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Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: G-5014-2012

ScopusID: 12760002600

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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, Department of Mechanical Engineering, 2014 - 2019

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2009 - 2014

Lecturer PhD, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 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

- CİĞEROĞLU E., Nonlinear vibration analysis of functionally graded beams, Postgraduate, D.DEDEKÖY(Student), 2022
- CİĞEROĞLU E., Estimation of wear in dry friction dampers and its effect on vibration reduction, Postgraduate, A.ÇARDAK(Student), 2022
- CİĞEROĞLU E., Reduced-order modeling of bladed disk systems with shrouds by component mode synthesis, Postgraduate, E.NAGHIZADEH(Student), 2022
- CİĞEROĞLU E., Nonlinear vibrations and reduced order modeling of bolted joints, Postgraduate, H.BEYAN(Student), 2022
- CİĞEROĞLU E., VIBRATION REDUCTION BY THE USE OF BEAM-TYPE METASTRUCTURES WITH NONLINEAR ATTACHMENTS, Postgraduate, B.MERT(Student), 2022
- Ciğeroğlu E., Nonlinear vibration analysis of rotors supported by ball bearings, Postgraduate, D.BAHAN(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., Nonlinear reduced order modeling of bolted joints, Postgraduate, G.KARAPISTIK(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
- 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., 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., ÖZGÜVEN H. N., A new modal superposition method for nonlinear vibration analysis of structures using hybrid mode shapes, Postgraduate, E.FERHATOĞLU(Student), 2018
- CİĞEROĞLU E., Nonlinear dynamic analysis of a drivetrain composed of cylindrical gears, straight and spiral bevel gears, Doctorate, Ş.DENİZ(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
- CİĞEROĞLU E., ÖZGÜVEN H. N., 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., Vibration reduction of helicopter tail shaft by using dry friction dampers, Postgraduate, O.ÖZAYDIN(Student), 2017
- CİĞEROĞLU E., Reduced order modeling of mistuned bladed disk systems by using Craig-Bampton method, Postgraduate, C.YILDIRIM(Student), 2017
- CİĞEROĞLU E., DAĞ S., New modeling and analysis methods for micro-plates, Doctorate, R.AGHAZADEH(Student), 2017
- CİĞEROĞLU E., ÖZGEN G. O., Finite element model updating of aerospace structures, Postgraduate, D.ÜNLÜ(Student), 2017
- 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., DEVELOPMENT OF A NEW ADAPTIVE HARMONIC BALANCE METHOD, Postgraduate, O.SERT(Student), 2015
- CİĞEROĞLU E., STRUCTURAL COUPLING OF NONLINEAR STRUCTURES, Postgraduate, Ç.TEPE(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

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

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

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

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

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

CİĞEROĞLU E., DAĞ S., 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., ÖZGEN G. O., DESIGN OF A TEST SETUP FOR THE CHARACTERIZATION OF VIBRATION ISOLATORS, Postgraduate, C.UZ(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., ÖZGEN G. O., Finite element modelling and analysis of recoil springs in automatic weapons, Postgraduate, H.ZALOĞLU(Student), 2013

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

CİĞEROĞLU E., DEVELOPMENT OF A PASSIVE VIBRATION ISOLATION ANALYSIS AND OPTIMIZATION SOFTWARE FOR MECHANICAL SYSTEMS, Postgraduate, O.YAVUZ(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 fatigue analysis of structures installed on air platforms, Postgraduate, Y.ELDOĞAN(Student), 2012

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

CİĞEROĞLU E., ÖZGÜVEN H. N., 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

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

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

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

CİĞEROĞLU E., Design 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

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A weak-form spectral Chebyshev technique for nonlinear vibrations of rotating functionally graded beams**
 Lotfan S., Dedekoy D., Bediz B., CİĞEROĞLU E.
 MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, vol.31, no.16, pp.3651-3665, 2024 (SCI-Expanded)
- II. **A receptance based method for the calculation of nonlinear normal modes of large ordered structures with distributed localized nonlinearities**

Samandari H., CiĀEROĀLU E.

