

Dr.Öğr.Üyesi Adnan Kefal

Kişisel Bilgiler

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Posta Adresi: İstanbul Teknik Üniversitesi Ayazağa Kampusu Gemi İnşaatı ve Deniz Bilimleri Fakültesi 34469 Maslak/İstanbul

Uluslararası Araştırmacı ID'leri

ScopusID: 56866304900

Eğitim Bilgileri

Yüksek Lisans, İstanbul Teknik Üniversitesi, Fen Bilimleri, Mühendislik Yönetimi, Türkiye 2017 - Devam Ediyor

Doktora, University of Strathclyde, Faculty Of Engineering, Naval Architecture, Ocean And Marine Engineering, Birleşik Krallık 2013 - 2017

Lisans, İstanbul Teknik Üniversitesi, Gemi İnşaatı Ve Deniz Bilimleri Fakültesi, Gemi İnşaatı Ve Gemi Makineleri Mühendisliği Bölümü, Türkiye 2008 - 2013

Lisans, University of Southampton, Faculty Of Engineering And The Environment, Ship Science - Erasmus Exchange, Birleşik Krallık 2011 - 2012

Yabancı Diller

İngilizce, C1 İleri

Sertifika, Kurs ve Eğitimler

Eğitim Yönetimi ve Planlama, Postgraduate Certificate in Researcher Professional Development (PG Cert RPD), University of Strathclyde, 2017

Yaptığı Tezler

Doktora, Structural Health Monitoring of Marine Structures by using Inverse Finite Element Method, University Of Strathclyde, Faculty Of Engineering,, Department Of Naval Architecture, Ocean And Marine Engineering,, 2017

Araştırma Alanları

Teknik Bilimler, Makina Mühendisliği, Mekanik, Katı Cisimler Mekaniği , Kırılma Mekaniği , Sonlu Elemanlar Yöntemi , Sürekli Ortam Mekaniği, Gemi İnşaatı ve Gemi Makinaları Mühendisliği, Gemi İnşaatı, Metalurji ve Malzeme Mühendisliği, Malzeme Bilimi ve Mühendisliği, Kompozitler

Akademik Unvanlar / Görevler

Dr.Öğr.Üyesi, İstanbul Teknik Üniversitesi, Gemi İnşaatı Ve Deniz Bilimleri Fakültesi, Gemi İnşaatı Ve Gemi Makineleri

Akademik İdari Deneyim

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Dent damage identification in stiffened cylindrical structures using inverse Finite Element Method**
Li M., Kefal A., Cerik B. C., Oterkus E.
Ocean Engineering, cilt.198, 2020 (SCI-Expanded)
- II. **Topology optimization of cracked structures using peridynamics**
Kefal A., Sohoulı A., Oterkus E., YILDIZ M., Suleman A.
CONTINUUM MECHANICS AND THERMODYNAMICS, cilt.31, sa.6, ss.1645-1672, 2019 (SCI-Expanded)
- III. **An efficient curved inverse-shell element for shape sensing and structural health monitoring of cylindrical marine structures**
Kefal A.
OCEAN ENGINEERING, cilt.188, 2019 (SCI-Expanded)
- IV. **Experimental and numerical investigation on fracture behavior of glass/carbon fiber hybrid composites using acoustic emission method and refined zigzag theory**
Tabrizi I. E., Kefal A., ZANJANI J. S. M., Akalin C., YILDIZ M.
COMPOSITE STRUCTURES, cilt.223, 2019 (SCI-Expanded)
- V. **Isogeometric plate element for unstiffened and blade stiffened laminates based on refined zigzag theory**
Hasim K. A., Kefal A., Madenci E.
COMPOSITE STRUCTURES, cilt.222, 2019 (SCI-Expanded)
- VI. **A novel isogeometric beam element based on mixed form of refined zigzag theory for thick sandwich and multilayered composite beams**
Kefal A., Hasim K. A., YILDIZ M.
COMPOSITES PART B-ENGINEERING, cilt.167, ss.100-121, 2019 (SCI-Expanded)
- VII. **A computational model of peridynamic theory for deflecting behavior of crack propagation with micro-cracks**
BAŞOĞLU M. F., ZERİN Z., Kefal A., Oterkus E.
COMPUTATIONAL MATERIALS SCIENCE, cilt.162, ss.33-46, 2019 (SCI-Expanded)
- VIII. **Modelling and parameter identification of electromechanical systems for energy harvesting and sensing**
Kefal A., Maruccio C., Quaranta G., Oterkus E.
MECHANICAL SYSTEMS AND SIGNAL PROCESSING, cilt.121, ss.890-912, 2019 (SCI-Expanded)
- IX. **Three dimensional shape and stress monitoring of bulk carriers based on iFEM methodology**
Kefal A., Mayang J. B., Oterkus E., Yildiz M.
OCEAN ENGINEERING, cilt.147, ss.256-267, 2018 (SCI-Expanded)
- X. **Modeling of Sensor Placement Strategy for Shape Sensing and Structural Health Monitoring of a Wing-Shaped Sandwich Panel Using Inverse Finite Element Method**
Kefal A., Yildiz M.
SENSORS, cilt.17, sa.12, 2017 (SCI-Expanded)
- XI. **An enhanced inverse finite element method for displacement and stress monitoring of multilayered composite and sandwich structures**
Kefal A., TESSLER A., Oterkus E.
COMPOSITE STRUCTURES, cilt.179, ss.514-540, 2017 (SCI-Expanded)
- XII. **Displacement and stress monitoring of a Panamax containership using inverse finite element method**
Kefal A., Oterkus E.

