

## Prof. YAŞAR PALA

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Bursa Uludağ University, Mühendislik Fakültesi, Makina Mühendisliği, Turkey 1987 - 1991

Undergraduate, Bursa Uludağ University, Mühendislik-Mimarlık Fakültesi, Makine Mühendisliği Bölümü, Turkey 1982 - 1986

### Foreign Languages

Arabic, B1 Intermediate

English, C1 Advanced

### Certificates, Courses and Trainings

Foreign Language, ELTC ENGLISH EDUCATION CENTRE, UMIST, UNIVERSITY OF MANCHESTER, 1986

### Dissertations

Postgraduate, Mekanizmaların analizine eğrisel tensör yaklaşımı, Bursa Uludağ University, Mühendislik Fakültesi, Makina Mühendisliği, 1988

### Research Areas

Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Professor, Bursa Uludağ University, Mühendislik Fakültesi, Makina Mühendisliği, 1987 - Continues

### Academic and Administrative Experience

## Courses

ELASTİSİTENİN MATEMATİKSEL TEORİSİ, Postgraduate, 2024 - 2025

Dinamik, Undergraduate, 2021 - 2022

KLASİK TEORİK MEKANİK V UYG., Postgraduate, 2015 - 2016

MUKAVEMET II, Undergraduate, 2014 - 2015

Mukavemet, Undergraduate, 2012 - 2013

KISMİ DİFERENSİYEL DENKLEMLER VE UYG., Postgraduate, 2001 - 2002

İLERİ MÜHENDİSLİK MATEMATİĞİ, Postgraduate, 1996 - 1997

Engineering Mechanics, Undergraduate, 1995 - 1996

Tensör analizi ve uygulamaları, Doctorate, 1993 - 1994

STATİK, Undergraduate, 1992 - 1993

MUKAVEMET II, Undergraduate, 1992 - 1993

Plastisite Teorisi, Undergraduate, 1991 - 1992

## Advising Theses

PALA Y., Development of a flexible algorithm for the optimum design of trunk lid hinges, Postgraduate, Ş.Özcan(Student), 2017

PALA Y., Investigation and optimization of buckling behavior of uprights and frames used in steel storage rack systems, Postgraduate, S.Şenaysoy(Student), 2017

PALA Y., Riccati equation, a new analytical method for solving Riccati equation and engineering applications, Postgraduate, M.Özgür(Student), 2017

PALA Y., Improving the buckling behaviour of columns used in steel rack systems, Postgraduate, Ç.Kahya(Student), 2016

PALA Y., Investigation of temperature distribution and thermal stresses by a stationary or moving heat source in two dimensional plates, Postgraduate, M.Çavuş(Student), 2011

PALA Y., Dynamic response of slightly curved and supported beams under moving loads, Doctorate, M.Reis(Student), 2009

PALA Y., Analytical approach to wave and stress analysis of bars made of non linear material with finite length, Postgraduate, Ö.Bademci(Student), 2006

PALA Y., The effect of fluid motion in external fuel tanks on vehicle dynamics, Postgraduate, M.Reis(Student), 2004

PALA Y., Analytical solutions of the direct dynamic problem, Postgraduate, G.Sevilgen(Student), 2003

PALA Y., Inclusion problem in axially loaded plates with a hole, Postgraduate, G.Ak(Student), 2003

PALA Y., Stress distribution in a toroidal ring sector subjected to bending and twisting, Doctorate, Ş.Tursunov(Student), 1999

PALA Y., Design and analysis of mechanical holders, Postgraduate, Ş.Tursunov(Student), 1995

## Jury Memberships

Appointment to Academic Staff - Associate Professorship, Appointment to Academic Staff - Associate Professorship, Bursa Uludağ Üniversitesi, June, 2023

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

1. **New Method For Analytical Solution of Second Order Ordinary Differential Equations With Variable Coefficients**

PALA Y., KAHYA Ç.

JOURNAL OF THE BRAZILIAN SOCIETY OF MECHANICAL SCIENCES AND ENGINEERING, vol.15, no.3, pp.757-774, 2022 (SCI-Expanded)

**II. A Method Based on Riccati Equation for the Vibration Analysis of Rods with Variable Cross-Sections**

PALA Y., KAHYA Ç.

INTERNATIONAL JOURNAL OF STRUCTURAL STABILITY AND DYNAMICS, vol.22, no.11, 2022 (SCI-Expanded)

**III. Damped vibration analysis of cracked Timoshenko beams with restrained end conditions**

PALA Y., BEYÇİMEN S., KAHYA Ç.

