

## Assoc. Prof. KAMİL ERKAN

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAQ-9536-2020

ScopusID: 24390719100

Yoksis Researcher ID: 120618

### Biography

Lisans derecesini fizik alanında (BS), yüksek lisans derecesini (MS) atom ve optik fizik alanında, ve doktora derecesini (PhD) jeofizik alanında almıştır. Doktora sonrası 2007-2011 yılları arasında araştırmacı olarak Ohio Devlet Üniversitesi'nde ve 2011-2012 yılları arasında Marmara Araştırma Merkezi'nde ziyaretçi araştırmacı olarak çalışmıştır. Halen Marmara Üniversitesi Çevre Mühendisliği bölümünde öğretim üyesi olarak çalışmaktadır. Araştırma konuları Yerkabuğu jeotermal yapısı ve jeotermal enerji kaynakları üzerinedir.

### Education Information

Doctorate, Southern Methodist University, Department Of Earth Sciences, United States Of America 2002 - 2007

Postgraduate, İhsan Doğramacı Bilkent University, Faculty Of Science, Department Of Physics, Turkey 1998 - 2000

Undergraduate, İhsan Doğramacı Bilkent University, Faculty Of Science, Department Of Physics, Turkey 1993 - 1998

### Dissertations

Doctorate, Post Subduction Thermal Regime of the Western North America and effects on the Great Valley, Sierra Nevada and Northern Baja-California Provinces, Southern Methodist University, Department Of Earth Sciences, 2007

Postgraduate, Strongly interacting one-dimensional bose condensates, İhsan Doğramacı Bilkent Üniversitesi, Fen Fakültesi, Fizik Bölümü, 2000

### Research Areas

Geophysical Engineering, Geological Engineering, Petroleum And Natural Gas Engineering

### Academic Titles / Tasks

Associate Professor, Marmara University, Faculty of Engineering, Environmental Engineering, 2017 - Continues

Assistant Professor, Marmara University, Faculty of Engineering, Civil Engineering, 2012 - 2017

Research Assistant, Ohio State University, College Of Arts And Sciences, School Of Earth Sciences, 2007 - 2011

Research Assistant, Southern Methodist University, College Of Humanities And Science, Earth Sciences, 2002 - 2007  
Research Assistant, Southern Methodist University, School Of Engineering, Electrical Engineering, 2001 - 2002  
Lecturer, Ihsan Dogramaci Bilkent University, Faculty Of Science, Department Of Physics, 1998 - 2000

## Advising Theses

ERKAN K., Batı Anadolu'da kuyu sıcaklık-derinlik verilerinin paleoklimsel modellemesi ve yakın zamanlı iklimsel değişimlerin belirlenmesi, Postgraduate, M.ORKUN(Student), 2016

