

# Prof. ENDER CİĞEROĞLU

## Personal Information

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## Education Information

Doctorate, Ohio State University, Makina Mühendisliği, United States Of America 2002 - 2007

Postgraduate, Ohio State University, Makina Mühendisliği, United States Of America 2002 - 2006

Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (YI) (Tezli), Turkey 1999 - 2002

Undergraduate, Middle East Technical University, Odtu Kuzey Kıbrıs Kampusu (Kktc-Güzelyurt), Makine Mühendisliği Bölümü, Turkey 1995 - 1999

## Research Areas

Mechanical Engineering, Machine Theory and Dynamics, Machine Dynamics, Vehicle Systems Dynamics, Modeling and Simulation of Dynamic Systems, Mechanical Vibrations, Mechanical, Solid Mechanics, Engineering and Technology

## Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2019 - Continues

Associate Professor, Middle East Technical University, Faculty Of Engineering, Makine Mühendisliği Bölümü, 2014 - 2019

Assistant Professor, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, 2009 - 2014

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

## Academic and Administrative Experience

Rektörlüğe Bağlı Birim Başkan Yardımcısı, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2009 - Continues

## Advising Theses

Ciğeroğlu E., Nonlinear vibration analysis of rotors supported by ball bearings, Postgraduate, D.BAHAN(Student), 2019

Ciğeroğlu E., Özgüven H. N. , Development of a hybrid global optimization algorithm and its application to helicopter rotor structural optimization, Postgraduate, M.EMRE(Student), 2019

Ciğeroğlu E., Nonlinear reduced order modeling of bolted joints, Postgraduate, G.KARAPISTIK(Student), 2019

CİĞEROĞLU E., A new jacobian matrix calculation method to decrease computational time in periodic force response analysis of nonlinear structures, Postgraduate, H.Sef(Student), 2019

Ciğeroğlu E., Yazıcıoğlu Y., Nonlinear modeling and vibration analysis of horizontal drum type washing machines, Postgraduate, C.BAYKAL(Student), 2019

Ciğeroğlu E., Investigation of mechanical vibrations of double-double cardan shaft and effects on suspension system in

armored vehicles, Postgraduate, Ö.İŞİK(Student), 2019

Ciğeroğlu E., A NEW JACOBIAN MATRIX CALCULATION METHOD TO DECREASE COMPUTATIONAL TIME IN PERIODIC FORCED RESPONSE ANALYSIS OF NONLINEAR STRUCTURES, Postgraduate, H.SEFA(Student), 2019

Ciğeroğlu E., Vibration reduction of structures by using nonlinear tuned vibration absorbers, Postgraduate, M.EMİN(Student), 2019

CİĞEROĞLU E., Nonlinear dynamic analysis of a drivetrain composed of cylindrical gears, straight and spiral bevel gears, Doctorate, Ş.DENİZ(Student), 2018

ÖZGÜVEN H. N. , CİĞEROĞLU E., A new modal superposition method for nonlinear vibration analysis of structures using hybrid mode shapes, Postgraduate, E.FERHATOĞLU(Student), 2018

CİĞEROĞLU E., Nonlinear dynamics of spiral bevel gear pair, Postgraduate, B.Önal(Student), 2018

CİĞEROĞLU E., Structural coupling of two nonlinear structures, Postgraduate, Ç.TEPE(Student), 2018

ÖZGÜVEN H. N. , CİĞEROĞLU E., A parametric study on planetary gear dynamics, Doctorate, V.YALIN(Student), 2018

CİĞEROĞLU E., Development of a new adaptive harmonic balance method and its comparison, Postgraduate, O.SERT(Student), 2018

Ciğeroğlu E., Özgen G. O. , Nonlinear vibration isolation of inertial measurement unit, Postgraduate, A.DÖNMEZ(Student), 2018

CİĞEROĞLU E., Nonlinear dynamics of a spiral bevel gear pair, Postgraduate, B.ÖNAL(Student), 2018

CİĞEROĞLU E., Reduced order modeling of mistuned bladed disk systems by using Craig-Bampton method, Postgraduate, C.YILDIRIM(Student), 2017

