

Assoc. Prof. Semih SEZER

Personal Information

Office Phone: [+90 212 383 2840](tel:+902123832840)

Fax Phone: [+90 212 261 6659](tel:+902122616659)

Email: sezer@yildiz.edu.tr

Web: <http://www.yildiz.edu.tr/~sezer/>

Education Information

Post Doctorate, Purdue University, Engineering Faculty, Mechanical Engineering, United States Of America 2005 - 2006

Doctorate, Yıldız Teknik Üniversitesi, Makina Fakültesi/Fen Bilimleri/Makina Mühendisliği, Makina Teorisi,Sistem Dinamiği Ve Kontrol, Turkey 1998 - 2003

Post Graduate, İstanbul Teknik Üniversitesi, Makina Fakültesi/Fen Bilimleri/Makina Mühendisliği, Makina Teorisi,Sistem Dinamiği Ve Kontrol, Turkey 1995 - 1998

Under Graduate, İstanbul Teknik Üniversitesi, Makina Fakültesi/Makina Mühendisliği, Turkey 1990 - 1995

Dissertations

Doctorate, Plastik boru üretiminde kullanılan polietilen malzemenin statik - dinamik davranışlarının analizi ve viskoelastik modellenmesi, Yıldız Technical University, Graduate School of Natural and Applied Sciences, 2003

Post Graduate, Piezoelektrik tutucunun dizayn ve analizi, Istanbul Technical University, Fen Bilimleri Enstitüsü, 1998

Research Areas

Mechanical Engineering, Machine Theory and Dynamics, Mechanical, Finite Element Methods, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Yıldız Technical University, Faculty of Mechanical Engineering, Makine Mühendisliği, 2013 - Continues

Assistant Professor, Yıldız Technical University, Faculty of Mechanical Engineering, Makine Mühendisliği, 2005 - 2013

Researcher, Purdue University, Herrick Laboratories, Mechanical Engineering, 2005 - 2006

Research Assistant, Yıldız Teknik Üniversitesi, Faculty of Mechanical Engineering, Makine Mühendisliği, 1996 - 2005

Advising Theses

Sezer S., Hibrit Araçlarda Yakıt Tüketimi Ve Emisyonların Modellemesi, Post Graduate, E.Çayır(Student), 2019

Sezer S., Plak Titreşimlerinin Aktif Kontrolü, Post Graduate, O.TUNA(Student), 2019

Sezer S., Katsayı diyagram metodunun hareket kontrol sistemlerine uygulanması, Post Graduate, A.AVCU(Student), 2018

Sezer S., Akıllı çubuk titreşimlerinin piezoelektrik eyleyiciler ile aktif kontrolü, Post Graduate, D.SOFU(Student), 2017

Sezer S., Üç kademeli tek etkili pistonlu kompresörün dinamik analizi, Post Graduate, S.PİŞİRİCİ(Student), 2017

Sezer S., Elektrik tahrikli asansörlerin lineer grafik yöntemiyle modellenmesi ve dinamik analizi, Post Graduate,

M.OĞUZ(Student), 2016

Sezer S., Helisel sarımlı termoplastik kompozitlerin sarım özelliklerinin mekanik özelliklere etkisinin incelenmesi, Post Graduate, L.DERE(Student), 2016

Sezer S., AKBAROV S., Piezoelektrik katmanlı öngerilmeli sistemlerde yüzey ve lamb dalgalarının dispersiyonu, Doctorate, İ.KURT(Student), 2016

Sezer S., Hibrit elektrikli otobüste (PHILEAS) sürücü sistemlerinin modellenmesi ve güç aktarma organlarının tasarımı, Post Graduate, B.TİMUÇİN(Student), 2016

Sezer S., Hafif raylı bir taşıtın taşıyıcı bojisinin titreşim analizi, Post Graduate, F.ZAFER(Student), 2015

Sezer S., Vites kutusu dişli titreşimlerinin debriyaj damperi kullanılarak azaltılması, Post Graduate, A.YÜCEŞAN(Student), 2014

Sezer S., Fırçasız doğru akım motorunun ses ve titreşim seviyesinin düşürülmesi, Post Graduate, M.YILMAZ(Student), 2013

Sezer S., Raylı bir taşıtın dinamik modelinin oluşturulması ve titreşim kontrolü, Post Graduate, A.ÖREN(Student), 2011

Sezer S., Akıllı malzemeler yardımıyla plak titreşimlerinin aktif kontrolü, Post Graduate, İ.KURT(Student), 2010

Sezer S., Panel titreşimlerinin kabin gürültüsüne olan katkılarının incelenmesi, Post Graduate, M.USLU(Student), 2010

Sezer S., Akıllı çubukların tasarım ve analizi, Post Graduate, O.AYDOS(Student), 2009

Sezer S., E43000 lokomotifinin dinamik modelinin oluşturulması ve titreşim kontrolü, Post Graduate, A.ERDEM(Student), 2009

