

Asst. Prof. Ümit Necmettin ARIBAŞ

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: FZN-8269-2022

ScopusID: 55634829200

Yoksis Researcher ID: 265162

Education

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Yapı Mühendisliği (Dr), Turkey 2013 - 2019

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Yapı Mühendisliği (YI) (Tezli), Turkey 2010 - 2012

Undergraduate, Istanbul University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, Turkey 2006 - 2010

Dissertations

Doctorate, Static and Dynamic Analyses of Composite Helicoidal Rods with Mixed Finite Element Method, Istanbul Technical University, Fen Bilimleri Enstitüsü, 2019

Postgraduate, Analysis of dynamic behavior of viscoelastic helicoidal rods with mixed finite element method., Istanbul Technical University, Fen Bilimleri Enstitüsü, Yapı Mühendisliği (YI) (Tezli), 2012

Research Areas

Mechanical, Structural Mechanics

Academic Positions

Assistant Professor, Istanbul Medipol University, Mühendislik Ve Doğa Bilimleri Fakültesi, İnşaat Mühendisliği Bölümü, 2020 - Continues

Assistant Professor, Istanbul Okan University, Faculty Of Engineering, 2019 - 2020

Research Assistant, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği Bölümü, 2017 - 2019

Academic and Administrative Experience

Deputy Head of Department, Istanbul Okan University, 2019 - 2020

Courses

Undergraduate

Betonarme II, Undergraduate, 2022 - 2023, 2021 - 2022
Betonarme I, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021
Yapı Statiği I, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021
Yapı Statiği II, Undergraduate, 2021 - 2022, 2020 - 2021
DINAMİK, Undergraduate, 2019 - 2020
STRENGTH OF MATERIALS 1, Undergraduate, 2019 - 2020
STRENGTH OF MATERIALS 2, Undergraduate, 2019 - 2020, 2018 - 2019
MUKAVEMET 1, Undergraduate, 2019 - 2020
DYNAMICS, Undergraduate, 2019 - 2020
STATİK, Undergraduate, 2019 - 2020, 2018 - 2019
MUKAVEMET 2, Undergraduate, 2019 - 2020, 2018 - 2019
STATICS, Undergraduate, 2019 - 2020, 2018 - 2019

Supervised Theses

Ümit Necmettin A., 2000 yılı öncesi yapılan mevcut betonarme yapıların TBDY-2018'e göre yapı performanslarının incelenmesi, Postgraduate, D.KARĞI(Student), 2022

Journal articles indexed in SCI, SSCI, and AHCI

- I. **Bi-directional higher-order shear deformable mixed finite element formulation including couple effects for stresses of functionally graded curved 3d beams**
ARIBAŞ Ü. N.
Journal of the Brazilian Society of Mechanical Sciences and Engineering, vol.46, no.11, 2024 (SCI-Expanded)
- II. **Warping included mixed finite elements for bending and stresses of functionally graded exact curved beams**
ARIBAŞ Ü. N., Atalay M., OMURTAG M. H.
Mechanics of Advanced Materials and Structures, vol.31, no.20, pp.5040-5056, 2024 (SCI-Expanded)
- III. **Cross-sectional warping and precision of the first-order shear deformation theory for vibrations of transversely functionally graded curved beams**
Aribas Ü. N., Aydın M., Atalay M., Omurtag M. H.
APPLIED MATHEMATICS AND MECHANICS (ENGLISH EDITION), vol.44, pp.2109-2138, 2023 (SCI-Expanded)
- IV. **Two-dimensional solution of functionally graded piezoelectric-layered beams**
ÇÖMEZ İ., ARIBAŞ Ü. N., Kutlu A., OMURTAG M. H.
Journal of the Brazilian Society of Mechanical Sciences and Engineering, vol.44, no.3, 2022 (SCI-Expanded)
- V. **Forced vibration analysis of composite-geometrically exact elliptical cone helices via mixed FEM**
ARIBAŞ Ü. N., Ermis M., Kutlu A., Erath N., OMURTAG M. H.
Mechanics of Advanced Materials and Structures, vol.29, no.10, pp.1456-1474, 2022 (SCI-Expanded)
- VI. **The static and stress analyses of axially functionally graded exact super-elliptical beams via mixed FEM**
ARIBAŞ Ü. N., Ermis M., OMURTAG M. H.
Archive of Applied Mechanics, vol.91, no.12, pp.4783-4796, 2021 (SCI-Expanded)
- VII. **The static and dynamic analyses of warping included composite exact conical helix by mixed FEM**
Aribas Ü. N., Ermis M., Erath N., OMURTAG M. H.
Composites Part B: Engineering, vol.160, pp.285-297, 2019 (SCI-Expanded)

