

Prof. SAMİ OĞUZHAN AKBAŞ

Personal Information

Email: soakbas@gazi.edu.tr

Web: <https://avesis.gazi.edu.tr/soakbas>

Education Information

Doctorate, Cornell University, İnşaat Mühendisliği, United States Of America 2002 - 2007

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 1993 - 1997

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Deterministic and probabilistic assessment of settlements of shallow foundations in cohesionless soils, Cornell University, İnşaat Mühendisliği, 2007

Research Areas

Geotechnical, Foundation Engineering, Soil Mechanics, Underground Construction, Deep Excavation, Ground Improvement, Soil Dynamics

Academic Titles / Tasks

Professor, Gazi University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2018 - Continues

Associate Professor, Gazi University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2011 - Continues

Assistant Professor, Gazi University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2009 - Continues

Research Assistant, Gazi University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2001 - 2009

Research Assistant, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 1997 - 1998

Academic and Administrative Experience

Deputy Head of Department, Gazi University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2010 - 2012

Advising Theses

AKBAŞ S. O. , Evaluation Of Spt - Soil Strength And Compressibility Correlations For Cohesive Soil Conditions In Turkey,

Postgraduate, E.Tuç(Student), 2019

AKBAŞ S. O. , Application Of Finite Element Method In Geotechnical Risk Analysis: An Application For Supported Deep Excavations, Postgraduate, S.Bozkurt(Student), 2019

AKBAŞ S. O. , Comparative Investigation Of Time Dependent Consolidation Behavior Of The Embankment St:241+200 Of Northern Marmara Highway Project With Land Measurements And Numerical Modeling, Postgraduate, B.KILIÇOĞLU(Student), 2019

AKBAŞ S. O. , Geoteknik risk analizinde sonlu elemanlar teorisinin kullanımı: Destekli derin kazılar için bir uygulama, Postgraduate, S.BOZKURT(Student), 2019

AKBAŞ S. O. , A Comparison Of Instrumental And Classical Pile Load Results: Example From Ankara-Sivas Railway Project, Postgraduate, C.KANDEMİR(Student), 2019

AKBAŞ S. O. , Kohezyonlu zeminler için önerilen SPT ile zemin dayanımı ve sıkışabilirlik özellikleri arasındaki ilişkilerin Türkiye zemin koşulları için irdelenmesi, Postgraduate, E.TUÇ(Student), 2019

AKBAŞ S. O. , Zemin çivileriyle güçlendirilmiş iksa yapılarında sistem performansını ve güvenilirliğini etkileyen faktörlerin vaka analizleri ile araştırılması, Postgraduate, A.SELİN(Student), 2017

AKBAŞ S. O. , Gömülü iletim hattı yapılarında darbe etkilerinin geosentetikler vasıtası ile azaltımı, Doctorate, G.BABAGİRAY(Student), 2017

AKBAŞ S. O. , A Study On The Reduction Of Impact Effects On Buried Lifeline System Components By Geosynthetics, Doctorate, G.Babagıray(Student), 2017

AKBAŞ S. O. , Comparison Of The Instrumentation Results Obtained From Supported Deep Excavation Case Histories With Finite Element Analyses, Postgraduate, C.RUHİ(Student), 2017

AKBAŞ S. O. , Derin karıştırma kolonlarının ölçülen ve hesaplanan kapasitelerinin tam ölçekli yükleme deneyleri ile incelenmesi, Postgraduate, Z.KAYA(Student), 2016

AKBAŞ S. O. , Kırıkkale şehir merkezinin deprem risk analizi ve sismik mikrobölgelemesi, Doctorate, Y.BÜLENT(Student), 2016

AKBAŞ S. O. , A Study On The System Performance And Reliability Of Soil Nail Walls Using Case Histories, Postgraduate, A.Selin(Student), 2016

AKBAŞ S. O. , An Assessment Of Measured And Calculated Capacities Of Deep Mixing Columns Using Full Scale Load Test Results, Postgraduate, Z.Kaya(Student), 2016

AKBAŞ S. O. , Application Of Random Field Finite Element Method In Geotechnical Risk Analysis: An Application For Shallow Foundations, Postgraduate, E.TÜRK(Student), 2014

AKBAŞ S. O. , Assessment of the reinforcing effect of geogrids on eccentrically loaded foundations, Postgraduate, S.FARSHAD(Student), 2013

