

Asst. Prof. Osman Taha Şen

Personal Information

Fax Phone: [+90 212 285 3443](tel:+902122853443)

Email: senos@itu.edu.tr

Web: <http://faculty.itu.edu.tr/senos/>

Address: İTÜ Makina Fakültesi, İnönü Cad., No:65, Gümüşsuyu, 34437, Beyoğlu/İstanbul

Education Information

Doctorate, The Ohio State University, United States Of America 2008 - 2012

Postgraduate, The Ohio State University, United States Of America 2008 - 2011

Postgraduate, İstanbul Teknik Üniversitesi, Makine Fakültesi, Makine Mühendisliği Bölümü, Turkey 2005 - 2007

Undergraduate, İstanbul Teknik Üniversitesi, Makine Fakültesi, Makine Mühendisliği Bölümü, Turkey 2000 - 2005

Foreign Languages

English

Dissertations

Doctorate, Dynamic analysis of speed-dependent friction-induced torque in a nonlinear brake system, The Ohio State University, 2012

Postgraduate, Mixed lubrication analysis of laser textured cylinder bores, İstanbul Teknik Üniversitesi, Makine Fakültesi, Makine Mühendisliği Bölümü, 2007

Research Areas

Mechanical Engineering, Machine Theory and Dynamics, Vehicle Systems Dynamics, Acoustics and Noise Control, Modeling and Simulation of Dynamic Systems, Mechanical Vibrations, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Istanbul Technical University, Makina, Makina Mühendisliği, 2018 - Continues

Assistant Professor, Istanbul Technical University, Makina, Makina Mühendisliği, 2018 - 2018

Lecturer PhD, Istanbul Technical University, Makina, Makina Mühendisliği, 2013 - 2018

Research Assistant, Istanbul Technical University, Makina, Makina Mühendisliği, 2006 - 2013

Research Assistant, The Ohio State University, Mechanical And Aerospace Engineering, Mechanical And Aerospace Engineering, 2008 - 2012

Jury Memberships

Award, Uluslar Young Professional Award, International Institute of Noie Control Engineering, August, 2017

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

- I. **Dynamics of a simplified nonlinear model offering insights into the hammering type brake squeal initiation process**
Şen O. T. , Singh R.
NOISE CONTROL ENGINEERING JOURNAL, vol.69, no.3, pp.243-261, 2021 (Journal Indexed in SCI)
- II. **Assessment of point and line contact stiffness formulations leading to the initiation of hammering type brake squeal**
Şen O. T. , Singh R.
NOISE CONTROL ENGINEERING JOURNAL, vol.69, no.2, pp.146-161, 2021 (Journal Indexed in SCI)
- III. **Case study: Identification of brake squeal source mechanism through experimental and computational approaches**
Tozkoparan O. A. , Şen O. T. , Singh R.
NOISE CONTROL ENGINEERING JOURNAL, vol.68, no.1, pp.21-37, 2020 (Journal Indexed in SCI)
- IV. **Feasibility of controlling speed-dependent low-frequency brake vibration amplification by modulating actuation pressure**
Şen O. T. , Dreyer J. T. , Singh R.
JOURNAL OF SOUND AND VIBRATION, vol.333, no.24, pp.6332-6348, 2014 (Journal Indexed in SCI)
- V. **Low frequency dynamics of a translating friction element in the presence of frictional guides, as motivated by a brake vibration problem**
Şen O. T. , Dreyer J. T. , Singh R.
JOURNAL OF SOUND AND VIBRATION, vol.332, no.22, pp.5766-5788, 2013 (Journal Indexed in SCI)
- VI. **Envelope and order domain analyses of a nonlinear torsional system decelerating under multiple order frictional torque**
Sen O. T. , Dreyer J. T. , Singh R.
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, vol.35, pp.324-344, 2013 (Journal Indexed in SCI)
- VII. **Order domain analysis of speed-dependent friction-induced torque in a brake experiment**
Sen O. T. , Dreyer J. T. , Singh R.
JOURNAL OF SOUND AND VIBRATION, vol.331, no.23, pp.5040-5053, 2012 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Particle Swarm Optimization Method Based Controller Tuning for Adaptive Cruise Control Application**
Ozkaya E., Arslan H., Şen O. T.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.34, no.2, pp.517-527, 2021 (Journal Indexed in ESCI)
- II. **A Multiscale Cylinder Bore Honing Pattern Lubrication Model for Improved Engine Friction**
Şen O. T. , Akalın Ö.
SAE INTERNATIONAL JOURNAL OF FUELS AND LUBRICANTS, vol.12, no.3, pp.155-166, 2019 (Journal Indexed in ESCI)

