

Asst. Prof. İSMAİL DEMİRCİ

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAD-5886-2020

ScopusID: 24178429700

Yoksis Researcher ID: 23496

Education Information

Doctorate, Ankara University, Fen Bilimleri Enstitüsü, Jeofizik Mühendisliği (Dr), Turkey 2009 - 2015

Postgraduate, Ankara University, Fen Bilimleri Enstitüsü, Jeofizik Mühendisliği (YL) (Tezli), Turkey 2007 - 2009

Undergraduate, Ankara University, Mühendislik Fakültesi, Jeofizik Mühendisliği Bölümü, Turkey 2002 - 2006

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Sismoloji ve manyetotellürik verilerin birleşik ters çözümü, Ankara University, Fen Bilimleri Enstitüsü, Jeofizik Mühendisliği (Dr), 2015

Postgraduate, Sonlu farklarda üçgen gridler kullanarak doğru akım öz direnç ve manyetotellürik iki-boyutlu ters çözüme topoğrafya etkisinin eklenmesi, Ankara University, Fen Bilimleri Enstitüsü, Jeofizik Mühendisliği (YL) (Tezli), 2009

Research Areas

GPS-GNSS, Ground Measurements, Height Measurements, Earth Observations (Remote Sensing), Seismology, Applied Geophysics, Ground Physics, Marine Geology and Geophysics, Tectonics (Paleotectonics, Neotectonics, Seismotectonics), Geothermal Systems, Mineral Exploration Geology, Metallic Mineral Deposits, Environmental Geology and Geophysics, Hydrogeology and Hidrology, Engineering Geology foundations, earthquakes, dams, reservoirs, Distributed Systems, Parallel Algorithms, Numerical Algorithms, Soft Computing, Workers' Health and Safety at Mine Operations and Facilities, Differential Equations, Linear and Multilinear Algebra: Matrix Theory, Fourier Analysis, Statistical Analysis and Applications

Academic Titles / Tasks

Assistant Professor, Ankara University, Mühendislik Fakültesi, Jeofizik Mühendisliği Bölümü, 2022 - Continues

Research Assistant, Ankara University, Mühendislik Fakültesi, Jeofizik Mühendisliği Bölümü, 2009 - 2022

Courses

JFM 403 Jeofizikte Veri Analizi ve Sunumu, Undergraduate, 2022 - 2023, 2021 - 2022, 2019 - 2020, 2018 - 2019, 2017 - 2018

Sayısal Süzgeçleme, Undergraduate, 2021 - 2022, 2020 - 2021

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Testing Different Stochastic Methods to Model Direct Current Resistivity and Seismic Refraction Geophysical Data Using a Combined Local and Global Optimization Algorithm**
Edigbue P., AKCA İ., DEMİRCİ İ., Al-Shuhail A., Hamdan H. A., Kirmizakis P., Candansayar E., Hanafy S., Soupios P.
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.48, no.6, pp.7925-7938, 2023 (SCI-Expanded)
- II. **A Comprehensive Study of Local, Global, and Combined Optimization Methods on Synthetic Seismic Refraction and Direct Current Resistivity Data**
Edigbue P., DEMİRCİ İ., AKCA İ., Hamdan H. A., Kirmizakis P., Soupios P., Candansayar E., Hanafy S., Al-Shuhail A.
APPLIED SCIENCES-BASEL, vol.12, no.22, 2022 (SCI-Expanded)
- III. **Application of Combined Local and Global Optimization Algorithms in Joint Interpretation of Direct Current Resistivity and Seismic Refraction Data: A Case Study of Dammam Dome, Eastern Saudi Arabia**
Edigbue P., Demirci I., Akca I., Soupios P., Candansayar M. E.
Sensors, vol.22, no.23, pp.1-17, 2022 (SCI-Expanded)
- IV. **Investigating the Use of Stainless Steel Electrodes with the IP Method: A Metallic Ore Deposit Example**
GÜNDOĞDU N. Y., DEMİRCİ İ., Ozyildirim O., Aktarakci H., CANDANSAYAR M. E.
PURE AND APPLIED GEOPHYSICS, vol.179, no.1, pp.265-274, 2022 (SCI-Expanded)
- V. **Determination and Evaluation of Saltwater Intrusion on Bafra Plain: Joint Interpretation of Geophysical, Hydrogeological and Hydrochemical Data**
DEMİRCİ İ., GÜNDOĞDU N. Y., CANDANSAYAR M. E., Soupios P., Vafidis A., ARSLAN H.
PURE AND APPLIED GEOPHYSICS, vol.177, no.11, pp.5621-5640, 2020 (SCI-Expanded)
- VI. **Characterization of the bridge pillar foundations using 3d focusing inversion of DC resistivity data**
GÜNDOĞDU N. Y., DEMİRCİ İ., Demirel C., CANDANSAYAR M. E.
JOURNAL OF APPLIED GEOPHYSICS, vol.172, 2020 (SCI-Expanded)
- VII. **Two dimensional joint inversion of direct current resistivity and radiomagnetotelluric data based on unstructured mesh**
Ozyildirim O., DEMİRCİ İ., GÜNDOĞDU N. Y., CANDANSAYAR M. E.
JOURNAL OF APPLIED GEOPHYSICS, vol.172, 2020 (SCI-Expanded)
- VIII. **Two-dimensional joint inversion of Magnetotelluric and local earthquake data: Discussion on the contribution to the solution of deep subsurface structures**
DEMİRCİ İ., DİKMEN Ü., CANDANSAYAR M. E.
PHYSICS OF THE EARTH AND PLANETARY INTERIORS, vol.275, pp.56-68, 2018 (SCI-Expanded)
- IX. **Two-dimensional inversion of magnetotelluric/radiomagnetotelluric data by using unstructured mesh**
Ozyildirim O., CANDANSAYAR M. E., DEMİRCİ İ., Tezkan B.
GEOPHYSICS, vol.82, no.4, 2017 (SCI-Expanded)
- X. **Two dimensional joint inversion of direct current resistivity, radio-magnetotelluric and seismic refraction data: An application from Bafra Plain, Turkey**
DEMİRCİ İ., CANDANSAYAR M. E., Vafidis A., Soupios P.
JOURNAL OF APPLIED GEOPHYSICS, vol.139, pp.316-330, 2017 (SCI-Expanded)
- XI. **Two-dimensional inversion of direct current resistivity data incorporating topography by using finite difference techniques with triangle cells: Investigation of Kera fault zone in western Crete**

