

Asst. Prof. ERAY ARSLAN

Personal Information

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Education Information

Doctorate, Middle East Technical University, Faculty Of Engineering, Department Of Engineering Sciences, Turkey 2004 - 2010

Undergraduate, Cukurova University, Mühendislik-Mimarlık Fakültesi, Makine Mühendisliği Bölümü (İngilizce), Turkey 1998 - 2003

Research Areas

Mechanical Engineering, Mechanical, Solid Mechanics, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Inonu University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2018 - Continues

Assistant Professor, Inonu University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2010 - 2018

Research Assistant, Middle East Technical University, Faculty Of Engineering, Department Of Engineering Sciences, 2004 - 2010

Academic and Administrative Experience

Inonu University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2016 - Continues

Inonu University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2010 - 2013

Courses

İLERİ MÜHENDİSLİK MATEMATİĞİ 1, Postgraduate, 2016 - 2017

BİLGİSAYAR DESTEKLİ TEKNİK ÇİZİM, Undergraduate, 2016 - 2017

MAKİNE TASARIMI 1, Undergraduate, 2016 - 2017

MAKİNE MÜHENDİSLİĞİNDE BİLGİSAYAR UYGULAMALARI I, Undergraduate, 2016 - 2017

ELASTİSİTE TEORİSİ 1, Postgraduate, 2016 - 2017

MAKİNE MÜH. LAB. 1, Undergraduate, 2016 - 2017

MUKAVEMET 1, Undergraduate, 2016 - 2017

Advising Theses

ARSLAN E., Elastik-plastik sıkı geçme elemanlarının analitik ve sonlu elemanlar modelleri ile mekanik davranışlarının

incelenmesi, Postgraduate, İ.BOZKURT(Student), 2017

ARSLAN E., Silindirik eksenli homojen ve heterojen panellerin ısı yük altında elastik davranışları, Doctorate, M.HASKUL(Student), 2016

ARSLAN E., Fonksiyonel derecelendirilmiş eğri eksenli piezoelektrik kirişlerin mekanik ve elektriksel davranışları, Postgraduate, A.TURAN(Student), 2016

ARSLAN E., Eğri eksenli Piezoelektrik kirişlerde deformasyon analizi, Postgraduate, R.USTA(Student), 2013

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Elastic-plastic design of a rotating shrink fit with functionally graded hub**
Apatay T., Arslan E., Mack W.
ARCHIVE OF APPLIED MECHANICS, vol.87, no.11, pp.1829-1843, 2017 (SCI-Expanded)
- II. **Radial heating of a thick-walled cylindrically curved FGM-panel**
HASKUL M., ARSLAN E., Mack W.
ZAMM-ZEITSCHRIFT FÜR ANGEWANDTE MATHEMATIK UND MECHANIK, vol.97, no.3, pp.309-321, 2017 (SCI-Expanded)
- III. **Generalized plane strain solution of a thick-walled cylindrical panel subjected to radial heating**
ARSLAN E., HASKUL M.
ACTA MECHANICA, vol.226, no.4, pp.1213-1225, 2015 (SCI-Expanded)
- IV. **Shrink fit with solid inclusion and functionally graded hub**
ARSLAN E., Mack W.
COMPOSITE STRUCTURES, vol.121, pp.217-224, 2015 (SCI-Expanded)
- V. **Yielding of two-layer curved bars under pure bending**
ARSLAN E., SÜLÜ İ. Y.
ZAMM-ZEITSCHRIFT FÜR ANGEWANDTE MATHEMATIK UND MECHANIK, vol.94, no.9, pp.713-720, 2014 (SCI-Expanded)
- VI. **Elastic-plastic states of a radially heated thick-walled cylindrically curved panel**
ARSLAN E., MACK W.
FORSCHUNG IM INGENIEURWESEN-ENGINEERING RESEARCH, vol.78, pp.1-11, 2014 (SCI-Expanded)
- VII. **Mechanical and electrical fields of piezoelectric curved sensors**
ARSLAN E., USTA R.
ARCHIVES OF MECHANICS, vol.66, no.5, pp.329-342, 2014 (SCI-Expanded)
- VIII. **Epidemiologic and clinical characteristics and outcomes of scorpion sting in the southeastern region of Turkey**
Yilmaz F., Arslan E., Demir A. Ç., Kavalci C., Durdu T., Yilmaz M., Yel C., Akbulut S.
ULUSAL TRAVMA VE ACIL CERRAHI DERGİSİ-TURKISH JOURNAL OF TRAUMA & EMERGENCY SURGERY, vol.19, no.5, pp.417-422, 2013 (SCI-Expanded)
- IX. **Elastic limits of a radially heated thick-walled cylindrically curved panel**
ARSLAN E., MACK W., GAMER U.
FORSCHUNG IM INGENIEURWESEN-ENGINEERING RESEARCH, vol.77, pp.13-23, 2013 (SCI-Expanded)
- X. **Bending of graded curved bars at elastic limits and beyond**
ARSLAN E., ERASLAN A. N.
INTERNATIONAL JOURNAL OF SOLIDS AND STRUCTURES, vol.50, no.5, pp.806-814, 2013 (SCI-Expanded)
- XI. **The rotating elastic-plastic hollow shaft conveying a hot medium**
Arslan E., MACK W., ERASLAN A. N.
FORSCHUNG IM INGENIEURWESEN-ENGINEERING RESEARCH, vol.74, no.1, pp.27-39, 2010 (SCI-Expanded)
- XII. **Analytical solution to the bending of a nonlinearly hardening wide curved bar**
Arslan E., ERASLAN A. N.
ACTA MECHANICA, vol.210, pp.71-84, 2010 (SCI-Expanded)
- XIII. **A concise analytical treatment of elastic-plastic bending of a strain hardening curved beam**