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

- I. **Distribution of surface heat flow and effects on the subsurface temperatures in the northern part of Thrace Basin, NW Turkey**  
ERKAN K., PAZVANTOĞLU E.  
Geothermal Energy, vol.11, no.1, 2023 (SCI-Expanded)
- II. **Recent Climate Change in Western Black Sea Region of Turkey by Paleoclimatic Reconstruction of Borehole Temperatures**  
Çelik B., ERKAN K., TAYANÇ M., Baltacı H., Akkoyunlu B., PAZVANTOĞLU E.  
Pure and Applied Geophysics, vol.180, no.10, pp.3607-3620, 2023 (SCI-Expanded)
- III. **Surface heat flow in western Anatolia (Turkey) and implications to the thermal structure of the Gediz Graben**  
Balkan-Pazvantoglu E., ERKAN K., ŞALK M., AKKOYUNLU B. O., TAYANÇ M.  
TURKISH JOURNAL OF EARTH SCIENCES, vol.30, pp.991-1007, 2021 (SCI-Expanded)
- IV. **Using gravity gradients to estimate fault parameters in the Wichita Uplift region**  
Uzun S., ERKAN K., Jekeli C.  
GEOPHYSICAL JOURNAL INTERNATIONAL, vol.222, no.3, pp.1704-1716, 2020 (SCI-Expanded)
- V. **Development of Nonlinear Optimization Models for Wind Power Plants Using Box-Behnken Design of Experiment: A Case Study for Turkey**  
Atalan Y. A., TAYANÇ M., ERKAN K., Atalan A.  
SUSTAINABILITY, vol.12, no.15, 2020 (SCI-Expanded)
- VI. **Twentieth-century paleoclimatic modeling of borehole temperatures in western and central Anatolia regions, Turkey**  
ERKAN K., Akkoyunlu B., Inal M. O., Balkan-Pazvantoglu E., TAYANÇ M.  
INTERNATIONAL JOURNAL OF EARTH SCIENCES, vol.108, no.4, pp.1137-1146, 2019 (SCI-Expanded)
- VII. **Temperature-depth curves and heat flow in central part of Anatolia, Turkey**  
Balkan-Pazvantoglu E., ERKAN K.  
Tectonophysics, vol.757, pp.24-34, 2019 (SCI-Expanded)
- VIII. **A portable borehole temperature logging system using the four-wire resistance method**  
ERKAN K., Akkoyunlu B., BALKAN E., TAYANÇ M.  
JOURNAL OF GEOPHYSICS AND ENGINEERING, vol.14, no.6, pp.1413-1419, 2017 (SCI-Expanded)
- IX. **Thermal conductivity of major rock types in western and central Anatolia regions, Turkey**  
BALKAN E., ERKAN K., ŞALK M.  
JOURNAL OF GEOPHYSICS AND ENGINEERING, vol.14, no.4, pp.909-919, 2017 (SCI-Expanded)
- X. **Characterization of Active Layer Thickening Rate over the Northern Qinghai-Tibetan Plateau Permafrost Region Using ALOS Interferometric Synthetic Aperture Radar Data, 2007-2009**  
Jia Y., Kim J., Shum C. K., Lu Z., Ding X., Zhang L., ERKAN K., Kuo C., Shang K., Tseng K., et al.  
REMOTE SENSING, vol.9, no.1, 2017 (SCI-Expanded)
- XI. **Geothermal investigations in western Anatolia using equilibrium temperatures from shallow boreholes**