INTERNATIONAL JOURNAL OF NON-LINEAR MECHANICS, vol.147, 2022 (SCI-Expanded)

- III. **Nonlinear resonances of axially functionally graded beams rotating with varying speed including Coriolis effects**
Lotfan S., Anamagh M. R., Bediz B., CiĀeroĀlu E.
NONLINEAR DYNAMICS, vol.107, no.1, pp.533-558, 2022 (SCI-Expanded)
- IV. **Ideal tooth profile modifications for improving nonlinear dynamic response of planetary gear trains**
Ozturk V. Y., CiĀEROĀLU E., ŌZGŪVEN H. N.
JOURNAL OF SOUND AND VIBRATION, vol.500, 2021 (SCI-Expanded)
- V. **An improved quasi-zero stiffness vibration isolation system utilizing dry friction damping**
Donmez A., CiĀEROĀLU E., ŌZGEN G. O.
NONLINEAR DYNAMICS, vol.101, no.1, pp.107-121, 2020 (SCI-Expanded)
- VI. **Nonlinear dynamic analysis of a drivetrain composed of spur, helical and spiral bevel gears**
Yavuz S. D., Saribay Z. B., CiĀEROĀLU E.
NONLINEAR DYNAMICS, vol.100, no.4, pp.3145-3170, 2020 (SCI-Expanded)
- VII. **Enhancement of the reliability of MEMS shock sensors by adopting a dual-mass model**
Fathalilou M., Soltani K., Rezazadeh G., CiĀEROĀLU E.
MEASUREMENT, vol.153, 2020 (SCI-Expanded)
- VIII. **A novel modal superposition method with response dependent nonlinear modes for periodic vibration analysis of large MDOF nonlinear systems**
Ferhatoglu E., CiĀEROĀLU E., ŌZGŪVEN H. N.
Mechanical Systems and Signal Processing, vol.135, 2020 (SCI-Expanded)
- IX. **A novel two-step pseudo-response based adaptive harmonic balance method for dynamic analysis of nonlinear structures**
Sert O., CiĀeroĀlu E.
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, vol.130, pp.610-631, 2019 (SCI-Expanded)
- X. **Modeling of aircraft effects on external store ejection**
Kozak M. T., Yildız E. N., YazıcıoĀlu Y., CiĀeroĀlu E.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART G-JOURNAL OF AEROSPACE ENGINEERING, vol.233, no.10, pp.3612-3626, 2019 (SCI-Expanded)
- XI. **Setup for testing the vibration-based loosening of pre-loaded bolted joints**
Cavdar F. Y., Bilal H., GŪllŪ R., GŪler B., Cigeroglu E., Cavdar K., Solmaz E.
Materialpruefung/Materials Testing, vol.61, no.10, pp.981-985, 2019 (SCI-Expanded)
- XII. **Thermal effect on bending, buckling and free vibration of functionally graded rectangular micro-plates possessing a variable length scale parameter**
Aghazadeh R., DaĀ S., CiĀeroĀlu E.
MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS, vol.24, pp.3549-3572, 2018 (SCI-Expanded)
- XIII. **A new modal superposition method for nonlinear vibration analysis of structures using hybrid mode shapes**
Ferhatoglu E., CiĀeroĀlu E., Ōzguven H. N.
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, vol.107, pp.317-342, 2018 (SCI-Expanded)
- XIV. **Nonlinear time-varying dynamic analysis of a spiral bevel geared system**
Yavuz S. D., Saribay Z. B., CiĀeroĀlu E.
NONLINEAR DYNAMICS, vol.92, pp.1901-1919, 2018 (SCI-Expanded)
- XV. **Modelling of graded rectangular micro-plates with variable length scale parameters**
Aghazadeh R., DaĀ S., CiĀeroĀlu E.
STRUCTURAL ENGINEERING AND MECHANICS, vol.65, pp.573-585, 2018 (SCI-Expanded)
- XVI. **Vibration-based tool wear estimation by using non-stationary Functional Series TARMA (FS-TARMA) models**
Aghdam B. H., CiĀeroĀlu E.

- INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY, vol.93, pp.1431-1442, 2017 (SCI-Expanded)
- XVII. **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 (SCI-Expanded)
- XVIII. **Chatter reduction in boring process by using piezoelectric shunt damping with experimental verification**
Yığıt U., Ciğeroğlu E., Budak E.
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, vol.94, pp.312-321, 2017 (SCI-Expanded)
- XIX. **Free vibration analysis of functionally graded rectangular nanoplates considering spatial variation of the nonlocal parameter**
Ghassabı A. A., Dağ S., Ciğeroğlu E.
ARCHIVES OF MECHANICS, vol.69, pp.105-130, 2017 (SCI-Expanded)
- XX. **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 (SCI-Expanded)
- XXI. **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 (SCI-Expanded)
- XXII. **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 (SCI-Expanded)
- XXIII. **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 (SCI-Expanded)
- XXIV. **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 (SCI-Expanded)
- XXV. **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 (SCI-Expanded)
- XXVI. **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 (SCI-Expanded)
- XXVII. **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 (SCI-Expanded)
- XXVIII. **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 (SCI-Expanded)
- XXIX. **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 (SCI-Expanded)

XXX. **One-dimensional dynamic microslip friction model**

Cigeroğlu E., Lu W., Menq C.

JOURNAL OF SOUND AND VIBRATION, vol.292, pp.881-898, 2006 (SCI-Expanded)

Books & Book Chapters

I. **SAVTEK 2022 10. Savunma Teknolojileri Kongresi Bildiriler**

Leblebicioğlu M. K. (Editor), Gökler M. İ. (Editor), Yıldırım R. O. (Editor), Ciğeroğlu E. (Editor), Özgen G. O. (Editor), Uluhurt A. G. (Editor)

Orta Doğu Teknik Üniversitesi, Ankara, 2022

II. **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. **Effect of Structural Parameters on the Nonlinear Vibration of L-Shaped Beams**

Ekici Y., CİĞEROĞLU E., YAZICIOĞLU Y.

41st IMAC, A Conference and Exposition on Structural Dynamics, 2023, Austin, United States Of America, 13 - 16 February 2023, pp.23-32

II. **EFFECT OF NUMBER OF CONTACT POINTS ON THE FRETTING WEAR ESTIMATION OF A FRICTIONALLY DAMPED BLADE PLATFORM**

Cardak A., CİĞEROĞLU E.

ASME International Mechanical Engineering Congress and Exposition (IMECE) 2022, Orlando, Florida, United States Of America, 30 October 2022

III. **DOĞRUSALLAŞTIRILMIŞ EULER DENKLEMLERİYLE 2B KANAT PROFİLLERİ İÇİN ÇİRPINTI HIZININ BELİRLENMESİ**

Kösterit G., Ardiç A. T., Karshenass A., Ciğeroğlu E., Baran Ö. U.

SAVTEK 2022, 10. SAVUNMA TEKNOLOJİLERİ KONGRESİ, Ankara, Turkey, 13 - 15 September 2022, pp.741-751

IV. **An Assessment on the Efficiency of Different Reduction Techniques Based on Substructuring for Bladed Disk Systems with Shrouds**

Naghizadeh E., Ciğeroğlu E.

IMAC XL, A Conference and Exposition on Structural Dynamics, Florida, United States Of America, 7 - 10 February 2022, pp.1-8

V. **Nonlinear Vibration Analysis of Uniform and Functionally Graded Beams with Spectral Chebyshev Technique and Harmonic Balance Method**

Dedeköy D., Ciğeroğlu E., Bediz B.

IMAC XL, A Conference and Exposition on Structural Dynamics, Florida, United States Of America, 7 - 10 February 2022, pp.1-11

VI. **Determination of Nonlinear Joint Forces and Nonlinear Identification of Jointed Connections Using FRFs**

Soleimani H., Ciğeroğlu E., Özgüven H. N.

IMAC XL, A Conference and Exposition on Structural Dynamics, 2022, Florida, United States Of America, 7 - 10 February 2022, pp.1-5

VII. **Determination of Flutter Speed of 2D Nonlinear Wing by Using Describing Function Method and State-Space Formulation**

Kösterit G., Ciğeroğlu E.

