 Lecturer PhD, Yildiz Technical University, Faculty Of Civil Engineering, Civil Engineering Department, 2007 - 2014

# Academic and Administrative Experience

Fakülte Kurulu Üyesi, TED University, Faculty Of Engineering, 2022 - Continues

Rektörlük Kalite Komisyonu Üyesi, TED University, Rectorate, 2019 - Continues

Fakülte Yönetim Kurulu Üyesi, TED University, Faculty Of Engineering, 2016 - Continues

Staj Koordinatörü, TED University, Faculty Of Engineering, Department Of Civil Engineering, 2015 - Continues

Executive Board Member, TED University, English Language School, 2014 - Continues

Faculty Board Member, TED University, Faculty Of Arts And Sciences, 2021 - 2022

Rektörlük Stratejik Plan Komisyonu Üyesi, TED University, Rectorate, 2021 - 2022

Ethics Committee Member, TED University, Rectorate, 2016 - 2021

Rectorate Commissioner, TED University, Rectorate, Center for Teaching and Learning, 2020 - 2020

Fakülte Kurulu Üyesi, TED University, Faculty Of Econ. And Administ. Sciences, 2017 - 2020

Head of Department, TED University, Faculty Of Engineering, Department Of Civil Engineering, 2015 - 2020

Fakülte Kurulu Üyesi, TED University, Faculty Of Engineering, 2014 - 2020

## Courses

Foundation Engineering II, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2018 - 2019, 2017 - 2018, 2016 - 2017

Foundation Engineering I, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Soil Mechanics, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Civil Engineering Design, Undergraduate, 2020 - 2021

Summer Practice II, Undergraduate, 2019 - 2020, 2017 - 2018

Summer Practice I, Undergraduate, 2019 - 2020, 2016 - 2017

Introduction to Probability and Statistics for Engineers, Undergraduate, 2019 - 2020, 2018 - 2019

Materials Science, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017

Introduction to Calculus of One Variable, Undergraduate, 2015 - 2016, 2014 - 2015

Introduction to Probability Theory, Undergraduate, 2015 - 2016

Introduction to Information Technologies, Undergraduate, 2014 - 2015

Structure and Architecture, Undergraduate, 2014 - 2015

Introduction to Calculus of One Variable, Undergraduate, 2013 - 2014

# **Advising Theses**

Huvaj Sarıhan N., Akgüner C., Geotechnical Properties of Coarse-Fine Mixtures and their Interaction with Geogrids through Large Direct Shear Testing, Doctorate, A.Ekici(Student), 2022

## Jury Memberships

Competition, Hult Prize, Hult Prize, November, 2017

## Published journal articles indexed by SCI, SSCI, and AHCI

I. Effects of Fines Content and Plasticity on Index Properties and Hydraulic Conductivity of Coarse-Fine Mixtures

Ekici A., Huvaj Sarıhan N., Akgüner C.

JOURNAL OF MATERIALS IN CIVIL ENGINEERING, vol.34, no.5, 2022 (SCI-Expanded)

II. Revised stratigraphy of the Tertiary deposits of Istanbul and their engineering properties YILDIRIM M., TONAROĞLU M., SELÇUK M. E., Akgüner C. BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, vol.72, no.3-4, pp.413-420, 2013 (SCI-

Expanded)

III. Axial bearing capacity of socketed single cast-in-place piles

Akgüner C., Kirkit M.

SOILS AND FOUNDATIONS, vol.52, no.1, pp.59-68, 2012 (SCI-Expanded)

IV. Comparison of Rock-Socketed Pile Capacities Obtained from Load Testing and Empirical Methods Akgüner C., Kirkit M.

TEKNIK DERGI, vol.22, no.4, pp.5713-5723, 2011 (SCI-Expanded)

V. ADSORPTION AND PERMEABILITY OF CLAYS PERMEATED WITH FERROUS IRON AND MANGANESE TÜFEKCİ N., ÖZÇOBAN M. Ş., YALÇIN S., Asci Y., Akgüner C.

