

Prof. BOZKURT BURAK ÖZHAN

Personal Information

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International Researcher IDs

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Education

Doctorate, Turkey 2004 - 2009

Postgraduate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Turkey 2001 - 2004

Undergraduate, Turkey 1997 - 2001

Foreign Languages

English

Dissertations

Doctorate, Kübik nonlineer bir sürekli ortam sisteminin dış zorlamalı ve parametrik titreşimlerine genel bir yaklaşım, 2009

Postgraduate, İçinde akış olan deniz deşarj borularının dinamik analizi, Dokuz Eylul University, Fen Bilimleri Enstitüsü, 2004

Academic Positions

Professor, Manisa Celal Bayar University, 2023 - Continues

Associate Professor, 2015 - 2023

Associate Professor, Texas A&M University, 2015 - 2016
2010 - 2015

Assistant Professor, Texas A&M University, 2013 - 2013

Research Assistant, 2005 - 2009

Academic and Administrative Experience

Manisa Celal Bayar University, 2021 - Continues

2016 - Continues

2016 - Continues

2016 - Continues

Manisa Celal Bayar University, 2022 - 2023

Manisa Celal Bayar University, 2019 - 2022

Manisa Celal Bayar University, 2015 - 2018

2011 - 2016

2014 - 2015

2014 - 2014

2014 - 2014

2013 - 2014

2011 - 2014

2011 - 2013

Courses

Undergraduate

Makine Mühendisliği Uygulamaları Güz Dönemi, Undergraduate, 2023-2024

Sosyal Sorumluluk Projesi, Undergraduate, 2023-2024

Mekanik Tasarım Projesi Bahar Dönemi, Undergraduate, 2023-2024

Introduction to Mechanical Engineering, Undergraduate, 2023-2024

Biomechanics (Bioengineering Department), Undergraduate, 2023-2024

Statik, Undergraduate, 2023-2024

Mühendislik Seminerleri, Undergraduate, 2023-2024

Mekanik Tasarım Projesi Güz Dönemi, Undergraduate, 2023-2024

Mekanik Titreşimler, Undergraduate, 2023-2024

Makine Mühendisliği Uygulamaları Bahar Dönemi, Undergraduate, 2023-2024

Mekanik Tasarım Projesi Bahar Dönemi, Undergraduate, 2022-2023, 2021-2022, 2020-2021, 2017-2018, 2016-2017, 2014-2015, 2013-2014, 2012-2013, 2011-2012, 2009-2010

Introduction to Mechanical Engineering, Undergraduate, 2022-2023, 2019-2020

Biomechanics (Bioengineering Department), Undergraduate, 2022-2023, 2021-2022, 2020-2021, 2018-2019, 2017-2018

Experimental Methods in Engineering 1, Undergraduate, 2022-2023

Makine Mühendisliği Uygulamaları Bahar Dönemi, Undergraduate, 2022-2023, 2021-2022, 2020-2021, 2019-2020, 2018-2019, 2017-2018, 2016-2017, 2014-2015, 2013-2014, 2012-2013, 2011-2012, 2009-2010

Experimental Methods in Engineering 2, Undergraduate, 2022-2023

Mechanical Vibrations, Undergraduate, 2022-2023, 2021-2022, 2018-2019

Statik, Undergraduate, 2022-2023, 2021-2022, 2020-2021, 2019-2020, 2018-2019, 2017-2018

Makine Mühendisliği Uygulamaları Güz Dönemi, Undergraduate, 2022-2023, 2021-2022, 2020-2021, 2018-2019, 2017-2018, 2016-2017, 2014-2015, 2012-2013, 2011-2012

Mekanik Tasarım Projesi Güz Dönemi, Undergraduate, 2022-2023, 2021-2022, 2020-2021, 2017-2018, 2016-2017, 2014-2015, 2012-2013, 2011-2012

Mukavemet 1, Undergraduate, 2021-2022, 2020-2021, 2019-2020, 2018-2019, 2017-2018, 2016-2017, 2014-2015, 2012-2013, 2011-2012

Tiyatro Ve Sahne Sanatları, Undergraduate, 2021-2022, 2019-2020, 2018-2019, 2017-2018, 2016-2017, 2014-2015, 2013-2014

Introduction to Biomechanics, Undergraduate, 2020-2021, 2019-2020, 2018-2019

Sosyal Sorumluluk Projesi, Undergraduate, 2020-2021

Makine Mühendisliği Uygulamaları, Undergraduate, 2019-2020

Mekanik Tasarım Projesi, Undergraduate, 2019-2020

Biomechanics, Undergraduate, 2019-2020

Biyomekanikçe Giriş, Undergraduate, 2017-2018, 2016-2017, 2014-2015, 2013-2014, 2012-2013, 2011-2012