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

- I. **Vibration isolation with clutch disk pre-damper mechanism for the idle rattle phenomenon**
Yucesan A., Sezer S.
JOURNAL OF VIBRATION AND CONTROL, vol.24, pp.1518-1534, 2018 (Journal Indexed in SCI)
- II. **Validation of railway vehicle dynamic models in training simulators**
Ozturk V., Arar O. F. , Rende F. S. , ÖZTEMEL E., SEZER S.
VEHICLE SYSTEM DYNAMICS, vol.55, pp.41-71, 2017 (Journal Indexed in SCI)
- III. **The influence of the initial stresses on Lamb wave dispersion in pre-stressed PZT/Metal/PZT sandwich plates**
Kurt İ., Akbarov S., Sezer S.
STRUCTURAL ENGINEERING AND MECHANICS, vol.58, pp.347-378, 2016 (Journal Indexed in SCI)
- IV. **Lamb wave dispersion in a PZT/metal/PZT sandwich plate with imperfect interface**
Kurt İ., Akbarov S., Sezer S.
WAVES IN RANDOM AND COMPLEX MEDIA, vol.26, pp.301-327, 2016 (Journal Indexed in SCI)
- V. **Load sharing in lumbar spinal segment as a function of location of center of rotation**
Alapan Y., SEZER S., DEMİR C., Kaner T., Inceoglu S.
JOURNAL OF NEUROSURGERY-SPINE, vol.20, pp.542-549, 2014 (Journal Indexed in SCI)
- VI. **Application of fuzzy logic based control algorithms on a railway vehicle considering random track irregularities**
Sezer S., Atalay A. E.
JOURNAL OF VIBRATION AND CONTROL, vol.18, pp.1177-1198, 2012 (Journal Indexed in SCI)
- VII. **Dynamic modeling and fuzzy logic control of vibrations of a railway vehicle for different track irregularities**
Sezer S., Atalay A. E.
SIMULATION MODELLING PRACTICE AND THEORY, vol.19, pp.1873-1894, 2011 (Journal Indexed in SCI)
- VIII. **An Analytical Model for Compressive Creep Behavior of HDPE Used in Plastic Pipe Manufacturing**
SEZER S., Ataoğlu Ş., GÜLLÜOĞLU A. N. , Kadioglu N.
POLYMER-PLASTICS TECHNOLOGY AND ENGINEERING, vol.47, pp.1302-1307, 2008 (Journal Indexed in SCI)
- IX. **Residual stress analysis of multi-layered buffer layers on Ni substrate for YBCO coated conductor**
Arda L., Ataoğlu S., SEZER S., Abdulaliyev Z.

SURFACE & COATINGS TECHNOLOGY, vol.202, pp.439-446, 2007 (Journal Indexed in SCI)

- X. **Determination of the steady state response of visco elastically point-supported rectangular specially orthotropic plates with added concentrated masses**

Kocaturk T., SEZER S., Demir C.

JOURNAL OF SOUND AND VIBRATION, vol.278, pp.789-806, 2004 (Journal Indexed in SCI)

- XI. **Determination of the steady state response of viscoelastically corner point-supported rectangular specially orthotropic plates under the effect of sinusoidally varying moment**

KOCATÜRK T., Demir C., Sezer S., İlhan N.

JOURNAL OF SOUND AND VIBRATION, vol.275, pp.317-330, 2004 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Mathematical Modelling of Electrically Driven Elevator via Linear Graph Method, Dynamic Response Analysis and Active Vibration Control**
Nalbant M. O. , Sezer S.
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, vol.15, pp.241-250, 2019 (International Refereed University Journal)
- II. **Comparison of IPD and Fuzzy Logic Velocity Control In Two Degree of Freedom DC Motor System**
Avcu A., Bozkurt A. F. , Erkan K., Kurt İ., Sezer S.
International Journal of Engineering Science and Application, vol.2, pp.1-7, 2018 (National Refreed University Journal)
- III. **W TİP 3 KADEMELİ PİSTONLU KOMPRESÖRÜN P-V DİYAGRAMININ TEORİK VE DENEYSEL İNCELENMESİ**
Pişirici S., Sezer S.
MAKİNATEK, vol.1, no.1, pp.1-5, 2017 (Other Refereed National Journals)
- IV. **EFFECT OF UNIAXIAL INITIAL STRESSES, PIEZOELECTRICITY AND THIRD ORDER ELASTIC CONSTANTS ON THE NEAR-SURFACE WAVES IN A STRATIFIED HALF-PLANE**
Kurt İ., Akbarov S., Sezer S.
JOURNAL OF THERMAL ENGINEERING, vol.3, pp.1346-1357, 2017 (Journal Indexed in ESCI)
- V. **Steady State Response Of Viscoelastically Point-Supported Generally Orthotropic Rectangulary Plates Under Moment**
Kocaturk T., Sezer S., Demir C.
Journal of Engineering and Environmental Sciences, vol.29, pp.331-341, 2005 (Refereed Journals of Other Institutions)
- VI. **Creep analysis of polyethylene material used in plastic pipe manufacturing**
Sezer S.
Sigma, vol.3, pp.73-83, 2004 (Other Refereed National Journals)