ÖZGEN G. O. , CİĞEROĞLU E., Finite element model updating of aerospace structures, Postgraduate, D.ÜNLÜ(Student), 2017

CİĞEROĞLU E., Vibration reduction of helicopter tail shaft by using dry friction dampers, Postgraduate, O.ÖZAYDIN(Student), 2017

DAĞ S., CİĞEROĞLU E., New modeling and analysis methods for micro-plates, Doctorate, R.AGHAZADEH(Student), 2017

CİĞEROĞLU E., STRUCTURAL COUPLING OF NONLINEAR STRUCTURES, Postgraduate, Ç.TEPE(Student), 2015

CİĞEROĞLU E., DEVELOPMENT OF A NEW ADAPTIVE HARMONIC BALANCE METHOD, Postgraduate, O.SERT(Student), 2015

CİĞEROĞLU E., ÇALIŞKAN M., Modeling and experimental verification of dynamic characteristics antenna structure under mechanical shock using MDOF model, Postgraduate, Y.Emre(Student), 2015

CİĞEROĞLU E., Modeling and experimental verification of dynamic characteristics of the antenna structure under mechanical shock using mdof models, Postgraduate, Y.EMRE(Student), 2015

CİĞEROĞLU E., Chatter reduction in boring process by using piezoelectric shunt circuits, Postgraduate, U.YİĞİT(Student), 2014

CİĞEROĞLU E., Nonlinear vibrations of curved single and doublewalled carbon nanotubes /, Doctorate, S.HAMED(Student), 2014

Yazıcıoğlu Y., Ciğeroğlu E., Modeling of Aircraft Aeroelastic Effects on External Store Separation, Doctorate, M.TUĞRUL(Student), 2014

Yazıcıoğlu Y., Ciğeroğlu E., Dynamic modeling and control of a hybrid fin actuation system for an air-to-air missile, Postgraduate, T.ÇELİK(Student), 2014

DAĞ S., CİĞEROĞLU E., Static and free vibration analyses of small-scale functionally graded beams possessing a variable length scale parameter using different beam theories, Postgraduate, R.AGHAZADEH(Student), 2013

CİĞEROĞLU E., DEVELOPMENT OF A PASSIVE VIBRATION ISOLATION ANALYSIS AND OPTIMIZATION SOFTWARE FOR MECHANICAL SYSTEMS, Postgraduate, O.YAVUZ(Student), 2013

CİĞEROĞLU E., Analytical modeling and stability analysis of spindle-holder-tool assembly by using spinning and non-spinning Timoshenko beam theories, Postgraduate, H.YILMAZ(Student), 2013

CİĞEROĞLU E., Application of structural modification method to nonlinear vibration analysis of bladed disks, Postgraduate, B.ŞAYİN(Student), 2013

ÖZGEN G. O. , CİĞEROĞLU E., DESIGN OF A TEST SETUP FOR THE CHARACTERIZATION OF VIBRATION ISOLATORS, Postgraduate, C.UZ(Student), 2013

CİĞEROĞLU E., Design, control and optimization of vehicle suspensions with inerters, Postgraduate, O.GERGER(Student), 2013

CİĞEROĞLU E., Analytical modeling and stability analysis of spindle-holder-tool assembly by using spinning and non-spinning Timoshenko Beam Theories, Postgraduate, H.Yılmaz(Student), 2013

ÖZGEN G. O. , CİĞEROĞLU E., Finite element modelling and analysis of recoil springs in automatic weapons, Postgraduate, H.ZALOĞLU(Student), 2013

CİĞEROĞLU E., Frequency domain optimization of dry friction dampers used for earthquake vibration damping of buildings, Postgraduate, Z.EREN(Student), 2012

CİĞEROĞLU E., Vibration isolation of inertial measurement unit, Postgraduate, D.ÇINAREL(Student), 2012

CİĞEROĞLU E., Vibration fatigue analysis of structures installed on air platforms, Postgraduate, Y.ELDOĞAN(Student), 2012

ÖZGÜVEN H. N. , CİĞEROĞLU E., Possibilistic interpretation of mistuning in bladed disks by fuzzy algebra, Postgraduate, H.ÇAĞLAR(Student), 2012

