

## Asst. Prof. MAKBULE ILGAÇ

### Personal Information

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### Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Civil Engineering, Civil Engineering Department, 2024 - Continues

Research Assistant, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2013 - 2022

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

- I. **Are the Horizontal-to-Vertical Spectral Ratios of Earthquakes and Microtremors the Same?**  
Vantassel J. P., Ilgac M., Athanasopoulos Zekkos A., Yong A., Hassani B., Martin A. J.  
Bulletin of the Seismological Society of America, vol.114, no.6, pp.3078-3092, 2024 (SCI-Expanded)
- II. **Energy-Based Liquefaction Evaluation: The Port of Kushiro in Hokkaido, Japan, 2003 Tokachi-Oki Earthquake**  
Ko K., Kayen R. E., Kokusho T., Ilgac M., Nozu A., Nweke C. C.  
Journal of Geotechnical and Geoenvironmental Engineering, vol.150, no.10, 2024 (SCI-Expanded)
- III. **Geotechnical reconnaissance findings of the October 30 2020, Mw7.0 Samos Island (Aegean Sea) earthquake**  
Ziotopoulou K., Cetin K. O., Pelekis P., Altun S., Klimis N., Sezer A., Rovithis E., Yilmaz M. T., Papadimitriou A. G., Gulerce Z., et al.  
BULLETIN OF EARTHQUAKE ENGINEERING, vol.20, no.14, pp.7819-7852, 2022 (SCI-Expanded)
- IV. **Emergency response, intervention, and societal recovery in Greece and Turkey after the 30th October 2020, MW = 7.0, Samos (Aegean Sea) earthquake**  
Mavroulis S., Ilgac M., Tunçağ M., Lekkas E., Püskülcü S., Kourou A., Sextos A., Mavrouli M., Can G., Thoma T., et al.  
Bulletin of Earthquake Engineering, vol.20, no.14, pp.7933-7955, 2022 (SCI-Expanded)
- V. **The role of site effects on elevated seismic demands and corollary structural damage during the October 30, 2020, M7.0 Samos Island (Aegean Sea) Earthquake**  
Cetin K. O., Papadimitriou A. G., Altun S., Pelekis P., Unutmaz B., Rovithis E., Akgun M., Klimis N., Askan A., Ziotopoulou K., et al.  
Bulletin of Earthquake Engineering, vol.20, no.14, pp.7763-7792, 2022 (SCI-Expanded)
- VI. **Predictive performance of current ground motion models for recorded strong motions in 2020 Samos Earthquake**  
GÜLERCE Z., Akbaş B., ÖZACAR A. A., Sopacı E., Önder F. M., UZEL B., Can G., ÇAKIR E., Ilgaç M., SÖYLEMEZ B., et al.  
Soil Dynamics and Earthquake Engineering, vol.152, 2022 (SCI-Expanded)
- VII. **The site effects in Izmir Bay of October 30 2020, M7.0 Samos Earthquake**  
Cetin K. O., Altun S., Askan A., Akgün M., Sezer A., Kincal C., Özdağ Ö. C., İpek Y., Unutmaz B., Gülerce Z., et al.  
Soil Dynamics and Earthquake Engineering, vol.152, 2022 (SCI-Expanded)
- VIII. **Geotechnical aspects of reconnaissance findings after 2020 January 24th, M6.8 Sivrice–Elazığ–**

### **Turkey earthquake**

ÇETİN K. Ö., ÇAKIR E., İlğac M., Can G., SÖYLEMEZ B., Elsaid A., Cuceoglu F., GÜLERCE Z., ASKAN GÜNDOĞAN A., Aydın S., et al.

Bulletin of Earthquake Engineering, vol.19, no.9, pp.3415-3459, 2021 (SCI-Expanded)

#### **IX. Probabilistic assessments of void ratio limits and their range for cohesionless soils**

ÇETİN K. Ö., İlğac M.

Soil Dynamics and Earthquake Engineering, vol.142, 2021 (SCI-Expanded)

#### **X. SPT-based probabilistic and deterministic assessment of seismic soil liquefaction triggering hazard**

ÇETİN K. Ö., Seed R. B., Kayen R. E., Moss R. E., Bilge H. T., İlğac M., Chowdhury K.

Soil Dynamics and Earthquake Engineering, vol.115, pp.698-709, 2018 (SCI-Expanded)

#### **XI. Examination of differences between three SPT-based seismic soil liquefaction triggering relationships**

ÇETİN K. Ö., Seed R. B., Kayen R. E., Moss R. E., Bilge H. T., İlğac M., Chowdhury K.

Soil Dynamics and Earthquake Engineering, vol.113, pp.75-86, 2018 (SCI-Expanded)

## **Articles Published in Other Journals**

#### **I. The use of the SPT-based seismic soil liquefaction triggering evaluation methodology in engineering hazard assessments**

ÇETİN K. Ö., Seed R. B., Kayen R. E., Moss R. E., Bilge H. T., İlğac M., Chowdhury K.

MethodsX, vol.5, pp.1556-1575, 2018 (Scopus)

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

#### **I. Updated SPT-Based Seismic Soil Liquefaction Triggering Global Database**

İlğac M., ÇETİN K. Ö., Kayen R. E.

2022 GeoCongress: State of the Art and Practice in Geotechnical Engineering - Geophysical and Earthquake Engineering and Soil Dynamics, North Carolina, United States Of America, 20 - 23 March 2022, vol.2022-March, pp.308-317

#### **II. An Updated Shear Wave Velocity-Based Seismic Soil Liquefaction Triggering Database**

İlğac M., Kayen R. E., Wood C., ÇETİN K. Ö.

2022 GeoCongress: State of the Art and Practice in Geotechnical Engineering - Geophysical and Earthquake Engineering and Soil Dynamics, North Carolina, United States Of America, 20 - 23 March 2022, vol.2022-March, pp.318-328

#### **III. A critical review of void ratio relationships for granular soils**

İlğac M., ÇETİN K. Ö.

Geo-Congress 2020: Modeling, Geomaterials, and Site Characterization, Minnesota, United States Of America, 25 - 28 February 2020, vol.2020-February, pp.407-416

#### **IV. Quality control for next-generation liquefaction case histories**

Zimmaro P., Brandenburg S., Bozorgnia Y., Stewart J., Kwak D., Cetin K., Can G., İlğac M., Franke K., Moss R., et al.

7th International Conference on Earthquake Geotechnical Engineering, ICEGE 2019, Rome, Italy, 17 - 20 January 2019, pp.5905-5912

## **Metrics**

Publication: 16

Citation (WoS): 1

Citation (Scopus): 218

H-Index (WoS): 1

H-Index (Scopus): 8