

# **Dr. Öğr. Üyesi OĞUZHAN ŞAHİN**

## **Kişisel Bilgiler**

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## **Uluslararası Araştırmacı ID'leri**

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Publons / Web Of Science ResearcherID: AHD-2887-2022

ScopusID: 57205892131

Yoksis Araştırmacı ID: 268575

## **Eğitim Bilgileri**

Post Doktora, Iowa State University, Department of Civil, Construction and Environmental Engineering, Amerika Birleşik Devletleri 2022 - 2023

Doktora, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Türkiye 2018 - 2021

Yüksek Lisans, Süleyman Demirel Üniversitesi, Fen Bilimleri Enstitüsü, Türkiye 2016 - 2018

Lisans, Ege Üniversitesi, Türkiye 2011 - 2016

## **Yaptığı Tezler**

Doktora, Development of Construction Demolition Waste-based Geopolymeric Composites Suitable for Three-dimensional Additive Manufacturing, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği A.B.D., 2021  
Yüksek Lisans, YAPILAR ÜZERİNDEKİ KALINTI DEPLASMAN TALEBİNİN DEPREMLE OLAN İLİŞKİSİ, Süleyman Demirel Üniversitesi, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği Anabilim Dalı, 2018

## **Araştırma Alanları**

İnşaat Mühendisliği, Yapı Malzemesi, Yapı Malzemeleri, Beton Teknolojisi, Yapı Bileşenleri ve Malzemeleri, Kompozit Malzemeler, Mühendislik ve Teknoloji

## **Akademik Unvanlar / Görevler**

Dr.Öğr.Üyesi, Ankara Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2022 - Devam Ediyor  
Araştırma Görevlisi, Kırşehir Ahi Evran Üniversitesi, Mühendislik-Mimarlık Fakültesi, İnşaat Mühendisliği Bölümü, 2017 - 2022

## **Akademik İdari Deneyim**

Bölüm Başkan Yardımcısı, Ankara Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2022 - Devam Ediyor

## **SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler**

- I. Optimizing mechanical performance of geopolymers produced from construction and demolition waste: A comparative study of materials from different origins  
KUL A., Ozcelikci E., ÖZEL B. F., İLCAN H., ŞAHİN O., Gunal M. F., YILDIRIM G., ŞAHMARAN M.  
Construction and Building Materials, cilt.426, 2024 (SCI-Expanded)
- II. Characterization and evaluation of cement-based systems containing solution-treated municipal solid-waste incineration fly ash  
Wi K., ŞAHİN O., Wang K., Lee Y.  
Construction and Building Materials, cilt.416, 2024 (SCI-Expanded)
- III. Buildability analysis on effect of structural design in 3D concrete printing (3DCP): An experimental and numerical study  
Khan S. A., İLCAN H., Aminipour E., ŞAHİN O., Al Rashid A., ŞAHMARAN M., Koç M.  
Case Studies in Construction Materials, cilt.19, 2023 (SCI-Expanded)
- IV. Effect of industrial waste-based precursors on the fresh, hardened and environmental performance of construction and demolition wastes-based geopolymers  
İLCAN H., ŞAHİN O., Unsal Z., Ozcelikci E., KUL A., Çağatay Demiral N., YEMİŞÇİ ÖZKAN M., ŞAHMARAN M.  
Construction and Building Materials, cilt.394, 2023 (SCI-Expanded)
- V. 3D printing of circular materials: Comparative environmental analysis of materials and construction techniques  
Khan S. A., Jassim M., Ilcan H., ŞAHİN O., Bayer İ. R., ŞAHMARAN M., Koc M.  
Case Studies in Construction Materials, cilt.18, 2023 (SCI-Expanded)
- VI. The effects of various operational- and materials-oriented parameters on the carbonation performance of low-quality recycled concrete aggregate  
Dündar B., Tuğluca M. S., İLCAN H., ŞAHİN O., ŞAHMARAN M.  
Journal of Building Engineering, cilt.68, 2023 (SCI-Expanded)
- VII. Construction and demolition waste-based self-healing geopolymer composites for the built environment: An environmental profile assessment and optimization  
Mir N., Khan S. A., KUL A., ŞAHİN O., Ozcelikci E., ŞAHMARAN M., Koc M.  
Construction and Building Materials, cilt.369, 2023 (SCI-Expanded)
- VIII. Rheological property and extrudability performance assessment of construction and demolition waste-based geopolymer mortars with varied testing protocols  
Ilcan H., Şahin O., Kul A., Ozcelikci E., Sahmaran M.  
CEMENT AND CONCRETE COMPOSITES, cilt.136, ss.1-15, 2023 (SCI-Expanded)
- IX. Assessment of the long-term photocatalytic performance of cementitious systems incorporating different mineral admixtures  
ŞAHİN O.  
Construction and Building Materials, cilt.354, 2022 (SCI-Expanded)
- X. Renewable energy for carbon footprint reduction of green geopolymers material's production for built-environment  
Khan S. A., Mir N., KUL A., ŞAHİN O., ŞAHMARAN M., Koc M.  
ENERGY REPORTS, cilt.8, ss.852-858, 2022 (SCI-Expanded)
- XI. Mechanical anisotropy evaluation and bonding properties of 3D-printable construction and demolition waste-based geopolymer mortars  
Demiral N. C., Ekinci M. O., ŞAHİN O., İLCAN H., KUL A., YILDIRIM G., ŞAHMARAN M.  
CEMENT & CONCRETE COMPOSITES, cilt.134, 2022 (SCI-Expanded)
- XII. Energy-environmental performance assessment and cleaner energy solutions for a novel Construction and Demolition Waste-based geopolymer binder production process  
Khan S. A., Kul A., Şahin O., Şahmaran M., Al-Ghamdi S. G., Koç M.  
Energy Reports, cilt.8, ss.14464-14475, 2022 (SCI-Expanded)
- XIII. Rheological properties and compressive strength of construction and demolition waste-based