IMAC XL, A Conference and Exposition on Structural Dynamics, Florida, United States Of America, 7 - 10 February

2022, pp.1-8

- VIII. **Nonlinear Vibrations of Rotor-Bearing Systems Supported by Squeeze Film Dampers Due to Unbalance Excitation**
Sevencan F., Ciğeroğlu E., Baran Ö. U.
American Society of Mechanical Engineers IMECE 2021, Florida, United States Of America, 01 November 2021
- IX. **DEVELOPMENT OF LINEARIZED EULER SOLVERS ON FREQUENCY DOMAIN FOR OSCILLATING AIRFOILS**
ARDIÇ A. T., SAYGIN A., BARAN Ö. U., CİĞEROĞLU E.
Ankara International Aerospace Conference, Ankara, Turkey, 08 September 2021
- X. **Nonlinear Free Vibrations of Functionally Graded Microplates Based on the Modified Couple Stress Theory**
Demirkaya S., CİĞEROĞLU E.
NODYCON 2021 Second International Nonlinear Dynamics Conference, Roma, Italy, 16 - 19 February 2021
- XI. **Development and Verification of Finite Element Model of a Product-Fixture Assembly used for Shaker Testing**
Türker C., CİĞEROĞLU E., ÖZGEN G. O.
IMAC-XXXIX Conference and Exposition on Structural Dynamics, United States Of America, 8 - 11 February 2021
- XII. **3D linear identification of mechanical joint using FRF decoupling and inverse structural modification methods**
Soleimani H., Ciğeroğlu E., Özgüven H. N.
33rd Conference on Mechanical Vibration and Sound, VIB 2021, Held as Part of the ASME 2021 International Design Engineering Technical Conferences and Computers and Information in Engineering Conference, IDETC-CIE 2021, Virtual, Online, 17 - 19 August 2021, vol.10
- XIII. **Vibration reduction of a structure by using nonlinear tuned vibration absorbers**
Dogan M. E., Ciğeroğlu E.
38th IMAC, A Conference and Exposition on Structural Dynamics, 2020, Texas, United States Of America, 10 - 13 February 2020, pp.231-235
- XIV. **On the solution of nonlinear algebraic equations following periodic forced response analysis of nonlinear structures using different nonlinear solvers**
Kizilay H. S., Ciğeroğlu E.
38th IMAC, A Conference and Exposition on Structural Dynamics, 2020, Texas, United States Of America, 10 - 13 February 2020, pp.121-127
- XV. **Integration of parameter sensitivity to structural optimization of helicopter rotors for minimum vibration**
BİLEN M. E., CİĞEROĞLU E., ÖZGÜVEN H. N.
VIBRATIONS IN ROTATING MACHINERY- VIRM 12, 14 - 15 October 2020
- XVI. **On the Solution of Nonlinear Algebraic Equations Following Periodic Forced Response Analysis of Nonlinear Structures Using Different Nonlinear Solvers**
KIZILAY H. S., CİĞEROĞLU E.
IMAC XXXVIII: Conference Exposition on Structural Dynamics, 10 - 13 February 2020
- XVII. **Numerical Computation of Nonlinear Normal Modes (NNMs) by using Response Dependent Nonlinear Mode (RDNM) Concept**
Karaağaçlı T., Ciğeroğlu E., Özgüven H. N.
International Modal Analysis Conference and Exposition on Structural Dynamics IMAC XXXVIII, Texas, United States Of America, 10 - 13 February 2020, pp.1-4
- XVIII. **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
- XIX. **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
- XX. **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
- XXI. **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
- XXII. **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
- XXIII. **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
- XXIV. **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
- XXV. **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
- XXVI. **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
- XXVII. **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
- XXVIII. **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
- XXIX. **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
- XXX. **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
- XXXI. **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
- XXXII. **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
- XXXIII. **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

XXXIV. 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

XXXV. 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

XXXVI. 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

XXXVII. 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

XXXVIII. Nonlinear Transverse Vibrations of a Beam with Multiple Breathing Edge Cracks

Batihhan 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

XXXIX. 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

XL. 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

XLI. 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

XLII. 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

XLIII. Nonlinear Vibrations of a Beam with a Breathing Edge Crack Using Multiple Trial Functions

Batihhan A. C., CİĞEROĞLU E.

