

Assoc. Prof. TUNÇ APATAY



Personal Information

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Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (Dr), Turkey
2003 - 2010

Post Graduate, Gazi University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (YI) (Tezli),
Turkey 2000 - 2003

Under Graduate, Gazi University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü,
Turkey 1994 - 2000

Dissertations

Doctorate, Fonksiyonel derecelendirilmiş kaplamalarda çatlak ve temas problemi, Gazi University, Fen Bilimleri Enstitüsü,
Makine Mühendisliği (Dr), 2010

Post Graduate, Değişken kalınlığa sahip içi dolu ve içi boş dönen disklerde elastik-plastik gerilme analizi, Gazi University,
Fen Bilimleri Enstitüsü, Makine Mühendisliği (YI) (Tezli), 2003

Research Areas

Mechanical Engineering, Mechanical, Solid Mechanics, Fracture Mechanics, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Gazi University, Mühendislik Fakültesi, Makina Mühendisliği, 2020 - Continues

Lecturer, Gazi University, Mühendislik Fakültesi, Makina Mühendisliği, 2012 - 2018

Research Assistant, Gazi University, Mühendislik Fakültesi, Makina Mühendisliği, 2001 - 2012

Professional Experience

Deputy Head of Department, Gazi University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2018 - 2021

Courses

MAK. MÜH. LAB. I, Under Graduate, 2017 - 2018

STATİK, Under Graduate, 2017 - 2018

MUKAVEMET, Under Graduate, 2016 - 2017, 2017 - 2018
MAKİNA MÜHENDİSLİĞİ UYGULAMALARI II, Under Graduate, 2017 - 2018
MAKİNA MÜHENDİSLİĞİ UYGULAMALARI I, Under Graduate, 2017 - 2018
DİNAMİK, Under Graduate, 2016 - 2017, 2017 - 2018
DİFERANSİYEL DENKLEMLER, Under Graduate, 2017 - 2018
MEKANİK SİSTEM TASARIMI, Under Graduate, 2017 - 2018
İLERİ MUKAVEMETE GİRİŞ, Under Graduate, 2017 - 2018
MÜHENDİSLİK MEKANİĞİ, Under Graduate, 2016 - 2017
MAKİNA MÜH. UYG. MATEMATİK, Under Graduate, 2016 - 2017

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Effects of homogeneous and inhomogeneous heating on rotating shrink fits with annular inclusion and functionally graded hub**
APATAY T., Arslan E., Mack W.
JOURNAL OF THERMAL STRESSES, vol.42, no.11, pp.1458-1479, 2019 (Journal Indexed in SCI)
- II. **On the design of rotating elastic shrink fits with annular inclusion and functionally graded hub**
APATAY T., Arslan E., Mack W.
MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, vol.47, no.3, pp.339-355, 2019 (Journal Indexed in SCI)
- III. **Thermal loading and unloading of a solid cylinder subjected to periodic internal energy cycling**
ERASLAN A. N. , APATAY T.
ZAMM-ZEITSCHRIFT FUR ANGEWANDTE MATHEMATIK UND MECHANIK, vol.97, no.3, pp.340-357, 2017 (Journal Indexed in SCI)
- IV. **Analytical solution to thermal loading and unloading of a cylinder subjected to periodic surface heating**
ERASLAN A. N. , APATAY T.
JOURNAL OF THERMAL STRESSES, vol.39, no.8, pp.928-941, 2016 (Journal Indexed in SCI)
- V. **On the optimum design of rotating two-layered composite tubes subject to internal heating or pressure**
APATAY T., Mack W.
FORSCHUNG IM INGENIEURWESEN-ENGINEERING RESEARCH, vol.79, pp.109-122, 2015 (Journal Indexed in SCI)
- VI. **A surface crack in a graded coating subjected to sliding frictional contact**
DAĞ S., APATAY T., GÜLER M. A. , Gulgec M.
ENGINEERING FRACTURE MECHANICS, vol.80, pp.72-91, 2012 (Journal Indexed in SCI)
- VII. **SUBSURFACE CONTACT STRESSES IN FUNCTIONALLY GRADED COATINGS LOADED BY A FRICTIONAL FLAT STAMP**
APATAY T., DAĞ S., GÜLER M. A. , Gulgec M.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.25, no.3, pp.611-623, 2010 (Journal Indexed in SCI)
- VIII. **ELASTIC-PLASTIC STRESS ANALYSIS OF NONHOMOGENEOUS ROTATING SOLID DISCS**
ERASLAN A. N. , APATAY T., Gulgec M.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.23, no.3, pp.627-635, 2008 (Journal Indexed in SCI)
- IX. **On annular disks of variable thickness subjected to external pressure**
Eraslan A., Apatay T.
FORSCHUNG IM INGENIEURWESEN-ENGINEERING RESEARCH, vol.68, no.3, pp.133-138, 2004 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Exact Solution to Elastic Behavior of Periodic Heat Generating Solid Cylinder**
APATAY T.
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, vol.19, no.4, pp.421-426, 2016 (Journal Indexed in ESCI)
- II. **Thermoelastic Stresses In A Rod Subjected To Periodic Boundary Condition An Analytical Treatment**
ERASLAN A. N. , APATAY T.
Journal of Multidisciplinary Engineering Science and Technology, vol.2, no.9, pp.2438-2444, 2015 (Refereed Journals of Other Institutions)
- III. **Analytical solution of nonlinear strain hardening preheated pressure tube**
ERASLAN A. N. , APATAY T.
Turkish Journal of Engineering Environmental Sciences, vol.32, no.1, pp.41-50, 2008 (Refereed Journals of Other Institutions)
- IV. **Parabolik Kalınlıklı Dönen Disklerin Elastik Deformasyonu Analitik Çözümler**
APATAY T., ERASLAN A. N.
Journal Of The Faculty Of Engineering And Architecture Of Gazi University, vol.18, no.2, pp.115-135, 2003 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