- geopolymer mortars for 3D-Printing**  
 İLCAN H., Sahin O., KUL A., YILDIRIM G., ŞAHMARAN M.  
 CONSTRUCTION AND BUILDING MATERIALS, cilt.328, 2022 (SCI-Expanded)
- XIV. Role of inclusion size distribution of titanium dioxide on the nitrogen oxides reduction capability and microstructural characteristics of cementitious systems**  
 Bahsi E., Sahin O., İLCAN H., UZAL B., Gunal M. F., YILDIRIM G., ŞAHMARAN M.  
 CONSTRUCTION AND BUILDING MATERIALS, cilt.318, 2022 (SCI-Expanded)
- XV. Construction and demolition waste-based geopolymers suited for use in 3-dimensional additive manufacturing**  
 Sahin O., İLCAN H., Atesli A. T., KUL A., YILDIRIM G., ŞAHMARAN M.  
 CEMENT & CONCRETE COMPOSITES, cilt.121, 2021 (SCI-Expanded)
- XVI. Influence of mixing methods on the NO<sub>x</sub> reduction capability and electrical properties of photocatalytic cementitious systems**  
 Sahin O., Bay S., Ilcan H., Yildirim G., ŞAHMARAN M.  
 CEMENT & CONCRETE COMPOSITES, cilt.115, 2021 (SCI-Expanded)
- XVII. Effects of Mixture Design Parameters on the Mechanical Behavior of High-Performance Fiber-Reinforced Concretes**  
 ERDEM T. K., DEMİRHAN S., Yildirim G., Banyhussan Q. S., Sahin O., Balav M. H., ŞAHMARAN M.  
 JOURNAL OF MATERIALS IN CIVIL ENGINEERING, cilt.32, sa.12, 2020 (SCI-Expanded)
- XVIII. Performance of engineered cementitious composites under drop-weight impact: Effect of different mixture parameters**  
 Yildirim G., Khiavi F. E., ANİL Ö., Sahin O., ŞAHMARAN M., Tugrul Erdem R.  
 STRUCTURAL CONCRETE, cilt.21, sa.3, ss.1051-1070, 2020 (SCI-Expanded)

## Düger Dergilerde Yayınlanan Makaleler

- I. **The impact of nozzle diameter and printing speed on geopolymer-based 3D-Printed concrete structures: Numerical modeling and experimental validation**  
 Khan S. A., İLCAN H., Imran R., Aminipour E., ŞAHİN O., Al Rashid A., ŞAHMARAN M., Koç M.  
 Results in Engineering, cilt.21, 2024 (ESCI)
- II. **Buildability analysis on squared profile structure in 3D concrete printing (3DCP)**  
 Imran R., AL RASHİD A., KHAN S. A., İLCAN H., ŞAHİN O., ŞAHMARAN M., KOÇ M.  
 European Journal of Materials, cilt.3, 2023 (Hakemli Dergi)
- III. **Effects of Treated Waste Wood Fibers Incorporation on Rheological Properties of the Construction and Demolition Waste-based Geopolymer Mortar**  
 İLCAN H., ŞAHİN O., SÖNMEZ TUĞLUCA M., ŞAHMARAN M.  
 NanoWorld Journal, cilt.9, sa.2, ss.163-169, 2023 (Hakemli Dergi)
- IV. **Life cycle assessment of construction and demolition waste-based geopolymers suited for use in 3-dimensional additive manufacturing**  
 MIR N., KHAN S. A., KUL A., ŞAHİN O., ŞAHMARAN M., KOÇ M.  
 CIRUGIA ESPAÑOLA (ENGLISH EDITION), cilt.10, 2022 (Scopus)
- V. **Life cycle assessment of binary recycled ceramic tile and recycled brick waste-based geopolymers**  
 Mir N., Khan S. A., KUL A., ŞAHİN O., Lachemi M., ŞAHMARAN M., Koç M.  
 Cleaner Materials, cilt.5, 2022 (Scopus)
- VI. **Construction and demolition waste-based geopolymers for built-environment: An environmental sustainability assessment**  
 MIR N., KHAN S. A., KUL A., ŞAHİN O., ŞAHMARAN M., KOÇ M.  
 MATERIALS TODAY : PROCEEDINGS, cilt.70, ss.358-362, 2022 (Scopus)
- VII. **Electrical Testing for the Assessment of Self-healing and Self-sensing Capability of Cementitious Composites**