34th IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 25 - 28 January 2016, pp.1-9

XLIV. 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

XLV. 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

- XLVI. **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
- XLVII. **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
- XLVIII. **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
- XLIX. **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
- L. **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
- LI. **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
- LII. **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
- LIII. **Nonlinear Vibrations of a Beam with a Breathing Edge Crack**
Bathhan A. C., CİĞEROĞLU E.
33rd IMAC Conference and Exposition on Structural Dynamics, Florida, United States Of America, 2 - 05 February 2015, pp.83-92
- LIV. **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
- LV. **Structural Coupling of Two Nonlinear Structures**
Tepe Ç., CİĞEROĞLU E.
XXXII: Conference & Exposition on Structural Dynamics, 2 - 05 February 2015
- LVI. **Optimum Profile Modifications for the Minimization of Dynamic Transmission Error**
ÖZTÜRK V. Y., CİĞEROĞLU E., ÖZGÜVEN H. N.
International Gear Conference, 26 - 28 August 2014
- LVII. **Chatter Reduction in Turning by Using Piezoelectric Shunt Circuit**
Yiğit U., CİĞEROĞLU E., BUDAK E.
IMAC XXXI: Conference & Exposition on Structural Dynamics, 11 - 14 February 2014
- LVIII. **Vibration Fatigue Analysis of a Cantilever Beam Using Different Fatigue Theories**

- Eldoğan Y., CİĞEROĞLU E.
IMAC XXXI: Conference & Exposition on Structural Dynamics, 11 - 14 February 2014
- LIX. **Design of a Test Setup for Measuring Dynamic Stiffness of Vibration Isolators**
Uz C., Özgün G. O., Cığeroğlu 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
- LX. **EFFECTS OF AIRCRAFT AEROELASTIC DEFORMATIONS ON EXTERNAL STORE SEPARATION DYNAMICS**
Kozak M. T., Yildiz E. N., YAZICIOĞLU Y., CİĞEROĞLU E.
ASME International Mechanical Engineering Congress and Exposition (IMECE2013), California, United States Of America, 15 - 21 November 2013
- LXI. **Localization and Identification of structural nonlinearities using neural networks**
Yüner M. E., Koyuncu A., CİĞEROĞLU E., ÖZGÜVEN H. N.
IMAC XXXI: Conference Exposition on Structural Dynamics, 11 - 14 February 2013
- LXII. **A new structural modification method with additional degrees of freedom for dynamic analysis of large systems**
ŞAYIN B., CİĞEROĞLU E.
IMAC XXXI: Conference Exposition on Structural Dynamics, 11 - 14 February 2013
- LXIII. **Frequency Domain Optimization of Dry Friction Dampers on Buildings Under Harmonic Excitation**
Erişen Z. E., CİĞEROĞLU E.
IMAC XXX: Conference & Exposition on Structural Dynamics, 30 January 2012 - 02 February 2017
- LXIV. **Non-linear forced response analysis of mistuned bladed disk assemblies**
Yüner M. E., CİĞEROĞLU E., ÖZGÜVEN H. N.
ASME Turbo Expo 2010: Power for Land, Sea, and Air, GT 2010, Glasgow, England, 14 - 18 June 2010, vol.6, pp.757-766
- LXV. **Mistuning identification of bladed disks utilizing neural networks**
Yüner M. E., CİĞEROĞLU E., ÖZGÜVEN H. N.
ASME Turbo Expo 2010: Power for Land, Sea, and Air, GT 2010, Glasgow, England, 14 - 18 June 2010, vol.6, pp.601-610
- LXVI. **Robustness Analysis of Intentional Mistuning Patterns in Randomly Mistuned Bladed Disk Assemblies**
Yüner M. E., CİĞEROĞLU E., ÖZGÜVEN H. N.
International Conference on Noise and Vibration Engineering (ISMA)/Conference of USD, Leuven, Belgium, 20 - 22 September 2010, pp.4865-4874
- LXVII. **EFFECT OF INTENTIONAL DRY FRICTION DAMPING ON THE PERFORMANCE OF AN ELASTOMERIC ENGINE MOUNT**
Boral C., CİĞEROĞLU E., Korkmaz I.
10th ASME Biennial Conference on Engineering Systems Design and Analysis, İstanbul, Turkey, 12 - 24 July 2010, pp.59-66
- LXVIII. **SLIDING-MODE CONTROL ALGORITHM DEVELOPMENT FOR ANTI-LOCK BRAKING SYSTEM**
Okuy A., CİĞEROĞLU E., BAŞLAMIŞLI S. Ç.
10th ASME Biennial Conference on Engineering Systems Design and Analysis, İstanbul, Turkey, 12 - 24 July 2010, pp.115-123
- LXIX. **APPLICATION OF TUNED MASS DAMPERS AND LEVER TYPE VIBRATION ISOLATOR TO THE QUARTER-CAR MODEL IN ORDER TO INCREASE RIDE COMFORT**
Aydan G., CİĞEROĞLU E., BAŞLAMIŞLI S. Ç.
10th ASME Biennial Conference on Engineering Systems Design and Analysis, İstanbul, Turkey, 12 - 24 July 2010, pp.67-75
- LXX. **Wedge Damper Modeling and Forced Response Prediction of Frictionally Constrained Blades**
CİĞEROĞLU E., An N., Menç C.
Volume 5: Turbo Expo 2007, Montreal, Canada, 14 - 17 May 2007