- Erkan K.  
SOLID EARTH, vol.6, no.1, pp.103-113, 2015 (SCI-Expanded)
- XII. **Coseismic slip of the 2010 Mw 8.8 Great Maule, Chile, earthquake quantified by the inversion of GRACE observations**  
Wang L., Shum C., Simons F. J., Tassara A., Erkan K., Jekeli C., Braun A., Kuo C., Lee H., Yuan D.  
Earth and Planetary Science Letters, pp.167-179, 2012 (SCI-Expanded)
- XIII. **Fusion of gravity gradient and magnetic field data for discrimination of anomalies using deformation analysis**  
Erkan K., Jekeli C., Shum C. K.  
GEOPHYSICS, vol.77, no.3, 2012 (SCI-Expanded)
- XIV. **A comparative analysis of geophysical fields for multi-sensor applications**  
Erkan K., Jekeli C.  
Journal of Applied Geophysics, vol.74, pp.142-150, 2011 (SCI-Expanded)
- XV. **Geodetic Constraints on the Qinghai-Tibetan Plateau Present-Day Geophysical Processes**  
Erkan K.  
Terrestrial Atmospheric And Oceanic Sciences, vol.22, no.2, pp.241-253, 2011 (SCI-Expanded)
- XVI. **Transient thermal regimes in the Sierra Nevada and Baja California extinct outer arcs following the cessation of Farallon subduction**  
Erkan K., Blackwell D.  
Journal of Geophysical Research: Solid Earth, vol.114, no.2, 2009 (SCI-Expanded)
- XVII. **Understanding the Chena Hot Springs, Alaska, geothermal system using temperature and pressure data from exploration boreholes**  
Erkan K., Holdmann G., Benoit W., Blackwell D.  
Geothermics, vol.37, no.6, pp.565-585, 2008 (SCI-Expanded)
- XVIII. **A thermal test of the post-subduction tectonic evolution along the California transform margin**  
Erkan K., Blackwell D. D.  
Geophysical Research Letters, vol.35, no.7, 2008 (SCI-Expanded)
- XIX. **Strongly interacting one-dimensional Bose-Einstein condensates in harmonic traps**  
Tanatar B., Erkan K.  
Physical Review A - Atomic, Molecular, and Optical Physics, vol.62, no.5, pp.53601, 2000 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Geophysical Investigations on Gravity Gradiometry and Magnetic Data over the Wichita Uplift Region, Southwestern Oklahoma**  
Erkan K.  
Geodetic Science Reports, pp.1-26, 2015 (Peer-Reviewed Journal)
- II. **Crustal heat flow measurements in western Anatolia from borehole equilibrium temperatures**  
ERKAN K.  
SOLID EARTH DISCUSSIONS, vol.6, pp.403-426, 2014 (Peer-Reviewed Journal)
- III. **Heat flow and geothermal potential in the South-Central United States**  
Negraru P. T., Blackwell D. D., Erkan K.  
Natural Resources Research, vol.17, no.4, pp.227-243, 2008 (Scopus)
- IV. **A Comparative Overview of Geophysical Methods**  
Erkan K.  
Geodetic Science Reports, pp.1-70, 2008 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Aydin İli Jeotermal Enerji Santrallerinden Çıkan Atık Isının Şehir Isıtmada Kullanımının Araştırılması**  
ERKAN K., Kahriman Ç.  
14. Ulusal 2. Uluslar Arası Çevre Mühendisliği Kongresi, 09 December 2021
- II. **Surface Heat Flow in Western Anatolia (Turkey) and implications to the thermal structure of the Gediz Graben**  
PAZVANTOĞLU E., ERKAN K., TAYANÇ M., AKKOYUNLU B. O., ŞALK M.  
International Workshop On Geothermal Energy For Sustainable Development, 08 December 2021
- III. **Trakya Havzası'nın Jeotermal Yapısı**  
ERKAN K., Polat Y., Çetinkaya İ.  
73. Türkiye Jeoloji Kurultayı, 24 May 2021
- IV. **EGE BÖLGESİNDE JEOTERMAL GRADYAN DAĞILIMI**  
BALKAN E., ERKAN K., ŞALK M., AKKOYUNLU B. O., TAYANÇ M.  
ULUSLARARASI KATILIMLITÜRKİYE ULUSAL JEODEZİ VE JEOFİZİK BİRLİĞİ BİLİMSEL KONGRESİ, İzmir, Turkey, 30 May - 02 June 2018
- V. **ISI AKISI ÖLÇÜMLERİ İLE ORTA ANADOLU'DA ÖRTÜLÜ JEOTERMAL SAHALARIN BELİRLENMESİ**  
ERKAN K., BALKAN E., AKKOYUNLU B. O., TAYANÇ M.  
V. Jeotermal Kaynaklar ve Doğal Mineralli Sular Sempozyumu ve Sergisi, Afyon, Turkey, 21 - 24 February 2018
- VI. **Türkiye'de Güncel İklim Değişikliği**  
TAYANÇ M., Eren E., Aydın Y., Baltacı H., GÖKTÜRK O. M., ERKAN K., AKKOYUNLU B. O.  
VII. Ulusal Hava Kirliliği ve Kontrolü Sempozyumu, Antalya, Turkey, 1 - 03 November 2017
- VII. **DEVELOPMENT OF A DIGITAL DATATRANSMISSION PORTABLE BOREHOLETEMPERATURE LOGGING SYSTEM FORCLIMATOLOGICAL AND GEOTHERMAL STUDIES**  
ERKAN K., DOĞRUEL M., AKKOYUNLU B. O., BAYAT F. K., ŞİŞMAN A., BALKAN E., TAYANÇ M.  
The 9th International Symposium on Image Processing, Wavelet and Applications, 5 - 08 November 2017
- VIII. **STATISTICAL EVALUATION AND WAVELET ANALYSIS OF WIND SPEED**  
TAYANÇ M., ERKAN K., AKKOYUNLU B. O., BALTACI H.  
9th International Symposium on Image Processing, Wavelet and Applications, 5 - 08 November 2017
- IX. **STATISTICAL ANALYSIS OFTEMPERATURE AND PRECIPITATIONSERIES OF TURKEY**  
TAYANÇ M., AKKOYUNLU B. O., ERKAN K.  
9th International Symposium on Image Processing, Wavelet and Applications, 5 - 08 November 2017
- X. **TÜRKİYE'DE GÜNCEL İKLİM DEĞİŞİKLİĞİ**  
TAYANÇ M., EREN E., DİKMEN AYDIN Y., BALTACI H., GÖKTÜRK O. M., ERKAN K., AKKOYUNLU B. O.  
VII. ULUSAL HAVA KİRLİLİĞİ VE KONTROLÜ SEMPOZYUMU, Antalya, Turkey, 1 - 03 November 2017, pp.17-23
- XI. **YERALTI SICAKLIK KAYITLARINA GÖRE BATI ANADOLU'DA SONYÜZYILDA İKLİM DEĞİŞİKLİĞİ**  
ERKAN K., AKKOYUNLU B. O., DOĞRUEL M., İnal M. O., BALKAN E., TAYANÇ M.  
VII. ULUSAL HAVA KİRLİLİĞİ VE KONTROLÜ SEMPOZYUMU, Antalya, Turkey, 1 - 03 November 2017
- XII. **20th Century Climatic Changes in Western Turkey from Borehole Climatologic Records**  
ERKAN K., TAYANÇ M., AKKOYUNLU B. O., DOĞRUEL M., İnal M. O., BALKAN E.  
8th International Conference on Image Processing, Wavelet and Applications (IWW2016), İstanbul, Turkey, 22 - 24 September 2016
- XIII. **20th century climate changes in western Turkey from borehole climatologic records**  
ERKAN K., TAYANÇ M., AKKOYUNLU B. O., DOĞRUEL M., İnal M. O., BALKAN E.  
International Conference on Image Processing, Wavelet and Applications, 22 - 24 September 2016
- XIV. **Development of a high precision thermistor probe for paleo climate studies**  
ERKAN K., BALKAN E., ATİKOL F., BAŞARAN T.  
International Conference at the Anatolian Peak (IPCAP), 25 - 27 February 2016
- XV. **Development of a Digital Output Temperature Probe for Precision Measurements**  
ERKAN K., DOĞRUEL M., BAYAT F. K., AKKOYUNLU B. O., TAYANÇ M., BALKAN E., SAVAŞ H.  
Geothermal Resources Council Annual Meeting, 20 - 23 September 2015
- XVI. **Thermal characteristics of the Chena Hot Springs Alaska geothermal system**

