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Publons / Web Of Science ResearcherID: D-1009-2015

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Learning Knowledge

Doctorate
2007 - 2013
Istanbul Technical University, Fen Bilimleri Enstitüsü, Yapı Mühendisliği (Dr),
Turkey

Postgraduate
2005 - 2007
Istanbul Technical University, Fen Bilimleri Enstitüsü, Yapı Mühendisliği (Yıl)
(Tezli), Turkey

Undergraduate
2000 - 2005
Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği Bölümü,
Turkey

Foreign Languages

English, C1 Advanced

German, B1 Intermediate

Dissertations

Doctorate, Large deflection and elasto-plastic analysis of Mindlin plates with mixed FEM, İstanbul Teknik Üniversitesi,
Fen Bilimleri Enstitüsü, Yapı Mühendisliği (Dr), 2013

Postgraduate, Keyfi doğrultuda ortotrop pasternak zeminine oturan mindlin plaklarının serbest titreşimlerinin karışık
sonlu elemanlarla analizi, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Yapı Mühendisliği (Yıl) (Tezli), 2007

Academic Titles / Tasks

Assistant Professor
2018 - Continues
Istanbul Technical University, İnşaat, İnşaat Mühendisliği

Assistant Professor
2014 - 2018
Istanbul Technical University, İnşaat, İnşaat Mühendisliği

Supported Projects

1. Uğurlu B., Bilici G., Tunca E., Kutlu A., Kahraman İ., TUBITAK Project, Sualtı Araçlarının Gürültü Kestirimi İçin Çok-Bileşenli Sayısal Bir Çözüm Modelinin Geliştirilmesi Ve Uygulanması, 2021 - 2023
2. Bulut O., Kutlu A., Ataoğlu Ş., Baytak T., Çevikbilen G., Project Supported by Higher Education Institutions, Toprak-yapı etkileşiminin araştırılması için yeni bir deney düzeneği ve yönteminin geliştirilmesi, 2019 - 2022
3. Kutlu A., Bab Y., Project Supported by Higher Education Institutions, YÜKSEK MERTEBE KAYMA DEFORMASYON TEORİSİNE DAYANAN TABAKALI KOMPOZİT KİRİŞ VE PLAKLAR İÇİN KARIŞIK SONLU ELEMAN FORMÜLASYONLARI, 2020 - 2021
4. Kutlu A., Project Supported by Higher Education Institutions, Nispeten Kalın, Kompozit, Dairesel Çubukların Karışık Sonlu Elemanlar Yöntemiyle Statik Analizi, 2016 - 2018

Published journal articles indexed by SCI, SSCI, and AHCI

1. **Nonlocal modeling of bi-material and modulus graded plates using peridynamic differential operator**
DÖRDÜNCÜ M., Kutlu A., Madenci E., Rabczuk T.
ENGINEERING WITH COMPUTERS, vol.39, no.1, pp.893-909, 2023 (SCI-Expanded)
2. **Free vibration of axially FG curved beam on orthotropic Pasternak foundation via mixed FEM**
Ermis M., Kutlu A., Eratlı N., Omurtag M. H.
JOURNAL OF THE BRAZILIAN SOCIETY OF MECHANICAL SCIENCES AND ENGINEERING, vol.44, no.12, 2022 (SCI-Expanded)
3. **Two-dimensional solution of functionally graded piezoelectric-layered beams**
ÇÖMEZ İ., Aribas U. N., Kutlu A., Omurtag M. H.
JOURNAL OF THE BRAZILIAN SOCIETY OF MECHANICAL SCIENCES AND ENGINEERING, vol.44, no.3, 2022 (SCI-Expanded)
4. **Triangular C-0 continuous finite elements based on refined zigzag theory {2,2} for free and forced vibration analyses of laminated plates**
DÖRDÜNCÜ M., Kutlu A., Madenci E.
COMPOSITE STRUCTURES, vol.281, 2022 (SCI-Expanded)
5. **Forced vibration analysis of composite-geometrically exact elliptical cone helices via mixed FEM**
Aribas U. N., Ermis M., Kutlu A., Eratlı N., Omurtag M. H.
MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, vol.29, no.10, pp.1456-1474, 2022 (SCI-Expanded)
6. **Mixed finite element formulation for bending of laminated beams using the refined zigzag theory**
Kutlu A.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART L-JOURNAL OF MATERIALS-DESIGN AND APPLICATIONS, vol.235, no.7, pp.1712-1722, 2021 (SCI-Expanded)
7. **A novel mixed finite element formulation based on the refined zigzag theory for the stress analysis of laminated composite plates**
Kutlu A., DÖRDÜNCÜ M., Rabczuk T.
COMPOSITE STRUCTURES, vol.267, 2021 (SCI-Expanded)
8. **An Exact Elasticity Solution for Monoclinic Functionally Graded Beams**
ÇÖMEZ İ., Aribas U. N., Kutlu A., Omurtag M. H.
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.46, no.5, pp.5135-5155, 2021 (SCI-Expanded)
9. **A combined boundary-finite element procedure for dynamic analysis of plates with fluid and**

