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### International Researcher IDs

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Publons / Web Of Science ResearcherID: ABG-5137-2021

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### Education Information

Post Doctorate, University of Illinois at Urbana-Champaign, Civil & Environmental Engineering, Illinois Center For Transportation (Ict), United States Of America 2016 - 2017

Doctorate, Firat University, Faculty Of Engineering, İnşaat Mühendisliği Bölümü/Ulaştırma Abd, Turkey 2009 - 2014

Postgraduate, Firat University, Faculty Of Engineering, Turkey 2002 - 2004

Undergraduate, Dicle University, Faculty Of Engineering-Architecture, Turkey 1994 - 1998

### Dissertations

Doctorate, Bitümlü sıcak karışımların trafik etkisi altında mekanik özelliklerinin incelenmesi, Firat University, Mühendislik-Mimarlık Fakültesi, İnşaat Mühendisliği Bölümü/Ulaştırma Abd, 2014

### Research Areas

Civil Engineering, Transportation Engineering, Road Materials, Engineering and Technology

### Academic Titles / Tasks

Engineer, Istanbul University, Rektörlük, Yapı İşleri Ve Teknik Daire Başkanlığı, 2008 - Continues

### Courses

Yapı İşlerinde İş Sağlığı ve Güvenliği, Undergraduate, 2020 - 2021

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

1. Investigation of Asphalt Pavement to Improve Environmental Noise and Water Sustainability  
Bozkurt T. S., Karakas A. S.

SUSTAINABILITY, vol.14, no.22, 2022 (SCI-Expanded)

- II. **Effect of pavement thickness on stress distribution in asphalt pavements under traffic loads**  
Selsal Z., Karakas A. S., SAYIN B.  
CASE STUDIES IN CONSTRUCTION MATERIALS, vol.16, 2022 (SCI-Expanded)
- III. **Effect of long-term ageing on the rheological properties of rejuvenated asphalt binder**  
Dhasmana H., Hossain K., Karakas A. S.  
ROAD MATERIALS AND PAVEMENT DESIGN, vol.22, no.6, pp.1268-1286, 2021 (SCI-Expanded)
- IV. **PREDICTION OF MECHANICAL ALTERATIONS IN MULTI-LAYER SBS-MODIFIED HOT MIX ASPHALT AND SOIL-FOUNDATION STRUCTURE**  
Karakas A. S., ÖRTEŞ F.  
BALTIC JOURNAL OF ROAD AND BRIDGE ENGINEERING, vol.16, no.3, pp.159-194, 2021 (SCI-Expanded)
- V. **Effects of Aging and Rejuvenation on Surface-Free Energy Measurements and Adhesion of Asphalt Mixtures**  
Hossain K., Karakas A. S., Hossain Z.  
JOURNAL OF MATERIALS IN CIVIL ENGINEERING, vol.31, no.7, 2019 (SCI-Expanded)
- VI. **Comparative assessment of the mechanical properties of asphalt layers under the traffic and environmental conditions**  
Karakas A. S., Ortes F.  
CONSTRUCTION AND BUILDING MATERIALS, vol.131, pp.278-290, 2017 (SCI-Expanded)
- VII. **The evaluation of the field performance of the neat and SBS modified hot mixture asphalt**  
Karakas A. S., Kuloglu N., Kok B. V., Yilmaz M.  
CONSTRUCTION AND BUILDING MATERIALS, vol.98, pp.678-684, 2015 (SCI-Expanded)
- VIII. **The changes in the mechanical properties of neat and SBS-modified HMA pavements due to traffic loads and environmental effects over a one-year period**  
Karakas A. S., Sayin B., Kuloglu N.  
CONSTRUCTION AND BUILDING MATERIALS, vol.71, pp.406-415, 2014 (SCI-Expanded)
- IX. **Structural damage caused to RC buildings by tunnelling work**  
Yildizlar B., Sayin B., Karakas A. S., Akcay C.  
GRADEVINAR, vol.66, no.7, pp.643-651, 2014 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Investigation of Traffic Conditions Around the University Campus and Suggestions for Alternative Solutions: The Case Study of Istanbul University Cerrahpasa Avcilar**  
Karakas A. S.  
Dicle Üniversitesi Mühendislik Fakültesi Mühendislik Dergisi, vol.14, no.1, pp.175-189, 2023 (Peer-Reviewed Journal)
- II. **Gözenekli asfalt kaplamalarda ses yutma katsayısının modellenmesi: kalınlık ve karışım oranı örneği**  
Bozkurt T. S., Karakas A. S.  
Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.10, no.4, pp.805-825, 2022 (Peer-Reviewed Journal)
- III. **Numerical Modeling Of Bearing Wall Manufacturing In The Restoration Of Historic Buildings: Wall Layer Analysis**  
Karakas A. S., Bozkurt T. S.  
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.22, no.3, pp.645-653, 2022 (Peer-Reviewed Journal)
- IV. **Farklı Kalınlıktaki Modifiye Asfalt Yol Kaplamalarının Gerilme-Deformasyon ve Ses Yutma Performans Özelliklerinin İncelenmesi**  
Karakas A. S., Bozkurt T. S.  
Dicle Üniversitesi Mühendislik Fakültesi Mühendislik Dergisi, vol.13, no.2, pp.319-328, 2022 (Peer-Reviewed Journal)

