

# MEHMET DÖRDÜNCÜ

## ASSOC. PROF.

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### International Researcher IDs

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### Biography

Dr. Mehmet Dorduncu is a faculty member in the Department of Mechanical Engineering at Erciyes University. He received his Ph.D. degree in Mechanical Engineering from the University of Arizona in 2018. He was a visiting student at Nasa Langley Research Center (2016), Hampton, VA, where he conducted research on the development of Refined Zigzag Theory for predicting failure in composite structures. He is the co-author of Peridynamic Differential Operator for Numerical Analysis (Springer, 2018). His research has focused on the development of new finite elements for the analysis of composite plates and shells, and the peridynamic differential operator and its applications.

### Learning Knowledge

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Post Doctorate 2021 - Continues	Bauhaus-Universitaet Weimar, Institute of Structural Mechanics , Germany
Post Doctorate 2018 - 2019	University of Arizona, Aerospace and Mechanical Engineering, Mechanics, United States Of America
Doctorate 2013 - 2018	University of Arizona, Aerospace and Mechanical Engineering, Mechanics, United States Of America
Postgraduate 2012 - 2013	University of Arizona, Aerospace and Mechanical Engineering , Mechanics, United States Of America
Postgraduate 2011 - 2013	Erciyes University, Fen Bilimleri Enstitüsü, Makine Mühendisliği, Turkey
Undergraduate 2006 - 2011	Erciyes University, Mühenslik Fakültesi, Makine Mühendisliği, Turkey
Undergraduate 2010 - 2010	Tallinn University Of Applied Sciences, Faculty Of Mechanics, Estonia

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### Academic Titles / Tasks

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Associate Professor  
2020 - Continues

Erciyes University, Mühendislik Fakültesi, Makina Mühendisliği

Assistant Professor  
2019 - 2020

Erciyes University, Mühendislik Fakültesi, Makina Mühendisliği

Research Assistant  
2011 - 2019

Erciyes University, Mühendislik Fakültesi, Makina Mühendisliği

Research Assistant  
2012 - 2018

University of Arizona, Aerospace And Mechanical Engineering, Mechanics

## Supported Projects

1. Dördüncü M., Dengiz C. G. , Ergin Ö. F. , TUBITAK Project, Fonksiyonel Kademelenendirilmiş Yapıştırma Bağlantılarında Oluşan Hasarların Faz Alanı Modeli Kullanılarak İncelenmesi, 2022 - 2023
2. DÖRDÜNCÜ M., Kutlu A., TUBITAK Project, Tabakalı Kompozit Kirişlerin Statik ve Dinamik Yüklemeler Altındaki Yapısal Analizleri için Yeni Bir Zikzak Sonlu Eleman Formülasyonu Geliştirilmesi, 2021 - 2022
3. Dördüncü M., Project Supported by Higher Education Institutions, Peridinamik Teorisi ve Sonlu Elemanlar Metodu Kullanılarak Malzemelerin Gerilme ve Hasar Analizleri İçin Sayısal Model Geliştirilmesi, 2021 - 2022
4. DÖRDÜNCÜ M., APALAK M. K. , Hu Y., TUBITAK Project, Bir ve İki Yönlü Fonksiyonel Olarak Kademelenendirilmiş Yapılarda Oluşan Hasarların Peridinamik Teorisi Kullanılarak İncelenmesi, 2020 - 2022
5. Dördüncü M., Sarı S. E. , TUBITAK Project, İÇERİSİNDE ÇATLAK BULUNAN LİTYUM İYON BATARYALARININ PERİDİNAMİK YÖNTEMİYLE MODELLENMESİ, 2020 - 2021
6. Dördüncü M., Üçbunar M. O. , TUBITAK Project, PERİDİNAMİK TÜREV OPERATÖRÜ VE GELİŞTİRİLMİŞ ZİGZAG TEORİSİ KULLANILARAK FONKSİYONEL KADEMELENDİRİLMİŞ ÇEKİRDEĞE SAHİP SANDVIÇ KİRİŞLERDE GERİLME ANALİZİ, 2019 - 2020
7. Dördüncü M., Madenci E., Project Supported by Public Organizations in Other Countries, Material Failure Prediction through Peridynamics (MURI), 2013 - 2020
8. APALAK M. K. , DÖRDÜNCÜ M., REDDY J. N. , Project Supported by Higher Education Institutions, İşlevsel Kademelenendirilmiş Dairesel Silindirlerde Elastik Dalga Yayılımı, 2016 - 2019
9. Dördüncü M., Madenci E., Tessler A., Project Supported by Public Organizations in Other Countries, Demonstration of Refined-Zigzag Theory for predicting failure in composite structures, 2016 - 2017

