

## Asst. Prof. SERKAN KAYA

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAJ-2576-2021

ScopusID: 56704503100

Yoksis Researcher ID: 196649

### Education Information

Doctorate, Karadeniz Technical University, Mühendislik Fakültesi, Maden Mühendisliği, Turkey 2017 - 2022

Undergraduate, Anadolu University, Open Education Faculty, Department Of Philosophy, Turkey 2017 - 2021

Postgraduate, Karadeniz Technical University, Mühendislik Fakültesi, Maden Mühendisliği, Turkey 2014 - 2016

Undergraduate, Eskisehir Osmangazi University, Mühendislik-Mimarlık Fakültesi, Maden Mühendisliği, Turkey 2002 - 2011

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, EXPERIMENTAL INVESTIGATION OF THE PERFORMANCE OF ALTERNATIVE ABRASIVES IN NATURAL STONE CUTTING WITH ABRASIVE WATERJET, Karadeniz Technical University, Mühendislik Fakültesi, Maden Mühendisliği, 2022

Postgraduate, SU JETİYLE KAYAÇ KESMEDE ÇEŞİTLİ AŞINDIRICILARIN KULLANIMI (USE OF VARIOUS ABRASIVES IN ROCK CUTTING BY WATERJET), Karadeniz Technical University, -, Maden Mühendisliği, 2016

### Research Areas

Mining Engineering and Technology, Mining Operations, Marble Management and Processing, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Karadeniz Technical University, Mühendislik Fakültesi, Maden Mühendisliği, 2023 - Continues

Research Assistant, Karadeniz Technical University, Mühendislik Fakültesi, Maden Mühendisliği, 2013 - 2023

## Academic and Administrative Experience

Deputy Head of Department, Karadeniz Technical University, Mühendislik Fakültesi, Maden Mühendisliği, 2023 - 2026

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

- I. **An experimental study on the cutting depth produced by abrasive waterjet: how do abrasive and rock properties affect the cutting process?**  
Kaya S., Aydın G., Karakurt İ.  
International Journal of Advanced Manufacturing Technology, vol.125, no.9-10, pp.4811-4823, 2023 (SCI-Expanded)
- II. **Improvement of Rock Cutting Performance through Two-Pass Abrasive Waterjet Cutting**  
AYDIN G., KARAKURT İ., Amiri M. R., KAYA S.  
SUSTAINABILITY, vol.14, no.19, 2022 (SCI-Expanded)
- III. **Effect of abrasive type on marble cutting performance of abrasive waterjet**  
Aydın G., Kaya S., Karakurt İ.  
ARABIAN JOURNAL OF GEOSCIENCES, vol.12, no.11, 2019 (SCI-Expanded)
- IV. **Utilization of solid-cutting waste of granite as an alternative abrasive in abrasive waterjet cutting of marble**  
Aydın G., Kaya S., Karakurt İ.  
JOURNAL OF CLEANER PRODUCTION, vol.159, pp.241-247, 2017 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Aşındırıcı Sujetiyle Doğaltaş Kesmede Granit Atıklarının Aşındırıcı Olarak Değerlendirilmesi**  
Aydın G., Kaya S., Karakurt İ., Yıldırım F.  
Scientific Mining Journal, vol.58, no.3, pp.211-218, 2019 (Scopus)
- II. **Big mining disasters from past to present Geçmişten günümüze büyük maden kazaları**  
Yaşar S., Inal S., Yaşar Ö., KAYA S.  
Madencilik, vol.54, no.2, pp.33-43, 2015 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Environmental impacts of fossil energy sources FOSİL ENERJİ KAYNAKLARININ ÇEVRESEL ETKİLERİ**  
Kaya S., Aydın G., Karakurt İ.  
26th International Mining Congress and Exhibition of Turkey, IMCET 2019, Antalya, Turkey, 16 - 19 April 2019, pp.1523-1529
- II. **Current technological developments in cutting applications by abrasive waterjet ASINDIRICI SUJETİ İLE KESME UYGULAMALARINDA GÜNCEL TEKNOLOJİK GELİSMELER**  
Karakurt İ., Aydın G., Yıldırım F., Kaya S.  
26th International Mining Congress and Exhibition of Turkey, IMCET 2019, Antalya, Turkey, 16 - 19 April 2019, pp.1334-1339
- III. **Investigation of the effect of abrasive type on cut depth in marble cutting with abrasive water jet ASINDIRICILI SUJETİ İLE MERMER KESMEDE ASINDIRICI TIPININ KESME DERİNLİĞİNE ETKİSİNİN ARASTIRILMASI**  
Kaya S., Aydın G., Karakurt İ.  
26th International Mining Congress and Exhibition of Turkey, IMCET 2019, Antalya, Turkey, 16 - 19 April 2019, pp.1346-1353

