

## Prof. Suat AKBULUT

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği, Turkey 1996 - 1999

Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, Turkey 1993 - 1995

Undergraduate, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği, Turkey 1985 - 1990

### Research Areas

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

### Advising Theses

AKBULUT S., Görüntü Analizi İle Granüler Zeminlerin Bazı Geoteknik Özelliklerinin Belirlenmesi, Doctorate, S.ARASAN(Student), 2016

AKBULUT S., Laboratuarda geliştirilen nanokil kompozitlerin bazı geoteknik özelliklerinin deneysel olarak araştırılması, Doctorate, Z.N.(Student), 2016

AKBULUT S., Laboratuarda Geliştirilen Bir Organokilin Mukavemet Özelliklerinin Deneysel Olarak Araştırılması, Postgraduate, U.Hamutcu(Student), 2016

AKBULUT S., Yüzey Aktif Madde İle Muamele Edilmiş Kilin Mukavemet Özelliklerinin Araştırılması, Postgraduate, Z.N.(Student), 2016

AKBULUT S., Kimyasal Karışımlarla Kum Zeminlerin Enjeksiyonu, Postgraduate, H.Güngörmüş(Student), 2016

AKBULUT S., Farklı killerin radyoaktif maddelere karşı zırlama özelliklerinin deneysel olarak araştırılması, Postgraduate, A.Sehhatigdiri(Student), 2016

AKBULUT S., İnce Daneli Zeminlerin Şişme Basıncı İle Katyon Değişim Kapasitesine; Çimento, Kireç, Silis Dumanı Ve Uçucu Külün Etkisinin Araştırılması, Postgraduate, S.ARASAN(Student), 2016

AKBULUT S., Silis Dumanı, Kırmızı Çamur Ve Kireç İle Muamele Edilmiş Mikronize Bir Kilin Bazı Geoteknik Özelliklerinin İncelenmesi, Postgraduate, Y.Pekdemir(Student), 2016

AKBULUT S., Polimer Katkılı Hidrofob Kilin Bazı Geoteknik Ve Dinamik Özelliklerinin İncelenmesi, Postgraduate, P.Majedi(Student), 2016

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

1. **Seismic Performance and Damage Evaluation of Reinforced Concrete Structures Based on Field Investigation Made After February 6, 2023, Kahramanmaraş Earthquakes**

SEVİM B., AYVAZ Y., AKBULUT S., AYDINER M. F., Uzun S., ARİ A.

Journal of Earthquake and Tsunami, vol.18, no.1, 2024 (SCI-Expanded)

- II. **Effect of particle size and shape on shear strength of sand-rubber granule mixtures**  
Ari A., Akbulut S.  
GRANULAR MATTER, vol.24, no.4, 2022 (SCI-Expanded)
- III. **Effect of fractal dimension on sand-geosynthetic interface shear strength**  
Ari A., Akbulut S.  
POWDER TECHNOLOGY, vol.401, 2022 (SCI-Expanded)
- IV. **Evaluation of sand-geomembrane interface behavior using discrete element method**  
ARİ A., AKBULUT S.  
GRANULAR MATTER, vol.24, no.1, 2022 (SCI-Expanded)
- V. **Granular Soil Improvement by Using Polyester Grouts**  
ÇELİK S., Majedi P., AKBULUT S.  
IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY-TRANSACTIONS OF CIVIL ENGINEERING, vol.43, no.3, pp.599-606, 2019 (SCI-Expanded)
- VI. **Some geotechnical properties and damping ratio of clay nanocomposites**  
Majedi P., AKBULUT S., Albayrak Z. N. K.  
JOURNAL OF ENGINEERING RESEARCH, vol.7, no.1, 2019 (SCI-Expanded)
- VII. **Experimental and numerical investigation on bearing capacity of granular soil affected by particle roundness**  
Ghalehjough B. K., AKBULUT S., ÇELİK S.  
INDIAN JOURNAL OF GEO-MARINE SCIENCES, vol.46, no.10, pp.2137-2145, 2017 (SCI-Expanded)
- VIII. **Effect of randomly fiber reinforcement on shear failure surface of soil, behind flexible retaining walls at different conditions**  
ÇELİK S., Ghalehjough B. K., Majedi P., AKBULUT S.  
INDIAN JOURNAL OF GEO-MARINE SCIENCES, vol.46, no.10, pp.2097-2104, 2017 (SCI-Expanded)
- IX. **Some Geotechnical Properties of Clay Nanocomposites**  
Kurt Z. N., AKBULUT S.  
PERIODICA POLYTECHNICA-CIVIL ENGINEERING, vol.61, no.3, pp.381-388, 2017 (SCI-Expanded)
- X. **A research on the radiation shielding effects of clay, silica fume and cement samples**  
AKBULUT S., Sehhatigdiri A., Eroglu H., ÇELİK S.  
RADIATION PHYSICS AND CHEMISTRY, vol.117, pp.88-92, 2015 (SCI-Expanded)
- XI. **THE DYNAMIC SHEAR MODULUS AND DAMPING RATIO OF CLAY NANOCOMPOSITES**  
Kurt Z. N., Akbulut S.  
CLAYS AND CLAY MINERALS, vol.62, pp.313-323, 2014 (SCI-Expanded)
- XII. **Geotechnical properties of some organoclays**  
Akbulut S., Kurt Z. N., Arasan S., Pekdemir Y.  
SADHANA-ACADEMY PROCEEDINGS IN ENGINEERING SCIENCES, vol.38, no.2, pp.317-329, 2013 (SCI-Expanded)
- XIII. **Surfactant modified clays' consistency limits and contact angles**  
AKBULUT S., KURT Z., ARASAN S.  
EARTH SCIENCES RESEARCH JOURNAL, vol.16, no.2, pp.13-19, 2012 (SCI-Expanded)
- XIV. **The Relationship between the Fractal Dimension and Shape Properties of Particles**  
ARASAN S., AKBULUT S., HASILOGLU A.  
KSCE JOURNAL OF CIVIL ENGINEERING, vol.15, no.7, pp.1219-1225, 2011 (SCI-Expanded)
- XV. **Correlation between shape of aggregate and mechanical properties of asphalt concrete: Digital image processing approach**  
Arasan S., Yenera E., Hattatoglu F., Hınıslıoğlu S., Akbulut S.  
Road Materials and Pavement Design, vol.12, no.2, pp.239-262, 2011 (SCI-Expanded)
- XVI. **Evaluation of dynamic properties of geosynthetic reinforced clay samples for environmental impact practices**  
Akbulut S., Pamukcu S.