Journal)

- V. **Ani Zemin Hareketi Nedeniyle Oluşan Yapısal Hasarlar: Bir Durum Çalışması**  
YILDIZLAR B., SAYIN B., KARAKAŞ A. S., AKÇAY C.  
E-Journal of New World Sciences Academy:Engineering Sciences, vol.6, pp.690-701, 2011 (Peer-Reviewed Journal)
- VI. **Definition of the Optimum Contents of Bitumen in Asphalt Concrete Samples Prepared with the Help of a Rotary Compactor**  
Ahmedzade P., Alataş T., Karakaş A. S.  
International Journal Science &Engineering for Roads, Moscow, vol.1, pp.24-26, 2007 (Peer-Reviewed Journal)
- VII. **PRODUCTION OF HIGH PERFORMANCE CONCRETE USING ADMIXTURES**  
Oncu M. E., KARAKAŞ A. S., KAVAK M. T.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.24, no.2, pp.76-82, 2006 (ESCI)

## **Books & Book Chapters**

- I. **The Effect of Using Basic Oxygen Slag in Aggregate on the Engineering Properties of Porous Asphalt Mixtures**  
Karakas A. S.  
in: Insac World Natural and Engineering Science, Doç.Dr. Selmin Ener Ruşen; Doç.Dr. Aydın Ruşen, Editor, Gece kitaplığı, Ankara, pp.17-36, 2022
- II. **Aging Effects on Mechanical Characteristics of Multi-Layer Asphalt Structure**  
Karakas A. S.  
in: Modified Asphalt, Jose Luis Rivera Armenta, Beatriz Adriana Salazar-Cruz, Editor, IntechOpen, London, pp.21-40, 2018

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **Investigation of the Behavior of Stone Mastic Asphalt Coatings in Different Thicknesses by the Finite Element Method**  
Karakas A. S.  
VIII. INSAC International Congress on Natural and Engineering Sciences, Konya, Turkey, 18 - 20 March 2022, pp.32-40
- II. **INVESTIGATION OF ENGINEERING PROPERTIES OF STONE MASTIC ASPHALT COATINGS UNDER DIFFERENT LOADS**  
Karakas A. S.  
8th International Conference on Multidisciplinary Sciences (8th icomus), Antalya, Turkey, 2 - 04 March 2022, pp.369-380
- III. **Impact of Asphalt Modifier Dosage on Modified Binder Rheology and Chemistry with Long-Term Aging**  
Singhvi P., Karakas A. S., Ozer H., Al-Qadi I. L., Hossain K.  
International Conference on Airfield and Highway Pavements, Illinois, United States Of America, 21 - 24 July 2019, pp.274-284
- IV. **Effect of Aging and Rejuvenation on Surface Free Energy Measurements and Adhesive Properties of Asphalt Mixture**  
Hossain K., KARAKAŞ A. S., Singhvi P., Ozer H., Al Qadi I.  
The 97th Annual Meetings of the Transportation Research Board of the National Academies, Washington, Dc, United States Of America, 7 - 11 January 2018, pp.1
- V. **Impact of Rejuvenators on the Binder Rheological and Chemical Characterization of Recycled AC Mixtures**