ERASLAN A. N., Arslan E.

ZAMM-ZEITSCHRIFT FÜR ANGEWANDTE MATHEMATIK UND MECHANIK, vol.88, no.8, pp.600-616, 2008 (SCI-Expanded)

XIV. Effect of a temperature cycle on a rotating elastic-plastic shaft

ARSLAN E., MACK W., ERASLAN A. N.

ACTA MECHANICA, vol.195, pp.129-140, 2008 (SCI-Expanded)

XV. The strain hardening rotating hollow shaft subject to a positive temperature gradient

ERASLAN A. N., Arslan E., MACK W.

ACTA MECHANICA, vol.194, pp.191-211, 2007 (SCI-Expanded)

XVI. Plane strain analytical solutions to rotating partially plastic graded hollow shafts

ERASLAN A. N., ARSLAN E.

Turkish Journal of Engineering and Environmental Sciences, vol.31, pp.273-288, 2007 (SCI-Expanded)

Articles Published in Other Journals

I. Analysis on multi-layered and functionally graded spherical pressure vessels

ARSLAN E.

PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.23, no.1, pp.24-35, 2017 (ESCI)

II. Deformation and Electrical Behaviours of Functionally Graded Piezoelectric Curved Sensors

ARSLAN E.

JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, vol.19, no.4, pp.593-602, 2016 (ESCI)

III. Deformation and Electrical Behaviours of Functionally Graded Piezoelectric Curved Sensors

ARSLAN E.

JOURNAL OF POLITECHNIC, vol.19, pp.593-602, 2016 (Peer-Reviewed Journal)

IV. Analytical and numerical solutions to a rotating FGM disk

ERASLAN A. N., ARSLAN E.

Journal of Multidisciplinary Engineering Science and Technology, vol.2, pp.2843-2850, 2015 (Peer-Reviewed Journal)

V. A computational study on the nonlinear hardening curved beam problem

ERASLAN A. N., ARSLAN E.

International Journal of Pure and Applied Mathematics, vol.43, pp.129-143, 2008 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. Functionally Graded Materials in Basic Structures - Modeling and Analysis

ARSLAN E., MACK W.

Mechatroniktag des Institute of Mechanics and Mechatronics 2017, Viyana, Austria, 24 November 2017, pp.1

II. Analytical and Finite Element Modeling of Elastic-Plastic Shrink Fit with Hollow Shaft

Bozkurt I., ARSLAN E.

20th International Conference on Composite Structures, Paris, France, 4 - 07 September 2017, pp.242

III. Analytical model of an n-layered Spherical Vessel Subjected to External Pressure

ARSLAN E.

3rd International Eurasian Conference on Mathematical Sciences and Applications, Viyana, Austria, 25 - 28 August 2017, pp.172

IV. Shrink fit with FGM-hub subject to heating and rotation

ARSLAN E., MACK W.

86th Annual Meeting of the International Association of Applied Mathematics and Mechanics, Lecce, Italy, 23 - 27 March 2017, vol.15, no.1, pp.169-170