- IV. **Methods for improvement of abrasive waterjet cutting performance ASINDIRICI SUJETI KESME PERFORMANSININ İYILESTIRILMESINE YÖNELİK GELİSTİRİLEN YÖNTEMLER**  
Karakurt İ., Aydın G., Yıldırım F., Kaya S.  
26th International Mining Congress and Exhibition of Turkey, IMCET 2019, Antalya, Turkey, 16 - 19 April 2019, pp.1340-1345
- V. **Kömür Kökenli Metan Üretimini Etkileyen Rezerv Özellikleri**  
Karakurt İ., Aydın G., Kaya S., Yıldırım F.  
Türkiye 21. Uluslararası Kömür Kongresi (ICCET 2018), Zonguldak, Turkey, 11 - 13 April 2018, vol.1, pp.117-123
- VI. **Kömür Madenlerinde Gaz ve Kömür Püskürmelerini Etkileyen Faktörler**  
Karakurt İ., Aydın G., Kaya S., Yıldırım F.  
Türkiye 21. Uluslararası Kömür Kongresi (ICCET 2018), Zonguldak, Turkey, 11 - 13 April 2018, vol.1, pp.39-46
- VII. **Performance Comparison of White Fused Alumina and Garnet Abrasives in Abrasive Waterjet Cutting of Marble**  
Kaya S., Aydın G., Karakurt İ.  
MERSEM 2017 - Türkiye 9. Uluslararası Mermer ve Doğaltaş Kongresi ve Sergisi (9th International Marble and Natural Stone Congress and Exhibition of Turkey), Antalya, Turkey, 13 - 15 December 2017, vol.1, pp.67-71
- VIII. **Su Jetiyle Kayaç Kesiminde Aşındırıcı Performansının Etkileri Garnet ve Silisyum Karbür Karşılaştırması**  
Kaya S., Aydın G., Karakurt İ.  
VI. Uluslararası Maden Makinaları ve Teknolojileri Kongresi, İzmir, Turkey, 18 - 21 October 2017, vol.1, no.1, pp.233-238
- IX. **Utilization of Brown Fused Alumina as an alternative abrasive in abrasive waterjet cutting of rock**  
Kaya S., Aydın G., Karakurt İ.  
25th International Mining Congress of Turkey: New Trends in Mining, IMCET 2017, Antalya, Turkey, 11 - 14 April 2017, pp.392-396
- X. **Kömür Kökenli Metan Üretiminden Kaynaklanan Çevresel Problemler**  
Karakurt İ., Aydın G., Kaya S.  
Maden İşletmelerinde İş Güvenliği ve İşçi Sağlığı Sempozyumu 2015, Adana, Turkey, 21 - 22 December 2015, vol.1, no.1, pp.133-140
- XI. **Türkiye’de Meydana Gelen Maden Kazalarının İstatistiksel Olarak İncelenmesi**  
Yaşar S., İnal S., Yaşar Ö., Kaya S.  
Maden İşletmelerinde İşçi Sağlığı ve İş Güvenliği Sempozyumu 2015,, Adana, Turkey, 21 - 22 December 2015, vol.1, no.1, pp.25-37
- XII. **Yeraltı Kömür Madenlerinde Metan Kaynaklı Tehlikeler**  
Aydın G., Kaya S., Karakurt İ.  
Maden İşletmelerinde İş Güvenliği ve İşçi Sağlığı Sempozyumu 2015, Adana, Turkey, 21 - 22 December 2015, vol.1, no.1, pp.125-132
- XIII. **Artificial neural network modeling of cut depth in rock cutting by abrasive waterjet**  
Karakurt İ., Aydın G., Kaya S., Hamzacebi C.  
15th International Multidisciplinary Scientific Geoconference and EXPO, SGEM 2015, Albena, Bulgaria, 18 - 24 June 2015, vol.3, pp.89-96
- XIV. **Modeling of coal consumption in Turkey: An application of trend analysis**  
Aydın G., Kaya S., Karakurt İ.  
24th International Mining Congress of Turkey, IMCET 2015, Antalya, Turkey, 14 - 17 April 2015, pp.83-87
- XV. **ENERGY CONSUMPTION MODELING BASED ON GDP: THE CASE OF TURKEY**  
Aydın G., Kaya S., Karakurt İ.  
15th International Multidisciplinary Scientific Geoconference (SGEM), Albena, Bulgaria, 18 - 24 June 2015, pp.933-938
- XVI. **Modeling of Turkey's CO2 emissions using economic and demographic variables**  
Karakurt İ., Aydın G., Kaya S.  
24th International Mining Congress of Turkey, IMCET 2015, Antalya, Turkey, 14 - 17 April 2015, pp.1474-1479