Supported Projects

CİĞEROĞLU E., Project Supported by Higher Education Institutions, Değişken Temas Yüzeyleri İçin Dinamik Kuru Sürtünme Modeli Geliştirilmesi, 2009 - Continues

Ciğeroğlu E., Project Supported by Other Private Institutions, Turboşaft Motor Geliştirme-Test Altyapısı ve Rotor Dinamiği Analizleri AR-GE Projesi_2. Kısım, 2021 - 2022

Ciğeroğlu E., Özgüven H. N., H2020 Project, EXPERTISE (models, EXperiments and high PERformance computing for Turbine mechanical Integrity and Structural dynamics in Europe), 2017 - 2022

Ciğeroğlu E., Project Supported by Other Private Institutions, Turboşaft Motor Geliştirme-Test Altyapısı ve Rotor Dinamiği Analizleri AR-GE Projesi, 2020 - 2021

Ciğeroğlu E., Project Supported by Other Private Institutions, HAREKETLİ GÜNEŞ PANELİ SİSTEMİ TASARIMI, 2020 - 2021

Ciğeroğlu E., Project Supported by Other Private Institutions, Havacılık Standartlarına Uygun Hava Çevrim Makinesi, 2019 - 2020

Ciğeroğlu E., Project Supported by Other Private Institutions, 300 TONMETRE KAPASİTELİ KURU HAVUZ İSKELE PORTAL VİNCİ TASARIMI AR-GE PROJESİ, 2019 - 2019

Tekinalp O., Kurtuluş D. F., Yaman Y., Şahin M., Sezer Uzol N., Ciğeroğlu E., Leblebicioğlu M. K., Ankaralı M. M., Project Supported by Other Private Institutions, Küçük Otonom İnsansız Hava Aracı Geliştirme Projesi (KO-İHA), 2019 - 2019

Ciğeroğlu E., Kobi, Ahşap Lamine Kompozit Gezi Teknelerinde Dizel Motor Titreşiminin Tekne Gövdesine Etkisinin Azaltılması Ar-Ge Projesi, 2018 - 2019

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

Özgen G. O., Ciğeroğlu E., Technopark, Titreşim Sönümleme Elemanlarının Bulaşık Makinesi Üzerinde Titreşim Ve Akustik Davranışlarının Modellenmesi Ar-Ge Projesi, 2017 - 2018