Articles Published in Other Journals

- I. **The static and free vibration analyses of axially functionally graded elliptical beams via mixed FEM**
Ermis M., AYDOĞAN G., KIR O., ARIBAS U.
Journal of Structural Engineering & Applied Mechanics (Online), vol.5, no.1, pp.22-39, 2022 (Peer-Reviewed Journal)
- II. **An Exact Elasticity Solution for Monoclinic Functionally Graded Beams**
ÇÖMEZ İ., ARIBAŞ Ü. N., Kutlu A., OMURTAG M. H.
Arabian Journal for Science and Engineering, vol.46, no.5, pp.5135-5155, 2021 (Scopus)
- III. **Kompozit Eğrisel Kirişlerde Kesit Çarpılması Gözetilerek Normal ve Kayma Gerilmelerinin Karışık Sonlu Elemanlarla Analizi**
ARIBAŞ Ü. N.
ENGINEERING SCIENCES, vol.8, no.3, pp.16-29, 2019 (Peer-Reviewed Journal)
- IV. **Elastically Damped Transient Response of Axially FG Straight Beams**
ARIBAŞ Ü. N., ERMİŞ M., KUTLU A., ERATLI N., OMURTAG M. H.
International Journal of Theoretical and Applied Mechanics, vol.4, pp.19-25, 2019 (Peer-Reviewed Journal)
- V. **The static response of sandwich exact conical helices via MFEM**
ARIBAŞ Ü. N., OMURTAG M. H.
Journal of Structural Engineering & Applied Mechanics (Online), vol.2, no.4, pp.153-163, 2019 (Peer-Reviewed Journal)
- VI. **Forced Vibration Analysis of Warping Considered Curved Composite Beams Resting on Viscoelastic Foundation**
ARIBAŞ Ü. N., ERMİŞ M., KUTLU A., ERATLI N., OMURTAG M. H.
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.31, no.4, pp.1093-1105, 2018 (Scopus)
- VII. **Static and free vibration analysis of composite straight beams on the Pasternak Foundation**
Ermis M., ARIBAŞ Ü. N., Eratlı N., OMURTAG M. H.
WSEAS Transactions on Applied and Theoretical Mechanics, vol.12, pp.113-122, 2017 (Scopus)