Mukavemet 2, Undergraduate, 2017-2018, 2016-2017, 2014-2015, 2013-2014, 2012-2013, 2011-2012

Mekanik Titreşimler, Undergraduate, 2016-2017, 2014-2015

Dinamik, Undergraduate, 2015-2016, 2013-2014, 2012-2013, 2011-2012

Matematik 2, Undergraduate, 2015-2016, 2009-2010

Ergonomi, Undergraduate, 2014-2015

Drama, Undergraduate, 2014-2015

Etkili Konuşma ve Sunum Teknikleri, Undergraduate, 2014-2015

Diferansiyel Denklemler, Undergraduate, 2009-2010

Undergraduate Double Major

Mühendislik Felsefesi, Undergraduate Double Major, 2023-2024

Mühendislik Yönetimi Proje Bahar Dönemi, Undergraduate Double Major, 2023-2024

Mühendislik Yönetimi Proje Güz Dönemi, Undergraduate Double Major, 2023-2024

İnsan Faktör Mühendisliği, Undergraduate Double Major, 2023-2024

Mekanik Sistemlerin Dinamiği, Undergraduate Double Major, 2023-2024

Mühendislik Yönetimi Proje, Undergraduate Double Major, 2022-2023, 2021-2022, 2020-2021, 2019-2020, 2018-2019

Mühendislik Felsefesi, Undergraduate Double Major, 2022-2023, 2021-2022, 2020-2021, 2019-2020

Mühendislik Yönetimi Proje Bahar Dönemi, Undergraduate Double Major, 2022-2023, 2021-2022, 2020-2021

İnsan Faktör Mühendisliği, Undergraduate Double Major, 2022-2023, 2021-2022, 2020-2021, 2019-2020, 2018-2019, 2017-2018, 2016-2017

Sürekli Ortamlar Mekaniği, Undergraduate Double Major, 2021-2022, 2020-2021, 2019-2020, 2018-2019, 2017-2018, 2014-2015, 2012-2013

Sonlu Elemanlar Metodu, Undergraduate Double Major, 2020-2021, 2019-2020

Kompozit Malzeme Mekaniği, Undergraduate Double Major, 2017-2018

Kompozit Malzemeler Mekaniği, Undergraduate Double Major, 2017-2018

Elastisite Teorisi, Undergraduate Double Major, 2016-2017, 2013-2014, 2012-2013

Mekanik Sistemlerin Dinamiği, Undergraduate Double Major, 2014-2015

Mühendislik Problemlerinin Bilgisayar ile Analizi, Undergraduate Double Major, 2011-2012

Hesaplamalı Mekanik, Undergraduate Double Major, 2011-2012, 2009-2010

Undergraduate Minor

Nonlineer Dinamik, Undergraduate Minor, 2018-2019, 2016-2017

Supervised Theses

ÖZHAN B. B., Mini dental implantların tasarımı ve sonlu elemanlar yöntemi ile mekanik analizi, Postgraduate, A.EREN(Student), 2024

ÖZHAN B. B., Nano kirşlerin eğilme burkulma ve titreşim analizi, Postgraduate, H.ASENA(Student), 2024

ÖZHAN B. B., Bazı mekanik problemlerin matris yöntemleri ile sayısal çözümleri, Doctorate, S.ÇAYAN(Student), 2023

ÖZHAN B. B., Sakroiliak Eklem İmplant Tasarımı Ve Sonlu Elemanlar Yöntemi İle Mekanik Analizi, Postgraduate, B.KAAN(Student), 2022

ÖZHAN B. B., Helikopter pal titreşimlerinin hesaplamalı analizi, Postgraduate, H.AVAN(Student), 2022

ÖZHAN B. B., Doğal parçacıklar ile takviye edilmiş polimer matrisli kompozitlerin deneysel ve hesaplamalı mekanik analizi, Postgraduate, A.ŞANLITÜRK(Student), 2022

ÖZHAN B. B., Hidrolik Konik Sac Metal Bükme Makinalarında Karşılaşılan Aşınma Probleminin Modellenmesi ve Alternatif Çözümlerin Değerlendirilmesi, Postgraduate, D.KAVUŞTU(Student), 2021

ÖZHAN B. B., Fonksiyonel derecelendirilmiş kirşlerin mekanik analizi, Doctorate, U.ÖZMEN(Student), 2021

ÖZHAN B. B., Karbon nanotüp yapıların modellenmesi ve sonlu eleman yöntemi ile mekanik analizi, Postgraduate, F.YASİN(Student), 2021