**XVII. Modeling of energy consumption based on population: The case of Turkey**

Aydin G., Kaya S., Karakurt I.

24th International Mining Congress of Turkey, IMCET 2015, Antalya, Turkey, 14 - 17 April 2015, pp.88-92

**XVIII. Forecasting of Turkey's coal consumption using grey prediction technique**

Karakurt I., Aydin G., Kaya S., Hamzacebi C.

24th International Mining Congress of Turkey, IMCET 2015, Antalya, Turkey, 14 - 17 April 2015, pp.77-82

## **Supported Projects**

Karaman K., Şahinoğlu E., Kaya S., Kolaylı H., Project Supported by Higher Education Institutions, Aynı formasyona ait komşu kaya kütlelerinde gözlenen yapısal, mineralojik ve jeomekanik özelliklerdeki değişimlerin çok yönlü olarak araştırılması, 2024 - 2025

Karakurt İ., Aydin G., Kaya S., Rogalı I., Project Supported by Higher Education Institutions, Improvement of the abrasive waterjet cutting performance in natural stone cutting processes , 2022 - 2024

AYDIN G., KARAKURT İ., KAYA S., AMIRI M. R., Project Supported by Higher Education Institutions, GRANİT, CAM, CÜRUF VE BETON ATIKLARININ AŞINDIRICILI SU JETİ İLE DOĞAL TAŞ KESMEDE AŞINDIRICI OLARAK KULLANIMI, 2021 - 2024

## **Metrics**

Publication: 25

Citation (WoS): 216

Citation (Scopus): 217

H-Index (WoS): 6

H-Index (Scopus): 6

## **Congress and Symposium Activities**

IMCET 2019, Attendee, Antalya, Turkey, 2019

MERSEM 2017, Attendee, Antalya, Turkey, 2017

VI. Uluslararası Maden Makinaları ve Teknolojileri Kongresi (IMMAT), Attendee, İzmir, Turkey, 2017

IMCET 2017, Attendee, Antalya, Turkey, 2017

Maden İşletmelerinde İşçi Sağlığı ve İş Güvenliği Sempozyumu, Attendee, Adana, Turkey, 2015

SGEM 2015, Attendee, Albena- Varna, Bulgaria, 2015

IMCET 2015, Attendee, Antalya, Turkey, 2015