OCEAN ENGINEERING, cilt.119, ss.16-29, 2016 (SCI-Expanded)

- XIII. **Displacement and stress monitoring of a chemical tanker based on inverse finite element method**
Kefal A., Oterkus E.
OCEAN ENGINEERING, cilt.112, ss.33-46, 2016 (SCI-Expanded)

Diğer Dergilerde Yayınlanan Makaleler

- I. **A quadrilateral inverse-shell element with drilling degrees of freedom for shape sensing and structural health monitoring**

Kefal A., Oterkus E., TESSLER A., SPANGLER J. L.

ENGINEERING SCIENCE AND TECHNOLOGY-AN INTERNATIONAL JOURNAL-JESTECH, cilt.19, sa.3, ss.1299-1313, 2016 (ESCI)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Increasing Toughness by Introducing Micro-cracks**
BAŞOĞLU M. F., ZERİN Z., KEFAL A., Oterkus E.
ASME 2019 International Mechanical Engineering Congress and Exposition (IMECE), Utah, Amerika Birleşik Devletleri, 8 - 14 Kasım 2019, ss.13171
- II. **Isogeometric iFEM analysis**
KEFAL A., Oterkus E.
International Mechanical Engineering Congress Exposition (IMECE 2019), Utah, Amerika Birleşik Devletleri, 8 - 14 Kasım 2019
- III. **Dent damage prediction by using iFEM**
Li M., KEFAL A., Cerik B. C., Oterkus E.
International Mechanical Engineering Congress Exposition (IMECE 2019), Utah, Amerika Birleşik Devletleri, 8 - 14 Kasım 2019
- IV. **Multi-material Topology Optimization of Structures using Peridynamics**
Sohouli A., KEFAL A., YILDIZ M., Suleman A.
30th International Conference on Adaptive Structures and Technologies (ICAST2019), Montreal, Kanada, 7 - 11 Ekim 2019
- V. **Modeling Of Thick Composite Structures With An Eight-Node Curved Shell Element By Using The Refined Zigzag Theory**
BAŞOĞLU M. F., KEFAL A., HAŞİM K. A.
7th ECCOMAS Thematic Conference on the Mechanical Response of Composites: COMPOSITES 2019, Girona, İspanya, 18 - 20 Eylül 2019, ss.50
- VI. **Dynamic Behavior of Functionally Graded Plates using Bond-Based Peridynamics**
ÖZDEMİR M., KEFAL A., Oterkus E.
International Conference on Nonlinear Solid Mechanics (IconSoM2019), 16 - 19 Haziran 2019
- VII. **Structural health monitoring of submarine pressure hull using inverse finite element method**
Li M., KEFAL A., Cerik B. C., Oterkus E.
7th International Conference on Marine Structures (MARSTRUCT 2019), Dubrovnik, Hırvatistan, 6 - 08 Mayıs 2019
- VIII. **Displacement and Stress Monitoring of a Curved Stiffened Panel based on Inverse Finite Element Method**
KEFAL A.
7th International Conference on Marine Structures (MARSTRUCT 2019), Dubrovnik, Hırvatistan, 6 - 08 Mayıs 2019
- IX. **Peridynamics Simulations on the Deflecting Propagation of Cracks with Minor Cracks**
BAŞOĞLU M. F., ZERİN Z., KEFAL A., Oterkus E.
The International Workshop on Computational Mechanics of Materials (IWCMM 28), Glasgow, Birleşik Krallık, 10 -