- I. **Effects of a temperature cycle on a rotating shrink fit with FGM-hub**
ARSLAN E., APATAY T., MACK W.
90th Annual Meeting of the International Association of Applied Mathematics and Mechanics (GAMM), 18 - 22 February 2019, vol.19
- II. **Effects of wall thickness and material properties on the elastic limit behavior of a tube subject to periodic boundary conditions**
APATAY T., ERASLAN A. N.
International Congress on Industrial and Applied Mathematics, Valensiya, Spain, 15 - 19 July 2019
- III. **Thermally assembled shrink fit with annular inclusion and FGM-hub**
APATAY T., ARSLAN E., MACK W.
89th Annual Meeting of the International Association of Applied Mathematics and Mechanics, Munich, Germany, 19 - 23 March 2018, vol.18, pp.201800042
- IV. **İç Yüzey Sıcaklığı Periyodik Olarak Değişen Kalın Cidarlı Tüplerde Termoelastik Gerilme Davranışı: Analitik Çözüm**
ERASLAN A. N. , APATAY T.
20. Ulusal Mekanik Kongresi, Bursa, Turkey, 5 - 09 September 2017
- V. **Thermally loaded elastic-plastic shrink fit with FGM-hub**
APATAY T., ARSLAN E., MACK W.
88. International Association of Applied Mathematics and Mechanics (GAMM), Weimar, Germany, 6 - 10 March 2017
- VI. **Periyodik Olarak Sönümlenen İç Isı Üretimi Etkisindeki Silindirin Akma Davranışı**
APATAY T., ERASLAN A. N.
19. Ulusal Mekanik Kongresi, Trabzon, Turkey, 24 - 28 August 2015
- VII. **Dış Yüzey Sıcaklığı Zamanla Değişen Silindirin Elastik Plastik Analitik Çözümü**
ERASLAN A. N. , APATAY T., VARLI E.
19. Ulusal Mekanik Kongresi, Trabzon, Turkey, 24 - 28 August 2015
- VIII. **Sinüzoidal Değişen İç Isı Üretimi Etkisindeki Silindirin Kısmen Plastik Analitik Çözümü**
APATAY T., ERASLAN A. N. , Çiftçi B.
19. Ulusal Mekanik Kongresi, Trabzon, Turkey, 24 - 28 August 2015
- IX. **Optimization of two layered steel aluminum hollow cylinders under combined load**

APATAY T., Werner M.

86. International Association of Applied Mathematics and Mechanics (GAMM), Italy, 23 - 27 March 2015, vol.15, pp.167-168

X. **Effect of thickness parameters on the yielding for rotating solid disks of variable thickness**

APATAY T., ERASLAN A. N.

13. International Congress on Machine Design and Production, İstanbul, Turkey, 3 - 05 September 2008, pp.120-124

XI. **Fonksiyonel Derecelendirilmiş İçi Dolu Dönen Bir Diskin Elastik Analitik Çözümü**

APATAY T., GÜLGEÇ M., ERASLAN A. N.

15. Ulusal Mekanik Kongresi, Isparta, Turkey, 3 - 07 September 2007, pp.87-95

XII. **İçi dolu değişken kalınlıklı dönen bir disk in elastoplastik analizi**

APATAY T., ERASLAN A. N.

13. Ulusal Mekanik Kongresi, Turkey, 8 - 12 September 2003, pp.123-132

Citations

Total Citations (WOS):40

h-index (WOS):3