AKBAŞ S. O. , Experimental and numerical investigation of the behavior of eccentrically loaded shallow foundations on cohesionless soils reinforced with geogrid layers, Doctorate, A.CEM(Student), 2013

ANIL Ö., AKBAŞ S. O. , Investigation of stress distribution and settlement profiles of different shaped foundations with experimental and finite elements analysis method, Postgraduate, S.BABAGİRAY(Student), 2012

AKBAŞ S. O. , The comparison of the calculated and observed behavior of an anchored retaining wall, Postgraduate, H.KARATAĞ(Student), 2012

ÜNSAL N., AKBAŞ S. O. , Reliability based design optimization of foundations and reliability based design of shallow foundations considering earthquake loading in cohesionless soils, Doctorate, E.TEKİN(Student), 2012

AKBAŞ S. O. , Estimation of vulnerability against snow avalanches for village- type Turkish buildings, Postgraduate, E.DURAK(Student), 2011

AKBAŞ S. O. , Liquefaction analysis of city of Ardebil-Iran, Postgraduate, S.ASIABI(Student), 2010

AKBAŞ S. O. , Investigation of bearing capacity estimation methods and the effect of rigid layer for rigid shallow foundations on cohesionless soils, Postgraduate, G.BABAGİRAY(Student), 2010

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

1. Investigation of the impact behavior when using single and double layers of geosynthetics on buried pipe structures

Babagiray G., Akbaş S. O., Anıl Ö.

Acta Geotechnica Slovenica, no.2021/2, pp.84-105, 2021 (Journal Indexed in SCI Expanded)

- II. **Expanded Database Assessment of Design Methods for Spread Foundations under Axial Compression and Uplift Loading**
Tang C., Phoon K., Li D., AKBAŞ S. O.
JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.146, no.11, 2020 (Journal Indexed in SCI)
- III. **Predicting groutability of granular soils using adaptive neuro-fuzzy inference system**
TEKİN E., AKBAŞ S. O.
NEURAL COMPUTING & APPLICATIONS, vol.31, no.4, pp.1091-1101, 2019 (Journal Indexed in SCI)
- IV. **Linear and nonlinear site response analyses to determine dynamic soil properties of Kirikkale**
Sonmezer Y. B., BAŞ S., IŞIK N. S., AKBAŞ S. O.
GEOMECHANICS AND ENGINEERING, vol.16, no.4, pp.435-448, 2018 (Journal Indexed in SCI)
- V. **Effects of the use of the surface spectrum of a specific region on seismic performances of R/C structures**
Sonmezer Y. B., KALKAN İ., BAŞ S., AKBAŞ S. O.
NATURAL HAZARDS, vol.93, no.3, pp.1203-1229, 2018 (Journal Indexed in SCI)
- VI. **Seismic risk estimation of the Kirikkale province through street survey based rapid assessment method (SSRA)**
Sonmezer Y. B., BAŞ S., AKBAŞ S. O.
EARTHQUAKES AND STRUCTURES, vol.14, no.6, pp.615-626, 2018 (Journal Indexed in SCI)
- VII. **A Numerical Modelling Based Parametric Study on the Bearing Capacity of Shallow Foundations on Cohesionless Soils Underlain by a Shallow Rigid Layer**
Babagiray G., Akbaş S. O.
TEKNIK DERGI, vol.29, no.1, pp.8185-8198, 2018 (Journal Indexed in SCI)
- VIII. **Investigation of the impact behavior of steel and composite pipes with protective layer**
ANIL Ö., AKBAŞ S. O., Gezer O., Yilmaz M. C.
STRUCTURAL CONCRETE, vol.18, no.3, pp.421-432, 2017 (Journal Indexed in SCI)
- IX. **Experimental and finite element analyses of footings of varying shapes on sand**
ANIL Ö., AKBAŞ S. O., Babagiray S., Gel A. C., Durucan C.
GEOMECHANICS AND ENGINEERING, vol.12, no.2, pp.223-238, 2017 (Journal Indexed in SCI)
- X. **ASSESSMENT OF THE SWELLING AND LIME STABILIZATION POTENTIAL OF GOLBASI (ANKARA) RESIDENTIAL AREA CLAYS**
Ozturk Y. Z., ÜNSAL N., AKBAŞ S. O.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.30, no.2, pp.309-318, 2015 (Journal Indexed in SCI)
- XI. **ASSESSMENT OF THE PEAK ACCELERATION, AMPLIFICATION RATIO AND FUNDAMENTAL PERIOD PROPERTIES FOR THE KIRIKKALE PROVINCE SETTLEMENT AREA**
Sonmezer Y. B., AKBAŞ S. O., IŞIK N. S.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.30, no.4, pp.711-721, 2015 (Journal Indexed in SCI)
- XII. **Methods for the Characterization of the Vulnerability of Elements at Risk**
Sterlacchini S., AKBAŞ S. O., Blahut J., Mavrouli O., Garcia C., Luna B. Q., Corominas J.
MOUNTAIN RISKS: FROM PREDICTION TO MANAGEMENT AND GOVERNANCE, vol.34, pp.233-273, 2014 (Journal Indexed in SCI)
- XIII. **Methods for Debris Flow Hazard and Risk Assessment**
Luna B. Q., Blahut J., Kappes M., AKBAŞ S. O., Malet J., Remaitre A., van Asch T., Jaboyedoff M.
MOUNTAIN RISKS: FROM PREDICTION TO MANAGEMENT AND GOVERNANCE, vol.34, pp.133-177, 2014 (Journal Indexed in SCI)
- XIV. **Evaluation of blast-induced ground vibration effects in a new residential zone**
Dogan O., ANIL Ö., AKBAŞ S. O., KANTAR E., Erdem R. T.