- ENVIRONMENTAL EARTH SCIENCES, vol.61, no.7, pp.1449-1456, 2010 (SCI-Expanded)
- XVII. **Prediction of the unconfined compressive strength of compacted granular soils by using inference systems**  
KALKAN E., Akbulut S., TORTUM A., Celik S.  
ENVIRONMENTAL GEOLOGY, vol.58, no.7, pp.1429-1440, 2009 (SCI-Expanded)
- XVIII. **Modification of clayey soils using scrap tire rubber and synthetic fibers**  
Akbulut S., Arasan S., KALKAN E.  
APPLIED CLAY SCIENCE, vol.38, pp.23-32, 2007 (SCI-Expanded)
- XIX. **Modification of the geotechnical properties, as influenced by freeze-thaw, of granular soils with waste additives**  
Yarbasi N., KALKAN E., Akbulut S.  
COLD REGIONS SCIENCE AND TECHNOLOGY, vol.48, no.1, pp.44-54, 2007 (SCI-Expanded)
- XX. **Thermoelastic enhancement of damping of sand using synthetic ground rubber**  
PAMUKCU S., Akbulut S.  
Journal of Geotechnical and Geoenvironmental Engineering, vol.132, no.4, pp.501-510, 2006 (SCI-Expanded)
- XXI. **Artificial neural networks for predicting the hydraulic conductivity of coarse-grained soils**  
AKBULUT S.  
EURASIAN SOIL SCIENCE, vol.38, no.4, pp.392-398, 2005 (SCI-Expanded)
- XXII. **Data generation for shear modulus and damping ratio in reinforced sands using adaptive neuro-fuzzy inference system**  
Akbulut S., HASILOGLU A., PAMUKCU S.  
SOIL DYNAMICS AND EARTHQUAKE ENGINEERING, vol.24, no.11, pp.805-814, 2004 (SCI-Expanded)
- XXIII. **The positive effects of silica fume on the permeability, swelling pressure and compressive strength of natural clay liners**  
KALKAN E., Akbulut S.  
ENGINEERING GEOLOGY, vol.73, pp.145-156, 2004 (SCI-Expanded)
- XXIV. **Modification of hydraulic conductivity in granular soils using waste materials**  
Akbulut S., SAĞLAMER A.  
WASTE MANAGEMENT, vol.24, no.5, pp.491-499, 2004 (SCI-Expanded)
- XXV. **Estimating the groutability of granular soils: A new approach**  
Akbulut S., Saglamer A.  
Tunnelling and Underground Space Technology, vol.17, no.4, pp.371-380, 2002 (SCI-Expanded)