FRESENIUS ENVIRONMENTAL BULLETIN, vol.19, no.8B, pp.1703-1714, 2010 (SCI-Expanded)

VI. Simulation of torsional shear test results with neuro-fuzzy control system

ALTUN S., Goektepe A. B., Ansal A. M., Akgüner C.

SOIL DYNAMICS AND EARTHQUAKE ENGINEERING, vol.29, no.2, pp.253-260, 2009 (SCI-Expanded)

VII. Discussion of "Staged Construction and Settlement of a Dam Founded on Soft Clay" by Sukru Ozcoban, Mehmet M. Berilgen, Havvanur Kilic, Tuncer B. Edil, and I. Kutay Ozaydin Akgüner C., Won J.

JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.134, no.12, pp.1833-1834, 2008 (SCI-Expanded)

VIII. Fatigue analysis of stabilised cement with image processing

Goktepe A. B., Lav A. H., ALTUN S., Akgüner C., Sezer A.

PROCEEDINGS OF THE INSTITUTION OF CIVIL ENGINEERS-TRANSPORT, vol.161, no.4, pp.197-206, 2008 (SCI-Expanded)

## Articles Published in Other Journals

I. Determination of the time rate of radial consolidation using laboratory inflow consolidation testing Akgüner C.

Geotechnical Special Publication, no.233, pp.352-357, 2014 (Scopus)

II. İstanbul Tersiyer Çökellerinin Yeni Stratigrafisi ve Mühendislik Özellikleri YILDIRIM M., Akgüner C., Tonaroğlu M., Selçuk M. E.

SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, pp.323-334, 2010 (Peer-Reviewed Journal)

III. A NEW STRATIGRAPHY OF ISTANBUL TERTIARY DEPOSITS AND THEIR ENGINEERING PROPERTIES YILDIRIM M., Akgüner C., TONAROĞLU M., SELÇUK M. E.

SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.28, no.4, pp.323-334, 2010 (ESCI)

IV. Some Applications of Wind Turbines in Turkey

Yıldırım M., Akgüner C., Tonaroğlu M., Selçuk M. E., Yıldırım G.

University of Oradea Faculty of Architecture and Constructions, Constructions and Hydro-Utility Installations, vol.13, no.2, pp.359-368, 2010

V. İstanbul İli, Avrupa Yakası Kemerburgaz Katı Atık Depolama Alanının Çevresel Etki Değerlendirilmesi Açısından Jeolojik Hidrojeolojik Koşulları

YILDIRIM M., Özaydın İ. K., Akgüner C.

Jeoloji Mühendisliği Dergisi, no.47, pp.8-13, 1996 (Peer-Reviewed Journal)

# Refereed Congress / Symposium Publications in Proceedings

I. Index Properties and Classification of Marginal Fills or Coarse-Fine Mixtures

HUVAJ SARIHAN N., Ekici A., Ekici A., Akgüner C.

8th International Conference on Case Histories in Geotechnical Engineering: Engineering Geology, Site Characterization, and Geophysics, Geo-Congress 2019, Pennsylvania, United States Of America, 24 - 27 March 2019, vol.2019-March, pp.91-99

- II. İnşaat Mühendisliği Lisans Eğitiminin Bir Parçası Olarak Araştırma ve Sosyal Sorumluluk ÇALAMAK M., Akgüner C.
  - 4. İnşaat Mühendisliği Eğitimi Sempozyumu, İzmir, Turkey, 17 18 November 2017, pp.74-82
- III. Açık Kazı Yapılan Kömür Ocaklarından Stabilite Problemleri Soma Heyelanı Örneği YILDIRIM M., TONAROĞLU M., Akgüner C., SELÇUK M. E.

ZM.16 - Zemin Mekaniği ve Geoteknik Mühendisliği 16. Ulusal Kongresi, Erzurum, Turkey, 13 October - 14 November 2016, vol.2, pp.755-760

IV. Açık Kazı Yapılan Kömür Ocaklarında Stabilite Problemleri Soma Heyelanı Örneği YILDIRIM M., TONAROĞLU M., Akgüner C., SELÇUK M. E.