- foundation interaction considering free surface effect**
 Kutlu A., Uğurlu B., Omurtag M. H.
 OCEAN ENGINEERING, vol.145, pp.34-43, 2017 (SCI-Expanded)
10. **Parametric analysis of viscoelastic hyperboloidal helical rod**
 Ermiş M., Eratlı N., Argeso H., Kutlu A., Omurtag M. H.
 ADVANCES IN STRUCTURAL ENGINEERING, vol.19, no.9, pp.1420-1434, 2016 (SCI-Expanded)
 11. **A new mixed finite-element approach for the elastoplastic analysis of Mindlin plates**
 Kutlu A., MESCHKE G., Omurtag M. H.
 JOURNAL OF ENGINEERING MATHEMATICS, vol.99, no.1, pp.137-155, 2016 (SCI-Expanded)
 12. **Large deflection bending analysis of elliptic plates on orthotropic elastic foundation with mixed finite element method**
 Kutlu A., Omurtag M. H.
 INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, vol.65, no.1, pp.64-74, 2012 (SCI-Expanded)
 13. **Dynamic response of Mindlin plates resting on arbitrarily orthotropic Pasternak foundation and partially in contact with fluid**
 Kutlu A., Uğurlu B., Omurtag M. H., Ergin A.
 OCEAN ENGINEERING, vol.42, pp.112-125, 2012 (SCI-Expanded)
 14. **Dynamics of a rectangular plate resting on an elastic foundation and partially in contact with a quiescent fluid**
 Uğurlu B., Kutlu A., Ergin A., Omurtag M. H.
 JOURNAL OF SOUND AND VIBRATION, vol.317, pp.308-328, 2008 (SCI-Expanded)

Articles Published in Other Journals

1. **BUCKLING OF RECTANGULAR FSDT PLATES RESTING ON ORTHOTROPIC FOUNDATION BY MIXED FEM**
 Kutlu A., Omurtag M. H.
 SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BİLİMLERİ DERGİSİ, vol.38, no.2, pp.659-666, 2020 (ESCI)
2. **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)
3. **Dynamic Response of Sandwich Bottom Plate of Rigid Fluid Container Resting on Elastic Foundation**
 Kutlu A.
 GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.32, no.1, pp.131-143, 2019 (ESCI)
4. **THE DYNAMIC ANALYSIS OF A LINEAR VISCOELASTIC PLANAR ELLIPTICAL BEAM**
 Ermiş M., Kutlu A., Eratlı N., Omurtag M. H.
 SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BİLİMLERİ DERGİSİ, vol.9, no.2, pp.157-168, 2018 (ESCI)
5. **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 (ESCI)
6. **Dynamic behavior of the viscoelastic noncylindrical helices with a mixed finite element method**
 Eratlı N., Kutlu A.
 Int. J. of Structural Analysis and Design-IJSAD, vol.2, no.1, pp.110-113, 2015 (Peer-Reviewed Journal)
7. **Tabakalı kompozit Mindlin plaqının karışık sonlu eleman yöntemi ile geometrik doğrusal olmayan analizi**
 Kutlu A., Omurtag M. H.
 Sigma Mühendislik ve Fen Bilimleri Dergisi, vol.31, pp.298-306, 2013 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

