

# Prof. SERKAN DAĞ

## Personal Information

**Email:** sdag@metu.edu.tr

**Web:** <https://avesis.metu.edu.tr/sdag>

## International Researcher IDs

ScholarID: L2edvDIAAAAJ

ORCID: 0000-0003-4608-3924

Publons / Web Of Science ResearcherID: G-4586-2011

ScopusID: 6701658175

Yoksis Researcher ID: 20782

## Education Information

Doctorate, Lehigh University, Makina Mühendisliği, United States Of America 1998 - 2002

Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Makine Mühendisliği (YI) (Tezli), Turkey 1995 - 1997

Undergraduate, Middle East Technical University, Faculty of Engineering, Makine Mühendisliği Bölümü, Turkey 1990 - 1995

## Research Areas

Mechanical Engineering

## Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Engineering, Department of Mechanical Engineering, 2013 - Continues

## Academic and Administrative Experience

Head of Department, Middle East Technical University, Faculty Of Engineering, Department Of Mechanical Engineering, 2024 - Continues

## Supervised Theses

Dağ S., FONKSİYONEL OLARAK DERECELENDİRİLMİŞ PİEZOELEKTRİK ENERJİ TOPLAYICILARIN ZAYIF BİÇİMLİ KARELEME ELEMAN YÖNTEMİ İLE SERBEST VE ZORLANMIŞ TİTREŞİM ANALİZİ, Postgraduate, R.Sarper(Student), 2023

Dağ S., KOMPOZİT LAMİNE LEVHALARIN ANALİZİ İÇİN TRİGONOMETRİK SERİSİ ÇÖZÜMÜ, Postgraduate, S.Koç(Student), 2023

Dağ S., DEĞİŞKEN ELYAF HACMİNE SAHİP LAMİNE LEVHALARIN TERMAL BURKULMASI, Postgraduate, E.Mercan(Student), 2023

DAĞ S., Domain-boundary element method for elastodynamics of functionally graded thick-walled cylinders and annular

coatings, Doctorate, A.ELRAHIM(Student), 2022

DAĞ S., Dynamic frictional contact problems involving functionally graded materials, Doctorate, M.NURULLAH(Student), 2018

DAĞ S., Oblique surface cracking and crack closure in an orthotropic medium under contact loading, Postgraduate, S.ERCİHAN(Student), 2018

DAĞ S., Forced vibration analysis of generally laminated composite beams using domain boundary element method, Postgraduate, Z.AHMED(Student), 2018

CİĞEROĞLU E., DAĞ S., New modeling and analysis methods for micro-plates, Doctorate, R.AGHAZADEH(Student), 2017

DAĞ S., Shape optimization of helicopter subfloor intersection element under crash loading, Postgraduate, M.OKAN(Student), 2017

DAĞ S., Free vibration analysis of functionally graded rectangular nano-plates considering spatial variation of the nonlocal parameter, Postgraduate, A.ALİPOUR(Student), 2017

DAĞ S., Contact mechanics of graded orthotropic coatings, Doctorate, O.ARSLAN(Student), 2016

DAĞ S., Investigation of fatigue behaviour of external stores under fixed wing aircraft platforms during random vibration, Postgraduate, E.OKUR(Student), 2015

DAĞ S., A Surface crack in an orthotropic medium subjected to sliding contact by a rigid stamp/, Doctorate, D.Sarıkaya(Student), 2014

DAĞ S., A surface crack in an orthotropic medium subjected to sliding contact by a rigid stamp, Doctorate, D.SARIKAYA(Student), 2014

DAĞ S., ORAL S., Design of a vehicle barrier, Postgraduate, E.METİN(Student), 2013

DAĞ S., Isıl ve higroskopik yüklemeye altındaki ortotropik fonksiyonel derecelendirilmiş malzemelerde hesaplamalı yöntemlerle kırılma analizi, Doctorate, S.TOPAL(Student), 2013

DAĞ S., Fatigue and fracture analysis of helicopter fuselage structures, Postgraduate, R.ÖZCAN(Student), 2013

CİĞEROĞLU E., DAĞ S., Static and free vibration analyses of small-scale functionally graded beams possessing a variable length scale parameter using different beam theories, Postgraduate, R.AGHAZADEH(Student), 2013

DAĞ S., Hygrothermal fracture analysis of fibrous composites with variable fiber spacing using JK-integral, Postgraduate, F.SAEİDİ(Student), 2013

DAĞ S., Three dimensional fracture analysis of orthotropic materials, Postgraduate, G.AKGÜL(Student), 2012

DAĞ S., Malzeme özellikleri sıcaklığa bağımlı olan izotropik fonksiyonel derecelendirilmiş malzemelerde bulunan eğik çatlakların gerilme şiddet çarpanları Jk-integral yöntemi ile hesaplanması, Postgraduate, M.YEGANEHPoor(Student), 2012

