

## Assoc. Prof. GONCA OKAY AHİ

### Personal Information

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**Address:** Hacettepe Üniversitesi, Geomatik Mühendisliği bölümü, Beytepe kampüsü 06800

### International Researcher IDs

ORCID: 0000-0001-7235-1502

Publons / Web Of Science ResearcherID: M-2985-2018

Yoksis Researcher ID: 104120

### Education Information

Doctorate, Université Paris VI, Yer Bilimleri Ve Doğal Kaynaklar, Uygulamalı Jeofizik, France 2007 - 2011

Postgraduate, Université Paris VI, Yer Bilimleri, Uygulamalı Jeofizik, France 2006 - 2007

Undergraduate, Dokuz Eylül University, Mühendislik Fakültesi, Jeofizik Mühendisliği Bölümü, Turkey 2001 - 2006

### Foreign Languages

English, B2 Upper Intermediate

French, C1 Advanced

### Certificates, Courses and Trainings

Education Management and Planning, EGSIM Autumn School for Satellite Gravimetry Applications, GFZ German Research center for Geosciences, 2017

IT, Basic and advanced Mapinfo software training, Başarsoft Bilgi teknolojileri A.Ş., Ankara, Merkez, 2016

IT, ArcGIS, Ankara Üniversitesi, 2013

### Dissertations

Doctorate, Characterization of textural and hydric heterogeneities in clayey geomaterials with Induced Polarization method: a case study at the experimental Underground Research Laboratory of Tournemire, Université Pierre-et-Marie-Curie: Paris VI, GEOSCIENCES ET RESSOURCES NATURELLES, GEOSCIENCES ET RESSOURCES NATURELLES, 2011

Postgraduate, Measure of Spectral Induced Polarization (SIP) response of nonconsolidated saturated sand-clay mixtures, Université Pierre-et-Marie-Curie: Paris VI, Master de sciences et de technologie, Sciences de l'univers, environnement, écologie, 2007

### Research Areas

Geotechnical Engineering, Geophysical Engineering, Applied Geophysics, Engineering and Technology

## Academic Titles / Tasks

Associate Professor, Hacettepe University, Mühendislik Fakültesi, Geomatik Mühendisliği Bölümü, 2013 - Continues

## Academic and Administrative Experience

Deputy Head of Department, Hacettepe University, Mühendislik Fakültesi, Geomatik Mühendisliği Bölümü, 2021 - Continues

Head of Department, Hacettepe University, Mühendislik Fakültesi, Geomatik Mühendisliği Bölümü, 2016 - 2018

## Courses

EARTH GRAVITY FIELD MODELLING, Doctorate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

SEMINAR, Postgraduate, 2021 - 2022, 2019 - 2020

YÜKSEKLİK SİSTEMLERİ, Undergraduate, 2020 - 2021

GEOMATİK MÜHENDİSLİĞİNDE ÖZEL KONULAR, Undergraduate, 2020 - 2021, 2019 - 2020

SATELLITE GRAVIMETRY AND ALTIMETRY, Doctorate, 2020 - 2021, 2019 - 2020

DIGITAL MAP PRODUCTION, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2015 - 2016, 2014 - 2015, 2013 - 2014

UYDU GRAVİMETRİSİ, Postgraduate, 2020 - 2021, 2018 - 2019

PROBABILITY AND STATISTICS, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

STATISTICS OF SPATIAL DATA, Postgraduate, 2018 - 2019, 2017 - 2018, 2015 - 2016, 2014 - 2015

JEODEZİ II, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018

Jeodezide Özel Konular, Postgraduate, 2017 - 2018

INTRODUCTION TO GEOMATICS ENGINEERING, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

## Advising Theses

Okay Ahi G., Yıldız H., Yersel düşey gravite gradyent verilerinin bölgesel gravimetrik jeoit modellemeye katkısının incelenmesi, Postgraduate, Y.AYTAÇ(Student), 2020

## Jury Memberships

Doctorate, Doctorate, Orta Doğu Teknik Üniversitesi, January, 2024

Post Graduate, Post Graduate, Konya Teknik Üniversitesi, October, 2020

Post Graduate, Post Graduate, Hacettepe Üniversitesi, August, 2020

Post Graduate, Post Graduate, Hacettepe Üniversitesi, August, 2020

Doctorate, Doctorate, İstanbul Teknik Üniversitesi, January, 2020

Post Graduate, Post Graduate, Hacettepe Üniversitesi, December, 2019

Post Graduate, OPTİK GÖRÜNTÜ VE YÜKSEKLİK VERİLERİNİ KULLANARAK SABİT ARAÇLARIN TESPİTİ, Hacettepe Üniversitesi, January, 2018

Post Graduate, COĞRAFİ BİLGİ SİSTEMLERİ VE YÜKSEK ÇÖZÜNÜRLÜKLÜ UYDU GÖRÜNTÜLERİ KULLANILARAK KENTSEL ALANLARDA BİNA DEĞİŞİMİ TESPİTİ, Hacettepe Üniversitesi, August, 2016

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

1. **Computation of gravimetric geoid model using free air vertical gravity gradient anomaly in geoid-quasigeoid formula**

Aytaç Akdoğan Y., Okay Ahi G., Yıldız H.

