

## Assoc. Prof. Muharrem Hilmi ERKOÇ

### Personal Information

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### International Researcher IDs

ScholarID: I18zpTUAAAAJ

ORCID: 0000-0003-4855-0071

Publons / Web Of Science ResearcherID: ABV-9684-2022

ScopusID: 57764539000

Yoksis Researcher ID: 199236

### Education Information

Doctorate, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Harita Mühendisliği, Turkey  
2016 - 2022

Postgraduate, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Harita Mühendisliği, Turkey  
2013 - 2016

Undergraduate, Yıldız Technical University, Faculty Of Civil Engineering, Geomatic Engineering, Turkey 2008 - 2012

### Foreign Languages

English, B2 Upper Intermediate

### Certificates, Courses and Trainings

IT, ArcGIS Eğitimi, Esri-Turkey, 2010

IT, Netcad Yol Projelendirme Modülü Eğitimi, Netcad Yazılım A.Ş., 2009

IT, Bilgisayar Programcılığı, Milli Eğitim Bakanlığı, 2008

### Dissertations

Doctorate, Determination of vertical land motion in south-west coasts of turkey using satellite altimetry, tide gauge, GNSS and InSAR observations, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, 2022

Postgraduate, Sensitivity Analysis of GNSS Deformation Networks, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Harita Mühendisliği / Geomatik Programı, 2016

### Research Areas

Geotechnical Engineering, Engineering and Technology

## Academic Titles / Tasks

Associate Professor, Yildiz Technical University, Faculty Of Civil Engineering, Geomatic Engineering, 2024 - Continues  
Lecturer, Yildiz Technical University, Faculty Of Civil Engineering, Geomatic Engineering, 2014 - 2024

## Courses

Geodetic Application, Undergraduate, 2019 - 2020  
Property Management, Associate Degree, 2020 - 2021  
Technical Drawn and Design Geometry, Undergraduate, 2020 - 2021

## Taught Courses And Trainings

Erkoç M. H., Climate Changes, Determination of Sea Level, Regional Tidal Modelling and Vertical Land Motion, 2019 - 2019

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

- I. **Temporal Hydrological Drought Analysis in Lake Iznik Using In-Situ Measurements and Space-Based Data**  
Erkoç M. H., Doğan U., Keser B., Bayram B.  
ACTA GEODYNAMICA ET GEOMATERIALIA, vol.22, no.1, pp.1-15, 2025 (SCI-Expanded)
- II. **Machine Learning Models Applied to Altimetry Era Tide Gauge and Grid Altimetry Data for Comparative Long-Term Trend Estimation : A Study from Shikoku Island, Japan**  
Erkoç M. H., Doğan U.  
APPLIED OCEAN RESEARCH, vol.150, pp.1, 2024 (SCI-Expanded)
- III. **Satellite Derived Bathymetry and Water Level Change in Beyşehir Lake**  
Erkoç M. H.  
GEOLOGICAL SOCIETY OF INDIA. JOURNAL, vol.99, no.10, pp.1458-1464, 2023 (SCI-Expanded)
- IV. **Monitoring of recently sea level changes on the coast of New Zealand using XTRACK coastal altimetry and tide gauge data**  
Erkoç M. H., Doğan U.  
CONTINENTAL SHELF RESEARCH, vol.269, pp.1, 2023 (SCI-Expanded)
- V. **A scientific analysis on the water levels of Lake Beyşehir and drought conditions in the area**  
Erkoç M. H.  
Bulletin of Geophysics and Oceanography, vol.64, no.3, pp.317-330, 2023 (SCI-Expanded)
- VI. **Arrest of the Mw 6.8 January 24, 2020 Elazığ (Turkey) earthquake by shallow fault creep**  
Çakır Z., Doğan U., Akoğlu A. M., Ergintav S., Özarpaç S., Özdemir A., Nozadkhalil T., Çakır N., Zabcı C., Erkoç M. H., et al.  
EARTH AND PLANETARY SCIENCE LETTERS, vol.608, pp.1-9, 2023 (SCI-Expanded)
- VII. **Datum definition for geodetic vertical velocity field derived from GNSS observations: a case study in western and southern Turkey**  
Erkoç M. H., Doğan U.  
Bulletin of Geophysics and Oceanography, vol.1, no.64, pp.135-148, 2023 (SCI-Expanded)
- VIII. **Estimation of vertical land motion along the south and west coast of Turkey from multi-sensor observations**  
ERKOÇ M. H., DOĞAN U., Yıldız H., Sezen E.  
Advances in Space Research, vol.70, no.7, pp.1761-1772, 2022 (SCI-Expanded)