DAĞ S., Tek yönlü kompozit malzemelerin higrotermal kırılma analizi için Jk-integral metodu, Postgraduate, O.ARSLAN(Student), 2011

Dağ S., Yazıcıoğlu Y., Vibration fatigue analysis of structures under broadband excitation, Postgraduate, B.KOÇER(Student), 2010

DAĞ S., Mechanical characterization and modelling of porous polymeric materials manufactured by selective laser sintering, Postgraduate, C.MURAT(Student), 2009

DAĞ S., YAMAN İ. Ö., Finite element simulation of crack propagation for steel fiber reinforced concrete, Postgraduate, K.ÖZENÇ(Student), 2009

Dağ S., Gökler M. I., Finite element analysis of a micro satellite structure under vibration induced loads during launch, Postgraduate, S.ONTAÇ(Student), 2008

DAĞ S., Jk-integral formulation and implementation for thermally loaded orthotropic functionally graded materials, Postgraduate, E.ERHAN(Student), 2008

KADIOĞLU F. S., DAĞ S., Computational 3d fracture analysis in axisymmetric media, Postgraduate, Ö.ÜNAL(Student), 2008

DAĞ S., Storage reliability analysis of solid rocket propellants, Postgraduate, M.SİNAN(Student), 2008

DAĞ S., Stress and fracture analysis of riveted joints, Postgraduate, G.KEÇELİOĞLU(Student), 2008

DAĞ S., Mixed-mode fracture analysis of orthotropic FGM coatings under mechanical and thermal loads, Doctorate, K.AYŞE(Student), 2007

DAĞ S., Three dimensional mixed mode fracture analysis of functionally graded materials, Postgraduate, S.KÖŞKER(Student), 2007

DAĞ S., Three dimensional fracture analysis of fillet welds, Postgraduate, F.FIÇICI(Student), 2007

DAĞ S., A finite elements based approach for fracture analysis of welded joints in construction machinery, Postgraduate, T.KARAGÖZ(Student), 2007

DAĞ S., Fatigue crack growth analysis models for functionally graded materials, Postgraduate, B.SABUNCUOĞLU(Student), 2006

DAĞ S., KADIOĞLU F. S., Buckling driven delamination of orthotropic functionally graded materials, Postgraduate, S.YILMAZ(Student), 2006

DAĞ S., Thermal stress intensity factor evaluation for inclined cracks in functionally graded materials using Jk-integral method, Postgraduate, B.DEMİRÇİVİ(Student), 2006

DAĞ S., Fatigue crack growth analysis models for functionally graded materials, Postgraduate, B.Sabuncuoğlu(Student), 2006

DAĞ S., Contact mechanics of graded materials with two-dimensional material property variations, Postgraduate, K.GÖKAY(Student), 2005

DAĞ S., Mixed-mode fracture analysis of orthotropic functionally graded materials, Postgraduate, D.SARIKAYA(Student), 2005

DAĞ S., Fonksiyonel derecelendirilmiş malzemelerden yapılmış termal bariyer kaplamalarındaki kenar çatlaklarının süreksiz rejimde sonlu elemanlar metodu ile incelenmesi, Postgraduate, E.GÜLİN(Student), 2004

DAĞ S., Three dimensional fracture analysis of FGM coatings, Postgraduate, Ö.İNAN(Student), 2004

DAĞ S., Contact mechanics of graded surface with elastic gradation in lateral direction, Postgraduate, A.Cihan(Student), 2003

DAĞ S., Automated design analysis of anti-roll bars, Postgraduate, K.ÇALIŞKAN(Student), 2003

DAĞ S., Contact mechanics of a graded surface with elastic gradation in lateral direction, Postgraduate, A.CİHAN(Student), 2003

