

Prof. HAKAN ÖZBAŞARAN

Personal Information

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International Researcher IDs

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Education Information

Doctorate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, İnşaat Mühendisliği (Dr), Turkey 2007 - 2013

Postgraduate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, İnşaat Mühendisliği (YI) (Tezli), Turkey 2005 - 2007

Undergraduate, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, İnşaat Mühendisliği Bölümü, Turkey 2001 - 2005

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Çelik I kesitli konsol kirişlerin yanal burulmalı burkulmasının deneysel ve analitik olarak incelenmesi, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, İnşaat Mühendisliği (Dr), 2013

Postgraduate, Deprem esnasında çok katlı yapıların çarpışması etkisi, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, İnşaat Mühendisliği (YI) (Tezli), 2007

Research Areas

Numerical Algorithms, Evolutionary Computing, Neural Networks, Soft Computing, Structural Mechanics, Building Dynamics, Building Stability, Structural Engineering

Academic Titles / Tasks

Associate Professor, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, İNŞAAT MÜHENDİSLİĞİ BÖLÜMÜ, 2020 - Continues

Assistant Professor, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, İNŞAAT MÜHENDİSLİĞİ BÖLÜMÜ, 2015 - 2020

Lecturer, Eskisehir Osmangazi University, SİVRİHİSAR MESLEK YÜKSEKOKULU, İNŞAAT BÖLÜMÜ, 2009 - 2015

Academic and Administrative Experience

Fakülte Yönetim Kurulu Üyesi, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, İNŞAAT MÜHENDİSLİĞİ BÖLÜMÜ, 2019 - Continues

Deputy Head of Department, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, İnşaat Mühendisliği Bölümü, 2018 - 2021

Courses

Yapı Mühendisliğinde Yapay Zeka, Doctorate, 2020 - 2021, 2019 - 2020

Betonarme Yapı Dinamiği Mühendislik Araştırmaları, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Yapısal Optimizasyon, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

Mühendislik Matematiği, Doctorate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Depreme Dayanıklı Tasarım, Undergraduate, 2021 - 2022

Mukavemet II, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

Betonarme Yapı Dinamiği Mühendislik Araştırmaları, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Mukavemet II, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

Depreme Dayanıklı Tasarım, Undergraduate, 2021 - 2022

Mukavemet I, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Matematik II, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Matematik II, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Mukavemet I, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

Matematik I, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Matematik I, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

İnşaat Mühendisliğine Giriş, Undergraduate, 2018 - 2019

İnşaat Mühendisliğine Giriş, Undergraduate, 2018 - 2019

Temel Bilgisayar Bilimleri, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Temel Bilgisayar Bilimleri, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Bilgisayar Destekli Sayısal Çözümleme, Undergraduate, 2015 - 2016

Bilgisayar Destekli Sayısal Çözümleme, Undergraduate, 2015 - 2016

Advising Theses

Özbaşaran H., Kafes sistemlerin eşzamanlı boyut, şekil ve topoloji optimizasyonunda bir vekil model olarak yapay sinir ağları, Postgraduate, T.AÇIKGÖZ(Student), 2021

Özbaşaran H., Kafes sistemlerin boyut optimizasyonu için bir hipersezgisel algoritma, Postgraduate, H.İBRAHİM(Student), 2021

Özbaşaran H., Çok katlı betonarme yapıların optimal ön tasarımı için bir strateji, Postgraduate, P.ATAŞ(Student), 2020

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **An efficient decoder for size optimization of trusses with automatic member grouping**
Toklu Y., ÖZBAŞARAN H.
Soft Computing, vol.28, no.19, pp.11237-11263, 2024 (SCI-Expanded)
- II. **A kinematic stability repair algorithm for planar truss topology via geometric decomposition**
ÖZBAŞARAN H.
COMPUTERS & STRUCTURES, vol.244, 2021 (SCI-Expanded)