## Kitap & Kitap Bölümleri

- I. **Nano-tailored TiO<sub>2</sub>-based photocatalytic cementitious systems for NO<sub>x</sub> reduction and air cleaning**  
ŞAHİN O., Bahsi E., YILDIRIM G., ŞAHMARAN M.  
Recent Advances in Nano-Tailored Multi-Functional Cementitious Composites, , Editör, Woodhead Publishing Series in Civil and Structural Engineering, ss.161-208, 2022

## Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **İNŞAAT VE YIKINTI ATIKLARININ YÜKSEK KATMA DEĞERLİ OLARAK İNŞAAT SEKTÖRÜNE YENİDEN KAZANDIRILMASI**  
ŞAHMARAN M., İLCAN H., ŞAHİN O.  
2023 HAZIR BETON FUARI VE KONGRESİ, Türkiye, 8 - 10 Kasım 2023
- II. **Investigating the Effects of Chemical Waterproofing Agent Application Techniques on the Permeability of Concrete Specimens**  
ŞAHİN O.  
3rd Global Conference on Engineering Research (GLOBCON'23), Türkiye, 13 - 16 Eylül 2023, ss.532
- III. **Investigating the Influence of TiO<sub>2</sub> Substitution Rate on Photocatalytic Activity of Cement-Based Systems**  
ŞAHİN O.  
11th International Congress on Engineering, Architecture and Design, İstanbul, Türkiye, 10 - 12 Haziran 2023, ss.1453
- IV. **Investigation of the Properties of Geopolymer Mortars Produced with the Construction and Demolition Waste**  
İLCAN H., ŞAHİN O., AMİNİPOUR E., ŞAHMARAN M.  
The International RILEM Conference on Synergising expertise towards sustainability and robustness of cement-based materials and concrete structures (SynerCrete'2023), MILOS, Yunanistan, 14 - 16 Haziran 2023, cilt.44, ss.337-349
- V. **Effects of Treated Waste Wood Fibers Incorporation on Rheological Properties of the Construction and Demolition Waste-based Geopolymer Mortar**  
İLCAN H., ŞAHİN O., SÖNMEZ TUĞLUCA M., ŞAHMARAN M.  
4th International Congress on Materials & Structural Stability (CMSS2023), Rabat, Malta, 8 - 10 Mart 2023
- VI. **Effect of Light-source on the Photocatalytic Degradation Capability of TiO<sub>2</sub>-incorporated Cementitious Composites**  
ŞAHİN O., HATEM M., Bahsi E., BAYER İ. R.  
4th International Conference on Advanced Engineering Technologies (ICADET 2022), Bayburt, Türkiye, 28 - 30 Eylül 2022, ss.200
- VII. **Utilization of Calcined VolcanicTuff in the Production of Geopolymer Composites**  
ÖKSÜZER N., HATEM M., ŞAHİN O.  
4th International Conference on Advanced Engineering Technologies (ICADET 2022), Bayburt, Türkiye, 28 - 30 Eylül 2022
- VIII. **Characterization of Fresh State Properties of Construction and Demolition Waste-based Geopolymer for Numerical Modelling and Simulation**  
İLCAN H., KHAN S. A., ŞAHİN O., KOÇ M., ŞAHMARAN M.  
The 4th International Conference of Materials and Engineering Technology, Türkiye, 8 - 10 Eylül 2022
- IX. **The buildability performance of construction demolition waste-based geopolymeric binder**

ŞAHİN O., KUL A., YILDIRIM G., ŞAHMARAN M.

International Conference on Cement - Based Materials Tailored for a Sustainable Future, İstanbul, Türkiye, 27 Mayıs 2021, cilt.1, ss.376-388

- X. **Sürdürülebilir Yapılaşma ÇerçeveSinde 3 Boyutlu Eklemeli Beton İmalatı” International Conference on Innovation**

ŞAHMARAN M., Bahsi E., ŞAHİN O.

Sustainability, Technology and Education in Civil Engineering, 13 - 15 Haziran 2019

- XI. **Maksimum Deprem Parametrelerinin Yapıların Kalıntı Deplasman Talepleri Üzerindeki Etkisi**

ŞAHİN O., DURUCAN C., AY Z.

II. International Scientific and Vocational Studies Congress, Nevşehir, Türkiye, 5 - 08 Temmuz 2018

## Desteklenen Projeler

Şahmaran M., Şahin O., Uzal B., Gülcen E., TÜBİTAK Projesi, Yüksek Verimli Jeopolimer Bağlayıcı Sistemler İçin Mekano-Kimyasal Aktivasyon İşlemi İle Düşük Aktiviteli Mineral Katkıların Mikroyapısal Özelliklerinin İyileştirilmesi, 2022 - 2025

## Metrikler

Yayın: 38

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Atıf (Scopus): 203

H-İndeks (WoS): 7

H-İndeks (Scopus): 8