SOIL DYNAMICS AND EARTHQUAKE ENGINEERING, vol.50, pp.168-181, 2013 (Journal Indexed in SCI)

- XV. **THE EFFECT OF A SHALLOW RIGID LAYER ON THE BEARING CAPACITY OF FOOTINGS ON COHESIONLESS SOILS**
BABAGIRAY G., AKBAŞ S. O. , ANIL Ö.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.28, no.1, pp.187-197, 2013 (Journal Indexed in SCI)
- XVI. **Vibration measurement and vulnerability analysis of a power plant cooling system**
Anil Ö., AKBAŞ S. O. , KANTAR E., Gel A. C.
Smart Structures and Systems, vol.11, no.2, pp.199-215, 2013 (Journal Indexed in SCI Expanded)
- XVII. **Predicted and Observed Deformation Behavior of Akkopru Dam**
AKBAŞ S. O. , Sak I.
TEKNIK DERGI, vol.23, no.3, pp.6063-6087, 2012 (Journal Indexed in SCI)
- XVIII. **Closure to "Axial Compression of Footings in Cohesionless Soils. II: Bearing Capacity" by Sami O. Akbas and Fred H. Kulhawy**
AKBAŞ S. O. , Kulhawy F. H.
JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.137, no.9, pp.856-857, 2011 (Journal Indexed in SCI)
- XIX. **Artificial neural networks approach for estimating the groutability of granular soils with cement-based grouts**
Tekin E., AKBAŞ S. O.
BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, vol.70, no.1, pp.153-161, 2011 (Journal Indexed in SCI)
- XX. **The application of numerical debris flow modelling for the generation of physical vulnerability curves**
Luna B. Q. , Blahut J., van Westen C. J. , Sterlacchini S., van Asch T. W. J. , AKBAŞ S. O.
NATURAL HAZARDS AND EARTH SYSTEM SCIENCES, vol.11, no.7, pp.2047-2060, 2011 (Journal Indexed in SCI)
- XXI. **Closure to "Axial Compression of Footings in Cohesionless Soils. I: Load-Settlement Behavior" by Sami O. Akbas and Fred H. Kulhawy**
AKBAŞ S. O. , Kulhawy F. H.
JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.137, no.1, pp.110, 2011 (Journal Indexed in SCI)
- XXII. **ESTIMATION OF THE GROUTABILITY OF GRANULAR SOILS WITH CEMENT-BASED GROUTS USING DISCRIMINANT ANALYSIS**
TEKİN E., AKBAŞ S. O.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.25, no.3, pp.625-633, 2010 (Journal Indexed in SCI)
- XXIII. **Reliability-Based Design Approach for Differential Settlement of Footings on Cohesionless Soils**
AKBAŞ S. O. , Kulhawy F. H.
JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.135, no.12, pp.1779-1788, 2009 (Journal Indexed in SCI)
- XXIV. **Axial Compression of Footings in Cohesionless Soils. II: Bearing Capacity**
AKBAŞ S. O. , Kulhawy F. H.
JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.135, no.11, pp.1575-1582, 2009 (Journal Indexed in SCI)
- XXV. **Axial Compression of Footings in Cohesionless Soils. I: Load-Settlement Behavior**
AKBAŞ S. O. , Kulhawy F. H.
JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.135, no.11, pp.1562-1574, 2009 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Estimation of resistance factors for reliability-based design of shallow foundations in cohesionless soils under earthquake loading**
AKBAŞ S. O. , TEKİN E.
Geotechnical Special Publication, no.229, pp.555-569, 2013 (Refereed Journals of Other Institutions)
- II. **Characterization and Estimation of Geotechnical Variability in Ankara Clay A Case History**
AKBAŞ S. O. , Kulhawy F.
Geotechnical and Geological Engineering, vol.28, no.5, pp.619-631, 2010 (Refereed Journals of Other Institutions)

