

## Assoc. Prof. TUNÇ APATAY



### Personal Information

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### International Researcher IDs

ScholarID: Wcf0StwAAAAJ

ORCID: 0000-0001-6870-1354

Publons / Web Of Science ResearcherID: AIE-5503-2022

ScopusID: 6507057971

Yoksis Researcher ID: 54513

### Education Information

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

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

Undergraduate, 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

Postgraduate, 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, 2018 - Continues

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

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

### Academic and Administrative Experience

Fakülte Kurulu Üyesi, Gazi University, Mühendislik Fakültesi, Makina Mühendisliği, 2019 - Continues  
Deputy Head of Department, Gazi University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2018 - 2021

## Courses

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

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

- I. **Thermo-mechanically loaded steel/aluminum functionally graded spherical containers and pressure vessels**  
Arslan E., Mack W., Apatay T.  
INTERNATIONAL JOURNAL OF PRESSURE VESSELS AND PIPING, vol.191, 2021 (SCI-Expanded)
- II. **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 (SCI-Expanded)
- III. **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 (SCI-Expanded)
- IV. **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 (SCI-Expanded)
- V. **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 (SCI-Expanded)
- VI. **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 (SCI-Expanded)
- VII. **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 (SCI-Expanded)
- VIII. **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 (SCI-Expanded)

- IX. **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 (SCI-Expanded)
- X. **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 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Exact Solution to Elastic Behavior of Periodic Heat Generating Solid Cylinder**  
APATAY T.  
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, vol.19, no.4, pp.421-426, 2016 (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 (Peer-Reviewed Journal)
- 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 (Peer-Reviewed Journal)
- 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 (Scopus)

### 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

## Metrics

Publication: 27

Citation (WoS): 51

Citation (Scopus): 75

H-Index (WoS): 4

H-Index (Scopus): 5