1. **Vibroacoustic noise estimation of a combined elastic submarine-propeller system subjected to the self-propulsion conditions**
KAHRAMAN İ., BİLİCİ G., TUNCA E., AZRAK R. T., KUTLU A., UĞURLU B.
The 19th International Congress of the International Maritime Association of the Mediterranean, İstanbul, Turkey,
26 September - 29 October 2022
2. **KOMPOZİT EĞRİSEL KİRİŞLERİN ÇARPILMA ETKİSİ GÖZETİLEN GERİLİMİN DAĞILIMININ KARIŞIK SONLU ELEMANLARLA 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
3. **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, Turkey, 17 - 18 June 2019
4. **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
5. **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
6. **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
7. **The Comparison of Exact and Approximate Geometry of Conical Helix Over Static and Dynamic Analysis**
Ermiş M., Ayhan B., Kutlu A., Erath N., Omurtag M. H.
3th International Congress on Advances in Civil Engineering - ACE 2018, İzmir, Turkey, 12 - 14 September 2018
8. **Viskoelastik zemine oturan eğri eksenli kompozit çubukların dinamik analizi**
Arıbaş Ü. N., Ermiş M., Kutlu A., Eratlı N., Omurtag M. H.
20. Ulusal Mekanik Kongresi, Bursa, Turkey, 5 - 09 September 2017, pp.118-129
9. **Viskoelastik eliptik düzlem çubukların dinamik analizi**
Ermiş M., Kutlu A., Eratlı N., Omurtag M. H.
20. Ulusal Mekanik Kongresi, Bursa, Turkey, 5 - 09 September 2017, pp.147-156
10. **Ortotrop zemine oturan süper eliptik kesitli akışkan tankı ince taban plaqının serbest titreşim analizi**
KUTLU A., UĞURLU B., OMURTAG M. H.
20. Ulusal Mekanik Kongresi, Turkey, 5 - 09 September 2017
11. **Forced Vibration of a Planar Curved Beam on Pasternak Foundation**
Kutlu A., Ermiş M., Eratlı N., Omurtag M. H.
ICSCE 2017:19th International Conference on Structural and Construction Engineering, İstanbul, Turkey, 27 - 28 July 2017, pp.2640-2644
12. **Elastoplastic solution of circular plates through a two field mixed finite element formulation**
Kutlu A., Omurtag M. H.
12th International Congress on Advances in Civil Engineering, İstanbul, Turkey, 21 - 23 October 2016, pp.1-8
13. **Free Vibration Analysis of Conical Helicoidal Rods Having Elliptical Cross Sections Positioned in Different Orientation**
Ermiş M., Kutlu A., Eratlı N., Omurtag M. H.
18th International Conference on Civil and Environmental Engineering, Tokyo, Japan, 5 - 06 September 2016, vol.10, no.9, pp.1068-1072
14. **Vibration analysis of elastic thin bottom plates of rigid fluid storage tanks resting on Pasternak foundation**