CİĞEROĞLU E., Sliding mode control algorithm development for anti-lock brake system, Postgraduate, A.OKYAY(Student), 2011

ÖZGEN G. O. , CİĞEROĞLU E., Optimization of vibration characteristics of a radar antenna structure, Postgraduate, İ.BARAN(Student), 2011

ÖZGÜVEN H. N. , CİĞEROĞLU E., On the non-linear vibration and mistuning identification of bladed disks, Postgraduate, M.ERSİN(Student), 2010

CİĞEROĞLU E., Desing of an engine mount with dry friction damping, Postgraduate, C.Boral(Student), 2010

CİĞEROĞLU E., RIDE COMFORT IMPROVEMENT BY APPLICATION OF TUNED MASS DAMPERS AND LEVER TYPE VIBRATION ISOLATORS, Postgraduate, G.AYDAN(Student), 2010

CİĞEROĞLU E., Design of an engine mount with dry friction damping, Postgraduate, C.BORAL(Student), 2010

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

- I. **Ideal tooth profile modifications for improving nonlinear dynamic response of planetary gear trains**  
Ozturk V. Y. , CİĞEROĞLU E., ÖZGÜVEN H. N.  
JOURNAL OF SOUND AND VIBRATION, vol.500, 2021 (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. **Nonlinear dynamic analysis of a drivetrain composed of spur, helical and spiral bevel gears**  
Yavuz S. D. , Saribay Z. B. , CİĞEROĞLU E.  
NONLINEAR DYNAMICS, vol.100, no.4, pp.3145-3170, 2020 (Journal Indexed in SCI)
- IV. **Enhancement of the reliability of MEMS shock sensors by adopting a dual-mass model**  
Fathalilou M., Soltani K., Rezazadeh G., CİĞEROĞLU E.  
MEASUREMENT, vol.153, 2020 (Journal Indexed in SCI)
- V. **A novel modal superposition method with response dependent nonlinear modes for periodic vibration analysis of large MDOF nonlinear systems**  
Ferhatoglu E., CİĞEROĞLU E., ÖZGÜVEN H. N.  
Mechanical Systems and Signal Processing, vol.135, 2020 (Journal Indexed in SCI)
- VI. **A novel two-step pseudo-response based adaptive harmonic balance method for dynamic analysis of nonlinear structures**  
Sert O., Cığeroğlu E.  
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, vol.130, pp.610-631, 2019 (Journal Indexed in SCI)
- VII. **Modeling of aircraft effects on external store ejection**  
Kozak M. T. , Yıldız E. N. , Yazıcıoğlu Y., Cığeroğlu E.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART G-JOURNAL OF AEROSPACE ENGINEERING, vol.233, no.10, pp.3612-3626, 2019 (Journal Indexed in SCI)
- VIII. **Setup for testing the vibration-based loosening of pre-loaded bolted joints**  
Cavdar F. Y. , Bilal H., Güllü R., Güler B., Cigeroglu E., Cavdar K., Solmaz E.

Materialpruefung/Materials Testing, vol.61, no.10, pp.981-985, 2019 (Journal Indexed in SCI)

