

Asst. Prof. AHMET ÖZBAYRAK



Personal Information

Office Phone: [+90 352 207 6666](tel:+903522076666) Extension: 32401

Fax Phone: [+90 352 207 6666](tel:+903522076666)

Email: ozbayrak@erciyes.edu.tr

Web: <https://www.st1453.com>

Address: Erciyes Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, Talas, Kayseri



International Researcher IDs

ScholarID: 9MgrU9wAAAAJ

ORCID: 0000-0002-8091-4990

Publons / Web Of Science ResearcherID: K-4236-2018

ScopusID: 57211640818

Yoksis Researcher ID: 21201

Education Information

Doctorate, Erciyes University, Mühendislik Fakültesi / Fen Bilimleri Enstitüsü, İnşaat Mühendisliği, Turkey 2014 - 2017

Postgraduate, Erciyes University, Mühendislik Fakültesi, İnşaat Mühendisliği, Turkey 2005 - 2008

Undergraduate, Erciyes University, Mühendislik Fakültesi, İnşaat Mühendisliği, Turkey 1998 - 2003

Foreign Languages

English, B2 Upper Intermediate

Certificates, Courses and Trainings

Education Management and Planning, Literatür Tarama Teknikleri ve İpuçları, EBSCO Information Services, 2019
Education Management and Planning, TÜBİTAK ARDEB Fonlarına Yönelik Uygulamalı Proje Önerisi Yazma Eğitimi, Erciyes Teknopark, 2017

Education Management and Planning, AB Metodolojisine Göre Proje Hazırlama Eğitimi Programı, Kayseri Valiliği Dış İlişkiler ve Avrupa Birliği Koordinasyon Merkezi, 2015

Education Management and Planning, Mimar Sinan'ın Izinde: Restorasyon ve Taş İşçiliği Eğitiminin Geliştirme, Abdullah Gül Üniversitesi, 2015

Education Management and Planning, Riskli Yapıların Tespit Edilmesine İlişkin Esaslar, T.C. Çevre ve Şehircilik Bakanlığı, Türkiye Çevre Koruma Vakfı, 2013

Dissertations

Doctorate, BETONARME YAPILARDAKİ DÖŞEME SÜREKSİZLİKLERİNİN DEPREM DAVRANIŞINA ETKİSİNİN

İNCELENMESİ, Erciyes Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği, 2017

Postgraduate, Kirişsiz Dösemeli Betonarme Yapıların Yatay Kuvvetler Altında Rijitlik Değerlerinin Yapay Sinir Ağları İle

Analizi , Erciyes Üniversitesi, Mühendislik Fakültesi, İnşaat Mühendisliği, 2008

Research Areas

Civil Engineering, Mechanical, Structural Mechanics, Structure, Structural Engineering, Steel Structures, Performance of Constructed Facilities, Earthquake Engineering, Concrete Structures, Repair and Strengthening in Buildings, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Erciyes University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2012 - Continues

Academic and Administrative Experience

Erciyes Üniversitesi, Tomarza Mustafa Akıncıoğlu Myo, İnşaat/Yapı Denetim, 2014 - 2018

Erciyes University, 2014 - 2018

Erciyes Üniversitesi, İnşaat Bölümü, Yapı Denetimi, 2012 - 2013

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Experimental Investigation of the Relationship between Dynamic Characteristics and Mechanical Properties of Fly Ash-Based Geopolymer Reinforced Concrete Beams**
Özbayrak A.
JOURNAL OF MATERIALS IN CIVIL ENGINEERING, vol.36, no.8, pp.0-1, 2024 (SCI-Expanded)
- II. **Microstructural Analysis of Low-Calcium Fly Ash-Based Geopolymer Concrete with Different Ratios of Activator and Binder Under High Temperatures**
Kucukgoncu H., Özbayrak A.
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.50, pp.0-1, 2024 (SCI-Expanded)
- III. **Comprehensive analysis of experimental and numerical results of bond strength and mechanical properties of fly ash based GPC and OPC concrete**
GÜL ASLANBAY Y., ASLANBAY H. H., ÖZBAYRAK A., KÜÇÜKGÖNCÜ H., Atas O.
Construction and Building Materials, vol.416, 2024 (SCI-Expanded)
- IV. **Non-destructive triaxial vibroacoustic modal testing with a single sound transducer: a railway sleeper case study**
Çeçen F., AKTAŞ B., ÖZBAYRAK A.
Nondestructive Testing and Evaluation, vol.39, no.6, pp.1434-1453, 2024 (SCI-Expanded)
- V. **Decarbonization of the concrete railway sleeper production: bringing the low-dosage pozzolanic cement usage in the sleeper production via novel laminated CFRPU reinforcement technique**
Çeçen F., Aktaş B., Özbayrak A.
Materials Today Sustainability, vol.23, 2023 (SCI-Expanded)
- VI. **Comprehensive experimental analysis of the effects of elevated temperatures in geopolymer concretes with variable alkali activator ratios**
ÖZBAYRAK A., KÜÇÜKGÖNCÜ H., ASLANBAY H. H., GÜL ASLANBAY Y., Atas O.
Journal of Building Engineering, vol.68, 2023 (SCI-Expanded)
- VII. **Buckling Load Estimation Using Multiple Linear Regression Analysis and Multigene Genetic**