- III. **Truss-sizing optimization attempts with CSA: a detailed evaluation**
ÖZBAŞARAN H., ERYILMAZ YILDIRIM M.
SOFT COMPUTING, vol.24, no.22, pp.16775-16801, 2020 (SCI-Expanded)
- IV. **Convergence of the Rayleigh-Ritz Method for buckling analysis of arbitrarily configured I-section beam-columns**
ÖZBAŞARAN H.
ARCHIVE OF APPLIED MECHANICS, vol.89, no.12, pp.2397-2414, 2019 (SCI-Expanded)
- V. **Optimal design of I-section beam-columns with stress, non-linear deflection and stability constraints**
ÖZBAŞARAN H.
ENGINEERING STRUCTURES, vol.171, pp.385-394, 2018 (SCI-Expanded)
- VI. **Shape optimization of tapered I-beams with lateral-torsional buckling deflection and stress constraints**
ÖZBAŞARAN H., Yilmaz T.
JOURNAL OF CONSTRUCTIONAL STEEL RESEARCH, vol.143, pp.119-130, 2018 (SCI-Expanded)
- VII. **An alternative design procedure for lateral-torsional buckling of cantilever I-beams**
Ozbasaran H., Aydin R., Dogan M.
THIN-WALLED STRUCTURES, vol.90, pp.235-242, 2015 (SCI-Expanded)
- VIII. **Effects of torsional irregularity to structures during earthquakes**
Gokdemir H., Ozbasaran H., Dogan M., Unluoglu E., ALBAYRAK U.
ENGINEERING FAILURE ANALYSIS, vol.35, pp.713-717, 2013 (SCI-Expanded)
- IX. **Structural failures in retrofit historical murat masonry arch bridge**
Gonen H., Dogan M., Karacasu M., Ozbasaran H., Gokdemir H.
ENGINEERING FAILURE ANALYSIS, vol.35, pp.334-342, 2013 (SCI-Expanded)
- X. **Failure of weak-storey during earthquakes**
KIRAÇ N., Dogan M., ÖZBAŞARAN H.
ENGINEERING FAILURE ANALYSIS, vol.18, no.2, pp.572-581, 2011 (SCI-Expanded)
- XI. **Earthquake failures of cantilever projections buildings**
Dogan M., Unluoglu E., Ozbasaran H.
ENGINEERING FAILURE ANALYSIS, vol.14, no.8, pp.1458-1465, 2007 (SCI-Expanded)

Articles Published in Other Journals

- I. **Evaluation of Job Advertisements for Civil Engineers with Text Mining**
Özbaşaran H., Taşçı G., TUNA M., Karataş İ., Çelik A., Gümüş M., Birşen M.
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.24, no.3, pp.685-693, 2024 (Peer-Reviewed Journal)
- II. **Computer-Automated Design of Truss Systems Under Manufacturing Constraints**
Balta S., ÖZBAŞARAN H.
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, 2023 (ESCI)
- III. **A systematic review on artificial intelligence applications in architecture**
Bölek B., TUTAL O., Özbaşaran H.
Journal of Design for Resilience in Architecture and Planning, vol.4, no.1, pp.91-104, 2023 (Peer-Reviewed Journal)
- IV. **A Study on Size Optimization of Trusses with BB-BC Algorithm: Review and Numerical Experiments**
ÖZBAŞARAN H.
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.18, no.1, pp.256-264, 2018 (Peer-Reviewed Journal)
- V. **solveTruss v1.0: Static, global buckling and frequency analysis of 2D and 3D trusses with Mathematica**
ÖZBAŞARAN H.
SOFTWAREX, vol.6, pp.135-140, 2017 (ESCI)

- VI. **An Approximate Lateral-Torsional Buckling Mode Function for Cantilever I-Beams**
ÖZBAŞARAN H.
International Journal of Civil and Environmental Engineering, vol.9, no.11, pp.1446-1449, 2015 (Peer-Reviewed Journal)
- VII. **A Parametric Study on Lateral Torsional Buckling of European IPN and IPE Cantilevers**
ÖZBAŞARAN H.
International Journal of Civil and Environmental Engineering, vol.8, no.7, pp.783-788, 2014 (Peer-Reviewed Journal)
- VIII. **Finite Differences Approach for Calculating Elastic Lateral Torsional Buckling Moment of Cantilever I Sections**
ÖZBAŞARAN H.
Anadolu Üniversitesi Bilim ve Teknoloji Dergisi: A - Uygulamalı Bilimler ve Mühendislik, vol.14, no.2, pp.143-152, 2013 (Peer-Reviewed Journal)
- IX. **Effect of Seismic Loading to Prefabricated Connections**
DOĞAN M., ÖZBAŞARAN H., GÜNAYDIN A.
Anadolu Üniversitesi Bilim ve Teknoloji Dergisi: A - Uygulamalı Bilimler ve Mühendislik, vol.11, no.1, pp.47-58, 2010 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Yapı Mühendisliğinde Yapay Zekâ: Geçmişten Günümüze Türkçe Çalışmalar**
KARAÇAY T., ÖZBAŞARAN H.
in: Mühendislik Bilimlerinde Yeni Yaklaşımlar, Kavak Duygu, Polat Alper, Editor, Livre de Lyon, Lyon, pp.1-39, 2021

