

## **Prof. Dr. MUSTAFA ŞAHMARAN**

### **Kişisel Bilgiler**

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### **Eğitim Bilgileri**

Doktora, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği, Türkiye 2002 - 2005

### **Yabancı Diller**

İngilizce, C1 İleri

### **Araştırma Alanları**

İnşaat Mühendisliği , Yapı Malzemesi, Yapı Malzemeleri, Beton Teknolojisi, Yapı Bileşenleri ve Malzemeleri, Kompozit Malzemeler, Malzeme Mekaniği, Yalıtım Malzemeleri ve Uygulamaları, Mühendislik ve Teknoloji

### **Akademik Unvanlar / Görevler**

Prof. Dr., Hacettepe Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2017 - Devam Ediyor

Prof. Dr., Gazi Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2017 - 2017

Doç. Dr., Gazi Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2013 - 2017

Doç. Dr., Gaziantep Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü (İngilizce), 2010 - 2013

Yrd. Doç. Dr., Gaziantep Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü (İngilizce), 2007 - 2010

Uzman, University of Michigan, Mühendislik Fakültesi, İnşaat Ve Çevre Mühendisliği, 2006 - 2007

Araştırma Görevlisi, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, 2002 - 2006

Araştırma Görevlisi, Gaziantep Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü (İngilizce), 1999 - 2002

### **Akademik İdari Deneyim**

Gaziantep Üniversitesi, Mühendislik Fakültesi, 2012 - 2013

Gaziantep Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü (İngilizce), 2009 - 2013

Gaziantep Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü (İngilizce), 2009 - 2013

### **Yönetilen Tezler**

ŞAHMARAN M., YÜKSEK KARBONDİOKSİT KONSANTRASYONLU ORTAMLARDA ÇIMENTO BAĞLAYICILI KOMPOZİTLERDE HASARLARIN KENDİLİĞİNDEN İYİLEŞMESİ, Yüksek Lisans, A.HAMIDZADEH(Öğrenci), 2018

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- ŞAHMARAN M., EFFECT OF CHEMICAL ADDITION ON THE COMPRESSIVE STRENGTH OF SLAG-CEMENTS, Yüksek Lisans, H.HAMA(Öğrenci), 2014
- ŞAHMARAN M., Assessing the efficiency of pre-soaked expanded perlite usage incorporation on the self-healing ability of cementitious composites, Yüksek Lisans, K.AHMED(Öğrenci), 2013
- ŞAHMARAN M., Repeatability of self-healing in cementitious composites, Yüksek Lisans, R.AZAD(Öğrenci), 2013
- ŞAHMARAN M., Design of crack free, durable and ductile concrete for sustainable highway rigid pavement overlays, Doktora, H.ERHAN(Öğrenci), 2013
- ŞAHMARAN M., High early strength ductile cementitious composites with characteristics of low early age shrinkage, Yüksek Lisans, Y.EMRE(Öğrenci), 2013
- ŞAHMARAN M., Bond characteristics between high early strength engineered cementitious composites and substrates, Yüksek Lisans, R.KHALID(Öğrenci), 2013
- ŞAHMARAN M., Ultra-thin engineered cementitious composites overlay systems for rehabilitation of rigid concrete pavements, Yüksek Lisans, H.JASHAMİ(Öğrenci), 2012
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## **SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler**

- I. **Applicability of 3D concrete printing technology in building construction with different architectural design decisions in housing**  
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- II. **Optimization and Characterization of Cementitious Composites Combining Maximum Amounts of Waste Glass Powder and Treated Glass Aggregates**  
Mezaouri S., Kameche Z. E., Siad H., Lachemi M., ŞAHMARAN M., Houmadi Y.  
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- III. **Performance evaluation of fresh-to-fresh cast SCC/ECC and SCC/UHPC composites under the coupling effect of freeze-thaw and deicing solution**  
Baloch W. L., Siad H., Lachemi M., ŞAHMARAN M.  
JOURNAL OF SUSTAINABLE CEMENT-BASED MATERIALS, 2024 (SCI-Expanded)
- IV. **Mechanical, physical and durability performance of engineered cementitious composites prepared with calcium aluminate cement**  
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- V. **Variation of microbial self-healing performance of cementitious composites with their biogranule content**  
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- VI. **Combined application of CDWs as precursors and aggregates in geopolymmer composites: A comprehensive rheological analysis**  
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- VII. **Enhancing self-healing properties of engineered cementitious composites through the application of super-sulfated cement**  
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- VIII. **The effect of compaction methods and mix design on the petrographic void ratio of RCC**  
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- IX. **Assessment of sulphate resistance in fresh-to-fresh hybrid systems: a comparative study between SCC/ECC and SCC/UHPFRC**  
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- X. **3D-printable construction and demolition waste-based geopolymers: Investigating the effects of additives on engineering properties**  
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- XI. **High-conductivity cementitious composites suited for flooring applications: Effect of mixing methods and utilization rates of conductive materials**