Ciğeroğlu E., Özgen G. O., Project Supported by Defense Industry, HASSAS ÖLÇER BİRİMLERİNİN TİTREŞİM VE ŞOK İZOLASYONU PROJESİ, 2016 - 2018

Memberships / Tasks in Scientific Organizations

USETEG, Executive Board Member, 2018 - Continues, Turkey

Scientific Refereeing

INTERNATIONAL JOURNAL OF NON-LINEAR MECHANICS, Journal Indexed in SCI-E, November 2021

MECHANICAL SYSTEMS AND SIGNAL PROCESSING, SCI Journal, November 2021

MECHANICAL SYSTEMS AND SIGNAL PROCESSING, SCI Journal, August 2021

NONLINEAR DYNAMICS, SCI Journal, April 2021

JOURNAL OF SOUND AND VIBRATION, SCI Journal, April 2021

MECHANICAL SYSTEMS AND SIGNAL PROCESSING, SCI Journal, March 2021

JOURNAL OF SOUND AND VIBRATION, SCI Journal, March 2021

JOURNAL OF SOUND AND VIBRATION, SCI Journal, January 2021

NONLINEAR DYNAMICS, SCI Journal, December 2020

MECHANICAL SYSTEMS AND SIGNAL PROCESSING, SCI Journal, October 2020

MECHANICAL SYSTEMS AND SIGNAL PROCESSING, SCI Journal, September 2020

JOURNAL OF SOUND AND VIBRATION, SCI Journal, September 2020

JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, SCI Journal, September 2020

AIAA JOURNAL, SCI Journal, August 2020

MECHANICAL SYSTEMS AND SIGNAL PROCESSING, SCI Journal, July 2020

STRUCTURAL CONTROL & HEALTH MONITORING, Journal Indexed in SCI-E, June 2020
INTERNATIONAL JOURNAL OF NON-LINEAR MECHANICS, SCI Journal, May 2020
JOURNAL OF SOUND AND VIBRATION, SCI Journal, May 2020
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, SCI Journal, May 2020
INTERNATIONAL JOURNAL OF NON-LINEAR MECHANICS, SCI Journal, February 2020
AIAA JOURNAL, SCI Journal, February 2020
JOURNAL OF SOUND AND VIBRATION, SCI Journal, January 2020
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
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, SCI Journal, February 2019
NONLINEAR DYNAMICS, SCI Journal, January 2019
MECHANISM AND MACHINE THEORY, SCI Journal, December 2018
JOURNAL OF SOUND AND VIBRATION, SCI Journal, December 2018
JOURNAL OF SOUND AND VIBRATION, SCI Journal, October 2018
Nonlinear Dynamics, SCI Journal, September 2018
Nonlinear Dynamics, SCI Journal, August 2018
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING
SCIENCE, Journal Indexed in SCI-E, May 2018
Nonlinear Dynamics, SCI Journal, May 2018
JOURNAL OF SOUND AND VIBRATION, SCI Journal, February 2018
NONLINEAR DYNAMICS, SCI Journal, January 2018
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, Journal Indexed in SCI-E, January 2018

Tasks In Event Organizations

Ciğeroğlu E., Özgen G. O., Kahveci H. S., Özşahin O., Karakuş A., Ertekin Bolelli Ş., SAVTEK 2022 10. Savunma Teknolojileri Kongresi, Scientific Congress, Ankara, Turkey, Eylül 2022
Ciğeroğlu E., SAVTEK 9. Savunma Teknolojileri Kongresi, Scientific Congress, Ankara, Turkey, Haziran 2018

Metrics

Publication: 109
Citation (WoS): 564
Citation (Scopus): 830
H-Index (WoS): 12
H-Index (Scopus): 15

Awards

Bilen M. E., Özgüven H. N., Ciğeroğlu E., TTGV Dr. Akın Çakmakçı Tez Ödülü, Türkiye Teknoloji Geliştirme Vakfı, December 2020
Ciğeroğlu E., ODTÜ Yılım Tezi Ödülü Doktora, Mustafa Parlar Vakfı, December 2018

Non Academic Experience

METU
The Ohio State University

METU