

Asst. Prof. GÖKHAN OSMAN ÖZGEN

Personal Information

Office Phone: [+90 312 210 5264](tel:+903122105264)

Fax Phone: [+90 312 210 2536](tel:+903122102536)

Email: gozgen@metu.edu.tr

Web: <https://avesis.metu.edu.tr/gozgen>

Education Information

Doctorate, University Of Cincinnati, Makina Mühendisliği, United States Of America 2001 - 2006

Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (YI) (Tezli), Turkey 1998 - 2001

Undergraduate, Middle East Technical University, Odtu Kuzey Kıbrıs Kampusu (Kktc-Güzelyurt), Makine Mühendisliği Bölümü, Turkey 1994 - 1998

Research Areas

Mechanical Engineering, Construction and Manufacturing, Machine Design, Machine Theory and Dynamics, Machine Dynamics, Modeling and Simulation of Dynamic Systems, Mechanical Vibrations, Mechanical, Finite Element Methods, Mechanical Testing, Metallurgical and Materials Engineering, Material science and engineering, Polymeric Materials, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2009 - 2018

Lecturer, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2008 - 2009

Research Assistant, University Of Cincinnati, College Of Engineering, Department Of Mechanical, Industrial And Nuclear Engineering, 2001 - 2006

Research Assistant, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 1998 - 2001

Academic and Administrative Experience

Uygulama ve Araştırma Merkezi Yönetim Kurulu Üyesi, Middle East Technical University, 2017 - Continues

Advising Theses

Özgen G. O. , Development of a constrained layer surface damping treatment with optimized spacer geometry for plates, Postgraduate, B.ULUBALCI(Student), 2019

Özgen G. O. , Design of a magnetically tuned vibration absorber, Postgraduate, H.ERDEM(Student), 2019

Özgen G. O. , Structural vibration control in wind turbines, Postgraduate, Ç.KOÇAN(Student), 2019

Özgen G. O. , DESIGN OF A COMPLEX MODULUS TEST SYSTEM FOR VISCOELASTIC MATERIALS, Postgraduate,

B.ERDOĞAN(Student), 2019
Özgen G. O. , Estimation of effective parameters and operational response of tuned vibration absorbers, Postgraduate, H.CAN(Student), 2019
ÖZGEN G. O. , VIBRATION ISOLATION SYSTEM FOR SPACE LAUNCH VEHICLES, Postgraduate, B.KARAMAN(Student), 2018
Çiğeroğlu E., Özgen G. O. , Nonlinear vibration isolation of inertial measurement unit, Postgraduate, A.DÖNMEZ(Student), 2018
ÖZGEN G. O. , ÇİĞEROĞLU E., Finite element model updating of aerospace structures, Postgraduate, D.ÜNLÜ(Student), 2017
YAMAN Y., ÖZGEN G. O. , Design and analysis of radar antenna structures for optimum dynamic behavior, Postgraduate, E.SUN(Student), 2016
ÖZGEN G. O. , YAMAN Y., Design and analysis of radar antenna structure with optimum dynamic behavior, Postgraduate, E.Sun(Student), 2016
ÖZGEN G. O. , Design and development of a modular dynamic test system for resilient mechanical components and viscoelastic materials, Postgraduate, E.BARIŞ(Student), 2016
ÖZGEN G. O. , Development of a novel surface damping treatment, Postgraduate, K.OKAN(Student), 2016
ÖZGEN G. O. , Tuned vibration absorber design for a supported hollow cylindrical structure, Postgraduate, T.AKSOY(Student), 2015
ÇALIŞKAN M., ÖZGEN G. O. , Vibration isolation module for a towed array, Postgraduate, Ö.Batmaz(Student), 2014
ÖZGEN G. O. , Development of a test system for viscoelastic material characterization, Postgraduate, F.EROL(Student), 2014
ÖZGEN G. O. , Prediction of sound transmission through elastomeric bulb seals, Postgraduate, S.ATAMER(Student), 2014
ÖZGEN G. O. , Development of a modal analysis software platform, Postgraduate, O.ÖZGELEN(Student), 2014
Yazıcıoğlu Y., Özgen G. O. , Simulation based ground vibration test planning for a fighter aircraft, Doctorate, S.KÖKSAL(Student), 2014
ÖZGEN G. O. , Vibration isolation module design for a towed array, Postgraduate, Ö.BATMAZ(Student), 2014
ÖZGEN G. O. , Design of a compliant mechanism to amplify the stroke of a piezoelectric stack actuator, Postgraduate, T.KESKİN(Student), 2013
ÖZGEN G. O. , ÇİĞEROĞLU E., DESIGN OF A TEST SETUP FOR THE CHARACTERIZATION OF VIBRATION ISOLATORS, Postgraduate, C.UZ(Student), 2013
ÖZGEN G. O. , ÇİĞEROĞLU E., Finite element modelling and analysis of recoil springs in automatic weapons, Postgraduate, H.ZALOĞLU(Student), 2013
ÖZGEN G. O. , Design and modeling elastomeric vibration isolators using finite element method, Postgraduate, H.HARDIÇ(Student), 2013
ÖZGEN G. O. , Investigation of the use of sandwich materials in automotive body structures, Postgraduate, D.HARA(Student), 2012
ÖZGEN G. O. , Service life assessment of solid rocket propellants considering random thermal and vibratory loads, Postgraduate, O.YILMAZ(Student), 2012
ÖZGEN G. O. , Investigation of Stockbridge dampers for vibration control of overhead transmission lines, Postgraduate, H.KASAP(Student), 2012
ÖZGEN G. O. , Analysis and control of gun barrel vibrations, Postgraduate, F.BÜYÜKCİVELEK(Student), 2011
ÖZGEN G. O. , ÇİĞEROĞLU E., Optimization of vibration characteristics of a radar antenna structure, Postgraduate, İ.BARAN(Student), 2011

