

## Prof. BAHADIR SADIK BAKIR

### Personal Information

**Email:** bakir@metu.edu.tr

**Web:** <https://avesis.metu.edu.tr/bakir>

### International Researcher IDs

ScholarID: E9xzJIEAAAAJ

ORCID: 0000-0001-6360-722X

Publons / Web Of Science ResearcherID: AAQ-4057-2021

ScopusID: 57217329972

Yoksis Researcher ID: 163523

### Research Areas

Civil Engineering, Geotechnical

### Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2009 - Continues  
Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2005 - 2009

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 1995 - 2005

### Supervised Theses

BAKIR B. S., A Numerical Study on the Behaviour of Suction Bucket Foundations for Offshore Wind Turbines in Dense Sands under Cyclic Loading, Doctorate, S.ALP(Student), 2021

BAKIR B. S., Comparison of limit equilibrium and 2-d, 3-d finite element slope stability models: a case study on the slope in Akpınar district, in Ankara, Postgraduate, M.Can(Student), 2019

BAKIR B. S., YILMAZ M. T., An assessment of the relationship between the local site effects and the distribution of damage in the city of Yalova (Turkey) during 17 august 1999 İzmit earthquake., Postgraduate, C.İLHAN(Student), 2015

BAKIR B. S., YILMAZ M. T., An Assessment of the relationship between the local site effects and the distribution of damage in the city of Yalova (Turkey) during 17 August 1999 İzmit earthquake, Postgraduate, C.İlhan(Student), 2015

BAKIR B. S., Two-dimensional numerical analysis of tunnel collapse driven in poor ground conditions, Postgraduate, M.TÜRKOĞLU(Student), 2013

BAKIR B. S., An investigation of seismic behaviour of multi-span bridges on shallow foundations with soil-structure interaction methods, Postgraduate, E.AKKAYA(Student), 2013

BAKIR B. S., A soil improvement case study using rammed stone column systems, Postgraduate, O.FATİH(Student), 2013

BAKIR B. S., Finite element analysis of laboratory model experiments on behavior of shallow foundations under general loading, Postgraduate, H.EMRE(Student), 2012

BAKIR B. S., Seismic response and vulnerability assessment of Tunnels: a case study on Bolu Tunnels, Doctorate, S.Üçer(Student), 2012

BAKIR B. S., YILMAZ M. T., Cyclic behavior of saturated low plastic fine soils, Doctorate, S.Sağlam(Student), 2011

BAKIR B. S., Analysis of seismic behavior of underground structures: a case study on Bolu tunnels, Postgraduate, N.Ertuğrul(Student), 2010

YILMAZ M. T., BAKIR B. S., The effect of group behavior on the pull-out capacity of soil nails in high plastic clay, Doctorate, E.AKIŞ(Student), 2009

BAKIR B. S., An investigation of the inertial interaction of building structures on shallow foundations with simplified soil-structure interaction analysis methods, Postgraduate, B.Eyce(Student), 2009

YILMAZ M. T., BAKIR B. S., An investigation of accuracy of inertial interaction analyses with frequency-independent impedance coefficients, Postgraduate, Ö.YILMAZOK(Student), 2007

BAKIR B. S., Comparison of 2D and 3D finite element models of tunnel advance in soft ground: a case study on Bolu tunnels, Postgraduate, S.Üçer(Student), 2006

BAKIR B. S., Comparison of 2d and 3d finite element models of tunnel advance in soft ground a case study: Bolu tunnels, Postgraduate, S.ÜÇER(Student), 2006

BAKIR B. S., Analysis of bearing capacity using discrete element method, Postgraduate, Ö.Ardıç(Student), 2006

BAKIR B. S., Seismically induced tilting potential of shallow mats on fine soils, Doctorate, M.Tolga(Student), 2004

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

- I. **Models for Pore Pressure Response of Low Plastic Fines Subjected to Repeated Loads**  
SAĞLAM S., Bakir S.  
JOURNAL OF EARTHQUAKE ENGINEERING, vol.22, no.6, pp.1027-1041, 2018 (SCI-Expanded)
- II. **Cyclic response of saturated silts**  
Saglam S., BAKIR B. S.  
SOIL DYNAMICS AND EARTHQUAKE ENGINEERING, pp.164-175, 2014 (SCI-Expanded)
- III. **8 March 2010 Elazig-Kovancilar (Turkey) Earthquake: Observations on Ground Motions and Building Damage**  
Akkar S., Aldemir A., Askan A., Bakir S., Canbay E., Demirel I. O., Erberik M. A., Gülerce Z., Gulkan P., Kalkan E., et al.  
SEISMOLOGICAL RESEARCH LETTERS, vol.82, no.1, pp.42-58, 2011 (SCI-Expanded)
- IV. **Site classification of Turkish national strong-motion stations**  
Sandikkaya M. A., YILMAZ M. T., BAKIR B. S., Yilmaz O.  
JOURNAL OF SEISMOLOGY, vol.14, no.3, pp.543-563, 2010 (SCI-Expanded)
- V. **Capacity of shallow foundations on saturated cohesionless soils under combined loading**  
YILMAZ M. T., BAKIR B. S.  
CANADIAN GEOTECHNICAL JOURNAL, vol.46, no.6, pp.639-649, 2009 (SCI-Expanded)
- VI. **Discussion of "Liquefaction-induced lateral spreading at Izmit Bay during the Kocaeli (Izmit)-Turkey earthquake" by K. Onder Cetin, T. Leslie Youd, Raymond B. Seed, Jonathan D. Bray, Jonathan P. Stewart, H. Turan Durgunoglu, W. Lettis, and M. Tolga Yilmaz**  
Bakir B. S., Saglam S.  
JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.132, no.7, pp.953-955, 2006 (SCI-Expanded)
- VII. **Discussion of "High-modulus columns for liquefaction mitigation" by James R. Martin II, C. Guney Olgun, James K. Mitchell, and H. Turan Durgunoglu**  
Bakir B., Yilmaz M.  
JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.132, no.7, pp.946-947, 2006 (SCI-Expanded)
- VIII. **Discussion of "Subsurface characterization at ground failure sites in Adapazari, Turkey" by Jonathan D. Bray, Rodolfo B. Sancio, Turan Durgunoglu, Akin Onalp, T. Leslie Youd, Jonathan P. Stewart, Raymond B. Seed, Onder K. Cetin, Ertan Bol, M. B. Baturay, C. Christensen, and T Karadayilar - July 2004, vol. 130, no. 7, pp. 673-685.**  
Bakir B., Yilmaz M.  
JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.132, no.4, pp.537-539, 2006 (SCI-