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

- I. **Effects of translaminar edge crack and fiber angle on fracture toughness and crack propagation behaviors of laminated carbon fiber composites**  
Asan A. M., Kaman M. O., DAĞ S., Erdem S., Turan K.  
International Journal of Materials Research, vol.115, no.6, pp.446-462, 2024 (SCI-Expanded)
- II. **Investigation of the translaminar fracture behavior of the fiber-reinforced composites stitched perpendicular to their plane**  
Asan A. M., Kaman M. O., DAĞ S., Erdem S., Turan K.  
Journal of the Brazilian Society of Mechanical Sciences and Engineering, vol.46, no.5, 2024 (SCI-Expanded)
- III. **MAGNETOELECTROELASTIC RESPONSE OF FUNCTIONALLY GRADED MULTIFERROIC COATINGS UNDER MOVING HERTZIAN CONTACT**  
TOKTAŞ S. E., DAĞ S.  
Journal of Mechanics of Materials and Structures, vol.19, no.3, pp.343-371, 2024 (SCI-Expanded)
- IV. **Cracking of a functionally graded coating due to sliding contact with heat generation**  
BALCI M. N., DAĞ S., YILDIRIM B.  
Fatigue and Fracture of Engineering Materials and Structures, vol.46, no.12, pp.4628-4648, 2023 (SCI-Expanded)
- V. **Mechanics of moving contacts involving functionally graded multiferroics**  
TOKTAŞ S. E., DAĞ S.  
Archives of Mechanics, vol.75, no.4, pp.431-468, 2023 (SCI-Expanded)
- VI. **Computational elastodynamics of functionally graded thick-walled cylinders and annular coatings subjected to pressure shocks**  
Abeidi A., DAĞ S.  
INTERNATIONAL JOURNAL OF PRESSURE VESSELS AND PIPING, vol.200, 2022 (SCI-Expanded)
- VII. **Multi-layer model for moving contact problems of functionally graded coatings with general variations in physical properties**

TOKTAŞ S. E., DAĞ S.

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART L-JOURNAL OF MATERIALS-DESIGN AND APPLICATIONS, vol.236, no.10, pp.1967-1980, 2022 (SCI-Expanded)

- VIII. **Stresses in multi-layer coatings in Hertzian contact with a moving circular punch**  
TOKTAŞ S. E., DAĞ S.  
Tribology International, vol.171, 2022 (SCI-Expanded)
- IX. **Transient dynamic analysis of functionally graded micro-beams considering small-scale effects**  
Eshraghi I., Dag S.  
ARCHIVES OF MECHANICS, vol.73, no.4, pp.303-337, 2021 (SCI-Expanded)
- X. **Oblique surface cracking and crack closure in an orthotropic medium under contact loading**  
TOKTAŞ S. E., DAĞ S.  
THEORETICAL AND APPLIED FRACTURE MECHANICS, vol.109, 2020 (SCI-Expanded)
- XI. **Forced vibrations of functionally graded annular and circular plates by domain-boundary element method**  
Eshraghi I., DAĞ S.  
ZAMM-ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK, vol.100, no.8, 2020 (SCI-Expanded)
- XII. **Moving contact problems involving a rigid punch and a functionally graded coating**  
Balci M. N., DAĞ S.  
APPLIED MATHEMATICAL MODELLING, vol.81, pp.855-886, 2020 (SCI-Expanded)
- XIII. **Mechanics of dynamic contact of coated substrate and rigid cylindrical ended punch**  
Balci M. N., DAĞ S.  
JOURNAL OF MECHANICAL SCIENCE AND TECHNOLOGY, vol.33, no.5, pp.2225-2240, 2019 (SCI-Expanded)
- XIV. **Solution of the dynamic frictional contact problem between a functionally graded coating and a moving cylindrical punch**  
BALCI M. N., DAĞ S.  
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, vol.161, pp.267-281, 2019 (SCI-Expanded)
- XV. **Thermal effect on bending, buckling and free vibration of functionally graded rectangular micro-plates possessing a variable length scale parameter**  
Aghazadeh R., Dağ S., Ciğeroğlu E.  
MICROSYSTEM TECHNOLOGIES-MICRO-AND NANOSYSTEMS-INFORMATION STORAGE AND PROCESSING SYSTEMS, vol.24, pp.3549-3572, 2018 (SCI-Expanded)
- XVI. **Dynamic frictional contact problems involving elastic coatings**  
BALCI M. N., DAĞ S.  
TRIBOLOGY INTERNATIONAL, vol.124, pp.70-92, 2018 (SCI-Expanded)
- XVII. **Hyperbolic heat conduction based weight function method for thermal fracture of functionally graded hollow cylinders**  
Eshraghi I., Soltani N., DAĞ S.  
INTERNATIONAL JOURNAL OF PRESSURE VESSELS AND PIPING, vol.165, pp.249-262, 2018 (SCI-Expanded)
- XVIII. **Modelling of graded rectangular micro-plates with variable length scale parameters**  
Aghazadeh R., Dağ S., Ciğeroğlu E.  
STRUCTURAL ENGINEERING AND MECHANICS, vol.65, pp.573-585, 2018 (SCI-Expanded)
- XIX. **Domain-boundary element method for elastodynamics of functionally graded Timoshenko beams**  
Eshraghi I., DAĞ S.  
COMPUTERS & STRUCTURES, vol.195, pp.113-125, 2018 (SCI-Expanded)
- XX. **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)
- XXI. **Subsurface stresses in graded coatings subjected to frictional contact with heat generation**  
BALCI M. N., DAĞ S., YILDIRIM B.  
JOURNAL OF THERMAL STRESSES, vol.40, no.4, pp.517-534, 2017 (SCI-Expanded)