JOURNAL OF APPLIED GEOPHYSICS, vol.1, no.1, pp.1-18, 2023 (SCI-Expanded)

- II. **Free-air vertical gravity gradient modelling and its validation**  
AKDOGAN Y. A., AHI G., YILDIZ H.  
BULLETIN OF GEOPHYSICS AND OCEANOGRAPHY, vol.63, no.2, pp.237-248, 2022 (SCI-Expanded)
- III. **Long-term temporal prediction of terrestrial water storage changes over global basins using GRACE and limited GRACE-FO data**  
Okay Ahi G., Öncel Çekim H.  
Acta Geodaetica et Geophysica, pp.1-24, 2021 (SCI-Expanded)
- IV. **Evaluation of global gravity models from absolute gravity and vertical gravity gradient measurements in Turkey**  
Akdogan Y. A., Yildiz H., OKAY AHI G.  
MEASUREMENT SCIENCE AND TECHNOLOGY, vol.30, no.11, 2019 (SCI-Expanded)
- V. **Evaluation of filtering effects on terrestrial water storage estimation from new GRACE releases**  
Ahi G.  
GEOCARTO INTERNATIONAL, 2019 (SCI-Expanded)
- VI. **Hydrologic Mass Changes and Their Implications in Mediterranean-Climate Turkey from GRACE Measurements**  
Ahi G., jin S.  
REMOTE SENSING, vol.11, no.2, 2019 (SCI-Expanded)
- VII. **Spectral induced polarization of clay-sand mixtures: Experiments and modeling**  
Okay G., LEROY P., ghorbani A., COSENZA P., CAMERLYNCK C., CABRERA J., FLORSCH N., Revil A.  
GEOPHYSICS, vol.79, no.6, 2014 (SCI-Expanded)
- VIII. **Localization and characterization of cracks in clay-rocks using frequency and time-domain induced polarization**  
Okay G., cosenza p., ghorbani a., CAMERLYNCK c., CABRERA j., FLORSCH n., Revil A.  
GEOPHYSICAL PROSPECTING, vol.61, no.1, pp.134-152, 2013 (SCI-Expanded)

## Articles Published in Other Journals

- I. **A Preliminary Design of Smartphone-Based Earthquake Early Warning System via Deep Learning**  
Canpolat B., Okay Ahi G.  
Avrupa Bilim ve Teknoloji Dergisi, no.25, pp.23-27, 2021 (Peer-Reviewed Journal)
- II. **GRACE Uyduzu Zaman Serisinin İstatiksel Yaklaşımlarla Kestirimi**  
OKAY AHI G., ÖNCEL ÇEKİM H.  
Harita Dergisi, no.162, pp.25-35, 2019 (Peer-Reviewed Journal)
- III. **VLBI Intensive Oturumlarının Analizi ile Evrensel Zamanın (UT1) İzlenmesi**  
TEKE K., ÖCAL M. F., NOHUTCU M., OKAY AHI G.  
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.17, pp.1004-1018, 2017 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Cep telefonlarındaki ivmeölçer ve yapay sinir ağları ile olası deprem tespiti**  
Canpolat B., Okay Ahi G.  
TÜRKİYE ULUSAL JEODEZİ KOMİSYONU (TUJK) 2021 YILI BİLİMSEL TOPLANTISI, Ankara, Turkey, 25 - 27 November 2021, pp.1-2
- II. **En Küçük Karelerle Kolokasyonla Serbest Hava Düşey Gravite Gradyenti Modelleme**  
Aytaç Akdoğan Y., Okay Ahi G., Yıldız H.  
TÜRKİYE ULUSAL JEODEZİ KOMİSYONU (TUJK) 2021 YILI BİLİMSEL TOPLANTISI, Ankara, Turkey, 25 - 27

