

## Assoc. Prof. MUSTAFA TOLGA YILMAZ

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: ABA-2636-2020

ScopusID: 7202595592

Yoksis Researcher ID: 164265

### Education Information

Doctorate, Middle East Technical University, Graduate School of Natural and Applied Sciences, İnşaat Mühendisliği (YI) (Tezli), Turkey 1999 - 2004

Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, İnşaat Mühendisliği (YI) (Tezli), Turkey 1997 - 1999

Undergraduate, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, Turkey 1994 - 1997

### Dissertations

Doctorate, Seismically induced tilting potential of shallow mats on fine soils, Middle East Technical University, Graduate School of Natural and Applied Sciences, İnşaat Mühendisliği (YI) (Tezli), 2004

Postgraduate, Mapping liquefaction susceptibility of the İzmir metropolitan area, Middle East Technical University, Graduate School of Natural and Applied Sciences, İnşaat Mühendisliği (YI) (Tezli), 1999

### Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Engineering Sciences, 2013 - 2017

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Engineering Sciences, 2005 - 2013

### Academic and Administrative Experience

Middle East Technical University, Faculty of Engineering, Department of Engineering Sciences, 2013 - Continues

### Advising Theses

YILMAZ M. T., An investigation of drained shear strength of overconsolidated high plasticity clays, Postgraduate, İ.YAŞAR(Student), 2021

YILMAZ M. T., An Investigation of the increase in variability of standard penetration test results for gravelly soils, Postgraduate, A.Pehlivan(Student), 2019

SUCUOĞLU H., YILMAZ M. T., An investigation of seismic face stability of deep tunnels by using an axisymmetric finite element model, Postgraduate, H.ELIZABETH(Student), 2018

YILMAZ M. T., ERBERİK M. A., An Implementation of probabilistic seismic hazard analysis in selection of seismic coefficient for pseudostatic analysis of slope stability, Postgraduate, K.Gedikaslan(Student), 2017

YILMAZ M. T., AN INVESTIGATION FOR THE RESIDUAL STRENGTH OF REMOULDED CLAY SPECIMENS RECOVERED FROM ORDUKÖY LANDSLIDE IN NORTHERN TURKEY, Postgraduate, A.E.MAHMOUD(Student), 2017

YILMAZ M. T., ERBERİK M. A., An implementation of probabilistic seismic hazard analysis in selection of seismic coefficient for pseudo-static analysis of slope stability, Postgraduate, K.GEDİKASLAN(Student), 2017

YILMAZ M. T., An approximate method to calculate the stiffness of shallow foundations subjected to eccentric loads, Doctorate, A.RUŞEN(Student), 2016

YILMAZ M. T., A semi-empirical method for estimation of maximum seismic shear strain in imperforated ground excited by vertically propagating shear waves, Doctorate, K.DEHGHANIAN(Student), 2016

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

YILMAZ M. T., Influence of seismic source and ground motion modeling on the probabilistic seismic hazard assessment of the city of Van after the 23 October 2011 Mw 7.2 earthquake, Postgraduate, M.ŞENYURT(Student), 2013

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

YILMAZ M. T., An assessment of the dynamic properties of Adapazari soils by cyclic direct simple shear tests, Postgraduate, K.HASSAN(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

YILMAZ M. T., Site classification of Turkish national strong-motion recording sites, Postgraduate, M.Abdullah(Student), 2008

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

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

- I. **Development of a GIS-Based Predicted-VS30 Map of Türkiye Using Geological and Topographical Parameters: Case Study for the Region Affected by the 6 February 2023 Kahramanmaraş Earthquakes**  
ŞAHİN G., Okalp K., KOÇKAR M. K., YILMAZ M. T., JALEHFOROUZAN A., Temiz F. A., ASKAN GÜNDOĞAN A., AKGÜN H., ERBERİK M. A.  
Seismological Research Letters, vol.95, no.4, pp.2044-2057, 2024 (SCI-Expanded)
- II. **Geotechnical reconnaissance findings of the October 30 2020, Mw7.0 Samos Island (Aegean Sea) earthquake**  
Ziotopoulou K., ÇETİN K. Ö., Pelekis P., Altun S., Klimis N., SEZER A., Rovithis E., YILMAZ M. T., Papadimitriou A. G., GÜLERCE Z., et al.  
Bulletin of Earthquake Engineering, vol.20, no.14, pp.7819-7852, 2022 (SCI-Expanded)
- III. **Performance of hydraulic structures, lifelines and industrial structures during October 30, 2020 Samos-Aegean sea earthquake**  
Toprak S., Uçkan M. E., YILMAZ M. T., Cuceoglu F., GÜMÜŞAY M. Ü., NACAROĞLU E., Kaya E. S., Aksel M.  
Bulletin of Earthquake Engineering, vol.20, no.14, pp.7907-7931, 2022 (SCI-Expanded)
- IV. **Simplified Approach for In-Plane Strength Capacity of URM Walls by Using Lower-Bound Limit Analysis and Predefined Damage Patterns**  
Karadeniz D., YILMAZ M. T., Icel C., ERBERİK M. A.