Expanded)

- IX. **Reply to: Discussion of "Re-examination of damage distribution in Adapazari: Geotechnical considerations"**  
Bakir B., Yilmaz M., Yakut A., Gulkan P.  
ENGINEERING STRUCTURES, vol.28, no.3, pp.468, 2006 (SCI-Expanded)
- X. **Re-examination of damage distribution in Adapazari: Geotechnical considerations**  
Bakir B., Yilmaz M. T., Yakut A., Gulkan P.  
Engineering Structures, vol.27, no.7, pp.1002-1013, 2005 (SCI-Expanded)
- XI. **Re-examination of damage distribution in Adapazari: Structural considerations**  
Yakut A., Gulkan P., Bakir B., Yilmaz M. T.  
Engineering Structures, vol.27, no.7, pp.990-1001, 2005 (SCI-Expanded)
- XII. **Analysis of a highway embankment failure associated with the 1999 Duzce, Turkey earthquake**  
Bakir B., Akis E.  
SOIL DYNAMICS AND EARTHQUAKE ENGINEERING, vol.25, no.3, pp.251-260, 2005 (SCI-Expanded)
- XIII. **Effects of basin edge on the distribution of damage in 1995 Dinar, Turkey earthquake**  
Bakir B., Ozkan M., Ciliz S.  
SOIL DYNAMICS AND EARTHQUAKE ENGINEERING, vol.22, no.4, pp.335-345, 2002 (SCI-Expanded)
- XIV. **An overview of local site effects and the associated building damage in Adapazari during the 17 August 1999 İzmit earthquake**  
Bakir B., Sucuoglu H., Yilmaz T.  
Bulletin of the Seismological Society of America, vol.92, no.1, pp.509-526, 2002 (SCI-Expanded)

## Articles Published in Other Journals

- I. **The effect of group behavior on the pull-out capacity of model soil nails in high plasticity clay**  
Akis E., BAKIR B. S., YILMAZ M. T.  
Innovative Infrastructure Solutions, vol.9, no.6, 2024 (ESCI)

## Books

- I. **Binalar için Deprem Mühendisliği Temel İlkeler**  
CANBAY E., GÜLKAN H. P., YAKUT A., tankut t., ÖZCEBE G., SUCUOĞLU H., AKKAR D. S., ersoy u., BAKIR B. S., YILMAZ M. T., et al.  
EVRİM, 2008
- II. **Zemin araştırmaları ve yüzey zeminlerinin karakterize edilerek belgelendirilmesi Türkiye Afet Yönetim Sisteminin İyileştirilmesi Projesi TUR 94 006**  
ÇETİN K. Ö., UNUTMAZ B., GÜLKAN H. P., BAKIR B. S.  
Afet İşleri Genel Müdürlüğü, 2002

## Refereed Congress / Symposium Publications in Proceedings

- I. **Defect Cause Modeling with Decision Tree and Regression Analysis**  
BAKIR B. S., BATMAZ İ., Gunturkun F. A., Ipekci T. A., KÖKSAL G., ÖZDEMİREL N. E.  
Conference of the World-Academy-of-Science-Engineering-and-Technology, Cairo, Egypt, 8 - 10 December 2006, vol.17, pp.266-268
- II. **Cyclic behavior of Adapazari silt and clay mixtures.**  
PEKCAN O., ÇETİN K. Ö., BAKIR B. S.  
11th International Conference on Soil Dynamics and Earthquake Engineering, 7 - 09 January 2004

### III. **Just how prescient are our building damage predictions?**

Gulkan P., Bakir B., Yakut A., Yilmaz M.

Workshop on Seismic Assessment and Rehabilitation of Existing Buildings, İzmir, Turkey, 13 May 2003, vol.29, pp.165-192

### IV. **Finite element analysis of cellular structures subjected to wave loads**

Bakir B., Wipf T., Greimann L.

15th International Conference on Soil Mechanics and Geotechnical Engineering, İstanbul, Turkey, 27 - 31 August 2001, pp.2219-2224

## **Supported Projects**

Bilgin Altınöz A. G., Aykaç Leidholm P., Özçakır Ö., Ergenç Cabanas Rodríguez D., Şahin Güçhan N., Yıldırım Esen S., Rifaioğlu M. N., Pamir H., Türer A., Erberik M. A., et al., Other International Funding Programs, CARE-PACE | Post-Earthquake Damage Assessment, Emergency Response, Conservation, Rehabilitation, and Resilience of Cultural Heritage Assets in Multi-layered City: Antakya, Hatay, 2023 - 2024

## **Metrics**

Publication: 22

Citation (WoS): 284

Citation (Scopus): 457

H-Index (WoS): 8

H-Index (Scopus): 10

## **Non Academic Experience**

METU

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Iowa State University

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