Zemin Mekaniği ve Geoteknik Mühendisliği 16. Ulusal Kongresi, Turkey, 13 - 14 October 2016

V. Killi Zeminlerde Zemin Kazık Yapı Etkileşimi

KİRKİT M., Akgüner C., BERİLGEN M. M.

Zemin Mekaniği ve Geoteknik Mühendisliği 16. Ulusal Kongresi, Erzurum, Turkey, 13 - 15 October 2016

VI. Piyezoelektrik Bender Elemanlar İle Kayma Dalgası Hızının Belirlenmesi

ÖNER L., Akgüner C., BERİLGEN M. M.

1. Ulusal Genç Geoteknik Mühendisleri Sempozyumu, Turkey, 12 October 2016

VII. Dewatering of Dredged Sludge with Geotubes Effects ofPolymer Additive Type and Amount BERİLGEN S. A., TONAROĞLU M., Akgüner C., BULUT T.

6th European Geosynthetics Congress, 25 - 28 September 2016

VIII. Dewatering of Dredged Sludge with Geotubes Effects of Polymer Additive Type and Amount BERİLGEN S. A., TONAROĞLU M., Akgüner C., Bulut B. T.

6th EUROPEAN GEOSYNTHETICS CONGRESS, 25 - 28 September 2016, pp.1507-1518

IX. Behavior of Stone Columns in Clayey Sand Soils - Laboratory Model Tests and Numerical Comparisons

Kurtoğlu M. R., Akgüner C.

12th International Congress on Advances in Civil Engineering (ACE 2016), İstanbul, Turkey, 21 September 2016

X. Dewatering of Dredged Sludge with Geotubes: Effects of Polymer Additive Type and Amount Berilgen S. A., Tonaroğlu M., Akgüner C., Turan Bulut B.

6th European Geosynthetics Congress (EuroGeo6), Ljubljana, Slovenia, 25 August 2016, pp.1507-1518

## XI. Effects of Sample Trimming on Undrained Shear Strength of Clays

Akgüner C., KİRKİT M.

Fourth International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, Lefkoşa, Cyprus (Kktc), 2 - 04 June 2016, pp.355-361

## XII. Estimating load-displacement Behavior of soft clays

TONAROĞLU M., Akgüner C., SELÇUK M. E.

3rd Australasia and South East Asia Conference on Structural Engineering and Construction, ASEA-SEC-3 2016, Kuching, Malaysia, 31 October - 04 November 2016, vol.3

#### XIII. Investigation of a landslide area in the Betic Cordillera Region in Granada, Spain

Fidan N. F., Akgüner C., Jenoui R. E. H.

12th International Symposium on Landslides, Napoli, Italy, 12 - 19 June 2016, pp.885-892

## XIV. Model Taş Kolonların Sayısal Analizi

DEMİR S., KURTOĞLU M. R., Akgüner C., BERİLGEN M. M.

Zemin Mekaniği ve Temel Mühendisliği 15.Ulusal Kongresi, Turkey, 16 - 17 October 2014

## XV. The Effect of Piles on Foundation Input Motion Used in Seismic Design

KİRKİT M., Akgüner C., BERİLGEN M. M.

Prof. Dr. Kutay ÖZAYDIN Onuruna Geoteknikte Gelişmeler ve Deneyimler Sempozyumu, İstanbul, Turkey, 02 June 2014

# XVI. Taranmiş Çamurların Geotektil Tüpler Yardımıyla Susuzlaştırılması Hızlı Susuzlaştırma RDT Deneyleri

BEGÜM T. B., BERİLGEN S. A., Akgüner C.

Altıncı Ulusal Geosentetikler Konferansı (G6), Turkey, 28 - 29 May 2014, pp.49-60

# XVII. Comparison Of Behavior Of Stone Columns And Rammed Aggregate Piers Based On Laboratory Model Tests

DEMİR S., KURTOĞLU M. R., ÖZENER P., Akgüner C.