BUILDINGS, vol.12, no.6, 2022 (SCI-Expanded)

- V. **Investigation of the effect of shearing rate on residual strength of high plastic clay**  
Akis E., Mekael A., YILMAZ M. T.  
ARABIAN JOURNAL OF GEOSCIENCES, vol.13, no.2, 2020 (SCI-Expanded)
- VI. **Evolution of seismic hazard maps in Turkey**  
AKKAR D. S., EROĞLU AZAK T., Can T., Ceken U., Tumsa M. B. D., Duman T. Y., ERDİK M. Ö., ERGİNTAV S., Kadirioglu F. T., Kalafat D., et al.  
Bulletin of Earthquake Engineering, vol.16, no.8, pp.3197-3228, 2018 (SCI-Expanded)
- VII. **A practical method for utilization of commercial cyclic testing apparatuses for computation of site response in central Adapazari**  
YILMAZ M. T., Zehtab K. H.  
SOIL DYNAMICS AND EARTHQUAKE ENGINEERING, vol.63, pp.203-216, 2014 (SCI-Expanded)
- VIII. **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)
- IX. **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)
- X. **Simplified theoretical approaches to earthquake fault rupture-shallow foundation interaction**  
Paolucci R., YILMAZ M. T.  
Bulletin of Earthquake Engineering, vol.6, no.4, pp.629-644, 2008 (SCI-Expanded)
- XI. **Seismic behaviour of shallow foundations: Shaking table experiments vs numerical modelling**  
Paolucci R., Shirato M., YILMAZ M. T.  
Earthquake Engineering and Structural Dynamics, vol.37, no.4, pp.577-595, 2008 (SCI-Expanded)
- XII. **Earthquake fault rupture - Shallow foundation interaction in undrained soils: A simplified analytical approach**  
Yilmaz M. T., Paolucci R.  
EARTHQUAKE ENGINEERING & STRUCTURAL DYNAMICS, vol.36, no.1, pp.101-118, 2007 (SCI-Expanded)
- XIII. **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)
- XIV. **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)
- XV. **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)
- XVI. **Liquefaction induced ground deformations at Hotel Sapanca during Kocaeli (Izmit), Turkey earthquake**  
Cetin K., Youd T., Seed R., Bray J., Sancio R., Lettis W., Yimaz M. T., Durgunoglu H.  
Soil Dynamics and Earthquake Engineering, vol.22, no.9-12, pp.1083-1092, 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)
- II. **Düzce, Turkey: A city hit by two major earthquakes in 1999 within three months**  
SUCUOĞLU H., YILMAZ M. T.

## Books & Book Chapters

### I. Geotechnical Reconnaissance Findings

ÇETİN K. Ö., Ziotopoulou K., Mylonakis G., Klimis N., YILMAZ M. T., GÜLERCE Z., CAN G., ILGAÇ M., ÇAKIR E., SÖYLEMEZ B., et al.

in: Seismological and Engineering Effects of the M 7.0 Samos Island (Aegean Sea) Earthquake, K. Onder Cetin, George Mylonakis, Anastasios Sextos, Jonathan P. Stewart, Editor, GEER, pp.179-224, 2020

### II. 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

## Refereed Congress / Symposium Publications in Proceedings

### I. Production of GIS-Based Predicted Vs30 Maps for Türkiye by Combining Geological and High-Resolution Topographical Digital Maps

ŞAHİN G., Okalp K., KOÇKAR M. K., YILMAZ M. T., JALEHFOROUZAN A., Temiz F. A., ASKAN GÜNDOĞAN A., AKGÜN H., ERBERİK M. A.

7th International Conference on Earthquake Engineering and Seismology, 7ICEES 2023, Antalya, Turkey, 6 - 10 November 2023, vol.488 LNCE, pp.167-174

### II. Influence of Ground Motion Scaling Methods on Seismic Response of Bridges

Gözütok M., YAKUT A., YILMAZ M. T.

7th International Conference on Earthquake Engineering and Seismology, 7ICEES 2023, Antalya, Turkey, 6 - 10 November 2023, vol.488 LNCE, pp.435-451

### III. Predefined damage patterns for limit analysis on non-engineered masonry buildings

İÇEL C., ERBERİK M. A., YILMAZ M. T.

16th European Conference on Earthquake Engineering, 18 - 21 June 2018

### IV. A COMPARISON BETWEEN MAXIMUM SHEAR STRAIN DISTRIBUTION IN A UNIFORMLY ELASTIC HALF LAYER AND THAT IN A LAYERED VISCOELASTIC MEDIUM DUE TO THE SAME FREE FIELD MOTION

Dehghanian K., YILMAZ M. T.

12th International Congress on Advances in Civil Engineering, 21 - 23 September 2016

### V. Site Specific Relationship for Strain Dependent Shear Modulus and Damping Using In Situ V S and High Strain Cyclic Test Results

Zehtab K. H., YILMAZ M. T.

Geo-Chicago 2016, 14 - 18 August 2016

### VI. Geotechnical Field Observations from 23 October 2011 Van Earthquake (Mw=7.1)

Gülerce Z., Çetin K. Ö., Yılmaz M. T., Huvaj Sarıhan N., Ünsever Y. S., Ünsal S., Sağlam S., Sandikkaya M. A., Türkoğlu M.

10th International Congress on Advances in Civil Engineering (ACE2012), Ankara, Turkey, 17 - 19 October 2012, vol.1, pp.1-9

## Metrics

Publication: 28

Citation (WoS): 451

Citation (Scopus): 527

H-Index (WoS): 10

H-Index (Scopus): 11

## **Non Academic Experience**

METU

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Politecnico Di Milano

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