- Programming Method in Cantilever Beams with Transverse Stiffeners**
 ÖZBAYRAK A., Ali M. K., ÇITAKOĞLU H.
 ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.48, no.4, pp.5347-5370, 2023 (SCI-Expanded)
- VIII. **Experimental modal analysis of fly ash-based geopolymers concrete specimens via modal circles, mode indication functions, and mode shape animations**
 Çeçen F., ÖZBAYRAK A., AKTAŞ B.
 Cement and Concrete Composites, vol.137, 2023 (SCI-Expanded)
- IX. **Determination of stress-strain relationship based on alkali activator ratios in geopolymers concretes and development of empirical formulations**
 Özbayrak A., Küçükgöncü H., Atas O., Aslanbay H. H., Aslanbay Y. G., Altun F.
 Structures, vol.48, pp.2048-2061, 2023 (SCI-Expanded)
- X. **Effect of Activators in Different Ratios on Compressive Strength of Geopolymer Concrete**
 Çelik A. İ., Özbayrak A., Şener A., Acar M. C.
 CANADIAN JOURNAL OF CIVIL ENGINEERING, vol.50, pp.69-79, 2023 (SCI-Expanded)
- XI. **Experimental study of the effects of slab openings on seismic behaviour of buildings**
 ÖZBAYRAK A., ALTUN F.
 EUROPEAN JOURNAL OF ENVIRONMENTAL AND CIVIL ENGINEERING, vol.26, no.10, pp.4740-4760, 2022 (SCI-Expanded)
- XII. **Numerical investigation of the effect of beam slab openings in RC structures on seismic behavior**
 Özbayrak A., Altun F.
 Revista de la Construcción, vol.20, no.3, pp.512-530, 2021 (SCI-Expanded)
- XIII. **Torsional effect of relation between mass and stiffness center locations and diaphragm characteristics in RC structures**
 ÖZBAYRAK A., ALTUN F.
 BULLETIN OF EARTHQUAKE ENGINEERING, vol.18, no.4, pp.1755-1775, 2020 (SCI-Expanded)

Articles Published in Other Journals

- I. **Simultaneously Enhancing the Dynamic Damping and Static Strength Capabilities of Structures: A Case Study Conducted on Fly Ash-based Geopolymer Concrete Specimens using Modal, Mechanical and Microstructural Investigations**
 ÇEÇEN F., ÖZBAYRAK A., AKTAŞ B.
 Fırat Üniversitesi Mühendislik Bilimleri Dergisi, vol.36, no.2, pp.883-901, 2024 (Peer-Reviewed Journal)
- II. **Calculation of buckling loads of IPE-section bending members based on optimization of analytical formulations**
 ÖZBAYRAK A., Ali M. K., ÇITAKOĞLU H.
 Sigma Journal of Engineering and Natural Sciences, vol.42, no.4, pp.973-987, 2024 (ESCI)
- III. **Experimental investigation of the effect of longitudinal tensile reinforcement ratio on ductility behaviour in GPC beams**
 Özbayrak A., Çelik A. İ., Acar M. C., Şener A.
 Journal of sustainable construction materials and technologies (Online), vol.9, no.2, pp.114-127, 2024 (Scopus)
- IV. **Comparison of Modal Parameter Estimation Methods and Investigation of Railway Sleepers by Non-Destructive SISO-type Vibroacoustic Modal Analyses**
 Çeçen F., Aktaş B., Özbayrak A.
 Demiryolu Mühendisliği, no.18, pp.36-49, 2023 (Peer-Reviewed Journal)
- V. **Numerical analysis of flexural and shear behaviors of geopolymers concrete beams**
 Çelik A. İ., Özbayrak A., Şener A., Acar M. C.
 Journal of sustainable construction materials and technologies (Online), vol.7, no.2, pp.70-80, 2022 (Scopus)
- VI. **Comprehensive Analysis of OSH Practices from Perspectives of Turkish Construction Stakeholders**
 BAYRAM S., ÖZBAYRAK A.