- V. **Thermal stresses in a cylindrical panel with free ends**
HASKUL M., ARSLAN E.
85th Annual Meeting of the International Association of Applied Mathematics and Mechanics, Erlangen, Germany, 10 - 14 March 2017, vol.14, no.1, pp.233-234
- VI. **Determination of Material Parameters from Imperfect Cyclic Plasticity Test Data**
ARSLAN E., zigo M., Kepplinger G., MACK W.
88th Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM), Weimar, Germany, 6 - 10 March 2017, pp.1
- VII. **Thermally loaded elastic-plastic shrink fit with FGM-hub**
APATAY T., ARSLAN E., MACK W.
88th Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM), Weimar, Germany, 6 - 10 March 2017, pp.1
- VIII. **Mechanical and Electrical Behaviors of Functionally Graded Piezoelectric Curved Sensors**
ARSLAN E., Önal A. T.
5th International Workshop on Piezoelectric MEMS (PiezoMEMS 2016), Grenoble, France, 24 - 25 May 2016, pp.20
- IX. **Thermally loaded thick-walled cylindrically curved aluminum/steel-FGM-panel**
HASKUL M., ARSLAN E., MACK W.
Joint Annual Meeting of DMV and GAMM, Braunschweig, Germany, 7 - 11 March 2016, vol.16, no.1, pp.185-186
- X. **Bending behavior of a bi-morph piezoelectric curved beam**
USTA R., ARSLAN E.
85th Annual Meeting of the International Association of Applied Mathematics and Mechanics, Erlangen, Germany, 10 - 14 March 2014, vol.14, no.1, pp.191-192
- XI. **A comparison between multilayered and functionally graded spherical pressure vessels**
ARSLAN E.
84th Annual Meeting of the International Association of Applied Mathematics and Mechanics, Novi Sad, Serbia And Montenegro, 18 - 22 March 2013, vol.13, no.1, pp.89-90
- XII. **Elastic plastic states of two layer curved bar under pure bending**
Sülü İ. Y., Arslan E.
Gamm Appl. Math. Mech.(83rd Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM)), Darmstadt, Germany, 26 - 30 March 2012, vol.12, pp.229-230
- XIII. **Elastic limit analysis of a thick-walled cylindrical panel subject to radial heating**
ARSLAN E., MACK W.
83rd Annual Meeting of the International Association of Applied Mathematics and Mechanics, Darmstadt, Germany, 26 - 30 March 2012, vol.12, no.1, pp.219-220
- XIV. **Elastic-plastic states of two-layer curved bar under pure bending**
SÜLÜ İ. Y., ARSLAN E.
83rd Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM), Darmstadt, Germany, 26 - 30 March 2012, pp.229-230
- XV. **Elastic-plastic states of two-layer curved bar under pure bending**
SÜLÜ İ. Y., ARSLAN E.
83rd Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM), Darmstadt, Germany, 26 - 30 March 2012, pp.229-230
- XVI. **Basit Eğilme Altında Eğri Eksenli İki Katmanlı Kompozit Kirişin Akması**
ARSLAN E., SÜLÜ İ. Y.
XVII. Ulusal Mekanik Kongresi, Elazığ, Turkey, 5 - 09 September 2011, pp.126-132
- XVII. **Basit Eğilme Altında Eğri Eksenli İki Katmanlı Kompozit Kirişin Akması**
ARSLAN E., SÜLÜ İ. Y.
XVII. Ulusal Mekanik Kongresi, Elazığ, Turkey, 5 - 09 September 2011, pp.126-132
- XVIII. **Analytical stress analysis of partially plastic graded curved bars subjected to pure bending**
ARSLAN E., ERASLAN A. N.
82nd Annual Meeting of the International Association of Applied Mathematics and Mechanics, Graz, Austria, 18 - 21

April 2011, vol.11, no.1, pp.189-190

XIX. Computation of the partially plastic stresses in graded curved bars

ARSLAN E., ERASLAN A. N.

The 2010 International Conference on Scientific Computing, Las Vegas, United States Of America, 12 - 15 July 2010, pp.273-277

XX. The rotating elastic-plastic hollow shaft heated at its inner surface

ARSLAN E., MACK W., ERASLAN A. N.

80th Annual Meeting of the International Association of Applied Mathematics and Mechanics, Gdansk, Poland, 9 - 13 February 2009, vol.9, no.1, pp.219-220

XXI. Transient heating of a rotating elastic-plastic solid shaft

ARSLAN E., MACK W., ERASLAN A. N.

79th Annual Meeting of the International Association of Applied Mathematics and Mechanics, Bremen, Germany, 31 March - 04 April 2008, vol.8, no.1, pp.10257-10258

XXII. Elastic-plastic states of a rotating inhomogeneously heated strain hardening hollow shaft

ARSLAN E., ERASLAN A. N., MACK W.

6th International Congress on Industrial and Applied Mathematics, Zürich, Switzerland, 16 - 20 July 2007, vol.7, no.1, pp.4040051-4040052

XXIII. Numerical solution of partially plastic curved beam problem

ERASLAN A. N., ARSLAN E.

III European Conference on Computational Mechanics Solids, Structures and Coupled Problems in Engineering, Lizbon, Portugal, 5 - 08 June 2006, pp.63

Supported Projects

ARSLAN E., Other International Funding Programs, Next Generation of Virtual Product Development ViProD 2 0, 2016 - Continues

ARSLAN E., Other International Funding Programs, Further studies on cyclic plasticity in strength analysis of vehicle components, 2015 - 2016

Metrics

Publication: 44

Citation (WoS): 96

Citation (Scopus): 98

H-Index (WoS): 7

H-Index (Scopus): 6