Books & Book Chapters

- I. **Zeminlerde ve Kayada Su Akımı**
AKBAŞ S. O.
in: Geoteknik Mühendisliğine Giriş, Ayfer Erken, Editor, Nobel Akademik Yayıncılık, pp.272-344, 2015
- II. **Methods for the Characterization of the Vulnerability of Elements at Risk**
sterlacchini s., AKBAŞ S. O. , blahut j., mavrouli o., garcia c., Quan Luna b., corominas j.
in: Mountain Risks: From Prediction to Management and Governance., Van Asch T., Corominas J., Greiving S., Malet JP., Sterlacchini S., Editor, Springer, pp.233-273, 2014
- III. **Methods for Debris Flow Hazard and Risk Assessment**
Quan Luna B., Blahut J., Kappes M., AKBAŞ S. O. , malet J. P. , Remaitre A., Van Asch T., Jaboyedoff M.
in: Mountain Risks: From Prediction to Management and Governance, Van Asch T., Corominas J., Greiving S., Malet JP., Sterlacchini S., Editor, Springer, pp.133-177, 2014

Refereed Congress / Symposium Publications in Proceedings

- I. **The importance of designer-contractor communication in geotechnical design as exemplified by a cut slope failure**
Anafarta D., Türk E., AKBAŞ S. O.
5th International Conference on New Advances in Civil Engineering, 8 - 10 November 2019
- II. **Finite Element-Based Geotechnical Risk Analysis For Anchor-Supported Deep Excavations**
bozkurt s., AKBAŞ S. O.
1st Mediterranean Young Geotechnical Engineers Conference, Muğla, Turkey, 23 - 24 September 2019, pp.159-166
- III. **Geoteknik risk analizinde sonlu elemanlar teorisinin kullanımı: Ankraj destekli derin kazılar için bir uygulama**
bozkurt s., AKBAŞ S. O.
International Congress on Engineering and Architecture (ENAR-2018), 14 - 16 November 2018
- IV. **Results of full-scale field impact load tests on HDPE pipes with geogrid protective layer**
BABAGIRAY G., AKBAŞ S. O. , ANIL Ö.
11th International Conference on Geosynthetics, Seoul, South Korea, 16 - 21 September 2018
- V. **Evaluation and Consideration of Model Uncertainties in Reliability Based Design**
Lesny K., AKBAŞ S. O. , Bogusz W., Burlon S., Vessia G., Zhang L.
Geo-Risk 2017: Reliability-based Design and Code Developments, Denver, United States Of America, 4 - 07 June 2017, vol.283, pp.435-444
- VI. **Evaluation of the Uncertainties Related to the Geotechnical Design Method and Its Consideration in Reliability Based Design**
Lesny K., AKBAŞ S. O. , Bogusz W., Burlon S., Vessia G., Zhang L.
Geo-Risk Conference, Colorado, United States Of America, 4 - 07 June 2017, pp.435-444
- VII. **Model Uncertainties for the Static Design of Square Foundations on Sand under Axial Compression**