- XXII. **Free vibration analysis of functionally graded rectangular nanoplates considering spatial variation of the nonlocal parameter**  
Ghassabı A. A., Dağ S., Ciğeroğlu E.  
ARCHIVES OF MECHANICS, vol.69, pp.105-130, 2017 (SCI-Expanded)
- XXIII. **Surface cracking in an orthotropic medium subjected to frictional contact**  
Sarıkaya D., DAĞ S.  
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, vol.90, pp.1-11, 2016 (SCI-Expanded)
- XXIV. **Bending and free vibrations of functionally graded annular and circular micro-plates under thermal loading**  
Eshraghi I., DAĞ S., Soltani N.  
COMPOSITE STRUCTURES, vol.137, pp.196-207, 2016 (SCI-Expanded)
- XXV. **Consideration of spatial variation of the friction coefficient in contact mechanics analysis of laterally graded materials**  
DAĞ S.  
ZAMM-ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK, vol.96, no.1, pp.121-136, 2016 (SCI-Expanded)
- XXVI. **Weight function method for transient thermomechanical fracture analysis of a functionally graded hollow cylinder possessing a circumferential crack**  
Eshraghi I., Soltani N., DAĞ S.  
JOURNAL OF THERMAL STRESSES, vol.39, no.10, pp.1182-1199, 2016 (SCI-Expanded)
- XXVII. **Analysis of frictional contacts with heat generation considering temperature dependent properties**  
BALCI M. N., YILDIRIM B., DAĞ S.  
INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, vol.101, pp.59-69, 2015 (SCI-Expanded)
- XXVIII. **Consideration of spatial variation of the length scale parameter in static and dynamic analyses of functionally graded annular and circular micro-plates**  
Eshraghi I., DAĞ S., Soltani N.  
COMPOSITES PART B-ENGINEERING, vol.78, pp.338-348, 2015 (SCI-Expanded)
- XXIX. **Static and free vibration analyses of small-scale functionally graded beams possessing a variable length scale parameter using different beam theories**  
Aghazadeh R., Ciğeroğlu E., Dağ S.  
EUROPEAN JOURNAL OF MECHANICS A-SOLIDS, vol.46, pp.1-11, 2014 (SCI-Expanded)
- XXX. **Production of graded porous polyamide structures and polyamide-epoxy composites via selective laser sintering**  
Jande Y. A. C., ERDAL ERDOĞMUŞ M., DAĞ S.  
JOURNAL OF REINFORCED PLASTICS AND COMPOSITES, vol.33, no.11, pp.1017-1036, 2014 (SCI-Expanded)
- XXXI. **Computational Methods for Inclined Cracks in Orthotropic Functionally Graded Materials Under Thermal Stresses**  
DAĞ S., YILDIRIM B., TOPAL S.  
JOURNAL OF THERMAL STRESSES, vol.36, no.10, pp.1001-1026, 2013 (SCI-Expanded)
- XXXII. **Frictional Hertzian contact between a laterally graded elastic medium and a rigid circular stamp**  
DAĞ S., GÜLER M. A., YILDIRIM B., Ozatag A. C.  
ACTA MECHANICA, vol.224, no.8, pp.1773-1789, 2013 (SCI-Expanded)
- XXXIII. **Hygrothermal Fracture Analysis of Orthotropic Functionally Graded Materials Using J(k)-Integral-Based Methods**  
TOPAL S., DAĞ S.  
MATHEMATICAL PROBLEMS IN ENGINEERING, 2013 (SCI-Expanded)
- XXXIV. **Three dimensional computational analysis of fatigue crack propagation in functionally graded materials**  
Sabuncuoğlu B., DAĞ S., YILDIRIM B.  
COMPUTATIONAL MATERIALS SCIENCE, vol.52, no.1, pp.246-252, 2012 (SCI-Expanded)
- XXXV. **A surface crack in a graded coating subjected to sliding frictional contact**