Supported Projects

Şen O. T. , Project Supported by Higher Education Institutions, INSİGHT İNTO BRAKE SQUEAL SOURCE MECHANİSM CONSIDERİNG KİNEMATİC NONLİNEARİTY AND PAD-DİSC SEPARATİON, 2015 - 2018

Şen O. T. , Project Supported by Higher Education Institutions, Suppression of multiple order friction torque fluctuations with modulated actuation pressure, 2013 - 2018

Şen O. T. , Project Supported by Higher Education Institutions, Forced Response of a Nonlinear Translating Brake Band in the Presence of Friction Guides, 2013 - 2018

Şen O. T. , Project Supported by Higher Education Institutions, Dynamic Analysis of Stick-Slip Oscillations on a Translating Friction Band, 2015 - 2016

Scientific Refereeing

Journal of Sound and Vibration, SCI Journal, December 2017
TUBITAK Project, November 2017
TUBITAK Project, November 2017
TUBITAK Project, July 2017
Nonlinear Dynamics, SCI Journal, April 2017
Noise Control Engineering Journal, SCI Journal, January 2017
Mechanical Systems and Signal Processing, SCI Journal, August 2016
TUBITAK Project, June 2016
TUBITAK Project, May 2016
Journal of Sound and Vibration, SCI Journal, April 2016
TUBITAK Project, April 2016
TUBITAK Project, December 2015
TUBITAK Project, December 2015
TUBITAK Project, November 2015
TUBITAK Project, November 2015
TUBITAK Project, September 2015
Noise Control Engineering Journal, SCI Journal, July 2015
TUBITAK Project, June 2015
TUBITAK Project, May 2015
TUBITAK Project, March 2015
Journal of Sound and Vibration, SCI Journal, December 2014
Noise Control Engineering Journal, SCI Journal, September 2014
TUBITAK Project, August 2014
TUBITAK Project, August 2014
Journal of Sound and Vibration, SCI Journal, July 2014
TUBITAK Project, July 2014
TUBITAK Project, June 2014
TUBITAK Project, March 2014
Journal of Sound and Vibration, SCI Journal, December 2013
Noise Control Engineering Journal, SCI Journal, November 2013
Noise Control Engineering Journal, SCI Journal, February 2013

Scientific Consultations

Mercedes-Benz TÜRK, Project Consultancy, Istanbul Technical University, Makina, Makina Mühendisliği, Turkey, 2016 - 2017

Edit Congress and Symposium Activities

INTER-NOISE 2017, Attendee, Victoria-City, Hong Kong, 2017
11. Ulusal Akustik Kongresi, Attendee, İstanbul, Turkey, 2015
INTER-NOISE 2015, Attendee, California, United States Of America, 2015
International Congress on Advanced Railway Engineering, Attendee, İstanbul, Turkey, 2015

5th Conference on Nonlinear Vibrations, Attendee, İstanbul, Turkey, 2014

IMAC XXXII, Attendee, Florida, United States Of America, 2014

10. Ulusal Akustik Kongresi, Attendee, İstanbul, Turkey, 2013

INTER-NOISE 2013, Attendee, Innsbruck, Austria, 2013

IMAC XXXI, Attendee, California, United States Of America, 2013

INTER-NOISE 2012, Attendee, New-York, United States Of America, 2012

Citations

Total Citations (WOS):29

h-index (WOS):3