- KUTLU A., UĞURLU B., OMURTAG M. H.
12th International Conference on Advances in Civil Engineering, İstanbul, Turkey, 21 - 23 September 2016
15. **The effect of viscoelastic material parameter regarding standard model on the conical helicoidal rod**
Ermiş M., Kutlu A., Eratlı N., Omurtag M. H.
The 2016 World Congress on Advances in Civil, Environmental, and Materials Research - ACEM16/Structures16, Jeju Adası, South Korea, 28 August - 01 September 2016, pp.1-9
16. **Static analysis of moderately thick, composite, circular rods via mixed FEM**
Arıbaş Ü. N., Kutlu A., Omurtag M. H.
World Congress on Engineering 2016, Londra, United Kingdom, 29 June - 01 July 2016, pp.1022-1025
17. **The effects of the viscosity parameters on the barrel type helical rod**
Ermiş M., Eratlı N., Argeso H., Kutlu A., Omurtag M. H.
2015 World Congress on Advances in Civil, Environmental and Materials Research- ACEM15, Incheon, South Korea, 25 - 29 August 2015, pp.1-8
18. **Zemin ve akışkan ile etkileşen plakların serbest titreşim problemi için bir sınır eleman-karışık sonlu eleman çözümü**
Kutlu A., Uğurlu B., Omurtag M. H.
XIX. Ulusal Mekanik Kongresi, Trabzon, Turkey, 24 - 28 August 2015, pp.669-678
19. **Konik tipi helislerin farklı yüklemeler altındaki dinamik davranışları**
ERATLI N., ERMİŞ M., ARGEŞO A. H., KUTLU A., OMURTAG M. H.
XIX. Ulusal Mekanik Kongresi, Trabzon, Turkey, 24 - 28 August 2015
20. **Fıçı Tipi Doğrusal Viskoelastik Helislerin Dinamik Davranışı**
Eratlı N., Ermiş M., Argeso H., Kutlu A., Omurtag M. H.
19. Ulusal Mekanik Kongresi, Trabzon, Turkey, 24 - 28 August 2015, pp.445-454
21. **Konik Tipi Viskoelastik Helislerin Farklı Yüklemeler Altındaki Dinamik Davranışı**
Ermiş M., Eratlı N., Argeso H., Kutlu A., Omurtag M. H.
19. Ulusal Mekanik Kongresi, Trabzon, Turkey, 24 - 28 August 2015, pp.472-482
22. **10th International Congress on Advances in Civil Engineering**
KUTLU A., UĞURLU B., ERGİN A., OMURTAG M. H.
11th International Congress on Advances in Civil Engineering, İstanbul, Turkey, 21 - 25 October 2014
23. **Free vibration analysis of elastic cylindrical helix via a mixed finite element method**
ERATLI N., KUTLU A.
Second International Conference On Advances in Civil, Structural and Environmental Engineering, Zürich, Switzerland, 25 - 26 October 2014
24. **Dynamic behavior of the viscoelastic non-cylindrical helices with a mixed finite element formulation**
Eratlı N., Kutlu A.
Proc. of the 2nd International Conference on Advances in Civil, Structural and Environmental Engineering-ACSEE, Zürich, Switzerland, 25 - 26 October 2014, pp.61-64
25. **Free vibration analysis of elastic cylindrical helix via the mixed finite element method**
Eratlı N., Kutlu A.
Proc. of the 2nd International Conference on Advances in Civil, Structural and Environmental Engineering-ACSEE, Zürich, Switzerland, 25 - 26 October 2014, pp.57-60
26. **Natural frequencies of elliptical fluid storage tanks supported by elastic foundation**
KUTLU A., UĞURLU B., OMURTAG M. H., ERGİN A.
11th International Conference on Advances in Civil Engineering, İstanbul, Turkey, 21 - 25 October 2014
27. **Tabakalı kompozit plaklarda büyük çökme probleminin karışık sonlu elemanlar ile incelenmesi**
KUTLU A., OMURTAG M. H.
XVIII. Ulusal Mekanik Kongresi, Manisa, Turkey, 26 August 2013 - 30 September 2011
28. **Büyük çökme problemi ve plak zemin etkileşimi için karışık sonlu eleman analizi**
KUTLU A., OMURTAG M. H.
XVIII. Ulusal Mekanik Kongresi, Manisa, Turkey, 26 - 30 August 2013
29. **Büyük Çökme Problemi ve Plak-Zemin Etkileşimi İçin Karışık Sonlu Eleman Analizi**