- IX. **Thermal effect on bending, buckling and free vibration of functionally graded rectangular micro-plates possessing a variable length scale parameter**  
Aghazadeh R., Dağ S., Ciğeroğlu E.  
MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS, vol.24, pp.3549-3572, 2018 (Journal Indexed in SCI)
- X. **A new modal superposition method for nonlinear vibration analysis of structures using hybrid mode shapes**  
Ferhatoglu E., Ciğeroğlu E., Özgüven H. N.  
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, vol.107, pp.317-342, 2018 (Journal Indexed in SCI)
- XI. **Nonlinear time-varying dynamic analysis of a spiral bevel geared system**  
Yavuz S. D. , Sarıbay Z. B. , Ciğeroğlu E.  
NONLINEAR DYNAMICS, vol.92, pp.1901-1919, 2018 (Journal Indexed in SCI)
- XII. **Modelling of graded rectangular micro-plates with variable length scale parameters**  
Aghazadeh R., Dağ S., Ciğeroğlu E.  
STRUCTURAL ENGINEERING AND MECHANICS, vol.65, pp.573-585, 2018 (Journal Indexed in SCI)
- XIII. **Localization and identification of structural nonlinearities using cascaded optimization and neural networks**  
Koyuncu A., Ciğeroğlu E., Özgüven H. N.  
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, vol.95, pp.219-238, 2017 (Journal Indexed in SCI)
- XIV. **Vibration-based tool wear estimation by using non-stationary Functional Series TARMA (FS-TARMA) models**  
Aghdam B. H. , Ciğeroğlu E.  
INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY, vol.93, pp.1431-1442, 2017 (Journal Indexed in SCI)
- XV. **Chatter reduction in boring process by using piezoelectric shunt damping with experimental verification**  
Yigit U., Ciğeroğlu E., Budak E.  
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, vol.94, pp.312-321, 2017 (Journal Indexed in SCI)
- XVI. **Free vibration analysis of functionally graded rectangular nanoplates considering spatial variation of the nonlocal parameter**  
Ghassabi A. A. , Dağ S., Ciğeroğlu E.  
ARCHIVES OF MECHANICS, vol.69, pp.105-130, 2017 (Journal Indexed in SCI)
- XVII. **Dynamics and stability of conical/cylindrical shells conveying subsonic compressible fluid flows with general boundary conditions**  
Rahmanian M., Firouz-Abadi R. D. , Ciğeroğlu E.  
INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, vol.120, pp.42-61, 2017 (Journal Indexed in SCI)
- XVIII. **Free vibrations of moderately thick truncated conical shells filled with quiescent fluid**  
Rahmanian M., Firouz-Abadi R. D. , Ciğeroğlu E.  
JOURNAL OF FLUIDS AND STRUCTURES, vol.63, pp.280-301, 2016 (Journal Indexed in SCI)
- XIX. **Nonlinear free vibrations of curved double walled carbon nanotubes using differential quadrature method**  
Ciğeroğlu E., Samandari H.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.64, pp.95-105, 2014 (Journal Indexed in SCI)
- XX. **Static and free vibration analyses of small-scale functionally graded beams possessing a variable length scale parameter using different beam theories**  
Aghazadeh R., Ciğeroğlu E., Dağ S.  
EUROPEAN JOURNAL OF MECHANICS A-SOLIDS, vol.46, pp.1-11, 2014 (Journal Indexed in SCI)
- XXI. **A new sliding-mode controller design methodology with derivative switching function for anti-lock brake system**  
Okyay A., Ciğeroğlu E., Başlamışlı S. Ç.

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.227, pp.2487-2503, 2013 (Journal Indexed in SCI)

- XXII. **Mistuning Identification of Integrally Bladed Disks With Cascaded Optimization and Neural Networks**  
Yumer M. E. , Ciğeroğlu E., Özgüven H. N.  
JOURNAL OF TURBOMACHINERY-TRANSACTIONS OF THE ASME, vol.135, 2013 (Journal Indexed in SCI)
- XXIII. **Nonlinear free vibration of double walled carbon nanotubes by using describing function method with multiple trial functions**  
Ciğeroğlu E., Samandari H.  
PHYSICA E-LOW-DIMENSIONAL SYSTEMS & NANOSTRUCTURES, vol.46, pp.160-173, 2012 (Journal Indexed in SCI)
- XXIV. **Forced Response Prediction of Constrained and Unconstrained Structures Coupled Through Frictional Contacts**  
Ciğeroğlu E., An N., Menq C.  
JOURNAL OF ENGINEERING FOR GAS TURBINES AND POWER-TRANSACTIONS OF THE ASME, vol.131, 2009 (Journal Indexed in SCI)
- XXV. **A microslip friction model with normal load variation induced by normal motion**  
Cigeroglu E., An N., Menq C.  
NONLINEAR DYNAMICS, vol.50, pp.609-626, 2007 (Journal Indexed in SCI)
- XXVI. **Nonlinear vibration analysis of bladed disks with dry friction dampers**  
Cigeroglu E., Ozguven H. N.  
JOURNAL OF SOUND AND VIBRATION, vol.295, pp.1028-1043, 2006 (Journal Indexed in SCI)
- XXVII. **One-dimensional dynamic microslip friction model**  
Cigeroglu E., Lu W., Menq C.  
JOURNAL OF SOUND AND VIBRATION, vol.292, pp.881-898, 2006 (Journal Indexed in SCI)