- IX. Regional Tidal Modelling Using Tide Gauges and Satellite Altimetry Data in South-West Coast of Turkey**  
Erkoç M. H., Doğan U.  
KSCE JOURNAL OF CIVIL ENGINEERING, vol.26, no.9, pp.4052-4061, 2022 (SCI-Expanded)

## Articles Published in Other Journals

- I. Determination of Sea Level Trends in the Türkiye's Black Sea Coasts from Tide Gauge Stations and Grid Satellite Altimetry Solutions**  
Erkoç M. H.  
Harita Dergisi, no.169, pp.28-40, 2023 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. FRESHWATER TECTONIC LAKES AND DETERMINATION OF WATER LEVEL IN THESE LAKES**  
Erkoç M. H.  
in: NEW TRENDS IN ENGINEERING SCIENCES, Prof. Dr. Birol KILIÇ, Prof. Dr. Gülden BAŞYIĞİT KILIÇ, Editor, Duvar Yayınevi, İzmir, pp.431-446, 2022
- II. DETECTION OF SHIPS USING SENTINEL-1 SYNTHETIC APERTURE RADAR IMAGES**  
Erkoç M. H.  
in: International Research in Engineering, Özalp Coşkun, Hürdoğan Ertaç, Editor, Serüven Yayınevi, İzmir, pp.77-91, 2022

## Refereed Congress / Symposium Publications in Proceedings

- I. Effect of Climate Change on Water Level and Surface Area of Lake Iznik (NW Türkiye)**  
Erkoç M. H., Doğan U., Keser B., Bayram B.  
EGU General Assembly 2024, Vienna, Austria, 14 - 19 April 2024, pp.1
- II. Relationship Between Water Level Change and Satellite Derived Bathymetry in Lakes**  
Erkoç M. H.  
3rd International Conference on Engineering and Applied Natural Sciences ICEANS 2023, Konya, Turkey, 14 - 17 January 2023, pp.251
- III. Comparison of Sea Level Trends from Grid Altimetry Data with Tide Gauge Data Solutions in the Black Sea**  
Erkoç M. H.  
TÜRKİYE ULUSAL JEODEZİ KOMİSYONU (TUJK) 2022 YILI BİLİMSEL TOPLANTISI, Kocaeli, Turkey, 2 - 04 November 2022, pp.1
- IV. Coseismic and Postseismic Deformation of the January 24, 2020 Sivrice (Elazig) Earthquake Under the Constrain of Geodetic Observations**  
Farımaz İ., ÖZARPAÇI S., ÖZDEMİR A., ERKOÇ M. H., AYRUK E. T., ERGİNTAV S., DOĞAN U., ÇAKIR Z.  
EGU 2022, Viyana, Austria, 24 May 2022
- V. Effects of Datum Definition on Estimation of GNSS Vertical Velocities**  
Erkoç M. H., Doğan U.  
EGU General Assembly 2022, Vienna, Austria, 23 - 27 May 2022, vol.1, no.1, pp.1
- VI. Coseismic and Postseismic Deformation of the January 24, 2020 Sivrice (Elazig) Earthquake Under the Constrain of Geodetic Observations**  
Farımaz İ., Özarpaçısı S., Özdemir A., Erkoç M. H., Ayruk E. T., Ergintav S., Doğan U., Çakır Z.  
EGU22, Vienna, Austria, 23 - 27 May 2022, pp.1

