# Assoc. Prof. Emrecan Söylemez

## Personal Information

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**International Researcher IDs**
ORCID: 0000-0003-4827-2606
Publons / Web Of Science ResearcherID: M-5564-2016
ScopusID: 55545580300
Yoksis Researcher ID: 240775

## 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, Aslı Işıltan Tez, İTÜ Makina Fakültesi, May, 2017
Post Graduate, Deniz Ezgi Gülmez Tez, İTÜ Makina Fakültesi, May, 2017
Post Graduate, Aren Sercan Boyacı , İTÜ Makina Fakültesi, May, 2017
Post Graduate, Ahmet Semih Ertürk, İTÜ Makina Fakültesi, May, 2017
Post Graduate, Uğur Şimşek Tez , İTÜ Makina Fakültesi, September, 2016

## Designed Lessons

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

## Published journal articles indexed by SCI, SSCI, and AHCI

I. **Investigation of the Surface Roughness Effect on the Performance of an X-band RF Filter Manufactured by Laser Powder Bed Fusion**
Arslan A., Söylemez E.
IEEE Transactions on Components, Packaging and Manufacturing Technology, vol.14, no.2, pp.257-266, 2024 (SCI-Expanded)

II. **Effects of particle damper design parameters on the damping performance of laser powder bed fused structures**
Ozcevik B., Söylemez E., Bediz B., Simsek U.
International Journal of Advanced Manufacturing Technology, vol.130, no.7-8, pp.3917-3928, 2024 (SCI-Expanded)

III. **Optimization of Laser Direct Structuring Process Parameters for Material Extrusion of Polycarbonate**
Akagündüz C. G., Söylemez E.
Advanced Engineering Materials, vol.25, no.23, 2023 (SCI-Expanded)

IV. **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, vol.119, no.1-2, pp.1091-1108, 2022 (SCI-Expanded)

V. **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 (SCI-Expanded)

VI. **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 (SCI-Expanded)

VII. **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 (SCI-Expanded)

VIII. **Capillary-Induced Crack Healing between Surfaces of Nanoscale Roughness**
Soylemez E., de Boer M. P.

LANGMUIR, vol.30, no.39, pp.11625-11633, 2014 (SCI-Expanded)

IX. **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 (SCI-Expanded)

X. **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 (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., Coşkun M.
Progress in Additive Manufacturing, vol.4, no.4, pp.465-478, 2019 (Scopus)

II. **Sandviç Kumaşın Çeşitli Basma Yüklemeleri Altında Modellenmesi**
SÖYLEMEZ E.
International Journal of Advances in Engineering and Pure Sciences, vol.30, no.4, pp.358-364, 2018 (Peer-Reviewed Journal)

## 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

## Metrics

Publication: 29
Citation (WoS): 36
Citation (Scopus): 166
H-Index (WoS): 4
H-Index (Scopus): 6

## Non Academic Experience

Business Organization (private), Lb Foster Company
L.B. Foster Company