## Books & Book Chapters

- I. **SAVTEK 9, Savunma Teknolojileri Kongresi Bildiriler**  
Ciğeroğlu E. (Editor), Yıldırım R. O. (Editor), Özgen G. O. (Editor), Gökler M. İ. (Editor), Leblebicioğlu M. K. (Editor)  
Elma Yayınevi, Ankara, 2018

## Refereed Congress / Symposium Publications in Proceedings

- I. **On the solution of nonlinear algebraic equations following periodic forced response analysis of nonlinear structures using different nonlinear solvers**  
Kizilay H. S. , CİĞEROĞLU E.  
38th IMAC, A Conference and Exposition on Structural Dynamics, 2020, Texas, United States Of America, 10 - 13 February 2020, pp.121-127
- II. **Vibration reduction of a structure by using nonlinear tuned vibration absorbers**  
Dogan M. E. , CİĞEROĞLU E.  
38th IMAC, A Conference and Exposition on Structural Dynamics, 2020, Texas, United States Of America, 10 - 13 February 2020, pp.231-235
- III. **Nonlinear Dynamic Analysis of an Asymmetric Ball Bearing Rotor System**  
BAHAN D., CİĞEROĞLU E.  
ASME International Mechanical Engineering Congress Exposition IMECE 2019, Salt Lake City, United States Of America, 11 - 14 November 2019
- IV. **Evaluation of Surrogate-Based Modeling Methods for the Optimization of Helicopter Rotor Structures for Minimum Vibration**  
BİLEN M. E. , CİĞEROĞLU E., ÖZGÜVEN H. N.  
8th Asian/Australian Rotorcraft Forum, Ankara, Turkey, 31 October - 02 November 2019

- V. **Nonlinear Forced Response Analysis of Bladed Disks With Wedge Dampers**  
KIZILAY H. S. , CİĞEROĞLU E.  
8th Asian/Australian Rotorcraft Forum, Ankara, Turkey, 30 October - 02 November 2019
- VI. **Design of an Experimental Setup for Periodic Forced Response Analysis of Shrouded Blades with Frictional Contacts**  
ÖNEY E., CİĞEROĞLU E.  
8th Asian/Australian Rotorcraft Forum, Ankara, Turkey, 31 October - 02 November 2019
- VII. **Periodic Vibration Analysis of Nonlinear Structures by Using Response Dependent Nonlinear Modes**  
Ferhatoğlu E., CİĞEROĞLU E., ÖZGÜVEN H. N.  
TriboMechaDynamics 2019, Houston, United States Of America, 31 July - 02 August 2019
- VIII. **Identifying the joint dynamics of a bolted beam system by using FRF decoupling and the SEMM expansion technique**  
Klaassen S. W. B. , Cığeroğlu E., Özgüven H. N.  
TriboMechaDynamics 2019, Texas, United States Of America, 31 July - 02 August 2019, pp.1-4
- IX. **Frequency domain non-linear modelling and analysis of liquid filled column dampers**  
KIZILAY H. S. , CİĞEROĞLU E.  
First International Nonlinear Dynamics Conference NODYCON 2019, ROMA, Italy, 17 - 20 February 2019
- X. **Vibration analysis of washing machines in the drum plane**  
BAYKAL C., CİĞEROĞLU E., YAZICIOĞLU Y.  
First International Nonlinear Dynamics Conference NODYCON 2019, ROMA, Italy, 17 - 20 February 2019
- XI. **Vibration reduction by using two tuned mass dampers with dry friction damping**  
DOĞAN M. E. , CİĞEROĞLU E.  
First International Nonlinear Dynamics Conference NODYCON 2019, ROMA, 17 - 20 February 2019
- XII. **A Novel Computational Method to Calculate Nonlinear Normal Modes of Complex Structures**  
SAMANDARI H., CİĞEROĞLU E.  
IMAC XXXVII: Conference Exposition on Structural Dynamics, Orlando, United States Of America, 28 - 31 January 2019
- XIII. **Comparison of Linear and Nonlinear Modal Reduction Approaches**  
Ferhatoğlu E., Dreher T., Cığeroğlu E., Krack M., Özgüven H. N.  
IMAC XXXVII: Conference Exposition on Structural Dynamics, Florida, United States Of America, 28 - 31 January 2019
- XIV. **Nonlinear 3D Modeling and Vibration Analysis of Horizontal Drum Type Washing Machines**  
BAYKAL C., CİĞEROĞLU E., YAZICIOĞLU Y.  
IMAC XXXVII: Conference Exposition on Structural Dynamics, Orlando, United States Of America, 28 - 31 January 2019
- XV. **Reduced Order Modeling of Bolted Joints in Frequency Domain**  
KARAPISTIK G., CİĞEROĞLU E.  
IMAC XXXVII: Conference Exposition on Structural Dynamics, Orlando, United States Of America, 28 - 31 January 2019
- XVI. **Dynamic characterization of double-relief profile modifications in planetary gear systems**  
Öztürk V. Y. , Cığeroğlu E., Özgüven H. N.  
INTERNATIONAL GEAR CONFERENCE 2018, Lyon, France, 27 - 29 August 2018, pp.1-14
- XVII. **THE EFFECT OF STIFFNESS AND LOADING DEVIATIONS IN A NONLINEAR ISOLATOR HAVING QUASI ZERO STIFFNESS AND GEOMETRICALLY NONLINEAR DAMPING**  
Donmez A., CİĞEROĞLU E., ÖZGEN G. O.  
1st International Symposium on Ethnic Languages and Culture Under - Belt and Road Initiatives, Beijing, China, 18 - 21 July 2016
- XVIII. **Approximate analytical solution of nonlinear natural frequencies of a functionally graded material microbeam by using multiple harmonic balance method**  
Uz C., CİĞEROĞLU E.  
47th International Congress and Exposition on Noise Control Engineering: Impact of Noise Control Engineering,