12 Eylül 2018

- X. **Synchronization-based approach for parameters identification in linear and nonlinear energy harvesting systems dynamics**
KEFAL A., Maruccio C., Quaranta G., Montegiglio P., Oterkus E.
The 28th International Workshop on Computational Mechanics of Materials (IWCMM), Glasgow, Birleşik Krallık, 10 - 12 Eylül 2018
- XI. **Topology Optimization of Cracked Structures using Peridynamics**
KEFAL A., Sohouli A., Oterkus E., YILDIZ M., Suleman A.
28th International Workshop on Computational Mechanics of Materials IWCMM28, Glasgow, Birleşik Krallık, 10 - 12 Eylül 2018
- XII. **Isogeometric analysis of moderately thick composite beams and plates based on refined zigzag theory**
KEFAL A., HAŞİM K. A., YILDIZ M.
28th International Workshop on Computational Mechanics of Materials IWCMM28, Glasgow, Birleşik Krallık, 10 - 12 Eylül 2018
- XIII. **Isogeometric analysis using peridynamics and XFEM**
Madenci E., Kefal A., Dorduncu M., Barut A., Yildiz M.
AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, 2018, Florida, Amerika Birleşik Devletleri, 8 - 12 Ocak 2018
- XIV. **Deformation risks of the Marmaray tunnel and requirement of real-time monitoring based on iFEM method**
Sen S., Karacuha E., OTERKUS E., Kefal A., Erdem Z., Balci C., Kerey I. E., Celik G.
International Tunneling Symposium, İstanbul, Türkiye, 2 - 03 Aralık 2017, ss.1
- XV. **A novel methodology to determine optimum sensor locations for bulk carriers**
Kefal A., MAYANG J. B., OTERKUS E.
The 4th Symposium on Fluid-Structure-Sound Interactions and Control, Tokyo, Japonya, 21 - 24 Ağustos 2017, ss.1
- XVI. **An inverse finite element method based on refined zigzag theory for structural health monitoring of laminated composite and sandwich shell structures**
Kefal A., TESSLER A., OTERKUS E.
The 14th U.S. National Congress on Computational Mechanics, Montreal, Kanada, 17 - 20 Temmuz 2017, ss.1
- XVII. **Structural health monitoring of a wing-shaped sandwich panel using iFEM-RZT methodology**
Kefal A., YILDIZ M., OTERKUS E.
The 3rd Joint Turkey-Japan Workshop on Polymeric Composite Materials, Kyoto, Japonya, 5 - 07 Temmuz 2017, ss.1
- XVIII. **Shape and stress sensing of offshore structures by using inverse finite element method**
Kefal A., OTERKUS E.
6th International Conference on Marine Structures, MARSTRUCT 2017, Lisbon, Portekiz, 8 - 10 Mayıs 2017, ss.141-148
- XIX. **Shape sensing of aerospace structures by coupling isogeometric analysis and inverse finite element method**
Kefal A., OTERKUS E.
The 58th AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, Texas, Amerika Birleşik Devletleri, 9 - 13 Ocak 2017, ss.427
- XX. **Shape- and stress-sensing of a container ship by using inverse finite element method**
Kefal A., OTERKUS E.
The Royal Institution of Naval Architects (RINA) International Conference on Smart Ship Technology, London, Birleşik Krallık, 26 - 27 Ocak 2016, ss.67-75
- XXI. **A smart system to determine sensor locations for structural health monitoring of ship structures**
Kefal A., Hizir O., OTERKUS E.
9th International Workshop on Ship and Marine Hydrodynamics (IWSH 2015), Glasgow, Birleşik Krallık, 26 - 28 Ağustos 2015, ss.1

XXII. Structural health monitoring of marine structures by using inverse finite element method

Kefal A., OTERKUS E.

5th International Conference on Marine Structures (MARSTRUCT 2015), Southampton, Birleşik Krallık, 25 Mart - 27 Mayıs 2015, ss.341-349

Diğer Yayınlar

I. An Efficient Inverse Finite Element Method for Shape and Stress Sensing of Laminated Composite and Sandwich Plates and Shells

Kefal A., TESSLER A., OTERKUS E.

Teknik Rapor, ss.1-61, 2018

II. Hydrodynamic and structural analysis

Kefal A., OTERKUS E.

Teknik Rapor, ss.1-92, 2014

Bilimsel Hakemlikler

Composite Structures, SCI Kapsamındaki Dergi, Mayıs 2018

Mechanical Systems and Signal Processing, SCI Kapsamındaki Dergi, Mayıs 2018

Metrology and Measurement Systems, SCI Kapsamındaki Dergi, Mayıs 2018

Ocean Engineering, SCI Kapsamındaki Dergi, Mayıs 2018

Journal of the Faculty of Engineering and Architecture of Gazi University, Hakemli Bilimsel Dergi, Şubat 2018

Ocean Engineering, SCI Kapsamındaki Dergi, Mayıs 2016

Metrikler

Yayın: 42

Atıf (WoS): 144

Atıf (Scopus): 209

H-İndeks (WoS): 7

H-İndeks (Scopus): 8

Kongre ve Sempozyum Katılımı Faaliyetleri

28th International Workshop on Computational Mechanics of Materials, Oturum Başkanı, Glasgow, Birleşik Krallık, 2018

3rd Joint Turkey-Japan Workshop on Polymeric Composite Materials, Oturum Başkanı, Kyoto, Japonya, 2017

Burslar

Engineering The Future Scholarship, Üniversite, 2013 - Devam Ediyor

Akademi Dışı Deneyim

Kamu Kurumu, Nasa Langley Research Center, Structural Mechanics And Concepts Branch