

Assoc. Prof. ONUR ARSLAN

Personal Information

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International Researcher IDs

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Education Information

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Makine Mühendisliği (Dr), Turkey 2011 - 2016

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (Yl) (Tezli), Turkey 2009 - 2011

Undergraduate, Gaziantep University, Faculty Of Engineering, Department Of Mechanical Engineering (English), Turkey 2002 - 2007

Dissertations

Doctorate, Contact mechanics of graded orthotropic coatings, Middle East Technical University, Görme Engelliler Eğitimi Abd, Makine Mühendisliği (Dr), 2016

Postgraduate, Tek yönlü kompozit malzemelerin higrotermal kırılma analizi için Jk-integral metodu, Hacettepe University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (Yl) (Tezli), 2011

Research Areas

Mechanical

Courses

TEMEL BİLGİ TEKNOLOJİLERİ KULLANIMI, Undergraduate, 2017 - 2018

MECHANICS OF MATERIALS, Undergraduate, 2017 - 2018

KOMPOZİT MALZEMELER, Postgraduate, 2017 - 2018

MEKANİK SİSTEMLERDE TASARIM VE ANALİZ ARAŞ., Undergraduate, 2017 - 2018

STATICS, Undergraduate, 2017 - 2018

TEMEL BİLGİ VE TEKNOLOJİLERİ KULLANIMI, Undergraduate, 2017 - 2018

KOMPOZİT MALZEMELERE GİRİŞ, Undergraduate, 2017 - 2018

MAKİNE MÜHENDİSLİĞİNDE TASARIM II, Undergraduate, 2017 - 2018

Published journal articles indexed by SCI, SSCI, and AHCI

1. A squircle-shaped punch design for efficient contact performance of elastic materials
ARSLAN O.

Mechanics Based Design of Structures and Machines, vol.51, no.7, pp.4170-4182, 2023 (SCI-Expanded)

- II. **Hertzian crack propagation in graded glass/ceramic composites**
Arslan O.
Journal of the American Ceramic Society, vol.106, no.7, pp.4499-4514, 2023 (SCI-Expanded)
- III. **Dynamic frictional contact mechanics between a functionally graded orthotropic medium and a moving flat punch**
BALCI M. N., ARSLAN O.
Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology, vol.237, no.1, pp.53-75, 2023 (SCI-Expanded)
- IV. **Hertz-type frictional contact problem of a bidirectionally graded half-plane indented by a sliding rounded punch**
ARSLAN O.
MECHANICS OF MATERIALS, vol.149, 2020 (SCI-Expanded)
- V. **Frictional contact problem of an anisotropic laterally graded layer loaded by a sliding rigid stamp**
ARSLAN O.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.234, no.10, pp.2024-2041, 2020 (SCI-Expanded)
- VI. **Plane contact problem between a rigid punch and a bidirectional functionally graded medium**
ARSLAN O.
EUROPEAN JOURNAL OF MECHANICS A-SOLIDS, vol.80, 2020 (SCI-Expanded)
- VII. **Solution of the plane contact problem between a finite-thickness laterally graded solid and a rigid stamp of an arbitrary tip-profile**
Arslan O.
ARCHIVES OF MECHANICS, vol.71, no.6, pp.531-565, 2019 (SCI-Expanded)
- VIII. **INCLINED SURFACE CRACKS IN A GRADED HALF-PLANE SUBJECTED TO FRICTIONAL SLIDING CONTACT**
ARSLAN O.
JOURNAL OF THEORETICAL AND APPLIED MECHANICS, vol.56, no.4, pp.915-925, 2018 (SCI-Expanded)
- IX. **Contact mechanics problem between an orthotropic graded coating and a rigid punch of an arbitrary profile**
ARSLAN O., DAĞ S.
INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, vol.135, pp.541-554, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **A Finite Element Procedure for Sliding Contact Problems Involving Heterogeneous Coefficient of Friction**
ARSLAN O.
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGİSİ, vol.23, no.1, pp.197-205, 2020 (ESCI)
- II. **Computational contact mechanics analysis of laterally graded orthotropic half-planes**
ARSLAN O.
World Journal of Engineering, vol.14, no.2, pp.145-154, 2017 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **Üçgen Rijit Zimba ile Yüklenen Yanal Derecelendirilmiş Katmanların Kayma Temas Problemlerinde Gerilme Şiddeti Faktörü Hesaplamaları**
ARSLAN O.
Uluslararası Bilim, Teknoloji ve Sosyal Bilimlerde Güncel Gelişmeler Sempozyumu, 21 - 22 December 2019

- II. **Fracture Parameters in the Sliding Frictional Contact Problem of Laterally Graded Materials**
ARSLAN O.
5th International Conference on Advances in Mechanical Engineering, 17 - 19 December 2019
- III. **Temas Mekanik Problemlerinin Sonlu Elemanlar Çözümlerinde Temas Kuvveti ve Temas Uzunluğu İlişkileri**
ARSLAN O.
4. Uluslararası Bilimsel Araştırmalar Kongresi, Yalova, Turkey, 14 - 17 February 2019
- IV. **Computational Hygrothermal Fracture Analysis of Unidirectional Composite Laminates Using J-Integral**
DAĞ S., YILDIRIM B., ARSLAN O.
11th U.S. National Congress on Computational Mechanics, 25 - 28 July 2011

Supported Projects

Arslan O., TUBITAK Project, Research on the effects of hydrogen porosities on the elastoplastic behavior and failure mechanisms of aluminum alloys manufactured through Selective Laser Melting, 2022 - 2023

Arslan O., Project Supported by Higher Education Institutions, Çeşitli yönlerde derecelendirilmiş izotropik ve anizotropik malzemelerde sürtünmeli temas mekanik problemleri, 2019 - 2020

Patent

Arslan O., Bir rotatif sıkıştırıcı, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Registration Number: TR201401899B , Standard Registration, 2018

ARSLAN O., Zeytin ve benzeri yağlı meyvelerin hazırlanmış hamurundan kaliteli yağ çıkarmak için yalayıcı tipi bir ünite, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, 2011

Metrics

Publication: 15

Citation (WoS): 25

Citation (Scopus): 24

H-Index (WoS): 2

H-Index (Scopus): 2

Non Academic Experience

Sanko Makina A.Ş.