ÖZHAN B. B., Banyo Bataryalarında Geometrik Süreksizliğin Neden Olduğu Gürültünün Azaltılması, Postgraduate, G.TUĞGAN(Student), 2019

ÖZHAN B. B., Hareketli kütle etkisi altındaki kirş ve plakların titreşimleri, Postgraduate, M.KIR(Student), 2019

ÖZHAN B. B., Akışkan taşıyan boru titreşimlerinin hesaplamalı analizi, Postgraduate, M.SALI(Student), 2017

Journal articles indexed in SCI, SSCI, and AHCI

- I. **Mechanics of functionally graded beams: analytical, computational, and experimental analyses**
ÖZMEN U., ÖZHAN B. B.
International Journal of Mechanics and Materials in Design, 2025 (SCI-Expanded)
- II. **An adaptive approach for solving fourth-order partial differential equations: algorithm and applications to engineering models**
Çayan S., ÖZHAN B. B., Sezer M.
Computational and Applied Mathematics, vol.41, no.8, 2022 (SCI-Expanded)
- III. **A Taylor-Splitting Collocation approach and applications to linear and nonlinear engineering models**
Çayan S., ÖZHAN B. B., Sezer M.
Chaos, Solitons and Fractals, vol.164, 2022 (SCI-Expanded)
- IV. **Computational Modeling of Functionally Graded Beams: A Novel Approach**
ÖZMEN U., ÖZHAN B. B.
Journal of Vibration Engineering and Technologies, vol.10, no.7, pp.2693-2701, 2022 (SCI-Expanded)
- V. **Collocation approaches to the mathematical model of an Euler–Bernoulli beam vibrations**
Çayan S., ÖZHAN B. B., Sezer M.
Mathematics and Computers in Simulation, vol.197, pp.32-44, 2022 (SCI-Expanded)
- VI. **Vibration and stability analysis of axially moving beams with variable speed and axial force**
ÖZHAN B. B.
International Journal of Structural Stability and Dynamics, vol.14, no.6, 2014 (SCI-Expanded)
- VII. **Buckling configurations and dynamic response of buckled euler-bernoulli beams with non-classical supports**
Sinir B. G., ÖZHAN B. B., Reddy J.
Latin American Journal of Solids and Structures, vol.11, no.14, pp.2516-2536, 2014 (SCI-Expanded)
- VIII. **Effect of viscoelasticity on the natural frequencies of axially moving continua**
ÖZHAN B. B., Pakdemirli M.
Advances in Mechanical Engineering, vol.2013, 2013 (SCI-Expanded)
- IX. **Principal parametric resonances of a general continuous system with cubic nonlinearities**
ÖZHAN B. B., Pakdemirli M.
Applied Mathematics and Computation, vol.219, no.5, pp.2412-2423, 2012 (SCI-Expanded)
- X. **A general solution procedure for the forced vibrations of a system with cubic nonlinearities: Three-to-one internal resonances with external excitation**
ÖZHAN B. B., Pakdemirli M.
Journal of Sound and Vibration, vol.329, no.13, pp.2603-2615, 2010 (SCI-Expanded)
- XI. **A general solution procedure for the forced vibrations of a continuous system with cubic nonlinearities: Primary resonance case**
ÖZHAN B. B., Pakdemirli M.
Journal of Sound and Vibration, vol.325, no.4-5, pp.894-906, 2009 (SCI-Expanded)

Articles Published in Other Journals

- I. **Preface of the "minisymposium on Applied Symmetries and Perturbation Methods"**
Pakdemirli M., ÖZHAN B. B., Dolapci H.
AIP Conference Proceedings, vol.1738, 2016 (Scopus)

Books

- I. **MEKANİK VE BİYOMEKANİĞİN TEMELLERİ**

ÖZHAN B. B.

in: Temel Spinal Enstrüman Bilgisi, TEMİZ, CÜNEYT, Editor, AKADEMİSYEN YAYINEVİ, Ankara, pp.21-50, 2023

II. Mekanik Titreşimler Teorik Açıklamalar ve Uygulamalar

TAHRALI N., ÖZHAN B. B., BAĞDATLI S. M., KARAHAN M. M. F.