Papers Presented at Peer-Reviewed Scientific Conferences

- I. **Static Analysis of Functionally Graded Porous Straight Beams via Mixed FEM**
Ermis M., Aribaş Ü. N., Eratlı N., Omurtag M. H.
3rd International Civil Engineering and Architecture Congress, Trabzon, Turkey, 12 - 14 October 2023, pp.1630-1639, (Full Text)
- II. **Fonksiyonel Dereceli Kirişlerin Yüksek-Mertebe Karışık Sonlu Elemanlarla Statik Analizi**
Koç E., Kahraman E., Erdoğan M., Arslan B., Kalaycı Ö. F., Aribaş Ü. N., Omurtag M. H.
23. ULUSAL MEKANİK KONGRESİ, Konya, Turkey, 4 - 08 September 2023, pp.563-574, (Full Text)
- III. **2000 Yılı Öncesi Yapılan Betonarme Yapıların TBDY-2018'e Göre Yapı Performanslarının İncelenmesi**
KARĞI D., ARIBAŞ Ü. N., GÜNDOĞAN S., ERMİŞ M.
18. Teknik Kongre ve Sergisi, 07 November 2022, (Full Text)
- IV. **FONKSİYONEL DERECELİ DAİRESEL KİRİŞLERİN DİNAMİK ANALİZİ**
ARIBAŞ Ü. N., ATALAY M., AYDIN M., ERMİŞ M., OMURTAG M. H.
22. Ulusal Mekanik Kongresi, 06 September 2021, (Full Text)
- V. **EKSENEL FONKSİYONEL DERECELENDİRİLMİŞ ELİPTİK KİRİŞLERİN SONLU ELEMAN YÖNTEMİ İLE SERBEST TİTREŞİM ANALİZİ**
Aydoğan G., ERMİŞ M., ARIBAŞ Ü. N., OMURTAG M. H.
22. Ulusal Mekanik Kongresi, 06 September 2021, (Full Text)
- VI. **EKSENEL FONKSİYONEL DERECELENDİRİLMİŞ ELİPTİK KİRİŞLERİN SONLU ELEMAN YÖNTEMİ İLE STATİK ANALİZİ**
Kır O., ERMİŞ M., ARIBAŞ Ü. N., OMURTAG M. H.
22. Ulusal Mekanik Kongresi, 06 September 2021, (Full Text)

- VII. **The static responses and stresses of functionally graded exact curved beams**
ARIBAŞ Ü. N., ATALAY M., OMURTAG M. H.
7th International Conference on Mechanics of Composites, 01 September 2021, (Full Text)
- VIII. **KOMPOZİT EĞRİSEL KİRİŞLERİN ÇARPILMA ETKİSİ GÖZETİLEN GERİLME DAĞILIMININ KARIŞIK SONLU ELEMENLARLA ANALİZİ**
ARIBAŞ Ü. N., ERMİŞ M., KUTLU A., ERATLI N., OMURTAG M. H.
21. Ulusal Mekanik Kongresi, Niğde, Turkey, 2 - 06 September 2019, pp.303-312, (Full Text)
- IX. **Forced Vibration Analysis of Axially FG Straight Beams by Mixed FEM**
ERMİŞ M., ARIBAŞ Ü. N., KUTLU A., ERATLI N., OMURTAG M. H.
IV. Eurasian Conference on Civil and Environmental Engineering, 17 - 18 June 2019, (Full Text)
- X. **Free Vibration Analysis of Axially FG Straight Beam by Mixed FEM**
ERMİŞ M., ARIBAŞ Ü. N., KUTLU A., ERATLI N., OMURTAG M. H.
International Civil Engineering and Architecture Conference 2019/ICEARC'19, Trabzon, Turkey, 17 - 20 April 2019, (Full Text)
- XI. **The Warping Effect on the Structural Response of Sandwich Exact Conical Rods**
ARIBAŞ Ü. N., ERMİŞ M., KUTLU A., ERATLI N., OMURTAG M. H.
International Civil Engineering and Architecture Conference 2019/ICEARC'19, Trabzon, Turkey, 17 - 20 April 2019, (Full Text)
- XII. **Elastically Damped Transient Response of Axially FG Straight Beams**
ARIBAŞ Ü. N., ERMİŞ M., KUTLU A., ERATLI N., OMURTAG M. H.
12th International Conference on FINITE DIFFERENCES, FINITE ELEMENTS, FINITE VOLUMES, BOUNDARY ELEMENTS, Roma, Italy, 25 - 27 May 2019, pp.19-25, (Full Text)
- XIII. **Free Vibration Analysis of a Planar Elliptical Beam**
ERMİŞ M., ARIBAŞ Ü. N., ERATLI N., OMURTAG M. H.
16th European Conference on Earthquake Engineering, Thessaloniki, Greece, 18 - 21 June 2018, (Full Text)
- XIV. **Forced Vibration Analysis of a Planar Elliptical Beam**
ERMİŞ M., ARIBAŞ Ü. N., ERATLI N., OMURTAG M. H.
16th European Conference on Earthquake Engineering/16ECEE, Selanik, Greece, 18 - 21 June 2018, (Full Text)
- XV. **Viskoelastik zemine oturan eğri eksenli kompozit çubukların dinamik analizi**
ARIBAŞ Ü. N., ERMİŞ M., KUTLU A., ERATLI N., OMURTAG M. H.
20. Ulusal Mekanik Kongresi, Bursa, Turkey, 5 - 09 September 2017, pp.118-129, (Full Text)
- XVI. **Kompozit Eğrisel Kirişlerin Statik ve Dinamik Analizinde Burulma Rijitliğinin Etkisi**
ARIBAŞ Ü. N., YILMAZ M., OMURTAG M. H.
20. Ulusal Mekanik Kongresi, Bursa, Turkey, 5 - 09 September 2017, pp.56-65, (Full Text)
- XVII. **Static and free vibration analysis of planar curved composite beams on elastic foundation**
ARIBAŞ Ü. N., YILMAZ M., ERATLI N., OMURTAG M. H.
8th International Conference on Theoretical and Applied Mechanics, Brasov, Romania, 27 - 29 June 2017, vol.2, pp.35-42, (Full Text)
- XVIII. **Static and Free Vibration Analysis of Composite Straight Beams on the Pasternak Foundation**
ERMİŞ M., ARIBAŞ Ü. N., ERATLI N., OMURTAG M. H.
WSEAS TRANSACTIONS on APPLIED and THEORETICAL MECHANICS, Barcelona, Spain, 10 - 12 May 2017, vol.12, pp.113-122, (Full Text)
- XIX. **Static analysis of moderately thick, composite, circular rods via mixed FEM**
ARIBAŞ Ü. N., Kutlu A., OMURTAG M. H.
World Congress on Engineering 2016, WCE 2016, London, England, 29 June - 01 July 2016, vol.2224, pp.1022-1025, (Full Text)
- XX. **Free vibration analysis of moderately thick, sandwich, circular beams**
ARIBAŞ Ü. N., Eratlı N., OMURTAG M. H.
World Congress on Engineering 2016, WCE 2016, London, England, 29 June - 01 July 2016, vol.2224, pp.1127-1130, (Full Text)
- XXI. **Mixed FE Analysis of Viscoelastic Cylindrical Helixes**