Refereed Congress / Symposium Publications in Proceedings

- I. **Computer-automated design of RC residential buildings: First thoughts and initial tests**
ÖZBAŞARAN H., ATAŞ P., ŞANLI B., KAYA Y. E.
1st International Conference on Interdisciplinary Applications of Artificial Intelligence (ICIDAAI), Turkey, 21 - 23 May 2021
- II. **Overall Performance of Artificial Neural Networks as Surrogate Models for Structural Optimization**
ÖZBAŞARAN H.
7. Uluslararası Mühendislik Mimarlık ve Tasarım Kongresi, Turkey, 21 - 22 May 2021
- III. **Kafes Sistemlerin Bilgisayar ile Otomatik Tasarımının Hesaplama Yükü**
BALTA S., ÖZBAŞARAN H.
7. Uluslararası Mühendislik Mimarlık ve Tasarım Kongresi, Turkey, 21 - 22 May 2021
- IV. **Numerical Experiments on Surrogate Assisted Optimization of a Planar Truss**
AÇIKGÖZ T., ÖZBAŞARAN H.
6. Uluslararası Mühendislik Mimarlık ve Tasarım Kongresi, 17 - 18 December 2020
- V. **Vekil Modeller ile Yapısal Optimizasyonda Doğrudan Ceza Tahmini**
AZAK B., ÖZBAŞARAN H.
6. Uluslararası Mühendislik Mimarlık ve Tasarım Kongresi, 17 - 18 December 2020
- VI. **A Surrogate Model For An Old Problem: Large Deflections of Cantilevers**
ÖZBAŞARAN H.
4th International Energy Engineering Congress, 24 - 25 October 2019
- VII. **Triangular Layout Detection in 2D Truss Optimization**
ÖZBAŞARAN H., ŞANLI B.
4th International Energy Engineering Congress, 24 - 25 October 2019
- VIII. **Mathematica Blocks for Optimal Route Design**

AKALIN K. B., ÖZBAŞARAN H.

XIII Balkan Conference on Operational Research, Belgrade, Serbia, 25 - 28 May 2018, pp.51

IX. Shape Optimization of I-section Beam-columns with the Crow Search Algorithm

ÖZBAŞARAN H.

8th International Conference on Bioinspired Optimization Methods and their Applications, 16 - 18 May 2018

X. Two-stage Candidate Evaluation Strategy in Optimization of Truss Structures with Metaheuristics

ERYILMAZ M., ÖZBAŞARAN H.

8th International Conference on Bioinspired Optimization Methods and their Applications, 16 - 18 May 2018

XI. Experiments on Size Optimization of Trusses with BB-BC Algorithm

ÖZBAŞARAN H.

International Conference on Mathematics and Engineering, 10 - 12 May 2017

XII. Betonarme Taşıyıcı Sistem - Çelik Kafes Çatı Etkileşimi Deprem Davranışı

KARAGÖZ Ö., ÖZBAŞARAN H., DOĞAN M., GÖNEN H., ÜNLÜOĞLU E.

6. Çelik Yapılar Sempozyumu, Turkey, 9 - 11 December 2015, pp.207-216

XIII. ESOĞÜ BAP Başvuru ve Takip Web Yazılımı

İPHAR M., ÖZBAŞARAN H., YILDIRIM H.

Akademik Bilişim Konferansı AB2015, Eskişehir, Turkey, 4 - 06 February 2015

XIV. Failure of cable supported to Mosques in Eskişehir

KARACASU M., OKUR D. V., DOĞAN M., GÖKDEMİR H., ÖZBAŞARAN H.

th International Conference on Engineering Failure Analysis, 09 July 2014

XV. Failure of Bagdadi and Himis Building Seismic During

GÖKDEMİR H., ÖZBAŞARAN H., DOĞAN M.

ICEFA, 08 July 2014

XVI. Lateral Torsional Buckling of Double Angle and Tee Cantilevers A Parametric Study

AYDIN R., ÖZBAŞARAN H., KIRAÇ N., GÜNAYDIN A.

Fourteenth International Conference on Civil, Structural and Environmental Engineering Computing, Cagliari, Sardinia, Italy, 3 - 06 September 2013

XVII. On the Evaluation of Critical Lateral Buckling Loads of Prismatic Steel Beams

AYDIN R., GÜNAYDIN A., KIRAÇ N., ÖZBAŞARAN H.

Fourteenth International Conference on Civil, Structural and Environmental Engineering Computing, 3 - 06 September 2013

Metrics

Publication: 38

Citation (WoS): 135

Citation (Scopus): 174

H-Index (WoS): 7

H-Index (Scopus): 8

Non Academic Experience

Business Establishment Private, Yunusemre Yapı Denetim Ltd. Şti., Yunusemre Yapı Denetim Ltd. Şti.