International Civil Engineering & Architecture Symposium for Academicians, 17 - 20 May 2014, pp.126-136

## XVIII. Kazıklı Temellerde Tabaka Kalınlığının Zemin Yapı Etkileşimine Etkisi

KİRKİT M., BERİLGEN M. M., Akgüner C., TACİROĞLU E.

Zemin Mekaniği ve Temel Mühendisliği 2. Özel Konulu Sempozyumu, Antalya, Turkey, 24 - 25 April 2014

## XIX. Darbeli Taş Kolon Zemin Yük Paylaşım Mekanizmasının Model Deneylerle İncelenmesi

DEMİR S., ÖZENER P., Akgüner C.

5. Geoteknik Sempozyumu, Turkey, 5 - 07 December 2013

# XX. Kuru Kumların Düşük Şekil Değiştirme Kayma Modülünün Piyezoelektrik Bender Elemanlar İle Belirlenmesi

ÖNER L., Akgüner C., BERİLGEN M. M.

İMO 5. Geoteknik Sempozyumu, Adana, Turkey, 5 - 07 December 2013

## XXI. Effect of Single Pile on Site Response

KİRKİT M., TACİROĞLU E., BERİLGEN M. M., Akgüner C.

11th International Conference on Vibration Problems, LİZBON, Portugal, 9 - 12 September 2013

#### XXII. Effect of Seismicity on Infrastructure Pipelines

COŞAR A., KOÇAK A., ÖZÇOBAN M. Ş., Akgüner C.

2nd International Balkans Conference on Challenges of Civil Engineering, Tirane, Albania, 23 - 25 May 2013

## XXIII. Soketli Bir Fore Kazığın Sayısal ve Ampirik Analizi

KİRKİT M., DEMİR S., Akgüner C., KILIÇ H.

Zemin Mekaniği ve Temel Mühendisliği 14. Ulusal Kongresi, Isparta, Turkey, 25 - 26 October 2012, vol.1, pp.421-430

# XXIV. Sokeli Bir Fore Kazığın Sayısal ve Ampirik Analizi

KİRKİT M., DEMİR S., Akgüner C., KILIÇ H.

Zemin Mekaniği ve Temel Mühendisliği 14. Ulusal Kongesi, Turkey, 4 - 05 October 2012

## XXV. Darbeli Kırmataş Kazıkların Model Deneylerle İncelenmesi

BERİLGEN M. M., ŞAMİL A., Akgüner C., BERİLGEN S. A.

Zemin Mekaniği ve Temel Mühendisliği 14. Ulusal Kongresi, Isparta, Turkey, 4 - 05 October 2012, vol.2, pp.715-724

## XXVI. Darbeli Kırmataş Kazıkların Model Deylerle İncelenmesi

BERİLGEN M. M., ATAMAN Ş., Akgüner C., BERİLGEN S. A.

Zemin Mekaniği ve Temel Mühendisliği Ondördüncü Ulusal Kongresi, İsparta, Turkey, 4 - 05 October 2012

## XXVII. Investigation of Soil Behavior In Construction of Rammed Aggregate Piers

ATAMAN Ş., BERİLGEN S. A., Akgüner C., BERİLGEN M. M.

3rd International Conference on New Developments in Soil Mechanics and Geotechnical Engineering, 28 - 30 June 2012, pp.539-546

## XXVIII. Investigation of Soil Behaviour Rammed Aggregate Piers

ATAMAN Ş., BERİLGEN S. A., Akgüner C., BERİLGEN M. M.

3rd International Conf. On New Developments in Soil Mechanics and Geotechnical Engineering, 28 - 30 June 2012

# XXIX. Yumuşak Killi Zeminlerde Geotekstil Sargılı Taş Kolonlarla Zemin İyileştirilmesinin Laboratuar Model Deneyleriyle Araştırılması

BERİLGEN S. A., EMRAH N., Akgüner C.