DEMİRCİ İ., Erdogan E., CANDANSAYAR M. E.
GEOPHYSICS, vol.77, no.1, 2012 (SCI-Expanded)

XII. Incorporating topography into 2D resistivity modeling using finite-element and finite-difference approaches

Erdogan E., DEMİRCİ İ., CANDANSAYAR M. E.
GEOPHYSICS, vol.73, no.3, 2008 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

- I. **Joint Inversion of Seismic and DC Geophysical Data Using Local and Global Optimization Algorithms**
Demirci I., Akca I., Candansayar M. E.
International Petroleum Technology Conference, Ar Riyad, Saudi Arabia, 21 - 23 February 2022, pp.1-5
- II. **A new 2D finite element forward solution algorithm for DC resistivity method for large scale resistivity survey**
Candansayar M. E., Demirci İ.
24th European Meeting of Environmental and Engineering Geophysics, Porto, Portugal, 9 - 13 September 2018
- III. **Comparison of stainless steel and non-polarizable electrodes in IP method - A metallic mine deposit example**
GÜNDOĞDU N. Y., DEMİRCİ İ., Aktarakci H., CANDANSAYAR M. E.
2nd Conference on Geophysics for Mineral Exploration and Mining, Porto, Portugal, 9 - 13 September 2018
- IV. **Interpretation of geophysical data for saltwater intrusion on bafra plain guided by hydrogeological and hydrochemical data**
DEMİRCİ İ., CANDANSAYAR M. E., Souprios P., Vafidis A., Arslan H., GÜNDOĞDU N. Y.
9th Congress of the Balkan Geophysical Society, BGS 2017, Belek, Antalya, Turkey, 5 - 09 November 2017, vol.2017-November
- V. **Determination of bridge foot foundations using DCR method**
GÜNDOĞDU N. Y., DEMİRCİ İ., Demirel C., CANDANSAYAR M. E.
9th Congress of the Balkan Geophysical Society, BGS 2017, Belek, Antalya, Turkey, 5 - 09 November 2017, vol.2017-November
- VI. **Two dimensional joint inversion of magnetotelluric and passive seismic data on GPU**
CANDANSAYAR M. E., DEMİRCİ İ., GÜNDOĞDU N. Y., Varılsüha D., YILMAZ A. E.
23rd EM Induction Workshop, Chiang Mai, Thailand, 14 - 20 August 2016
- VII. **Joint Inversion of Direct Current Resistivity Radio Magnetotelluric and Seismic Refraction Data its implementation on hydrogeological problems**
DEMİRCİ İ., CANDANSAYAR M. E., SOUPIOS P., VAFIDIS A.
23rd EM Induction in the Earth Workshop, Chiang Mai, Thailand, 14 - 20 August 2016
- VIII. **Doğru Akım Özdirenç Yönteminde Üç Boyutlu Düz Çözümün CUDA ile Hızlandırılması**
GÜNDOĞDU N. Y., DEMİRCİ İ., CANDANSAYAR M. E., Varılsüha D.
6. Yer Elektrik Çalıştayı, Kocaeli, Turkey, 23 - 25 May 2016
- IX. **Manyetotellürik ve Pasif Sismik Verilerin GPU Üzerinde 2 B Birleşik Ters Çözümü**
CANDANSAYAR M. E., DEMİRCİ İ., GÜNDOĞDU N. Y., VARILSÜHA D., YILMAZ A. E.
6. Yer Elektrik Çalıştayı, Turkey, 23 - 25 May 2016
- X. **Acceleration of three-dimensional direct current resistivity modelling using GPU computing**
GÜNDOĞDU N. Y., DEMİRCİ İ., Varılsüha D., CANDANSAYAR M. E., YILMAZ A.
22nd European Meeting of Environmental and Engineering Geophysics, Near Surface Geoscience 2016, Barcelona, Spain, 4 - 08 September 2016
- XI. **Imaging the Saline Fresh Water Interface at Bafra Turkey Using Joint Inversion of Seismic Refraction and ERT Data**
Hamdan H., CANDANSAYAR M. E., DEMİRCİ İ., Economou N., Andronikidis N., ARSLAN H., Souprios P., Vafidis A.
8th Congress of the Balkan Geophysical Society, Chania, Greece, Greece, 5 - 08 October 2015