- DAĞ S., APATAY T., GÜLER M. A., Gulgeç M.  
ENGINEERING FRACTURE MECHANICS, vol.80, pp.72-91, 2012 (SCI-Expanded)
- XXXVI. **HYGROTHERMAL FRACTURE ANALYSIS OF ORTHOTROPIC MATERIALS USING  $J(k)$ -INTEGRAL**  
DAĞ S., YILDIRIM B., Arslan O., Arman E. E.  
JOURNAL OF THERMAL STRESSES, vol.35, no.7, pp.596-613, 2012 (SCI-Expanded)
- XXXVII. **Computation of thermal fracture parameters for orthotropic functionally graded materials using  $J(k)$ -integral**  
DAĞ S., Arman E. E., YILDIRIM B.  
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, vol.47, pp.3480-3488, 2010 (SCI-Expanded)
- XXXVIII. **Subsurface contact stresses in functionally graded coatings loaded by a frictional flat stamp**  
**Fonksiyonel derecelendirilmiş kaplamalarda sürtünmeli rijit zımba etki-siyole oluşan yüzeyaltı temas gerilmeleri**  
APATAY T., DAĞ S., Güler M. A., Gülgeç M.  
Journal of the Faculty of Engineering and Architecture of Gazi University, vol.25, no.3, pp.611-623, 2010 (SCI-Expanded)
- XXXIX. **Sliding frictional contact between a rigid punch and a laterally graded elastic medium**  
DAĞ S., GÜLER M. A., Yildirim B., Ozatag A. C.  
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, vol.46, pp.4038-4053, 2009 (SCI-Expanded)
- XL. **Computation of Thermal Fracture Parameters for Inclined Cracks in Functionally Graded Materials Using  $J_k$ -Integral**  
DAĞ S., YILDIRIM B.  
JOURNAL OF THERMAL STRESSES, vol.32, no.5, pp.530-556, 2009 (SCI-Expanded)
- XLI. **Mixed-mode fracture analysis of orthotropic functionally graded material coatings using analytical and computational methods**  
DAĞ S., İlhan K. A.  
JOURNAL OF APPLIED MECHANICS-TRANSACTIONS OF THE ASME, vol.75, no.5, 2008 (SCI-Expanded)
- XLII. **Mixed-mode fracture analysis of orthotropic functionally graded materials under mechanical and thermal loads**  
Dag S., Yildirim B., Sarikaya D.  
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, vol.44, no.24, pp.7816-7840, 2007 (SCI-Expanded)
- XLIII. **A surface crack in a graded coating bonded to a homogeneous substrate under general loading conditions**  
El-Borgi S., Abdelmoula R., DAĞ S., Lajnef N.  
JOURNAL OF MECHANICS OF MATERIALS AND STRUCTURES, vol.2, no.7, pp.1331-1353, 2007 (SCI-Expanded)
- XLIV. **Mixed-mode fracture analysis of functionally graded materials under thermal stresses: A new approach using  $J(k)$ -integral**  
Dag S.  
JOURNAL OF THERMAL STRESSES, vol.30, no.3, pp.269-296, 2007 (SCI-Expanded)
- XLV. **Thermal fracture analysis of orthotropic functionally graded materials using an equivalent domain integral approach**  
Dag S.  
ENGINEERING FRACTURE MECHANICS, vol.73, no.18, pp.2802-2828, 2006 (SCI-Expanded)
- XLVI. **Circumferential crack problem for an fgm cylinder under thermal stresses**  
DAĞ S., Kadioğlu S., Yahşi O. S.  
Journal of Thermal Stresses, vol.22, no.7, pp.659-687, 1999 (SCI-Expanded)
- XLVII. **Crack problem for a functionally graded layer on an elastic foundation**  
Kadioğlu S., DAĞ S., Yahşi S.  
International Journal of Fracture, vol.94, no.1, pp.63-77, 1998 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Domain-boundary element method for forced vibrations of fiber-reinforced laminated beams**  
Ahmed Z., Eshraghi I., DAĞ S.  
INTERNATIONAL JOURNAL FOR COMPUTATIONAL METHODS IN ENGINEERING SCIENCE & MECHANICS, vol.21,  
no.3, pp.141-158, 2020 (ESCI)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Fonksiyonel Derecelendirilmiş Multiferroik Kaplama ile Yarı-Dairesel Zımba Arasında Hareketli Temas Problemi**  
Toktaş S. E., Dağ S.  
23. Ulusal Mekanik Kongresi, Konya, Turkey, 4 - 07 September 2023, pp.8-22
- II. **On the moving contact problem between an arbitrarily graded coating and a semi-circular punch**  
Toktaş S. E., Dağ S.  
Contact Mechanics International Symposium, Lausanne, Switzerland, 23 - 25 May 2022, pp.19
- III. **MIXED-MODE HYGROTHERMAL FRACTURE ANALYSIS OF ORTHOTROPIC FUNCTIONALLY GRADED MATERIALS USING J-INTEGRAL**  
TOPAL S., DAĞ S.  
12th ASME Biennial Conference on Engineering Systems Design and Analysis (ESDA2014), Copenhagen, Denmark,  
25 - 27 June 2014
- IV. **On the generation of a loading history with zero mean for structures subjected to multiaxial variable stresses**  
Kocer B., Yazıcıoğlu Y., Dağ S.  
The Ninth International Conference on Multiaxial Fatigue & Fracture ICMFF 2010, Parma, Italy, 7 - 09 June 2010,  
pp.211-218
- V. **Manufacturing of Functionally Graded Porous Products by Selective Laser Sintering**  
ERDAL ERDOĞMUŞ M., DAĞ S., Jande Y., Tekin C. M.  
10th International Symposium on Multiscale, Multifunctional and Functionally Graded Materials, Sendai, Japan, 22 -  
25 September 2008, pp.253-258
- VI. **Three Dimensional Modeling of Inclined Surface Cracks in FGM Coatings**  
Kosker S., DAĞ S., YILDIRIM B.  
10th International Symposium on Multiscale, Multifunctional and Functionally Graded Materials, Sendai, Japan, 22 -  
25 September 2008, pp.109-110
- VII. **Mechanical modeling of Thin Films Bonded to Functionally Graded Materials**  
GÜLER M. A., Gulver Y. F., DAĞ S.  
10th International Symposium on Multiscale, Multifunctional and Functionally Graded Materials, Sendai, Japan, 22 -  
25 September 2008, pp.333-334
- VIII. **Structural finite element analysis of stiffened and honeycomb panels of the RASAT satellite**  
Ontac S., DAĞ S., Goekler M. I.  
3rd International Conference on Recent Advances in Space Technologies, İstanbul, Turkey, 14 - 16 June 2007,  
pp.171-172
- IX. **Mixed-mode stress intensity factors for an embedded crack in an orthotropic FGM coating**  
DAĞ S., İlhan K. A., Erdogan F.  
9th International Conference on Multiscale and Functionally Graded Materials, Hawaii, United States Of America, 15  
- 18 October 2006, vol.973, pp.16-17
- X. **The frictional contact problem of sliding rigid parabolic stamps on graded materials**  
GÜLER M. A., Erdogan F., DAĞ S.  
9th International Conference on Multiscale and Functionally Graded Materials, Hawaii, United States Of America, 15  
- 18 October 2006, vol.973, pp.784-785