## Articles Published in Other Journals

- I. **A RESEARCH ON THE EFFECT OF THE REINFORCEMENT GEOMETRY ON THE SOIL BEARING CAPACITY UNDER THE STRIP FOOTING LOADS**  
Majedi P., ÇELİK S., AKBULUT S.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.36, no.4, pp.951-960, 2018 (ESCI)
- II. **Effect of Reinforcement on stability and Settlement of Embankment: A Finite Element analysis of Different Kinds of Reinforcing and Construction Conditions**  
MAJEDİ P., GHALEHJOUGH B. K., AKBULUT S., ÇELİK S.  
European Journal of Advances in Engineering and Technology, vol.4, pp.759-764, 2017 (Peer-Reviewed Journal)
- III. **An Experimental Study on Effect of Particle Size and Angularity on Void Ratio of Granular Soils**  
GHALEHJOUGH B. K., AKBULUT S., ÇELİK S.  
European Journal of Advances in Engineering and Technology, vol.4, pp.555-559, 2017 (Peer-Reviewed Journal)
- IV. **THE EFFECT OF SHAPE PROPERTIES IN GRANULAR SOILS ON SETTLEMENT OF STRIP FOOTING OVERLYING ON SAND**  
Karimi Ghalehjough B., AKBULUT S., ÇELİK S.

SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.35, no.4, pp.585-592, 2017 (ESCI)

- V. **Alteration of Basalt and Calcareous Aggregates Roundness with Different Abrasion Methods**  
ARASAN S., AKBULUT S., HAŞILOĞLU A.  
International Journal of Civil and Structural Engineering Research, vol.2, pp.250-259, 2013 (Peer-Reviewed Journal)
- VI. **Effect of particle size and shape on the grain size distribution using Image analysis**  
ARASAN S., AKBULUT S., HAŞILOĞLU A.  
International Journal of Civil & Structural Engineering, vol.1, pp.968-985, 2011 (Peer-Reviewed Journal)
- VII. **Shape properties of natural and crushed aggregate using image analysis**  
ARASAN S., HAŞILOĞLU A., AKBULUT S.  
International Journal of Civil & Structural Engineering, vol.1, pp.221-233, 2010 (Peer-Reviewed Journal)
- VIII. **The variations of cation exchange capacity pH and zeta potential in expansive soils treated by additives**  
AKBULUT S., ARASAN S.  
International Journal of Civil & Structural Engineering, vol.1, pp.139-154, 2010 (Peer-Reviewed Journal)
- IX. **Electrokinetic Properties of Surfactant Modified Clays**  
AKBULUT S., KURT ALBAYRAK Z. N., ARASAN S.  
INTERNATIONAL JOURNAL OF CIVIL AND STRUCTURAL ENGINEERING, vol.3, pp.354-361, 2010 (Peer-Reviewed Journal)
- X. **Daneli Zeminlerde Enjeksiyon Basıncı ve Dane Çapının Enjeksiyon Edilebilirlik Açısından Etkileri**  
AKBULUT S., SAĞLAMER A.  
TEKNİK DERGI, vol.14, no.68, pp.2985-2995, 2003 (Scopus)
- XI. **Katı atık depo alanlarının geoteknik tasarımı**  
Akbulut S.  
Pamukkale University Journal of Engineering Sciences, vol.9, no.2, pp.223-230, 2003 (Peer-Reviewed Journal)
- XII. **Improvement of hydraulic conductivity of soils by grouting**  
AKBULUT S., SAĞLAMER A.  
Ground Improvement, vol.7, no.4, 2003 (ESCI)
- XIII. **The effects of silica fume in cement grouting**  
AKBULUT S., SAĞLAMER A.  
Ground Improvement, vol.7, no.1, pp.37-44, 2003 (ESCI)
- XIV. **Fractal Dimensioning of sand grains using image analysis system**  
AKBULUT S.  
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.8, pp.329-334, 2002 (Peer-Reviewed Journal)

### **Refereed Congress / Symposium Publications in Proceedings**

- I. **Evaluation of Micro-Mechanical Shear Response of Sandy Soil in terms of Particle Shape Effect**  
ARİ A., AKBULUT S.  
9th Geotechnical Symposium, 22-24th November, Istanbul, İstanbul, Turkey, 22 November 2023
- II. **KURŞUN-ÇİNKO KATKILARININ BİR KİL ZEMİNİN MUKAVEMET ÖZELLİKLERİNE ETKİSİNİN DENEYSEL OLARAK ARAŞTIRILMASI**  
AKBULUT S., Balatn F.  
Zemin Mekaniği ve Geoteknik Mühendisliği 17. Ulusal Kongresi, İstanbul, Turkey, 26 September 2018, vol.1, no.1, pp.1095-1104
- III. **FORE KAZIKLI İKSALARDA HESAPLANAN DEFORMASYONLARIN İNKLİNOMETRE ÖLÇÜM SONUÇLARI İLE KARŞILAŞTIRILMASI**  
AKBULUT S., Yeler M.