Refereed Congress / Symposium Publications in Proceedings

- I. **Burun İniş Takımında Meydana Gelen Shimmy Titreşim Hareketinin PID ve LQR ile Kontrolü**
Çakır U., Sezer S.
TOK'2019 Otomatik Kontrol Ulusal Toplantısı, Muğla, Turkey, 11 - 14 September 2019, pp.378-383
- II. **Investigation of Emissions and Fuel Consumption in Series-Hybrid Vehicles**
Çayır E., Sezer S.
ICOLES 2019 INTERNATIONAL CONFERENCE ON LIFE AND ENGINEERING SCIENCES, İstanbul, Turkey, 27 - 29 June 2019, pp.52
- III. **Vibration Reduction of a Plate Using Active Control**
Tuna O., Sezer S.
4. ULUSLARARASI MÜHENDİSLİK MİMARLIK VE TASARIM KONGRESİ , İstanbul, Turkey, 23 April - 24 October

2019, pp.121

- IV. **ANGULAR VELOCITY CONTROL OF A TWO-DEGREES-OF-FREEDOM FLEXIBLE BELT DRIVEN SYSTEM USING I-PD AND SSI CONTROLLERS**
AVCU a., SEZER S., ERKAN K., Bozkurt a. f. , BUCAK m.
4th CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING ISTANBUL 2018-ICAME2018, 19 - 21 December 2018
- V. **Vibration Reduction of Semi-Trailer Truck Using MR Dampers: A Fuzzy Logic Control Approach**
KURT İ., PAKSOY M., Cetin S., GÜÇLÜ R., SEZER S.
7th International Conference on Mechanical and Aerospace Engineering (ICMAE), London, Canada, 18 - 20 July 2016, pp.336-340
- VI. **ÖN GERİLMELİ PİEZOELEKTRİK ÖRTÜ TABAKASI VE ÖN GERİLMELİ ELASTİK YARI DÜZLEMENDE OLUŞAN SİSTEMDE GENELLEŞTİRİLMİŞ RAYLEİGH DALGALARININ DİSPERSİYONU**
SURKHAY A., KURT İ., SEZER S.
XVIII. ULUSAL MEKANİK KONGRESİ, Turkey, 26 - 30 August 2013, pp.21-29
- VII. **Kinematics of Disc Degeneration Analysis of Instantaneous Center of Rotation**
SEZER S., Güçlü R., Kaner T., İnceoğlu S.
Orthopaedic Research Society, 01 January 2013
- VIII. **Active Vibration Control of a Beam with Piezoelectric Actuators**
SEZER S., Aydos O., Ergun C.
01 December 2012
- IX. **An Experimental Study on Modal Analysis of a Conventional Rail Vehicle Bogie Structure by Using Two Different Method - Konvansiyonel Hatlarda Kullanılan Bir Raylı Taşıt Bojisinin İki Farklı Yöntemle Deneysel Modal Analizi**
METİN M., Topsakal F. Z. , Sezer S., Turan E.
1.Uluslararası Raylı Sistemler Mühendisliği Çalıştayı (IWRSE 12), Karabük, Turkey, 11 October 2012, pp.267-273
- X. **Application of Self Tuning Fuzzy Logic Control to Full Railway Vehicle Model**
Sezer S., Çetin S., Atalay A. E.
Conference of the Complex Adaptive Systems on Responding to Continuous Global Change in Systems Needs, Illinois, United States Of America, 30 October - 02 November 2011, vol.6

Supported Projects

SEZER S., TUBITAK Project, Otonom Araç Tasarımı, 2013 - 2014

SEZER S., Project Supported by Higher Education Institutions, Plak ve çubuk sistemleri üzerinde akıllı malzemeler yardımıyla aktif titreşim kontrolü., 2009 - 2012

SEZER S., TUBITAK Project, Sanal Ortam Tren Sürüş Eğitimleri İçin Milli Benzetim Sistemlerinin Geliştirilmesi Projesi (TRENŞİM), 2007 - 2011

SEZER S., TUBITAK Project, Plastik Boru Üretiminde Kullanılan Yüksek Yoğunluklu Polietilen Malzemenin Basma Gerilmesi Altındaki Statik ve Dinamik Davranışlarının Modellenmesi, 2005 - 2007

SEZER S., Buzdolabı Kompresör Susturucularının Genişband Gürültü Azaltımı, 2005 - 2006

SEZER S., HDPE Malzemenin Bünye Denklemlerinin Belirlenmesi, 2004 - 2006

SEZER S., Oluklu Polietilen Borularda Profil Optimizasyonu, 2003 - 2004

Patent

Sezer S., Plastik esaslı malzemeden mamul borular için halka rijitliği geliştirilen profil, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, Registration in Multiple Countries, 2005

Scientific Refereeing

System Identification, SCI Journal, February 2012

Plastik malzemelerin modellenmesi, SCI Journal, December 2011

Performance analysis in vehicles, SCI Journal, October 2011

Active control, National Scientific Refereed Journal, October 2011

Plate vibrations, SCI Journal, August 2011

Composite plate, SCI Journal, July 2011

Citations

Total Citations (WOS):90

h-index (WOS):6