ERKAN K., HOLDMAN G., BLACKWELL D., BENOIT W.

Stanford Geothermal Workshop 2007, 22 January 2007

**XVII. Crustal Thermal Regime at The Geysers Clear Lake Area California**

ERKAN K., BLACKWELL D., LEIDIG M.

World Geothermal Congress 2005, 24 April 2005

## **Supported Projects**

Tayanç M., Erkan K., Project Supported by Other Official Institutions, Kuyu Sıcaklıklarının Paleoiklimsel Rekonstrüksiyonu ile Kuzeybatı Türkiye’de İklim Değişikliğinin Araştırılması, 2020 - 2022

Erkan K., Project Supported by Higher Education Institutions, Kuyu Sıcaklık Derinlik Verilerinin Paleoiklimsel Modellemesi ve Batı Anadolu da Yakın Zamanlı İklimsel Değişimler için Uygulanması, 2015 - 2016

Erkan K., TUBITAK Project, Kuyu sıcaklık derinlik ölçüm sistemi geliştirme ve Türkiye de son iki yüzyıllık iklim değişiminin araştırılması, 2013 - 2016

Erkan K., Tayanç M., Project Supported by Higher Education Institutions, Batı Anadolu da İklim Değişiminin Kuyu Paleoiklim Yöntemiyle Belirlenmesi, 2013 - 2015

## **Metrics**

Publication: 40

Citation (WoS): 182

Citation (Scopus): 175

H-Index (WoS): 9

H-Index (Scopus): 9

## **Awards**

Erkan K., • K. and W. A. Heiskanen Kıdemli araştırmacı ödülü, Ohio State University, April 2011