

## Asst. Prof. SERKAN ZEREN

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: F-6003-2018

ScopusID: 13408981500

Yoksis Researcher ID: 17438

### Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (Dr), Turkey 2006 - 2014

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Makine Dinamiği, Titreşim Ve Akustiği (YI), Turkey 2003 - 2006

Undergraduate, Istanbul Technical University, Makine Fakültesi, Makine Mühendisliği Bölümü, Turkey 1997 - 2003

### Dissertations

Doctorate, Dönen Visko-Elastik Çubukların Dinamiği, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Makine Mühendisliği (Dr), 2014

Postgraduate, İki sürekli sistemden oluşan bir birleşik sistemin dinamik incelenmesi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Makine Dinamiği, Titreşim Ve Akustiği (YI), 2006

### Research Areas

Mechanical Engineering, Machine Theory and Dynamics, Machine Dynamics, Mechatronics, Mechanical Vibrations, Engineering and Technology

### Academic Titles / Tasks

Assistant Professor, Kocaeli University, Mühendislik Fakültesi, Mekatronik Mühendisliği, 2014 - Continues

Lecturer, Istanbul Arel University, Faculty Of Engineering-Architecture, Department Of Mechanical Engineering, 2013 - 2014

Research Assistant, Yeditepe University, Faculty Of Engineering, Makina Mühendisliği, 2007 - 2013

### Academic and Administrative Experience

## Courses

Mechatronics Design, Undergraduate, 2023 - 2024

## Advising Theses

Zeren S., Vibration control of suspended pendulum structures using active rotational inertia systems, Postgraduate, D.YILDIRIM(Student), Continues

Zeren S., Paketleme makinesi için yeni bir kam meknizmasının katı cisim dinamik analizi, Postgraduate, E.ÇOBANBAŞ(Student), 2023

Zeren S., Ağır ticari araçların cıvatalı bağlantılarının öngerilme kaybının önceden tespiti için bir laboratuvar test yöntemi geliştirilmesi, Postgraduate, V.AYIK(Student), 2020

Zeren S., Esnek bağlı bir robot kolunun titreşimlerinin giriş şekillendirme ile kontrolü, Postgraduate, C.ÖZKAN(Student), 2020

Zeren S., Çalkalanma yüklerinin, araç üstü sıvı tanklarının davranışları üzerindeki etkisinin incelenmesi, Postgraduate, G.SÖNMEZ(Student), 2019

ZEREN S., Bir arazi aracında aktif viraj denge çubuğunun kontrolü, Postgraduate, M.ÖZCÜ(Student), 2018

ZEREN S., Deneysel veriler ve sonlu elemanlar metodu kullanarak lastik şok emicinin darbe davranışının analizi, Postgraduate, E.KUTLU(Student), 2017

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Alternative approach for the derivation of an eigenvalue problem for a Bernoulli-Euler beam carrying a single in-span elastic rod with a tip-mounted mass**  
Gurgoze M., Zeren S.  
STRUCTURAL ENGINEERING AND MECHANICS, vol.53, no.6, pp.1105-1126, 2015 (SCI-Expanded)
- II. **On the dynamics of rotating, tapered, visco-elastic beams with a heavy tip mass**  
Zeren S., Gurgoze M.  
STRUCTURAL ENGINEERING AND MECHANICS, vol.45, no.1, pp.69-93, 2013 (SCI-Expanded)
- III. **The influences of both offset and mass moment of inertia of a tip mass on the dynamics of a centrifugally stiffened visco-elastic beam**  
Gurgoze M., Zeren S.  
MECCANICA, vol.46, no.6, pp.1401-1412, 2011 (SCI-Expanded)
- IV. **Consideration of the masses of helical springs in forced vibrations of damped combined systems**  
Gurgoze M., Zeren S.  
MECHANICS RESEARCH COMMUNICATIONS, vol.38, no.3, pp.239-243, 2011 (SCI-Expanded)
- V. **On the eigencharacteristics of a centrifugally stiffened, visco-elastic beam**  
Gurgoze M., Zeren S.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.223, no.8, pp.1767-1775, 2009 (SCI-Expanded)
- VI. **On the consideration of the masses of helical springs in damped combined systems consisting of two continua**  
Gurgoze M., Zeren S., Bicak M. M. A.  
STRUCTURAL ENGINEERING AND MECHANICS, vol.28, no.2, pp.167-188, 2008 (SCI-Expanded)
- VII. **On the eigencharacteristics of a cantilevered visco-elastic beam carrying a tip mass and its representation by a spring-damper-mass system**

GURGOZE M., DOGRUOGLU A. N., Zeren S.

JOURNAL OF SOUND AND VIBRATION, vol.301, pp.420-426, 2007 (SCI-Expanded)

VIII. **On the frequency equation of a combined system consisting of a simply supported beam and in-span helical spring-mass with mass of the helical spring considered**

GURGOZE M., ÇAKAR O., Zeren S.

JOURNAL OF SOUND AND VIBRATION, vol.295, pp.436-449, 2006 (SCI-Expanded)

IX. **On the eigencharacteristics of an axially vibrating viscoelastic rod carrying a tip mass and its representation by a single degree-of-freedom system**

GURGOZE M., Zeren S.

JOURNAL OF SOUND AND VIBRATION, vol.294, pp.388-396, 2006 (SCI-Expanded)

## Articles Published in Other Journals

I. **On the importance and application of the extended Galerkin's method to distributed systems**

Gürgöze M., ZEREN S.

International Journal of Mechanical Engineering Education, 2024 (ESCI)

II. **Understanding Dyadics and Their Applications in Mechanical Engineering**

GURGOZE M., ZEREN S.

Scottish Journal of of Arts, Social Sciences and Scientific Studies, vol.3, pp.95-110, 2012 (Peer-Reviewed Journal)

III. **Sharing of an in-class experience with Lagrange equations of the first and second kind for determining reaction forces**

Gürgöze M., Zeren S.

International Journal of Mechanical Engineering Education, vol.38, no.3, pp.252-259, 2010 (Scopus)

## Refereed Congress / Symposium Publications in Proceedings

I. **RIGID BODY DYNAMIC ANALYSIS OF A NEW CAM MECHANISM FOR A PACKAGING MACHINE**

Zeren S.

2. Uluslararası İstanbul Modern Bilimsel Araştırmalar Kongresi, İstanbul, Turkey, 23 - 25 December 2021, pp.748-756

II. **Vibration Control of Suspended Pendulum Structures Using Active Rotational Inertia Systems**

Yildirim D., Zeren S.

24. Otomatik Kontrol Ulusal Toplantısı TOK 2023, İstanbul, Turkey, 14 - 16 September 2023, pp.366-370

III. **Ağır Ticari Araçlarda Cıvatalı Bağlantıların Tork Kaybı için bir Test Metodu**

Ayık V., Zeren S.

3. International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology, Adana, Turkey, 24 - 26 June 2020

IV. **Bir Arazi Aracında Aktif Viraj Denge Çubuğunun Modellenmesi ve Kontrolü**

ÖZCÜ M., ZEREN S.

2nd International Mediterranean Science and Engineering Congress (IMSEC 2017), 25 - 27 October 2017

V. **On the frequency equation of a combined system consisting of a simply supported beam and in span helical spring mass with mass of the helical spring considered**

ZEREN S., GÜRGÖZE M., ÇAKAR O.

39th International Congress and Exposition on Noise Control Engineering, 21 - 25 June 2010

## Metrics

Citation (WoS): 51

Citation (Scopus): 54

H-Index (WoS): 4

H-Index (Scopus): 4

## **Non Academic Experience**

Synthia Software