5. Ulusal Geosentetikler Konferansı (G5), İstanbul, Turkey, 24 - 25 May 2012, vol.1, pp.177-188

## XXX. Numerical analyses of axial load capacity of rock socketed piles in Turkey

Kirkit M., KILIÇ H., Akgüner C.

7th European Conference on Numerical Methods in Geotechnical Engineering, NUMGE 2010, Trondheim, Norway, 2 - 04 June 2010, pp.649-653

# XXXI. Kazık Yükleme Deneyleri Veri Tabanı Programı

Akgüner C.

Zemin Mekaniği ve Temel Mühendisliği 13. Ulusal Kongresi, İstanbul, Turkey, 30 September - 01 October 2010, pp.525-533

## XXXII. Empirical correlations of young's modulus for displacements of driven piles

Akgüner C., Olson R. E.

Contemporary Topics in In Situ Testing, Analysis, and Reliability of Foundations - 2009 International Foundation Congress and Equipment Expo, Orlando, FL, United States Of America, 15 - 19 March 2009, pp.270-277

## XXXIII. Cyclic shear strength of silts and sands under cyclic loading

Altun S., Göktepe A. B., Akgüner C.

Geo-Frontiers 2005, Austin, TX, United States Of America, 24 - 26 January 2005, pp.1365-1375

## XXXIV. Environmental impact assessment of solid waste landfill sites in Istanbul

Yildirim M., Ozaydin K., Akgüner C.

International Conference on Environmental Pollution (ICEP-3), Budapest, Hungary, 15 - 19 April 1996, pp.290-297

## **Supported Projects**

Keskin R. S. O., Akgüner C., Aktaş C. B., Pamuk Ö. C., Aydın M. F., TUBITAK Project, 2009 Yılında Güçlendirme Uygulanmış Binada Hasar Tespit Çalışması, 2023 - 2023

Rodoplu U., Eliş Türkmen P. B., SÜNER PLA CERDA S., Ocak E., Akgüner C., Development Agency, Sosyal Sorunlara Yenilikçi Çözümler Üretilmesinde Tasarım Odaklı ve Disiplinlerarası bir Arayüz Kurulumu Fizibilitesi, 2019 - 2020 Eliş B., Ocak E., Süner Pla Cerda S., Rodoplu U., Akgüner C., The Feasibility of Establishment of Design-Oriented and Interdisciplinary Interface in Creating Innovative Solutions to Social Problems, 2019 - 2019

## Memberships / Tasks in Scientific Organizations

Turkish Society of Soil Mechanics and Geotechnical Engineering, Member, 2011 - Continues, Turkey International Society of Soil Mechanics and Geotechnical Engineering (ISSMGE), Member, 2011 - Continues, Turkey International Society of Soil Mechanics and Geotechnical Engineering, Member, 2011 - Continues, United States Of America

International Geosynthetics Society, Member, 2011 - Continues, United States Of America Turkish Chapter of the International Geosynthetics Society, Member, 2011 - Continues, Turkey Chamber of Civil Engineers, Member, 1992 - Continues, Turkey

# Scientific Refereeing

BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, SCI Journal, August 2022
Bilecik Seyh Edebali University Journal of Science, National Scientific Refreed Journal, July 2022
BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, SCI Journal, January 2022
TEKNIK DERGI/TECHNICAL JOURNAL OF TURKISH CHAMBER OF CIVIL ENGINEERS, April 2021
MEASUREMENT: JOURNAL OF THE INTERNATIONAL MEASUREMENT CONFEDERATION, January 2021
BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, January 2020
GEOMECHANICS AND GEOENGINEERING, January 2020
BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, January 2019
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, January 2019
SOILS AND FOUNDATIONS, January 2019
TEKNIK DERGI/TECHNICAL JOURNAL OF TURKISH CHAMBER OF CIVIL ENGINEERS, January 2019
2nd National Tunnelling and Underground Space Congress and Exhibition, January 2019
8th International Geotechnical Symposium, January 2019