Şeçkin Yayınevi, İstanbul, 2017

Papers Presented at Peer-Reviewed Scientific Conferences

- I. **Farklı Kemik Tiplerine Uygulanan Mini Dental İmplantların Dikey Yük Etkisi Altındaki Davranışlarının İncelenmesi**
EREN A., ÖZHAN B. B., FLANAGAN D.
ANKARA INTERNATIONAL CONGRESS ON SCIENTIFIC RESEARCH-IX, Ankara, Turkey, 26 December 2023, vol.2, pp.2348-2353, (Full Text)
- II. **Değişken Kesitli Fonksiyonel Derecelendirilmiş Kirişlerin Serbest Titreşim Analizi**
ÖZMEN U., ÖZHAN B. B.
6th International Students Science Congress, İzmir, Turkey, 20 May 2022, (Summary Text)
- III. **Free Vibration Analysis of Functionally Graded Beams with Non-uniform Cross Section**
ÖZMEN U., ÖZHAN B. B.
6th International Students Science Congress, İzmir, Turkey, 20 - 21 May 2022, (Summary Text)
- IV. **Investigation of Flexural Properties of Functionally Graded Materials**
ÖZMEN U., ÖZHAN B. B.
5. International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology (IMSMATEC'21), Newşehir, Turkey, 28 May 2021, (Full Text)
- V. **Fonksiyonel Derecelendirilmiş Malzemelerin Mekanik Karakterizasyonu**
ÖZMEN U., ÖZHAN B. B.
5th International Students Science Congress, İzmir, Turkey, 21 May 2021, (Full Text)
- VI. **Vibrations of a Kirchhoff Plate Under Moving Mass**
KIR M., ÖZHAN B. B.
The 5th International Conference on Dynamics, Vibration and Control, Shijiazhuang, China, 28 - 30 August 2018, (Summary Text)
- VII. **Combined Parametric Vibrations of an Axially Moving Viscoelastic Beam**
ÖZHAN B. B., YILDIZ V.
The 5th International Conference on Dynamics, Vibration and Control, Shijiazhuang, China, 28 - 30 August 2018, (Summary Text)
- VIII. **Bir Dekantör Santrifüj İçin Helezon Tasarımı ve Dinamik Analizi**
AKIŞ A. A., DEMİR E., ÖZHAN B. B.
18. Ulusal Makina Teorisi Sempozyumu, Turkey, 5 - 07 July 2017, (Full Text)
- IX. **Akışkan Yapı Etkileşiminin Hesaplamalı Analizi: Akışkan Taşıyan Boru Titreşimleri**
SALI M., ÖZHAN B. B.
18. Ulusal Makina Teorisi Sempozyumu, Turkey, 5 - 07 July 2017, (Full Text)
- X. **Kemik Erimesi Olna Hastalarda Omurga Rahatsızlıkları Tedavisinde Kullanılacak Yeni Bir Vida Tasarımı: Genişleyebilir Pedikül Vida**
AKIŞ A. A., ATIL E., ÖZHAN B. B.
19. Ulusal Mekanik Kongresi, Turkey, 24 - 28 August 2015, (Full Text)
- XI. **Comparison of Multiple Time Scales and Multiple Scales Lindstedt Poincare Methods for Partial Differential Equations with Quadratic and Cubic Nonlinearities**
KARAHAN M. M. F., PAKDEMİRLİ M., ÖZHAN B. B.
4th International Conference on Mathematical and Computational Application, Manisa, Turkey, 11 - 13 June 2013, pp.453-462, (Full Text)
- XII. **General solution algorithm for three-to-one internal resonances of a cubic nonlinear vibration**

model

ÖZHAN B. B., Pakdemirli M.

16th International Congress on Sound and Vibration 2009, ICSV 2009, Krakow, Poland, 5 - 09 July 2009, vol.5, pp.2902-2910, (Full Text)

Peer Reviews in Scientific Publications

JOURNAL OF SOUND AND VIBRATION, Other journals, April 2025

Conference Paper (Full Text), April 2025

MATHEMATICAL AND COMPUTATIONAL APPLICATIONS, Other journals, April 2025

Conference Paper (Full Text), April 2025

BOUNDARY VALUE PROBLEMS, Other journals, April 2025

Other journals, April 2025

Other journals, April 2025

APPLIED MATHEMATICAL MODELLING, Other journals, April 2025

Other journals, April 2025

APPLIED MATHEMATICS AND COMPUTATION, Other journals, April 2025

JOURNAL OF SOUND AND VIBRATION, Other journals, January 2017

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, Other journals, January 2017

Conference Paper (Full Text), January 2017

APPLIED MATHEMATICAL MODELLING, Other journals, January 2017

Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, Other Journals, January 2017

INTERNATIONAL JOURNAL OF STRUCTURAL STABILITY AND DYNAMICS, Other journals, January 2017

Other journals, January 2016

Non Academic Experience

DEVLET TİYATROLARI, Aktör (Oyuncu)