Singhvi P., KARAKAŞ A. S., Hossain K., Ozer H., Al Qadi I.

International Conference on Highway Pavements & Airfield Technology, Philadelphia, United States Of America, 27 - 30 August 2017, pp.1

- VI. **Determination of empirical and numerical analyses of hot mix asphalt made of stream aggregate**  
Karakas A. S., Örtüş F., Akçay C., Yıldızlar B.  
2nd INTERNATIONAL CONFERENCE ON CIVIL AND ENVIRONMENTAL ENGINEERING, Nevşehir, Turkey, 8 - 10 May 2017, pp.1
- VII. **An Assessment of SBS Modified Asphalt Concrete Pavements Performance Features Performing Numerical Analysis**  
Karakas A. S., Bozkurt T. S., Sayin B., Ortes F.  
International Conference on Numerical Analysis and Applied Mathematics (ICNAAM), Rhodes, Greece, 19 - 25 September 2016, vol.1863
- VIII. **Restoration Applications in Historical Buildings: A case study, ,**  
KARAKAŞ A. S., Bozkurt T. S., Sayin B., Akçay C., Yıldızlar B.  
ISITES 2015: 3rd International Symposium on Innovative, Technologies in Engineering and Science, Valencia, Spain, 3 - 05 June 2015, pp.1042-1051
- IX. **The Effects on Building Behavior of Environmental Issues due to Blasting Operations**  
Yıldızlar B., Sayin B., Akçay C., Karakaş A. S.  
ICESA 2015: International Civil Engineering & Architecture Symposium for Academicians 2015, Antalya, Turkey, 16 - 19 May 2015, pp.1-14
- X. **The Preserving and Improvement of Historical Structures based on Qualified a RC Structure: A Case Study**  
Karakas A. S., Bozkurt T. S., Sayin B., Akçay C., Yıldızlar B.  
CACMSISTANBUL 2015: International Conference on Advances in Composite Materials and Structures, İstanbul, Turkey, 13 - 15 April 2015, pp.1-13
- XI. **Determination of von-Mises Stress Distributions of Hot Asphalt Mixtures Prepared with Polymer Modified Bitumen**  
Karakas A. S., Doğru S. C., Sayin B., Yıldızlar B., Akçay C.  
ICESA 2014: International Civil Engineering & Architecture Symposium for Academicians 2014, Antalya, Turkey, 17 - 20 May 2014, pp.1-10
- XII. **İstanbul Kent İçi Yol Ağlarındaki Trafik Kazaları, Risk Bölgelerinin Belirlenmesi ve Alınması Gereken Tedbirler**  
KARAKAŞ A. S., AKÇAY C., SAYIN B.  
ISTEC 2012: 3rd International Science, Technology and Engineering Conference, Dubai, United Arab Emirates, 13 - 15 December 2012, pp.731-740
- XIII. **Ekonomik Açından En Avantajlı Teklifin Belirlenmesinde 2004/18/EC AB Kamu İhale Direktifi ile 4734 Sayılı Kamu İhale Kanununun Karşılaştırılması**  
AKÇAY C., KARAKAŞ A. S., SAYIN B., MANİSALI E.  
6. İnşaat Yönetimi Kongresi, Bursa, Turkey, 25 - 27 November 2011, pp.1-8
- XIV. **Bir Kamu İhale Karar Destek Modelinde Lineer ve Nonlineer Bulanık Küme Kullanımının Karşılaştırılması**  
AKÇAY C., SAYIN B., KARAKAŞ A. S., MANİSALI E.  
6. İnşaat Yönetimi Kongresi, Bursa, Turkey, 25 - 27 November 2011, pp.1-10
- XV. **Tarihi Yapıların Güçlendirilmesinde Karbon Fiber ve Çelik Elemanların Kullanılması: Bir Durum Çalışması**  
Sayin B., Şolt A., Yıldızlar B., Karakaş A. S., Akçay C.  
Tarihi Yapıları Koruma ve Onarım Sempozyumu, İstanbul, Turkey, 26 - 29 October 2011, pp.370-378
- XVI. **Hatalı Onarım Uygulamalarının Beyazıt Yangın Kulesi Örneğinde İrdelenmesi**  
Şolt A., SAYIN B., YILDIZLAR B., KARAKAŞ A. S., Altan A. U., AKÇAY C., Korkmaz N. M.  
TAYKON 2011: Tarihi Yapıları Koruma ve Onarım Sempozyumu, İstanbul, Turkey, 26 - 29 October 2011, pp.411-420