- VII. **24 Ocak 2020 Mw 6.8 Sivrice Elazığ Depremi öncesi Hazar Gölü - Palu segmentinde (Doğu Anadolu Fayı) görülen krip hareketinin durumu**  
ÖZARPACI S., DOĞAN U., ERGİNTAV S., ÇAKIR Z., ZABCI C., ÖZDEMİR A., ERKOÇ M. H., AYRUK E. T., FARIMAZ İ.  
ATAG24, Turkey, 16 - 18 November 2021
- VIII. **DETERMINING SURFACE DEFORMATION DUE TO THE 24 OCAK 2020 SIVRICE-ELAZIĞ EARTHQUAKE AND INTERSEISMIC LOADING**  
Doğan U., Ergintav S., Özarpacı S., Özdemir A., Erkoç M. H., Ayruk E. T., Çakır Z., Zabcı C., Karabulut H.  
73. Jeoloji Kurultayı, Ankara, Turkey, 24 - 28 May 2021, pp.1
- IX. **24 Ocak 2020 Sivrice (Elazığ) Deprem Anı ve Öncesi Yüzey Deformasyonlarının GPS İle Belirlenmesi**  
DOĞAN U., ERGİNTAV S., ÖZARPACI S., ÖZDEMİR A., ERKOÇ M. H., AYRUK E. T., ÇAKIR Z., FARIMAZ İ., KARABULUT H., ZABCI C.  
73. Türkiye Jeoloji Kurultayı, Turkey, 24 - 28 May 2021
- X. **Slip Distribution of the 2020 Mw6.9 Samos Earthquake Using a Bayesian Approach**  
Eskiköy F., Ergintav S., Doğan U., Özarpacı S., Özdemir A., Erkoç M. H., Ayruk E. T., Farımaz İ., Vasyura-Bathke H., Konca A. Ö.  
vEGU21, 19 - 30 April 2021, pp.1
- XI. **The Vertical Coseismic Deformation Field of the Samos-Izmir Earthquake (Mw6.9)**  
Erkoç M. H., Özarpacı S., Özdemir A., Eskiköy F., Ayruk E. T., Farımaz İ., Doğan U., Ergintav S.  
EGU21, Vienna, Austria, 19 - 30 April 2021, pp.1
- XII. **2020 Mw 6.9 Sisam (Samos) Depremi Fay Geometrisi ve Kayma Dağılımının Jeofizik ve Jeodezik Veriler ile İncelenmesi**  
Eskiköy F., Özarpacı S., Özdemir A., Erkoç M. H., Ayruk E. T., Farımaz İ., Konca A. Ö., Doğan U., Ergintav S.  
ATAG 2020 Özel Toplantısı, İstanbul, Turkey, 23 - 24 December 2020, pp.1
- XIII. **2020 Mw. 6.9 Sisam (Samos) Depremi Fay Geometrisi ve Kayma Dağılımının Jeofizik ve Jeodezik Veriler ile İncelenmesi**  
Eskiköy F., ÖZARPACI S., ÖZDEMİR A., ERKOÇ M. H., AYRUK E. T., FARIMAZ İ., KONCA A. Ö., DOĞAN U., ERGİNTAV S.  
ATAG 2020 Özel Toplantısı, Online, Turkey, 23 - 24 December 2020
- XIV. **Slip Distribution of the 2020 Mw6. 9 Samos Earthquake Using a Bayesian Approach**  
Eskiköy F., Ergintav S., Doğan U., Özarpacı S., Özdemir A., Erkoç M. H., Ayruk E. T., Farımaz İ., Vasyura-Bathke H., Konca A. Ö.  
EGU21, Vienna, Austria, 19 - 30 April 2020, pp.1
- XV. **Determination of Sea Level Trends of the Marmara Sea from Satellite Altimetry and Tide Gauges Data (2010- 2019)**  
Erkoç M. H., Doğan U.  
12th Coastal Altimetry Workshop, Rome, Italy, 4 - 07 February 2020, pp.35
- XVI. **Investigating the characteristic properties of creeping along the Hazar-Palu Segment of the East Anatolian Fault, Turkey**  
Doğan U., Ergintav S., Zabcı C., Özarpacı S., Özdemir A., Erkoç M. H., Yazıcı M., Yiğitoğlu, Yiğitoğlu A., Çakır Z., Karabulut H., et al.  
American Geophysical Union, California, United States Of America, 9 - 13 December 2019, pp.1
- XVII. **Impact of Tides Constituents on Determining of Sea Level Trends in the Southwestern Coast of Turkey**  
Erkoç M. H., Doğan U.  
XXIX International Symposium on Modern Technologies, Education and Professional Practice in Geodesy and Related Fields, İstanbul, Turkey, 5 - 06 November 2019, pp.37
- XVIII. **Investigation of Web-Based Online GNSS Services Performances for Monitoring Crustal Deformations**  
Şimşek M., ÖZARPACI S., DOĞAN U., ERKOÇ M. H.  
European Geosciences Union (EGU) General Assembly, Viyana, Austria, 07 April 2019, pp.1
- XIX. **Regional Patterns of Sea Level Trends and Tidal Model in The Southwestern Coast of Turkey**  
Erkoç M. H., Doğan U.