- XI. **Fatigue crack growth analysis models for functionally graded materials**  
DAĞ S., Sabuncuoglu B., YILDIRIM B.  
9th International Conference on Multiscale and Functionally Graded Materials, Hawaii, United States Of America, 15  
- 18 October 2006, vol.973, pp.423-424
- XII. **Three dimensional analysis of periodic cracking in FGM coatings under thermal stresses**  
DAĞ S., Yildirin B., Erdogan F.  
9th International Conference on Multiscale and Functionally Graded Materials, Hawaii, United States Of America, 15  
- 18 October 2006, vol.973, pp.676-677
- XIII. **Modeling of thin films and cover plates bonded to graded substrates**  
GÜLER M. A., Erdogan F., DAĞ S.  
9th International Conference on Multiscale and Functionally Graded Materials, Hawaii, United States Of America, 15  
- 18 October 2006, vol.973, pp.790-791
- XIV. **Contact mechanics of graded materials: Analyses using singular integral equations**  
Dag S.  
9th International Conference on Multiscale and Functionally Graded Materials, Hawaii, United States Of America, 15  
- 18 October 2006, vol.973, pp.820-825

## Supported Projects

DAĞ S., TUBITAK Project, Çok Katmanlı Ve Fonksiyonel Derecelendirilmiş Manyeto-Elektro-Elastik Kaplamaların Hareketli Temas Modellemesi, 2022 - 2023

Kaman M. O., Dağ S., Turan K., TUBITAK Project, Investigation of Translaminar Fracture Behavior of Fiber-Reinforced Composites Stitched Perpendicular to Their Plane, 2021 - 2023

DAĞ S., TUBITAK Project, Mikro-Plakların Modelleme Ve Analizi İçin Yeni Yöntemler, 2014 - 2016

DAĞ S., TUBITAK Project, İleri Malzemelerin Higrotermal Kirilma Analizi İçin Hesaplamalı Yöntemler, 2010 - 2012

## Activities in Scientific Journals

SN Applied Sciences, Committee Member, 2019 - Continues

## Scientific Refereeing

TUBITAK Project, 1501 - Industry R & D Projects Support Program, CMİ MÜHENDİSLİK İNŞAAT ENERJİ MAKİNE SANAYİ VE TİCARET LİMİTED ŞİRKETİ, Turkey, November 2024

TUBITAK Project, 1501 - Industry R & D Projects Support Program, İNOVA KOLTUK SİSTEMLERİ ARAÇ TASARIM OTOMOTİV SAN. VE TİC. A.Ş., Turkey, November 2024

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Middle East Technical University, Turkey, November 2024

TUBITAK Project, 1501 - Industry R & D Projects Support Program, DMR HAVACILIK MAKİNA MÜHENDİSLİK SANAYİ VE TİCARET ANONİM ŞİRKETİ, Turkey, January 2024