JOURNAL OF THE BRAZILIAN SOCIETY OF MECHANICAL SCIENCES AND ENGINEERING, vol.42, no.9, 2020 (SCI-Expanded)

**IV. Torsion of circular open cross-section with corrugated inner and outer surface**

PALA Y., Pala A.

STRUCTURAL ENGINEERING AND MECHANICS, vol.73, no.1, pp.75-82, 2020 (SCI-Expanded)

**V. Dynamic Response of a Cracked Beam under a Moving Mass Load**

PALA Y., REİS M.

JOURNAL OF ENGINEERING MECHANICS, vol.139, no.9, pp.1229-1238, 2013 (SCI-Expanded)

**VI. VIBRATION OF A CRACKED CANTILEVER BEAM UNDER MOVING MASS LOAD**

REİS M., PALA Y.

JOURNAL OF CIVIL ENGINEERING AND MANAGEMENT, vol.18, no.1, pp.106-113, 2012 (SCI-Expanded)

**VII. Dynamic response of a beam supported with damper under moving load**

REİS M., PALA Y.

STRUCTURAL ENGINEERING AND MECHANICS, vol.31, no.4, pp.477-480, 2009 (SCI-Expanded)

**VIII. DYNAMIC RESPONSE OF A SLIGHTLY CURVED BRIDGES UNDER MOVING MASS LOADS**

REİS M., PALA Y.

BALTIC JOURNAL OF ROAD AND BRIDGE ENGINEERING, vol.4, no.3, pp.143-148, 2009 (SCI-Expanded)

**IX. Dynamic analysis of a bridge supported with many vertical supports under moving load**

REİS M., PALA Y., Karadere G.

BALTIC JOURNAL OF ROAD AND BRIDGE ENGINEERING, vol.3, no.1, pp.14-20, 2008 (SCI-Expanded)

**X. Analytical solution of direct dynamics problem in cylindrical coordinates**

Pala Y., Guney I., Karadere G.

JOURNAL OF ENGINEERING MECHANICS-ASCE, vol.130, no.9, pp.1115-1117, 2004 (SCI-Expanded)

**XI. Generalized method of separation of variables on the nonlinear elastic-plastic wave motion**

Pala Y.

NONLINEAR DYNAMICS, vol.14, no.1, pp.49-56, 1997 (SCI-Expanded)

**XII. Torsion of nonlinear viscous shafts**

Pala Y.

JOURNAL OF ENGINEERING MECHANICS-ASCE, vol.123, no.4, pp.338-341, 1997 (SCI-Expanded)

## Articles Published in Other Journals

**I. Free vibration analysis of elastically restrained cantilever Timoshenko beam with attachments**

PALA Y., KAHYA Ç.

PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.29, no.3, pp.274-280, 2023 (ESCI)

**II. Free vibration analysis of mixed supported beam**

PALA Y., BEYÇİMEN S.

PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.26, no.1, pp.1-8, 2020 (ESCI)

**III. A New Analytical Method for Solving General Riccati Equation**

PALA Y., Ertaş Ö.

Universal Journal of Applied Mathematics, vol.5, no.2, pp.11-16, 2017 (Peer-Reviewed Journal)

- IV. **AN INVESTIGATION OF THE BREAKING DYNAMICS OF A VEHICLE WHICH CARRIES LIQUID CARGO**  
REİS M., PALA Y.  
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, no.3, pp.303-312, 2006 (ESCI)
- V. **NON-LINEAR ELASTIC WAVES IN A FINITE BAR MADE OF A MATERIAL HAVING NON-LINEAR STRESS-STRAIN RELATION**  
PALA Y., Bademci O., KARADERE G.  
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, no.1, pp.79-86, 2006 (ESCI)
- VI. **Akışkan kargo taşıyan aracın fren dinamiğinin incelenmesi**  
REİS M., PALA Y.  
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.12, no.3, pp.303-312, 2006 (Peer-Reviewed Journal)
- VII. **ON THE ELASTIC-PLASTIC TORSION OF A BAR MADE OF WORK HARDENING MATERIAL**  
PALA Y.  
PAMUKKALE JOURNAL OF ENGINEERING SCIENCES, vol.1, no.1, pp.65-68, 1995 (Peer-Reviewed Journal)
- VIII. **Analytical solution of Hill's equation**  
PALA Y.  
Journal of Applied Mechanics, Transactions ASME, vol.61, no.4, pp.1000-1001, 1994 (Scopus)