European Geosciences Union General Assembly , Vienna, Austria, 7 - 12 April 2019, pp.1

**XX. Investigation of GPS Positioning Accuracy During The Minimum and Maximum Activity of The Solar Cycles**

Erkoç M. H., Doğan U.

European Geosciences Union General Assembly, Vienna, Austria, 8 - 13 April 2018, pp.1

**XXI. Monitoring of Deformation in Ground Before and After Tunnel Excavation**

EREN M., ERKOÇ M. H.

European Geosciences Union General Assembly 2017, Viyana, Austria, 23 April 2017, pp.1

**XXII. Accuracy Analysis of GNSS Networks Based On Observing-Session Duration in Different Years**

Erkoç M. H., Doğan U., Aydın C.

European Geosciences Union General Assembly 2017, Vienna, Austria, 23 March 2017, pp.1

**XXIII. PPP YÖNTEMİ KULLANILARAK GPS GÖZLEM SÜRESİNE BAĞLI KOORDİNAT DEĞİŞİMLERİNİN BELİRLENMESİ**

ERKOÇ M. H.

Yıldız Teknik Üniversitesi, 01 October 2016

**XXIV. How minimum detectable displacement in a GNSS Monitoring Network change?**

ERKOÇ M. H., DOĞAN U., AYDIN C.

European Geosciences Union General Assembly 2016, Viyana, Austria, 17 April 2016, pp.1

**XXV. Kanalizasyon Bilgi Sistemi Projelerine Bir Örnek: Cidde**

ERKOÇ M. H.

15. TÜRKİYE HARİTA BİLİMSEL VE TEKNİK KURULTAYI, 01 March 2015

## Supported Projects

ERKOÇ M. H., DOĞAN U., BAYRAM B., Project Supported by Higher Education Institutions, İznik Gölü Su Seviyesi Değişiminin ve Göl Çevresindeki Kuraklık Etkilerinin Yersel Yöntemler ve Uydu Gözlemleriyle Belirlenmesi, 2024 - Continues

Doğan U., TUBITAK Project, Doğu Anadolu Fayı, Hazar-Palu Segmenti Üzerinde Gerçekleşen Krip Hareketi Özelliklerinin Çok Disiplinli Yöntemlerle Belirlenmesi, 2019 - 2022

## Metrics

Publication: 37

Citation (WoS): 41

Citation (Scopus): 44

H-Index (WoS): 4

H-Index (Scopus): 4

## Non Academic Experience

Business Establishment Private, Baydın İnşaat Ltd.Şti

Business Organization (private), Geotech Information Co.

Baydın İnşaat Ltd.Şti

Geotech Information Technology Company (Saudi Arabia)

Business Establishment Private, Erkil İnşaat Ltd. Şti

Erkil İnşaat Ltd.Şti

Business Establishment Private, Özden Mühendislik Müşavirlik Ltd.Şti

Özden Harita İnşaat Mühendislik Müşavirlik Ltd.Şti.

Business Establishment Private, İlk Elektrik Enerji Üretimi A.Ş.  
İlk Elektrik Enerji Üretimi San. Tic. A.Ş.