

## Asst. Prof. Alparslan SOLAK

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAZ-6944-2020

ScopusID: 57371982800

Yoksis Researcher ID: 264513

### Education Information

Doctorate, Yildiz Technical University, Faculty Of Mechanical Engineering, Makine Mühendisliği/Konstrüksiyon, Turkey 2017 - 2023

Postgraduate, Istanbul Technical University, Makine Fakültesi, Makine Mühendisliği/Konstrüksiyon, Turkey 2014 - 2017

Undergraduate, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, Turkey 2010 - 2014

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Dalgalı Bal Peteklerin Basma, Eğme ve Çarpma Durumlarındaki Mekanik Davranışlarının İncelenmesi, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, 2023

Postgraduate, KÖMÜR MADENLERİ İÇİN BANTLI KONVEYÖR TASARIMI VE TASARIM PARAMETRELERİNİN OPTİMİZASYONU, Istanbul Technical University, Makina, Makina Mühendisliği, 2016

### Research Areas

Finite Element Methods, Mechanical Testing

### Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2024 - Continues

Research Assistant, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2017 - 2024

## Courses

### Undergraduate

Dinamik 1, Undergraduate, 2024 - 2025

Statik, Undergraduate, 2023 - 2024

Mukavemet 1, Undergraduate, 2022 - 2023

Temel Bilgisayar Bilimleri, Undergraduate, 2023 - 2024

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

- I. **Bending of wavy spider web honeycomb sandwich structures using PLA**  
Solak A., Aşçıoğlu Temiztaş B., Bolat B.  
MATERIALPRUEFUNG/MATERIALS TESTING, vol.1, no.1, pp.1, 2025 (SCI-Expanded)
- II. **Structural performance enhancement: bio-inspired honeycomb solutions for high-velocity hail impact challenges**  
Solak A.  
Journal of the Brazilian Society of Mechanical Sciences and Engineering, vol.1, no.1, pp.1, 2024 (SCI-Expanded)
- III. **Bioinspired honeycomb sandwich structures for enhanced hail impact resistance**  
Solak A.  
MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, vol.1, no.1, pp.1-9, 2024 (SCI-Expanded)
- IV. **Investigation of numerical belt sag and conveyor capacities in inclined belt conveyors: An iterative approach**  
Bolat B., Aşçıoğlu Temiztaş B., Sezer E., Solak A.  
POWDER TECHNOLOGY, vol.1, pp.118394-118395, 2023 (SCI-Expanded)
- V. **Numerical investigation of the mechanical behavior of the vertical stabilizer leading edge with wavy honeycomb sandwich structure under bird strike**  
Solak A., Aşçıoğlu Temiztaş B., Bolat B.  
JOURNAL OF SANDWICH STRUCTURES AND MATERIALS, vol.1, no.1, pp.1-14, 2022 (SCI-Expanded)
- VI. **Investigation of the effect of wavy honeycomb on the bending performance of the sandwich structure**  
Solak A., Aşçıoğlu Temiztaş B., Bolat B.  
JOURNAL OF SANDWICH STRUCTURES AND MATERIALS, vol.24, no.5, pp.1905-1919, 2022 (SCI-Expanded)
- VII. **Estimation of wavy honeycombs' compression performance via a machine learning algorithm**  
Solak A., Aşçıoğlu Temiztaş B., Bolat B.  
LATIN AMERICAN JOURNAL OF SOLIDS AND STRUCTURES, vol.18, no.8, 2021 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Virtual testing of aluminum and Nomex® honeycomb core structures using ls-dyna and Python/Seaborn**  
Solak A., Aşçıoğlu Temiztaş B., Bolat B.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.40, no.4, pp.823-836, 2022 (ESCI)
- II. **Düşük Karbonlu Çelik Malzemenin Rijitlik Değerinin Deneysel ve Teorik Yaklaşım ile Belirlenmesi**  
Erbayrak E., Asmaz K., Solak A.  
Bayburt Üniversitesi Fen Bilimleri Dergisi, vol.1, no.1, pp.1-7, 2018 (Peer-Reviewed Journal)
- III. **Constructive Design of a Belt Conveyor For A Coal Mine**  
Solak A., Kalay E., İmrak C. E.  
INTERNATIONAL SCIENTIFIC JOURNAL "INNOVATIONS", vol.3, pp.113-115, 2018 (Peer-Reviewed Journal)

## Papers Published in Refereed Scientific Meetings

- I. Solak A., Aşcıođlu Temiztaş B., Bolat B.  
2. INTERNATIONAL MEDITERRANEAN SCIENTIFIC RESEARCH AND INNOVATION CONGRESS, Girne, Cyprus (Kktc),  
30 July - 31 August 2022, pp.492
- II. **The Effect Of Changes In The Design Of The Crank Connecting Rod Mechanism On Stress**  
Kaner B., Asmaz K., Solak A.  
4th International Conference On Advances In Mechanical Engineering, İstanbul, Turkey, 19 December 2018, vol.1,  
no.1, pp.1596-1608
- III. **The Usage of Strain Gauge in Tension, Torsion and Bending**  
Asmaz K., Erbayrak E., Solak A.  
International Conference on Science and Technology (ICONST 2018), Prizren, Kosovo, 05 September 2018, vol.1,  
no.1, pp.1041

## Supported Projects

Solak A., Aşcıođlu Temiztaş B., Bolat B., Project Supported by Higher Education Institutions, Dalgalı bal peteđi sandviç yapıların eğilme davranışlarının incelenmesi, 2022 - 2024

Aşcıođlu Temiztaş B., Bolat B., SOLAK A., Project Supported by Higher Education Institutions, Bantlı Konveyörlerde Farklı Bant Tasarımlarının Mekanik Özelliklerinin Deneysel ve Sayısal olarak İncelenmesi, 2021 - 2023

## Tasks In Event Organizations

Solak A., ICAME 2021, Scientific Congress, İstanbul, Turkey, Kasım 2021

Solak A., ICAME 2019, Scientific Congress, İstanbul, Turkey, Aralık 2019

## Metrics

Publication: 13

Citation (WoS): 2

Citation (Scopus): 23

H-Index (WoS): 1

H-Index (Scopus): 3