Zemin Mekaniği ve Geoteknik Mühendisliği 17. Ulusal Kongresi, İstanbul, Turkey, 26 September 2018, vol.1, no.1, pp.827-834

- IV. **The Effect of Different Soil Parameters on Bearing Capacity of Shallow Foundations: The Numerical Analysis**  
MAJEDI P., ÇELİK S., AKBULUT S.  
3rd.International Conference 4th.national Conference on Civil Engineering, Architecture and Urban Design, Tebriz, 5 - 07 September 2018
- V. **The Effect of Different Soil Parameters on Bearing Capacity of Shallow Foundations: The Numerical Analysis**  
MAJEDI P., ÇELİK S., AKBULUT S.  
3rd.International Conference 4th.national Conference on Civil Engineering, Architecture and Urban Design, 5 - 07 September 2018
- VI. **The Effect Of Different Type Of Fibers On Strength Properties Of Clay Sample**  
Doğru M. H., AKBULUT S.  
IV INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES (ICENS), 2 - 06 June 2018, pp.533-539
- VII. **The Effect of Lead-Zinc on the Strength of Clay Soil with Fly Ash**  
Balatan F., AKBULUT S.  
IV INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES (ICENS, 2 - 06 May 2018
- VIII. **The Experimental, Analytical and Numerical Estimation of Ground Surface Settlement Caused by Tunnel Excavation**  
MAJEDİ P., AKBULUT S., ÇELİK S.  
II. International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017, pp.1135-1140
- IX. **STİREN AKRİLİK KOPOLİMER İLE MODİFİYE EDİLMİŞ HİDROFOB ORGANOKİLİN MUKAVEMET VE ŞİŞME DAVRANIŞLARININ ARAŞTIRILMASI**  
AKBULUT S., Çelik S., KURT Z. N.  
Zemin Mekaniği ve Geoteknik Mühendisliği 16. Ulusal Kongresi, Erzurum, Turkey, 13 October 2016, vol.1, no.1, pp.879-888
- X. **görüntü analizi ile granüler zemin özelliklerinin belirlenmesi**  
AKBULUT S.  
1. Ulusal Genç Geoteknik Mühendisleri Sempozyumu, Turkey, 12 October 2016
- XI. **Donatılı Şev Olarak Teşkil Edilen Yol Dolgularının Sonlu Elemanlar Yöntemi İle Modellenmesi**  
AKBULUT S., Majedi P.  
1. Ulusal Genç Geoteknik Mühendisleri Sempozyumu,, Erzurum, Turkey, 12 October 2016, vol.1, no.1, pp.99-106

## Other Publications

- I. **Soil Stabilization Methods**  
Akbulut S.  
Presentation, pp.1-106, 2019
- II. **Görüntü Analizi İle Granüler Zemin Özelliklerinin Belirlenmesi**  
AKBULUT S.  
Presentation, pp.1-80, 2016

## Expert Reports

- I. **Mersin Akkuyu Nükleer Santrali Geoteknik Değerlendirmesi**  
YILDIRIM M., Akbulut S.

## Supported Projects

AKBULUT S., Other International Funding Programs, Kil Zeminlerin Organik Katkılarla Mühendislik Özelliklerinin İyileştirilmesi, 2008 - 2011

AKBULUT S., TUBITAK Project, Kil tanelerin (Nanokil) kristal yapılarının poliorganiklerle desteklenerek killerin hidrolik iletkenlik ve mukavemet özelliklerinin iyileştirilmesi, 2007 - 2011

AKBULUT S., Other International Funding Programs, Donmuş Zeminlerin Büyük Ölçekli Direkt Kesme Deneyi İle Kayma Mukavemetlerinin Belirlenmesi, 2007 - 2009

AKBULUT S., Other International Funding Programs, Zeminlerin Geoteknik Ve Dinamik Parametrelerini Belirleyerek (Deneysel) Zeminlerde Deprem Dalgalarının Hız Ve İvmesinin Matematiksel Olarak Modellenmesi, 2001 - 2007

AKBULUT S., Other International Funding Programs, Zeminlerin Non-Destructive Test Metodu İle Dinamik Özelliklerinin Belirlenmesi, 2003 - 2006

## Metrics

Publication: 54

Citation (WoS): 833

Citation (Scopus): 954

H-Index (WoS): 12

H-Index (Scopus): 11

## Non Academic Experience

Lehigh University

The University of Pittsburgh