INTER-NOISE 2018, Illinois, United States Of America, 26 - 29 August 2018

- XX. **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
- XX. **Reduction of Helicopter Rotor Vibratory Loads Through Robust and Hybrid Optimization**  
BİLEN M. E. , CİĞEROĞLU E., ÖZGÜVEN H. N.  
6th Asian / Australian Rotorcraft Forum (ARF), 7 - 09 November 2017
- XXI. **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
- XXII. **Nonlinear Transverse Vibrations of a Beam with Multiple Breathing Edge Cracks**  
Batihan A. C. , CİĞEROĞLU E.  
35th IMAC Conference and Exposition on Structural Dynamics, California, United States Of America, 30 January - 02 February 2017, pp.259-266
- XXIII. **Effect of Dry Friction Damping on the Dynamic Response of Helicopter Tail Shaft**  
Ozaydin O., CİĞEROĞLU E.  
35th IMAC Conference and Exposition on Structural Dynamics, California, United States Of America, 30 January - 02 February 2017, pp.23-30
- XXIV. **Nonlinear Dynamic Analysis of a Spiral Bevel Geared System**  
Yavuz S. D. , Saribay Z. B. , CİĞEROĞLU E.  
35th IMAC Conference and Exposition on Structural Dynamics, California, United States Of America, 30 January - 02 February 2017, pp.31-40
- XXV. **Nonlinear Vibrations of a Functionally Graded Material Microbeam with Geometric Nonlinearity**  
Uz C., CİĞEROĞLU E.  
35th IMAC Conference and Exposition on Structural Dynamics, California, United States Of America, 30 January - 02 February 2017, pp.167-176
- XXVI. **Adaptive Harmonic Balance Methods, A Comparison**  
Sert O., CİĞEROĞLU E.  
34th IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 25 - 28 January 2016, pp.279-289
- XXVII. **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
- XXVIII. **Functional Series TARMA Models for Non-stationary Tool Vibration Signals Representation and Wear Estimation**  
Aghdam B. H. , CİĞEROĞLU E.  
34th IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 25 - 28 January 2016, pp.141-151
- XXIX. **Shock Response of an Antenna Structure Considering Geometric Nonlinearity**  
Ozcelik Y. E. , CİĞEROĞLU E., ÇALIŞKAN M.  
34th IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 25 - 28 January 2016, pp.47-59
- XXX. **A Modal Superposition Method for the Analysis of Nonlinear Systems**  
Ferhatoglu E., CİĞEROĞLU E., ÖZGÜVEN H. N.  
34th IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 25 - 28 January 2016, pp.269-278