- Tang C., Phoon K., AKBAŞ S. O.
Geo-Risk Conference, Colorado, United States Of America, 4 - 07 June 2017, pp.151-160
- VIII. **Investigation of Impact Behaviour of HDPE Pipes with Geocell Protective Layer**
BABAGİRAY G., AKBAŞ S. O. , ANIL Ö.
6th European Geosynthetics Congress, 25 - 28 September 2016
- IX. **Investigation of impact behavior of HDPE pipes with geocell protective layer**
BABAGİRAY G., AKBAŞ S. O. , ANIL Ö.
6th European Geosynthetics Congress, Ljubljana, Slovenia, 25 - 28 September 2016, pp.762-773
- X. **Local Spectrum Investigation and Its Effects on Earthquake Behavior of Existing RC Structures**
SÖNMEZER Y. B. , AKBAŞ S. O. , BAŞ S., KALKAN İ.
12th International Congress on Advances in Civil Engineering, 21 - 23 September 2016
- XI. **Importance of Instrumental Observations and Local Correlations in Terms of Sustainability of Solider Pile Structures**
Karatag H., AKBAŞ S. O.
2nd International Sustainable Buildings Symposium, Ankara, Turkey, 28 - 30 May 2015
- XII. **Reliability Analysis of an Anchored Contiguous Pile Wall in Ankara Clay with the Random Set Finite Element Method**
AKBAŞ S. O. , Kokten O.
5th International Symposium on Geotechnical Safety and Risk (ISGSR), Rotterdam, Netherlands, 13 - 16 October 2015, pp.639-644
- XIII. **Influence of Strengthening with Perforated Steel Plates on the Behavior of Infill Walls and RC Frame**
ÖZBEK E., KALKAN İ., AKBAŞ S. O. , AYKAÇ S.
International Conference on Civil and Infrastructure Engineering, World Academy of Science, Engineering and Technology International Journal of Civil, Architectural, Structural and Construction Engineering, Berlin, Germany, 22 - 23 May 2014
- XIV. **An inter disciplinary approach for earthquake vulnerability assessment in urban areas A case study of Central District Yalova**
AKBAŞ S. O. , GÜZEY Ö., AKSOY E., ANIL Ö., GÜLTEKİN N.
Regional Studies Association, Shape and be Shaped: The Future Dynamics of Regional Development Annual European Conference, Tampere, Finland, 5 - 08 May 2013
- XV. **Kohezyonsuz zeminler üzerindeki yüzeysel temeller için taşıma gücü belirleme yöntemlerinin kesinlik ve güvenilirliğinin incelenmesi**
Babagiray G., Akbaş S. O.
4. GEOTEKNİK SEMPOZYUMU, Adana, Turkey, 1 - 02 December 2011, pp.271-282
- XVI. **Reliability-based design of shallow foundations in cohesionless soils under compression loading: Ultimate limit state**
AKBAŞ S. O. , Kulhawy F. H.
11th International Conference on Applications of Statistics and Probability in Civil Engineering (IC ASP), Zürich, Switzerland, 1 - 04 August 2011, pp.1659-1665
- XVII. **Model Uncertainties in "Terzaghi and Peck" Methods for Estimating Settlement of Footings on Sand**
AKBAŞ S. O. , kulhawy F. H.
GeoFlorida 2010, 20 - 24 February 2010
- XVIII. **Critical assessment of existing physical vulnerability estimation approaches for debris flows**
AKBAŞ S. O. , Blahut J., Sterlacchini S.
Proceedings of landslide processes: from geomorphologic mapping to dynamic modeling, Strasbourg, 2 - 03 June 2009, vol.1, pp.6-7
- XIX. **Evaluation of Capacity of Rock Foundation Sockets**
kulhawy f., prakoso w., AKBAŞ S. O.
Alaska Rocks 2005, The 40th U.S. Symposium on Rock Mechanics, Anchorage, United States Of America, 25 - 29 June 2005

Supported Projects

AKBAŞ S. O. , Project Supported by Higher Education Institutions, Kohezyonsuz Zeminlere Oturan Sığ Temellerin Göçme Kapasitelerinin Deneysel Olarak İncelenmesi, 2008 - Continues

AKBAŞ S. O. , Project Supported by Higher Education Institutions, Sismik Yükler Altında Bulunan Sığ Temellerin Tasarımında Belirsizliklerin ve Güvenilirlik Seviyesinin Gerçekçi Olarak Belirlenmesi, 2011 - 2013

AKBAŞ S. O. , Project Supported by Higher Education Institutions, RİJİT TABAKA ÜZERİNDE YER ALAN SONLU KALINLIKTA GRANÜLER ZEMİNLERDE İNŞAA EDİLEN SIĞ TEMELLERİN TAŞIMA KAPASİTESİ, 2011 - 2013

Citations

Total Citations (WOS):304

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