ARIBAŞ Ü. N., OMURTAG M. H.

2nd International Congress on Advances in Applied Physics and Materials Science, Antalya, Turkey, 26 - 29 April 2012, (Full Text)

XXII. Flexure of the Moderately Thick Elliptic Plates on Arbitrarily Orthotropic Elastic Foundation

KUTLU A., ARIBAŞ Ü. N., OMURTAG M. H.

Advances in Applied Mechanics and Modern Information Technology 2011, Baku, Azerbaijan, 22 - 23 September 2011, (Full Text)

XXIII. Konik Viskoelastik Helisin Değişik Parametreler için SE Analizi

ERATLI N., ÇALIM F. F., ARIBAŞ Ü. N., OMURTAG M. H.

17. Ulusal Mekanik Kongresi, Elazığ, Turkey, 5 - 09 September 2011, (Full Text)

XXIV. Ortotrop Pasternak Zeminine Oturan Eliptik Mindlin Plağının Karışık Sonlu Elemanlarla Statik Analizi

KUTLU A., ARIBAŞ Ü. N., OMURTAG M. H.

17. Ulusal Mekanik Kongresi, Elazığ, Turkey, 5 - 09 September 2011, (Full Text)

Funded Projects

OMURTAG M. H., TUBITAK Project, Değişken Kesitli ve eksenel geometrisi Silindirik Olmayan Visko Elastik Helislerin Karışık Sonlu Eleman Metodu İle Analizi, Continues

ARIBAŞ Ü. N., Project Supported by Higher Education Institutions, Ortotrop üç parametrelili Pasternak zemine oturan iki ve üç boyutlu tabakalı kompozit çubukların zorlanmış titreşim analizi, 2017 - 2019

Project Supported by Higher Education Institutions, Silindirik ve Konik Yayların Viskoelastik Davranışının Sonlu Elemanlarla Analizi, 2010 - 2012