

## **Assoc. Prof. KAMİL ERKAN**

### **Personal Information**

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### **International Researcher IDs**

ScholarID: HbnjF5gAAAAJ

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

ScopusID: 24390719100

Yoksis Researcher ID: 120618

### **Biography**

Kamil Erkan lisans (1998) ve yüksek lisans (2000) derecelerini Bilkent Üniversitesi'nde (Ankara), doktora derecesini (2007) Güney Methodist Üniversitesi'nde (Dallas, A.B.D.) almıştır. Araştırma konuları Yer kabuğunun ısı akışı ve termal yapısı, jeotermal sistemler, ve gravite/manyetik alanlarının ters modellemesi üzerindedir.

### **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**

Environmental Engineering, Geophysical 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 paleoiklimsel 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**  
 Negru 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 Isıtmasında 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 BOREHOLE TEMPERATURE LOGGING SYSTEM FOR CLIMATOLOGICAL AND GEOTHERMAL STUDIES**  
ERKAN K., DOĞRUCL 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 ANALYSIS OF TEMPERATURE AND PRECIPITATION SERIES OF TURKEY**  
TAYANÇ M., AKKOYUNLU B. O., ERKAN K.  
9th International Symposium on Image Processing, Wavelet and Applications, 5 - 08 November 2017
- IX. **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
- 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 KIRLİLİĞİ VE KONTROLÜ SEMPOZYUMU, Antalya, Turkey, 1 - 03 November 2017, pp.17-23
- XI. **YERALTI SICAKLIK KAYITLARINA GÖRE BATI ANADOLU'DA SON YÜZYILDA İKLİM DEĞİŞİKLİĞİ**  
ERKAN K., AKKOYUNLU B. O., DOĞRUCL M., İnal M. o., BALKAN E., TAYANÇ M.  
VII. ULUSAL HAVA KIRLİLİĞİ VE KONTROLÜ SEMPOZYUM, 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., DOĞRUCL 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., DOĞRUCL 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., DOĞRUCL M., BAYAT F. K., AKKOYUNLU B. O., TAYANÇ M., BALKAN E., SAVAŞ H.  
Geothermal Resources Council Annual Meeting, 20 - 23 September 2015
- XVI. **Basin depth distribution in western Anatolia using EGM2008 gravity model**

- ERKAN K.  
Geothermal Resources Council Annual Meeting - Geothermal: A Global Solution, GRC 2014, Oregon, United States Of America, 28 September - 01 October 2014, vol.38, pp.123-125
- XVII. **The regional thermal regime in Dixie Valley, Nevada, USA**  
Thakur M., Blackwell D. D., ERKAN K.  
Geothermal Resources Council Annual Meeting 2012 - Geothermal: Reliable, Renewable, Global, GRC 2012, Reno, NV, United States Of America, 30 September - 03 October 2012, vol.36 1, pp.59-67
- XVIII. **Gravity vs Pseudo-Gravity: A Comparison Based on Magnetic and Gravity Gradient Measurements**  
Jekeli C., ERKAN K., Huang O.  
IAG International Symposium on "Gravity, Geoid and Earth Observation 2008", Chania, Crete, Germany, 23 - 27 June 2008, vol.135, pp.123-127
- XIX. **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
- XX. **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

Erkan K., TUBITAK Project, İç Anadolu Bölgesindeki Jeotermal Sistemlerde Topoğrafya Etkisinin Araştırılması, 2022 - 2023

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 Anadoluda İklim Değişiminin Kuyu Paleoiklim Yöntemiyle Belirlenmesi, 2013 - 2015

## Metrics

Publication: 43

Citation (WoS): 182

Citation (Scopus): 285

H-Index (WoS): 9

H-Index (Scopus): 10

## Awards

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