- Kutlu A., Omurtag M. H.
XVIII. Ulusal Mekanik Kongresi, Manisa, Turkey, 26 - 30 August 2013, pp.427-432
30. **Tabakalı Kompozit Plaklarda Büyük Çökme Probleminin Karışık Sonlu Elemanlarla İncelenmesi**
Kutlu A., Omurtag M. H.
XVIII. Ulusal Mekanik Kongresi, Manisa, Turkey, 26 - 30 August 2013, pp.420-426
31. **Pasternak Zeminine Yaslanan ve Kısmen Açıskan İle Temas Eden Mindlin Plağının Dinamik Analizi**,
Kutlu A., Uğurlu B., Omurtag M. H., Ergin A.
XVIII. Ulusal Mekanik Kongresi, Manisa, Turkey, 26 - 30 August 2013, pp.433-442
32. **Pasternak zeminine yaslanan ve kısmen açıskan ile temas eden Mindlin plağının dinamik davranışları**
KUTLU A., UĞURLU B., OMURTAG M. H., ERGİN A.
XVIII. Ulusal Mekanik Kongresi, Manisa, Turkey, 26 - 30 August 2013, pp.433-442
33. **A mixed FEM solution for natural frequencies of laminated moderately thick elliptical plates**
Kutlu A., Omurtag M. H.
Advances in Civil Engineering, Ankara, Turkey, 17 - 19 October 2012, pp.325-0
34. **Flexure of the Moderately Thick Elliptic Plates on Arbitrarily Orthotropic Elastic Foundation**
Kutlu A., Arıbaş Ü. N., Karayıgit H., Omurtag M. H.
Advances in Applied Mechanics and Modern Information Technology 2011, Baku, Azerbaijan, 22 - 23 September 2011, pp.210-214
35. **Ortotrop Pasternak Zeminine Oturan Eliptik Mindlin Plağının Karışık Sonlu Elemanlarla Static Analizi**
Kutlu A., Arıbaş Ü. N., Karayıgit H., Omurtag M. H.
XVII. Ulusal Mekanik Kongresi, Elazığ, Turkey, 5 - 09 September 2011, pp.481-487
36. **Free vibration of Mindlin plates interacting with arbitrarily orthotropic two parameter foundation**
KUTLU A., OMURTAG M. H.
International Symposium on Engineering and Architectural Sciences of Balkan, Caucasus And Turkic Republics, Isparta, Turkey, 22 - 24 October 2009
37. **Free Vibration of Mindlin Plates interaction with Arbitrarily Orthotropic Two Parameter Foundation**
Kutlu A., Omurtag M. H.
International Symposium of on Engineering an Architectural Sciences of Balkan, Caucasus and Turkic Republics, Isparta, Turkey, 22 - 24 October 2009, pp.118-122
38. **Keyfi doğrultuda ortotrop Pasternak zeminine oturan Mindlin Plağında Serbest Titreşim Analizi**
Kutlu A., Omurtag M. H.
XVI. Ulusal Mekanik Kongresi, Kayseri, Turkey, 22 - 26 June 2009, pp.847-851
39. **Elastik zemine oturan Mindlin plaklarında Vlasov zemin parametrelerinin belirlenmesi**
Kutlu A., AKSOYLAR C., Çelik M., Omurtag M. H.
Advances in Civil Engineering, İstanbul, Turkey, 11 - 13 October 2006, pp.0-634

Metrics

Publication: 66
Citation (WoS): 145
Citation (Scopus): 240
H-Index (WoS): 5
H-Index (Scopus): 7

Research Areas

Mechanics of Solid Bodies, Civil Engineering, Mechanical, Engineering and Technology