November 2021, pp.53-54

- III. **Application of 3 dimensional least squares collocation for free-air vertical gravity gradient modelling**  
Aytaç Akdoğan Y., Okay Ahi G., Yıldız H.  
International Association of Geodesy (IAG) 2021, Beijing, China, 28 June - 02 July 2021, pp.1-2
- IV. **Vertical Gravity Gradient Modeling by 3-D Least Squares Collocation and its impact on quasigeoid-geoid separation term**  
Aytaç Akdoğan Y., Okay Ahi G., Yıldız H.  
European Geosciences Union General Assembly 2020, Vienna, Austria, 4 - 08 May 2020, pp.1-2
- V. **The state of the art about drought monitoring in Turkey observed by the new satellite-based techniques**  
Okay Ahi G.  
XXIX INTERNATIONAL SYMPOSIUM ON MODERN TECHNOLOGIES, EDUCATION AND PROFESSIONAL PRACTICE IN GEODESY AND RELATED FIELDS, İstanbul, Turkey, 5 - 06 November 2019, pp.24-33
- VI. **What Does GRACE Contribute To The Drought Monitoring: A Case Study In Turkey**  
Okay Ahi G., Jin S.  
27th International Union of Geodesy and Geophysics (IUGG) General Assembly, Montreal, Canada, 8 - 18 July 2019, pp.1-2
- VII. **Use of High Precision Absolute Gravity and Vertical Gravity Gradient Measurements for the Assessment of Global Geopotential Model(GGM)s in Turkey**  
Aytaç Akdoğan Y., Yıldız H., Okay Ahi G.  
27th International Union of Geodesy and Geophysics (IUGG) General Assembly , Montreal, Canada, 8 - 18 July 2019, pp.1
- VIII. **Extreme drought conditions in Turkey observed by satellite gravity measurements**  
OKAY AHİ G.  
Gravity, Geoid and Height Systems 2nd Joint Commission 2 and IGFS Meeting, 2018, Kopenhag, Denmark, 17 September 2018, pp.1
- IX. **Grace uydusu L2 seviyesi verilerinin global ölçekte analizi (global analysis of Grace L2 level data)**  
OKAY AHİ G., çolak s., yanmaz b.  
Türkiye Ulusal Jeodezi ve Jeofizik Birliği Bilimsel Kongresi,2018, İzmir, Turkey, 30 May 2018, pp.183-186
- X. **Evaluation of MDT and geostrophic currents errors estimated from GOCE geoid and satellite altimetry**  
jin s., Kutoğlu Ş. H., OKAY AHİ G.  
1st joint commission 2 and IGFS Meeting International Symposium on Gravity, Geoid and Height Systems, Selanik, Greece, 19 September 2016
- XI. **Çok Uzun Baz İnterferometrisi VLBI Uzay Jeodezisi Tekniği ile Yer Dönme Parametrelerinin İzlenmesi**  
TEKE K., OKAY AHİ G., NOHUTCU M., Gül E., Onur Karshoğlu M., AKYILMAZ O.  
TUSAŞ Uzay/Uydu Teknolojileri Çalıştayı, Ankara, Turkey, 11 - 12 November 2015

## Supported Projects

Okay Ahi G., Akyılmaz O., Üstün A., Aydın C., TUBITAK Project, GRACE ve Çoklu-Görev Uydu Uzaktan Algılama Verileri ile Yüksek Çözünürlüklü Yeraltı Su Bütçesi İzleme Sistemi, 2020 - 2023  
Teke K., Nohutcu M., Okay Ahi G., TUBITAK Project, Accuracy Improvement of UT1 Parameter Observed by the Space Geodetic Technique, Very Long Baseline Interferometry, 2015 - 2018

## Metrics

Publication: 22

Citation (WoS): 56

Citation (Scopus): 48

H-Index (WoS): 2

H-Index (Scopus): 2

## **Congress and Symposium Activities**

EGSIEM Autumn School for Satellite Gravimetry Applications, Attendee, Potsdam, Germany, 2017

1st joint commission 2 and IGFS Meeting International Symposium on Gravity, Geoid and Height Systems, Attendee, Thessaloniki, Greece, 2016

1. Türk Havacılık ve Uzay Çalıştayı, Attendee, Ankara, Turkey, 2016

Tusaş Uzay/Uydu Teknolojileri Çalıştayı, Attendee, Turkey, 2015

The 3rd International Gravity Field Service (IGFS) General Assembly, Attendee, Shanghai, China, 2014

## **Scholarships**

Yüksek lisans Fransız Büyükelçiliği bursu, Official Institutions of Foreign Countries, 2006 - Continues

Society of Exploration Geophysicists (SEG) Foundation Jene and Marvin Hewitt Scholarship, Official Institutions of Foreign Countries, 2006 - Continues