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Design of a tuned vibration absorber for a slender hollow cylindrical structure**
Aksoy T., Özgen G. O. , Acar B.
Mechanics Based Design of Structures and Machines, vol.48, no.5, pp.615-648, 2020 (Journal Indexed in SCI)
- II. **An improved quasi-zero stiffness vibration isolation system utilizing dry friction damping**

Donmez A., CİĞEROĞLU E., ÖZGEN G. O.

NONLINEAR DYNAMICS, vol.101, no.1, pp.107-121, 2020 (Journal Indexed in SCI)

- III. **Minimization of Ground Vibration Test Configurations for F-16 Aircraft by Subtractive Modification**
Koksal S., Yildiz E. N. , Yazicioğlu Y., Özgen G. O.
Shock and Vibration, vol.2019, 2019 (Journal Indexed in SCI)
- IV. **Reliability Assessment of Solid-Propellant Rocket Motors Under Storage and Transportation Loads**
Yilmaz O., Kuran B., Özgen G. O.
JOURNAL OF SPACECRAFT AND ROCKETS, vol.54, pp.1356-1366, 2017 (Journal Indexed in SCI)
- V. **Error analysis and feasibility study of dynamic stiffness matrix-based damping matrix identification**
Ozgen G. O. , Kim J. H.
Journal of Sound and Vibration, vol.320, pp.60-83, 2009 (Journal Indexed in SCI)
- VI. **Direct identification and expansion of damping matrix for experimental-analytical hybrid modeling**
Ozgen G. O. , Kim J. H.
Journal of Sound and Vibration, vol.308, pp.348-372, 2007 (Journal Indexed in SCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **A novel method for the vibration reduction of an air vehicle missile launcher**
Aksoy T., Acar B., Özgen G. O.
AIAA Scitech Forum, 2019, California, United States Of America, 7 - 11 January 2019
- II. **Determination of Optimum Vibration Isolator Properties for Payload Vibration Isolation**
Karaman B., Özgen G. O.
15th European Conference on Spacecraft Structures, Materials and Environmental Testing (ECSSMET 2018), ESA-ESTEC, Noordwijk, The Netherlands, 28 May-1 June 2018, Groningen, Netherlands, 28 May - 01 June 2018
- III. **The Effect of Stiffness and Loading Deviations in a Nonlinear Isolator Having Quasi Zero Stiffness and Geometrically Nonlinear Damping**
DÖNMEZ A., CİĞEROĞLU E., ÖZGEN G. O.
Proceedings of the ASME 2017 International Mechanical Engineering Congress and Exposition, 3 - 09 November 2017
- IV. **Non-linear Dynamic Analysis for the Lateral Vibration of Beams with Breathing Crack under Harmonic Excitation Using Finite Element Method**
Özkan B., Cığeroğlu E., Özgen G. O. , Kadioğlu F. S.
ICAF 2017 (35th Conference and 29th Symposium of the International Committee on Aeronautical Fatigue and Structural Integrity), Nagoya, Japan, 7 - 09 June 2017
- V. **Investigation of Sound Transmission Loss of an Automotive Door Sealing System by Using FEA**
Atamer S., Kandemir M. H. , Barutçu B. N. , Çalışkan M., Özgen G. O. , Altınsoy E.
Fortschritte der Akustik - DAGA 2016. 42. Jahrestagung für Akustik DAGA 2016, 14.-17. März 2016, Aachen, Aachen, Germany, 14 - 17 March 2016
- VI. **Investigation of weight reduction of automotive body structures with the use of sandwich materials**
Hara D., ÖZGEN G. O.
6th Transport Research Arena (TRA), Warszawa, Poland, 18 - 21 April 2016, vol.14, pp.1013-1020
- VII. **A Modified Inverse Eigensensitivity Method for Large Finite Element Models**
Unlu D., CİĞEROĞLU E., ÖZGEN G. O.
34th IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 25 - 28 January 2016, pp.293-301
- VIII. **Experimental characterization of a tuned vibration absorber**
Aksoy T., ÖZGEN G. O. , Acar B., Gençoğlu C.
34th IMAC, A Conference and Exposition on Structural Dynamics, organized by the Society for Experimental Mechanics, 2016, Florida, United States Of America, 25 - 28 January 2016, vol.5, pp.171-179
- IX. **Prediction of sound transmission through elastomeric bulb seals**