- XXXI. **Nonlinear Time-Varying Dynamic Analysis of a Multi-Mesh Spur Gear Train**  
Yavuz S. D. , Saribay Z. B. , CİĞEROĞLU E.  
34th IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 25 - 28 January 2016, pp.309-321
- XXXII. **Nonlinear Vibrations of a Beam with a Breathing Edge Crack Using Multiple Trial Functions**  
Batihan A. C. , CİĞEROĞLU E.  
34th IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 25 - 28 January 2016, pp.1-9
- XXXIII. **Functional Series TARMA Models for Non stationary Tool Vibration Signals Representation and Wear Estimation**  
Aghdam B. H. , CİĞEROĞLU E.  
IMAC XXXIV: Conference & Exposition on Structural Dynamics, 25 - 28 January 2016
- XXXIV. **Optimization of Tooth Bending Fatigue Characteristics of Spur Gear Pairs Using a Gear Dynamics-Based Approach**  
Ozturk Y., CİĞEROĞLU E., ÖZGÜVEN H. N.  
ASME International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, Massachusetts, United States Of America, 2 - 05 August 2015
- XXXV. **Optimization of Tooth Bending Fatigue Characteristics of Spur Gear Pairs using a Gear Dynamics based Approach**  
ÖZTÜRK Y., CİĞEROĞLU E., ÖZGÜVEN H. N.  
ASME 2015 International Design Engineering Technical Conferences, Boston, United States Of America, 2 - 05 August 2015
- XXXVI. **Dişlilerde Dinamik İletim Hatasını Azaltmaya Yönelik İdeal Profil Değişiklikleri**  
Öztürk Y., CİĞEROĞLU E., ÖZGÜVEN H. N.  
Uluslararası katılımlı 17. Makina Teorisi Sempozyumu / TrC-IFTtoMM Symposium on Theory of Machines and Mechanisms, 14 - 17 June 2015
- XXXVII. **Nonlinear Vibrations of a Flexible L-shaped Beam Using Differential Quadrature Method**  
Samandari H., CİĞEROĞLU E.  
33rd IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 2 - 05 February 2015, pp.145-154
- XXXVIII. **Output Only Functional Series Time Dependent AutoRegressive Moving Average (FS-TARMA) Modelling of Tool Acceleration Signals for Wear Estimation**  
Aghdam B. H. , CİĞEROĞLU E., Sadeghi M. H.  
33rd IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 2 - 05 February 2015, pp.111-122
- XXXIX. **Nonlinear Vibrations of a Beam with a Breathing Edge Crack**  
Batihan A. C. , CİĞEROĞLU E.  
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Ciğeroğlu E., Kobi, Ahşap Lamine Kompozit Gezi Teknelerinde Dizel Motor Titreşiminin Tekne Gövdesine Etkisinin

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Ciğeroğlu E., Project Supported by Defense Industry, Zırhlı Askeri Araçlarda Kullanılan İkiz Kardan Millerinin Süspansiyon Sistemine Etkisi, 2015 - 2019

Ciğeroğlu E., Project Supported by Other Private Institutions, Traktör Kabin Titreşiminin Azaltılmasına Yönelik Yerli Ve Özgün Bir Titreşim İzolatörünün Geliştirilmesi, 2017 - 2018

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## **Memberships / Tasks in Scientific Organizations**

USATEG, Executive Board Member, 2018 - Continues

## **Scientific Refereeing**

JOURNAL OF SOUND AND VIBRATION, SCI Journal, September 2019

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, SCI Journal, March 2019

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## **Tasks In Event Organizations**

Ciğeroğlu E., SAVTEK 9. Savunma Teknolojileri Kongresi, Scientific Congress, Ankara, Turkey, Haziran 2018

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## **Awards**

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