- XVII. **Tarihi Yapıların Güçlendirilmesinde Karbon Fiber ve Çelik Elemanların Kullanılması: Bir Durum Çalışması**  
SAYIN B., Şolt A., YILDIZLAR B., KARAKAŞ A. S., Korkmaz N. M., AKÇAY C.  
TAYKON 2011: Tarihi Yapıları Koruma ve Onarım Sempozyumu, İstanbul, Turkey, 26 - 29 October 2011, pp.370-378
- XVIII. **Asfalt Betonun Fiziksel Özelliklerinde Darbeli Sıkıştırmanın Etkisi**  
KARAKAŞ A. S., SAYIN B., YILDIZLAR B.  
IATS'11: 6. Uluslararası İleri Teknolojiler Sempozyumu, Elazığ, Turkey, 16 - 18 May 2011, pp.1-5
- XIX. **Dicle Nehri Agregalarıyla Hazırlanan Bitümlü Sıcak Karışımların Optimum Özelliklerinin Belirlenmesi**  
KARAKAŞ A. S., SAYIN B., AKÇAY C.  
BMYS 2010: Bilimde Modern Yöntemler Sempozyumu, 14-16 Ekim 2010, Diyarbakır, Turkey, 14 - 16 October 2010, pp.1527-1538
- XX. **Yapım İşleri Yüklenici Seçimine Yönelik Bir Bulanık Karar Destek Modeli**  
AKÇAY C., SAYIN B., KARAKAŞ A. S.  
BMYS 2010: Bilimde Modern Yöntemler Sempozyumu, Diyarbakır, Turkey, 14 - 16 October 2010, pp.275-289

## Scientific Refereeing

SUSTAINABILITY, Journal Indexed in SCI-E, June 2023  
SUSTAINABILITY, Journal Indexed in SCI-E, June 2023  
SUSTAINABILITY, Journal Indexed in SCI-E, April 2023  
BUILDINGS (BASEL), Journal Indexed in SCI-E, February 2023  
BUILDINGS (BASEL), Journal Indexed in SCI-E, February 2023  
APPLIED SCIENCES, Journal Indexed in SCI-E, February 2023  
Processes, Journal Indexed in SCI-E, January 2023  
BUILDINGS (BASEL), Journal Indexed in SCI-E, November 2022  
BUILDINGS (BASEL), Journal Indexed in SCI-E, November 2022

## Metrics

Publication: 38  
Citation (WoS): 110  
Citation (Scopus): 118  
H-Index (WoS): 6  
H-Index (Scopus): 6

## Awards

Karakaş A. S., Best Paper for Pavements 2019, International Airfield & Highway Pavement, July 2019