Atamer S., Çalışkan M., Özgen G. O.

43rd International Congress on Noise Control Engineering: Improving the World Through Noise Control, INTERNOISE 2014, Melbourne, Australia, 16 - 19 November 2014

- X. **Design of a Test Setup for Measuring Dynamic Stiffness of Vibration Isolators**
Uz C., Özgen G. O. , Cigeroğlu E.
31st International Modal Analysis Conference on Structural Dynamics, IMAC 2013, Garden Grove, CA, United States Of America, 11 - 14 February 2013, vol.45, pp.235-247
- XI. **GROUND VIBRATION TEST PLANNING OF A FIGHTER AIRCRAFT BY USING A ROUGH FINITE ELEMENT MODEL**
Koksal S., Yildiz E. N. , YAZICIOĞLU Y., ÖZGEN G. O.
ASME International Mechanical Engineering Congress and Exposition (IMECE2013), California, United States Of America, 15 - 21 November 2013
- XII. **Dynamic stiffness-based test systems for viscoelastic material characterization: Design considerations**
Özgen G. O. , Erol F., Batihan A. C.
30th IMAC, A Conference on Structural Dynamics, 2012, Jacksonville, FL, United States Of America, 30 January - 02 February 2012, vol.5, pp.287-297
- XIII. **Identification of damping from experimental dynamic stiffness matrix: Error analysis**
Ozgen G. O. , Kim J. H.
23rd Conference and Exposition on Structural Dynamics 2005, IMAC-XXIII, Orlando, FL, United States Of America, 31 January - 03 February 2005
- XIV. **Further developments in the dynamic stiffness matrix (DSM) based direct damping identification method**
Ozgen G. O. , Kim J.
SAE 2005 Noise and Vibration Conference and Exhibition, Traverse City, MI, United States Of America, 16 - 19 May 2005
- XV. **Design and development of a complex shear modulus measurement setup for viscoelastic materials**
Ozgen G. O.
SAE 2005 Noise and Vibration Conference and Exhibition, Traverse City, MI, United States Of America, 16 - 19 May 2005
- XVI. **Applications of the dynamic stiffness matrix (DSM) based direct damping identification method**
Ozgen G. O. , Kim J.
SAE 2005 Noise and Vibration Conference and Exhibition, Traverse City, MI, United States Of America, 16 - 19 May 2005

Patent

KONUKSEVEN E. İ. , ÖZGEN G. O. , A refrigerator Comprising an Ice Cube Tray, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, Initial Registration, 2015

Scientific Refereeing

MEASUREMENT, Journal Indexed in SCI-E, October 2019

International Journal of Automotive Science and Technology, Other journals, October 2019

NOISE CONTROL ENGINEERING JOURNAL, Journal Indexed in SCI-E, August 2019

NOISE CONTROL ENGINEERING JOURNAL, Journal Indexed in SCI-E, June 2019

Noise Control Engineering Journal, Journal Indexed in SCI-E, February 2019

NOISE CONTROL ENGINEERING JOURNAL, Journal Indexed in SCI-E, November 2018

INTERNATIONAL JOURNAL OF AUTOMOTIVE ENGINEERING AND TECHNOLOGIES, National Scientific Refreed Journal,

November 2018

NOISE CONTROL ENGINEERING JOURNAL, Journal Indexed in SCI-E, June 2018

NOISE CONTROL ENGINEERING JOURNAL, Journal Indexed in SCI-E, June 2018

JOURNAL OF SOUND AND VIBRATION, SCI Journal, June 2018

NOISE CONTROL ENGINEERING JOURNAL, Journal Indexed in SCI-E, June 2018

Citations

Total Citations (WOS):49

h-index (WOS):4