## **Books & Book Chapters**

- I. **Modern Diferansiyel Denklemler**  
PALA Y.  
Nobel yayıncılık, Ankara, 2022
- II. **İleri Mühendislik Matematiği**  
PALA Y.  
Nobel yayıncılık, Ankara, 2022
- III. **Titreşim Ölçümü ve Uygulamaları**  
PALA Y., REİS M.  
in: Mekanik Titreşimler Cilt 2, Yaşar Pala, Editor, Nobel Akademik Yayıncılık, pp.870-938, 2017
- IV. **MUKAVEMET / Strength Of Materials / Schaum'xxs**  
PALA Y.  
Nobel Yayıncılık, Ankara, 2014
- V. **ileri mühendislik matematiği**  
PALA Y.  
Nobel yayıncılık, Ankara, 2013
- VI. **modern uygulamalı diferensiyel denklemler çözümlü problemler**  
PALA Y.  
Nobel Akademik yayıncılık, Ankara, 2011
- VII. **kısmi diferensiyel denklemler**  
PALA Y.  
U.Üniv yayınları, Bursa, 2000
- VIII. **TENSÖR ANALİZİ VE UYGULAMALARI**  
PALA Y.  
Uludağ Üniversitesi , Güçlendirme Vakfı yayınları, Bursa, 1993

## Refereed Congress / Symposium Publications in Proceedings

- I. **ÇELİK DEPO RAF SİSTEMLERİNDE KULLANILAN YATAY TAŞIYICIYA OTURAN TAVA RAFLARIN KAPASİTELERİNİN ANALİTİK VE SONLU ELEMANLAR YÖNTEMİYLE BELİRLENMESİ**  
PALA Y., ŞENAYSOY S., ÇALIŞ E.  
XX. Ulusal Mekanik Kongresi, Turkey, 5 - 09 September 2017
- II. **Doğrudan Dayanım Yöntemiyle Çelik Depo Raf Sistemlerinde Kullanılan Soğuk Şekillendirilmiş Çelik Dikmelerin Burkulma Yüklerinin Bulunması**  
PALA Y., ŞENAYSOY S.  
7. Çelik Yapılar Sempozyumu, Turkey, 26 - 28 October 2017
- III. **Analytical Investigation of the Stress Distribution in the Beam end Connector in Storage Rack Systems**  
PALA Y., REİS M.  
INTERNATIONAL CONFERENCE, SCOPIA, Macedonia, 15 - 19 May 2016
- IV. **Çelik Depo Raf Sistemlerinde Kullanılan Kulak Bağlantılarında Kaynak Hesabı Ve Optimizasyonu**  
PALA Y., ÇALIŞ E., ÖCAL A., ŞENAYSOY S.  
6. ÇELİK YAPILAR SEMPOZYUMU, Eskişehir, Turkey, 9 - 11 December 2015
- V. **THE EFFECTS OF CENTRIPETAL AND CORIOLIS FORCES ON THE DYNAMIC RESPONSE OF A CRACKED BEAM UNDER A MOVING MASS LOAD**  
PALA Y., REİS M.  
13th International Conference on Applied Mechanics and Mechanical Engineering., Cairo, Egypt, 27 - 29 May 2008
- VI. **Analytical solution of Hill's nonlinear partial differential equation for plastically deforming beams subjected to bending and torsion together and stress fields**  
PALA Y.  
Proceedings of the 2nd Biennial European Joint Conference on Engineering Systems Design and Analysis. Part 1 (of 8), London, Canada, 4 - 07 July 1994, vol.64, pp.351-360
- VII. **Permanent deformation analysis of an L-shaped cantilever structure subjected to dynamic loading**  
PALA Y.  
Proceedings of the 16th Annual Energy - Sources Technology Conference and Exhibition, Houston, TX, USA, 31 January - 04 February 1993, vol.52, pp.255-262
- VIII. **Determination of trajectory in a 5R-1P manipulator using regular space curves**  
KOPMAZ O., Ozcan R., PALA Y.  
Proceedings of the 1992 Engineering Systems Design and Analysis Conference, İstanbul, Turkey, 29 June - 03 July 1992, vol.47, pp.173-179

## Metrics

Publication: 40

Citation (WoS): 40

Citation (Scopus): 69

H-Index (WoS): 4

H-Index (Scopus): 5

## Non Academic Experience

University, ULUDAĞ ÜNİVERSİTESİ, MÜHENDİSLİK FAKÜLTESİ, MAKİNE BÖLÜMÜ

University, Virginia State University, Blacksburg, USA, ENGINEERING MECHANICS

University, UMIST, University of Manchester, APPLIED MECHANICS