- Deu Muhendislik Fakultesi Fen ve Muhendislik, vol.22, no.66, pp.875-885, 2020 (Peer-Reviewed Journal)
- VII. **GEOPOLİMER HARÇLARDA ZEOLİT KATKISININ ETKİSİ**
ACAR M. C., ŞENER A., ÖZBAYRAK A., ÇELİK A. İ.
Mühendislik Bilimleri ve Tasarım Dergisi, vol.8, no.3, pp.820-832, 2020 (Peer-Reviewed Journal)
- VIII. **DEPREM ETKİSİ ALTINDAKİ BETONARME KİRİŞSİZ PLAK DÖŞEMELERİN EĞİLME MOMENTLERİNİN YSA ANALİZİ İLE TAHMİN EDİLMESİ**
ÖZBAYRAK A.
Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.8, no.2, pp.979-991, 2019 (Peer-Reviewed Journal)
- IX. **Comparison of different analysis methods in flat slab reinforced concrete structures under earthquake effect**
Ozbayrak A.
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BİLİMLERİ DERGİSİ, vol.25, no.3, pp.257-267, 2019 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **Challenges Encountered in Column Tests Under Eccentric Axial Load and Proposed Solutions**
ÖZBAYRAK A.
International Conference on Engineering Technologies (ICENTE'23), Konya, Turkey, 23 - 25 November 2023, pp.267-271
- II. **Numerical comparison of the effect of circular and square stirrups onreinforced concrete beams**
ASLANBAY H. H., ÖZBAYRAK A.
Proceedings of 3rd International Civil Engineering and Architecture Congress (ICEARC'23), Trabzon, Turkey, 12 - 14 October 2023, pp.1333-1351
- III. **A NEW MODEL PROPOSAL for STEEL DAMPERS DESIGNED to SEISMIC ENERGYDISSIPATION**
ÇELİK A. İ., ÖZBAYRAK A.
6. ULUSLARARASI MUHENDİSLİK MİMARLIK VE TASARIM KONGRESİ, 17 - 18 December 2020, vol.39, pp.880-887
- IV. **EXPERIMENTAL DIFFICULTIES AND SOLUTION PROPOSALS IN A THREE-DIMENSIONAL REINFORCED CONCRETE FRAME**
ÖZBAYRAK A., ALTUN F.
13th International Congress on Advances in Civil Engineering, İzmir, Turkey, 12 - 14 September 2018, pp.56
- V. **A2 TÜRÜ DÖŞEME SÜREKSİZLİKLERİİNİN BETONARME YAPILARIN DEPREM DAVRANIŞINA ETKİSİNİN İNCELENMESİ**
ÖZBAYRAK A., ALTUN F.
Ulusal Yapı Mekaniği Laboratuvarları 6. Toplantısı - 2017, Trabzon, Turkey, 17 - 18 November 2017
- VI. **Meslek Yüksekokulu İnşaat Bölümü Öğrencilerinin Tercih Kararları ve Mesleki Yetkinlikleri: Tomarza Örneği**
BAYRAM S., ÖZBAYRAK A.
VI. Uluslararası Meslek Yüksekokulları Sempozyumu (UMYOS 2017), Sarajevo, Bosnia And Herzegovina, 18 - 20 May 2017, vol.1, pp.271-283

Supported Projects

- Özbayrak A., Küçükgöncü H., Altun F., TUBITAK Project, Uçucu Kül Esaslı Geopolimer Betondan Üretilen Yapısal Kolon Ve Kırısların Davranış Ve Dayanımı, 2021 - 2024
- AKTAŞ B., ÇEÇEN F., ÖZBAYRAK A., Project Supported by Higher Education Institutions, Demiryollarında Çok Yüksek Titreşim Sönümleme ve Rezonans Direnci Sağlayan Çevre Dostu Yerli Travers Modellerinin Geliştirilmesi, 2021 - 2023
- Çelik A. İ., Özbayrak A., Acar M. C., Şener A., Project Supported by Higher Education Institutions, Geopolimer ve Portland Çimentosu Betonundan Yapılan Betonarme Kırısların Mekanik Özelliklerinin Deneysel ve Numerik olarak İncelenmesi,

2020 - 2021

ALTUN F., ÖZBAYRAK A., Project Supported by Higher Education Institutions, Betonarme Yapılardaki Döşeme Süreksizliklerinin Deprem Davranışına Etkisinin İncelenmesi, 2016 - 2017
ÖZBAYRAK A., Project Supported by Other Official Institutions, Prefabrik Yalıtımlı Duvar Blokları, 2011 - 2013

Scientific Refereeing

REVISTA DE LA CONSTRUCCION, SCI Journal, March 2022
DEMİRYOLU MÜHENDİSLİĞİ, National Scientific Refreed Journal, November 2021
Mühendislik Bilimleri ve Tasarım Dergisi, National Scientific Refreed Journal, August 2021
KSCE Journal of Civil Engineering, SCI Journal, May 2018
Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi, National Scientific Refreed Journal, March 2018

Metrics

Publication: 28
Citation (WoS): 60
Citation (Scopus): 94
H-Index (WoS): 5
H-Index (Scopus): 6

Congress and Symposium Activities

13th International Congress on Advances in Civil Engineering, Attendee, İzmir, Turkey, 2018
Ulusal Yapı Mekanığı Laboratuvarları 6.Toplantısı, Attendee, Trabzon, Turkey, 2017
Çelik Yapıların Tasarım ve Yapım Kurallarının Belirlenmesi Çalıştayı, Attendee, İstanbul, Turkey, 2015
Ulusal Yapı Mekanığı Laboratuvarları 5.Toplantısı, Attendee, KAYSERİ, Turkey, 2015
MERSEM2012, Attendee, AFYON, Turkey, 2012

Non Academic Experience

Business Establishment Private, Fatihan Yapı İnşaat Ltd. Şti
Fatihan Yapı İnşaat Ltd.Şti