JOURNAL OF MECHANICAL SCIENCE AND TECHNOLOGY, Journal Indexed in SCI-E, August 2023

FATIGUE AND FRACTURE OF ENGINEERING MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, July 2023

COMPOSITE STRUCTURES, Journal Indexed in SCI-E, July 2023

ZAMM ZEITSCHRIFT FÜR ANGEWANDTE MATHEMATIK UND MECHANIK, Journal Indexed in SCI-E, June 2023

ACTA MECHANICA, Journal Indexed in SCI-E, May 2023

INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, Journal Indexed in SCI-E, May 2023

COMPOSITE STRUCTURES, Journal Indexed in SCI-E, May 2023

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS, PART E: JOURNAL OF PROCESS MECHANICAL



ENGINEERING, Journal Indexed in SCI-E, April 2023

MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, Journal Indexed in SCI-E, April 2023

FATIGUE AND FRACTURE OF ENGINEERING MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, April 2023

APPLIED MATHEMATICAL MODELLING, Journal Indexed in SCI-E, March 2023

JOURNAL OF THERMAL STRESSES, Journal Indexed in SCI-E, March 2023

MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, February 2023

WAVES IN RANDOM AND COMPLEX MEDIA, Journal Indexed in SCI-E, February 2023

MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, February 2023

MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, Journal Indexed in SCI-E, February 2023

ARCHIVES OF MECHANICS, Journal Indexed in SCI-E, February 2023

NONDESTRUCTIVE TESTING AND EVALUATION, Journal Indexed in SCI-E, February 2023

MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, Journal Indexed in SCI-E, January 2023

MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, Journal Indexed in SCI-E, January 2023

SURFACE REVIEW AND LETTERS, Journal Indexed in SCI-E, January 2023

INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, Journal Indexed in SCI-E, November 2022

ACTA MECHANICA, Journal Indexed in SCI-E, October 2022

COMPOSITE STRUCTURES, Journal Indexed in SCI-E, October 2022

MECHANICS OF MATERIALS, Journal Indexed in SCI-E, October 2022

ARCHIVE OF APPLIED MECHANICS, Journal Indexed in SCI-E, September 2022

JOURNAL OF INVESTIGATIVE SURGERY, Journal Indexed in SCI-E, September 2022

JOURNAL OF INTELLIGENT MATERIAL SYSTEMS AND STRUCTURES, Journal Indexed in SCI-E, June 2022

JOURNAL OF THERMAL STRESSES, Journal Indexed in SCI-E, April 2022

THEORETICAL AND APPLIED FRACTURE MECHANICS, Journal Indexed in SCI-E, April 2022

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS, PART L: JOURNAL OF MATERIALS: DESIGN AND APPLICATIONS, Journal Indexed in SCI-E, April 2022

JOURNAL OF THERMAL STRESSES, Journal Indexed in SCI-E, March 2022

MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, Journal Indexed in SCI-E, March 2022

MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, March 2022

ZAMM ZEITSCHRIFT FÜR ANGEWANDTE MATHEMATIK UND MECHANIK, Journal Indexed in SCI-E, March 2022

MULTIDISCIPLINE MODELING IN MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, March 2022

COMPOSITES AND ADVANCED MATERIALS, Journal Indexed in SCI-E, March 2022

MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, Journal Indexed in SCI-E, February 2022

WAVES IN RANDOM AND COMPLEX MEDIA, Journal Indexed in SCI-E, February 2022

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, Journal Indexed in SCI-E, January 2022

JOURNAL OF THERMAL STRESSES, Journal Indexed in SCI-E, January 2022

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS, PART C: JOURNAL OF MECHANICAL ENGINEERING SCIENCE, Journal Indexed in SCI-E, January 2022

JOURNAL OF THE MECHANICAL BEHAVIOR OF BIOMEDICAL MATERIALS, Journal Indexed in SCI-E, December 2021

APPLIED MATERIALS TODAY, Journal Indexed in SCI-E, December 2021

JOURNAL OF THERMAL STRESSES, Journal Indexed in SCI-E, December 2021

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART L-JOURNAL OF MATERIALS-DESIGN AND APPLICATIONS, Journal Indexed in SCI-E, December 2021

International Journal for Computational Methods in Engineering Science & Mechanics, Journal Indexed in ESCI, December 2021

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, Journal Indexed in SCI-E, November 2021

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, Journal Indexed in SCI-E, November 2021

PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, Journal Indexed in SCI-E, November 2021

MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, November 2021

OPEN PHYSICS, Journal Indexed in SCI-E, November 2021

FATIGUE & FRACTURE OF ENGINEERING MATERIALS & STRUCTURES, Journal Indexed in SCI-E, November 2021  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, Journal Indexed in SCI-E, November 2021  
MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, October 2021  
MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, Journal Indexed in SCI-E, October 2021  
INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, Journal Indexed in SCI-E, October 2021  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART L-JOURNAL OF MATERIALS-DESIGN AND APPLICATIONS, Journal Indexed in SCI-E, October 2021  
JOURNAL OF THERMAL STRESSES, Journal Indexed in SCI-E, October 2021  
FATIGUE & FRACTURE OF ENGINEERING MATERIALS & STRUCTURES, Journal Indexed in SCI-E, September 2021  
JOURNAL OF THERMAL STRESSES, Journal Indexed in SCI-E, September 2021  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, Journal Indexed in SCI-E, September 2021  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, Journal Indexed in SCI-E, September 2021  
WAVES IN RANDOM AND COMPLEX MEDIA, Journal Indexed in SCI-E, August 2021  
MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, August 2021  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, Journal Indexed in SCI-E, August 2021  
COMPOSITE STRUCTURES, Journal Indexed in SCI-E, August 2021  
ZAMM-ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK, Journal Indexed in SCI-E, August 2021  
JOURNAL OF THERMAL STRESSES, Journal Indexed in SCI-E, July 2021  
ZAMM-ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK, Journal Indexed in SCI-E, July 2021  
JOURNAL OF THERMAL STRESSES, Journal Indexed in SCI-E, July 2021  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART L-JOURNAL OF MATERIALS-DESIGN AND APPLICATIONS, Journal Indexed in SCI-E, June 2021  
JOURNAL OF MECHANICS OF MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, June 2021  
JOURNAL OF THE BRAZILIAN SOCIETY OF MECHANICAL SCIENCES AND ENGINEERING, Journal Indexed in SCI-E, June 2021  
ENGINEERING FRACTURE MECHANICS, Journal Indexed in SCI-E, May 2021  
FATIGUE & FRACTURE OF ENGINEERING MATERIALS & STRUCTURES, Journal Indexed in SCI-E, May 2021  
THEORETICAL AND APPLIED FRACTURE MECHANICS, Journal Indexed in SCI-E, May 2021  
MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, May 2021  
JOURNAL OF THERMAL STRESSES, Journal Indexed in SCI-E, May 2021  
MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, Journal Indexed in SCI-E, May 2021  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, Journal Indexed in SCI-E, April 2021  
MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, Journal Indexed in SCI-E, April 2021  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART L-JOURNAL OF MATERIALS-DESIGN AND APPLICATIONS, Journal Indexed in SCI-E, April 2021  
ACTA MECHANICA, Journal Indexed in SCI-E, April 2021  
SOFTWAREX, Journal Indexed in SCI-E, March 2021  
JOURNAL OF THE MECHANICAL BEHAVIOR OF BIOMEDICAL MATERIALS, Journal Indexed in SCI-E, March 2021  
MARINE GEORESOURCES & GEOTECHNOLOGY, Journal Indexed in SCI-E, March 2021  
APPLIED MATHEMATICS AND MECHANICS-ENGLISH EDITION, Journal Indexed in SCI-E, February 2021  
THEORETICAL AND APPLIED FRACTURE MECHANICS, Journal Indexed in SCI-E, January 2021  
International Journal for Computational Methods in Engineering Science & Mechanics, Journal Indexed in ESCI, January 2021  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART L-JOURNAL OF MATERIALS-DESIGN AND APPLICATIONS, Journal Indexed in SCI-E, January 2021  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, Journal Indexed in SCI-E, December 2020

ENGINEERING FRACTURE MECHANICS, Journal Indexed in SCI-E, October 2020  
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, Journal Indexed in SCI-E, October 2020  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART L-JOURNAL OF MATERIALS-DESIGN AND APPLICATIONS, Journal Indexed in SCI-E, September 2020  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART L-JOURNAL OF MATERIALS-DESIGN AND APPLICATIONS, Journal Indexed in SCI-E, July 2020  
ENGINEERING FRACTURE MECHANICS, Journal Indexed in SCI-E, July 2020  
ZAMM-ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK, Journal Indexed in SCI-E, June 2020  
ISI BİLİMİ VE TEKNİĞİ DERGİSİ, National Scientific Refreed Journal, March 2020  
ACTA MECHANICA, Journal Indexed in SCI-E, March 2020  
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, Journal Indexed in SCI-E, January 2020

## **Metrics**

Publication: 62  
Citation (WoS): 1070  
Citation (Scopus): 1143  
H-Index (WoS): 20  
H-Index (Scopus): 20

## **Non Academic Experience**

Orta Doğu Teknik Üniversitesi  
Orta Doğu Teknik Üniversitesi  
Orta Doğu Teknik Üniversitesi  
Lehigh University  
Orta Doğu Teknik Üniversitesi