- ÇELİK D. N., Belendir U., Ardoğa M. K., YILDIRIM G., ŞAHMARAN M.  
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- XII. **A study on the influencing parameters in developing construction and demolition waste-based geopolymers concretes and their sustainability assessment**  
Alhawat M., Yıldırım G., Ashour A., Ozcelikci E., ALDEMİR A., ŞAHMARAN M.  
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- XIII. **Optimizing mechanical performance of geopolymers produced from construction and demolition waste: A comparative study of materials from different origins**  
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- XIV. **Engineered Cementitious Composites with Super-Sulfated Cement: Mechanical, Physical, and Durability Performance**  
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- XV. **Comprehensive investigation of performance of construction and demolition waste based wood fiber reinforced geopolymers composites**  
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- XXI. **Opportunities and challenges in constructing a demountable precast building using C&D waste-based geopolymer concrete: A case study in Türkiye**  
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- XXII. **Fundamental period estimation of RC buildings by considering structural and non-structural damage distributions through neural network**  
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Neural Computing and Applications, cilt.36, sa.3, ss.1329-1350, 2024 (SCI-Expanded)
- XXIII. **Advancements in cleaner production of one-part geopolymers: A comprehensive review of mechanical properties, durability, and microstructure**  
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- XXIV. **Structural performance of construction and demolition waste-based geopolymer concrete columns under combined axial and lateral cyclic loading**

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- XXV. **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.  
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- XXVI. **Performance of the phase change material (PCM) to reduce freeze-thaw effect in cementitious composites**  
Acikok F., Ardoğa M. K., ŞAHMARAN M.  
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- XXVII. **Effect of severe sulfate exposure on the bonding behavior of hybrid engineered composite systems**  
Baloch W. L., Siad H., Lachemi M., ŞAHMARAN M.  
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- XXVIII. **Impact of supplementary cementitious materials and fibers in ECC on the fire resistance of hot-jointed SCC/ECC composites**  
Baloch W. L., Siad H., Lachemi M., ŞAHMARAN M.  
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- XXIX. **Self-healing capability of engineered cementitious composites with calcium aluminate cement**  
Zokaei S., Siad H., Lachemi M., Mahmoodi O., ŞAHMARAN M.  
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- XXX. **Characterization and life cycle assessment of geopolymer mortars with masonry units and recycled concrete aggregates assorted from construction and demolition waste**  
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- XXXI. **Effects of mono and binary recycled aggregates on the rheological properties of geopolymer mortars synthesized with construction and demolition waste-based binders**  
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- XXXII. **Comparison of thermal conductivity and electrical resistivity of carbon-based cementitious composites**  
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- XXXIII. **Effect of duration and type of grinding on the particle size distribution and microstructure of natural pumice with low pozzolanic reactivity**  
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- XXXIV. **Characterization and standardization of different-origin end-of-life building materials toward assessment of circularity performance**  
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- XXXV. **Fully demountable column base connections for reinforced CDW-based geopolymer concrete members**  
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- XXXVI. **Effect of industrial waste-based precursors on the fresh, hardened and environmental performance of construction and demolition wastes-based geopolymers**  
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- XXXIX. **Effect of fire exposure on the bonding behavior of hybrid engineered composite systems**  
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- XL. **3D printing of circular materials: Comparative environmental analysis of materials and construction techniques**  
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- XLI. **The effects of various operational- and materials-oriented parameters on the carbonation performance of low-quality recycled concrete aggregate**  
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- XLII. **A comprehensive study on the compressive strength, durability-related parameters and microstructure of geopolymers mortars based on mixed construction and demolition waste**  
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- XLIII. **Effect of high temperatures on hot-bonded SCC/ECC and SCC/UHPC composite systems**  
 Baloch W. L., Siad H., Lachemi M., ŞAHMARAN M.  
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- XLIV. **Construction and demolition waste-based self-healing geopolymers composites for the built environment: An environmental profile assessment and optimization**  
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- XLV. **Characterization of chemically treated waste wood fiber and its potential application in cementitious composites**  
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- XLVI. **Rheological property and extrudability performance assessment of construction and demolition waste-based geopolymers mortars with varied testing protocols**  
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- XLVII. **Multi-functional conductive cementitious composites including phase change materials (PCM) with snow/ice melting capability**  
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- XLVIII. **Demountable reinforced concrete slabs using dry connections**  
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- XLIX. **Energy-environmental performance assessment and cleaner energy solutions for a novel Construction and Demolition Waste-based geopolymers binder production process**  
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- L. **Development of ambient cured geopolymers binders based on brick waste and processed glass waste**  
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- LI. **Mechanical anisotropy evaluation and bonding properties of 3D-printable construction and demolition waste-based geopolymers mortars**

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- LII. **Sodium glass liquid from glass waste as a user-friendly hardener in structural geopolymers systems**  
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- LIII. **Properties of geopolymers sourced from construction and demolition waste: A review**  
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- LIV. **Shear behaviour of reinforced construction and demolition waste-based geopolymers concrete beams**  
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- LV. **Rheological properties and compressive strength of construction and demolition waste-based geopolymers mortars for 3D-Printing**  
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## Metrikler

Yayın: 116

Atıf (WoS): 268

Atıf (Scopus): 620

H-İndeks (WoS): 10

H-İndeks (Scopus): 14