- XII. **Two dimensional joint inversion of seismic refraction, radiomagnetotelluric and DC resistivity data: An example from Bafra plain, Turkey**
CANDANSAYAR M. E., DEMİRCİ İ., Vafidis A., Soupios P., Economou N., Andronikidis N., Arslan H.
8th Congress of the Balkan Geophysical Society, BGS 2015, Chania, Greece, 5 - 08 October 2015
- XIII. **Imaging the saline/fresh water interface at Bafra, Turkey using joint inversion of seismic ERT data**
Hamdan H., CANDANSAYAR M. E., DEMİRCİ İ., Economou N., Andronikidis N., Arslan H., Soupios P., Vafidis A.
8th Congress of the Balkan Geophysical Society, BGS 2015, Chania, Greece, 5 - 08 October 2015
- XIV. **Two Dimensional Inversion of Magnetotelluric and Radio Magnetotelluric Data Incorporating Topography by Using Finite Difference Method with Triangle Cells**
DEMİRCİ İ., CANDANSAYAR M. E.
Electromagnetic Induction in the Earth 20th Workshop, Giza, Egypt, 18 - 24 September 2010
- XV. **Sonlu Farklar Yönteminde Üçgen Hücreler Kullanarak Manyetotellürik Verilerin İki Boyutlu Topoğrafyalı Ters Çözümü**
DEMİRCİ İ., CANDANSAYAR M. E.
3. Yer Elektrik Çalıştayı, Kastamonu, Turkey, 23 - 26 May 2010
- XVI. **Incorporation of topography into 2-D resistivity inversion models by using FD modeling with triangular discretization**
DEMİRCİ İ., CANDANSAYAR M. E.
13th European Meeting of Environmental and Engineering Geophysics of the Near Surface Geoscience Division of EAGE, Near Surface 2007, İstanbul, Turkey, 3 - 05 September 2007

Supported Projects

Candansayar M. E., Demirci İ., Gündoğdu N. Y., TUBITAK Project, Jeofizik Uzun Periyod Manyetotellürik Verilerin 2B ve 3B Ters Çözümü ile Kuzeybatı Anadolu'nun Litosfer Yapısının İncelenmesi, 2020 - 2023

DEMİRCİ İ., DİKMEN Ü., Project Supported by Other Private Institutions, Yusufeli Barajı ve HES inşaatı (Artvin) Kaya Özelliklerinin 48-Kanallı Sismik Cihaz Kullanılarak Araştırılması, 2017 - 2018

KOCA B., GÜNDOĞDU N. Y., AKTUĞ B., DEMİRCİ İ., CANDANSAYAR M. E., DİKMEN Ü., Project Supported by Higher Education Institutions, Jeofizik Test ve Deprem Simülasyon Sahası, 2016 - 2018

GÜNDOĞDU N. Y., CANDANSAYAR M. E., DEMİRCİ İ., Project Supported by Other Private Institutions, Bir Firmanın Ruhsat Sahasındaki Gömülü Metalik Madenlerin Yapay Uçlaşma (Induced Polarization) Yöntemi ile Araştırılması ve sahanın 2B/3B Modellerinin Geliştirilmesi, 2017 - 2017

Gündoğdu N. Y., Akıska S., Candansayar M. E., Yılmaz A. E., Demirci İ., TUBITAK Project, Two-Dimensional Joint Inversion and Three-Dimensional Inversion of Geophysical Data on GPU , 2014 - 2016

Candansayar M. E., FP7 Project, Sahillerde Deniz Suyu Girişiminden Dolayı Oluşan Kirlenmeyi Önlemek Amacıyla Jeofizik Tabanlı Hidrojeolojik Modelleme (geophysiCaL basEd hydrogeologicAl modeling to pRevent pollution from sea WATER intrusion at coastal areas - CLEARWATER), 2012 - 2015

CANDANSAYAR M. E., TUBITAK Project, Radyomanyetotellurik, Doğru Akım Öz direnç Ve Yapay Uçlaşma Verilerinin İki Boyutlu Birleşik Yorumu Bir Maden Arama Örneği, 2011 - 2014

Candansayar M. E., TUBITAK Project, Kuzey Batı Anadolunun Kabuk Yapısının Jeofizik Yöntemlerle Araştırılması, 2007 - 2012

Metrics

Publication: 29
Citation (WoS): 130
Citation (Scopus): 165
H-Index (WoS): 6
H-Index (Scopus): 6