

Assoc. Prof. Emrecan Söylemez

Personal Information

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Education Information

Doctorate, Carnegie Mellon University, College Of Engineering, Mechanical Engineering Department, United States Of America 2010 - 2014

Postgraduate, Carnegie Mellon University, College Of Engineering, Mechanical Engineering Department, United States Of America 2008 - 2010

Undergraduate, Istanbul Technical University, Makina, Makina Mühendisliği, Turkey 2004 - 2007

Dissertations

Doctorate, Capillary Kinetics Between Multi-Asperity Surfaces, Carnegie Mellon University, College Of Engineering, Mechanical Engineering Department, 2014

Postgraduate, Controlling Melt Pool Dimensions over a Wide Range of Material Deposition Rates in Electron Beam Additive Manufacturing , Carnegie Mellon University, College Of Engineering, Mechanical Engineering Department, 2010

Research Areas

Mechanical Engineering, Construction and Manufacturing, Tribology, Computer Aided Design and Manufacturing, Non-traditional manufacturing methods, Material, Mechanical, Solid Mechanics, Fracture Mechanics, Finite Element Methods, Engineering and Technology

Academic Titles / Tasks

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

Assistant Professor, Marmara University, Mühendislik, Makine Mühendisliği, 2015 - 2018

Courses

Fracture Mechanics, Doctorate, 2020 - 2021

Additive Manufacturing Processing and Design, Postgraduate, 2021 - 2022

Foundations of Solid Mechanics, Postgraduate, 2019 - 2020

Jury Memberships

Competition, DesignNext Africa 2018, Autodesk, October, 2018

Post Graduate, Ashı İřiltan Tez, İTÜ Makina Fakóltesi, May, 2017
Post Graduate, Deniz Ezgi Gülmez Tez, İTÜ Makina Fakóltesi, May, 2017
Post Graduate, Aren Sercan Boyacı , İTÜ Makina Fakóltesi, May, 2017
Post Graduate, Ahmet Semih Ertürk, İTÜ Makina Fakóltesi, May, 2017
Post Graduate, Uęur řimřek Tez , İTÜ Makina Fakóltesi, September, 2016

Designed Lessons

Söylemez E., Additive Manufacturing Processing and Design, Postgraduate, 2020 - 2021

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Multi-objective optimization of binder jet additive manufacturing of Co-Cr-Mo using machine learning**
Onler R., Koca A. S. , Kirim B., Söylemez E.
INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY, 2021 (Journal Indexed in SCI)
- II. **High deposition rate approach of selective laser melting through defocused single bead experiments and thermal finite element analysis for Ti-6Al-4V**
Söylemez E.
ADDITIVE MANUFACTURING, vol.31, 2020 (Journal Indexed in SCI)
- III. **Modeling capillary bridge dynamics and crack healing between surfaces of nanoscale roughness**
Soylemez E., de Boer M. P.
JOURNAL OF MICROMECHANICS AND MICROENGINEERING, vol.27, no.12, 2017 (Journal Indexed in SCI)
- IV. **Nucleation rate of capillary bridges between multi-asperity surfaces**
Soylemez E., De Boer M. P. , Ashurst W. R.
Behavioral and Brain Sciences, vol.1659, no.2, 2014 (Journal Indexed in SCI Expanded)
- V. **Capillary-Induced Crack Healing between Surfaces of Nanoscale Roughness**
Soylemez E., de Boer M. P.
LANGMUIR, vol.30, no.39, pp.11625-11633, 2014 (Journal Indexed in SCI)
- VI. **Probing microelectromechanical systems in an environmentally controlled chamber using long working distance interferometry**
Soylemez E., Plass R. A. , Ashurst W. R. , de Boer M. P.
REVIEW OF SCIENTIFIC INSTRUMENTS, vol.84, no.7, 2013 (Journal Indexed in SCI)
- VII. **Photocatalytic Degradation of Bacteriophages Evidenced by Atomic Force Microscopy**
SÖYLEMEZ E., DE BOAER M., SAEUENG U., EVİLEVİTCH A., STEWART T. A. , NYMAN M.
Plos One, vol.8, pp.1-6, 2013 (Journal Indexed in SCI Expanded)

Articles Published in Other Journals

- I. **Thermo-mechanical simulations of selective laser melting for AlSi10Mg alloy to predict the part-scale deformations**
SÖYLEMEZ E., KOÇ E., Cořkun M.
Progress in Additive Manufacturing, vol.4, no.4, pp.465-478, 2019 (Refereed Journals of Other Institutions)
- II. **Sandviç Kumařın Çeřitli Basma Yüklemleri Altında Modellenmesi**
SÖYLEMEZ E.
International Journal of Advances in Engineering and Pure Sciences, vol.30, no.4, pp.358-364, 2018 (Other Refereed National Journals)

Supported Projects

Söylemez E., Project Supported by Higher Education Institutions, Eklemeli İmalat ile Üretilen Parçaların Deformasyon Tahminlerinin Farklı Alaşım ve Geometrilere Uyarlanabilen Sonlu Eleman Analiz Çalışması, 2019 - 2021

Söylemez E., Subaşı A., Koç İ. M. , Çadırcı S., Sayar E., Böke Y. E. , Development Agency, Eklemeli İmalat Eğitim ve Araştırma Merkezi (EKAM), 2018 - 2020

Scientific Refereeing

INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY, SCI Journal, November 2018

INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY, SCI Journal, September 2018

APPLIED SURFACE SCIENCE, SCI Journal, November 2017

MARMARA FEN BİLİMLERİ DERGİSİ, National Scientific Refreed Journal, October 2017

Citations

Total Citations (WOS):36

h-index (WOS):4

Non Academic Experience

Business Organization (private), Lb Foster Company