## Scholarships

2224-A Yurt Dışı Bilimsel Etkinliklere Katılımı Destekleme Programı, TUBITAK, 2019 - 2019  
Visiting Student, Official Institutions of Foreign Countries, 2019 - 2019  
Graduate Research Assistant, University, 2017 - 2018  
Yurtdışı Doktora Bursu, YOK, 2013 - 2018  
Graduate School Full Scholarship (Stipend + Tuition), University, 2017 - 2017  
Graduate Assistantship, University, 2013 - 2013

## Jury Memberships

Doctorate, Doctorate, University of Strathclyde, September, 2022  
Doctorate, Doctorate, Bauhaus-Universitaet Weimar, August, 2022  
Doctorate, Doctorate, University of Strathclyde, May, 2022  
Doctorate, Doctorate, Bauhaus-Universitaet Weimar, March, 2022  
Doctorate, Doctorate, University of Strathclyde, December, 2020  
Post Graduate, Post Graduate, Erciyes Üniversitesi, July, 2020

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

- 1. Peridynamics and computational methods based on peridynamics operators: A review and computer implementation aspects**  
Rabczuk T., Dördüncü M., Ren H., Zhuang X., Madenci E.  
INTERNATIONAL JOURNAL OF MECHANICS AND MATERIALS IN DESIGN, vol.0, pp.0-1, 2022 (Peer-Reviewed Journal)
- 2. Nonlocal modeling of bi-material and modulus graded plates using peridynamic differential operator**  
Dördüncü M., Kutlu A., Madenci E., Rabczuk T.  
ENGINEERING WITH COMPUTERS, 2022 (Peer-Reviewed Journal)
- 3. Finite element implementation of ordinary state-based peridynamics with variable horizon**  
DÖRDÜNCÜ M., Madenci E.  
ENGINEERING WITH COMPUTERS, 2022 (Peer-Reviewed Journal)
- 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 (Peer-Reviewed Journal)
- 5. A peridynamic approach for modeling of two dimensional functionally graded plates**  
DÖRDÜNCÜ M., Olmus I., Rabczuk T.  
COMPOSITE STRUCTURES, vol.279, 2022 (Peer-Reviewed Journal)
- 6. An investigation of fracture behavior of one-dimensional functionally graded plates using peridynamic theory**  
Kaya K., Olmus I., Dördüncü M.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.38, no.1, pp.319-329, 2022 (Peer-Reviewed Journal)
- 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 (Peer-Reviewed Journal)
- 8. Peridynamic modeling of delaminations in laminated composite beams using refined zigzag theory**  
DÖRDÜNCÜ M.  
THEORETICAL AND APPLIED FRACTURE MECHANICS, vol.112, 2021 (Peer-Reviewed Journal)
- 9. Peridynamic modeling of adhesively bonded beams with modulus graded adhesives using refined zigzag theory**  
Dördüncü M.  
INTERNATIONAL JOURNAL OF MECHANICAL SCIENCES, vol.185, 2020 (Peer-Reviewed Journal)
- 10. Elastic flexural analysis of adhesively bonded similar and dissimilar beams using refined zigzag theory and peridynamic differential operator**  
DÖRDÜNCÜ M., APALAK M. K.  
INTERNATIONAL JOURNAL OF ADHESION AND ADHESIVES, vol.101, 2020 (Peer-Reviewed Journal)
- 11. Peridynamic Analysis of Laminated Composite Plates Based on First-Order Shear Deformation Theory**  
DÖRDÜNCÜ M., Kaya K., ERGİN Ö. F.

INTERNATIONAL JOURNAL OF APPLIED MECHANICS, vol.12, no.3, 2020 (Peer-Reviewed Journal)

12. **Stress analysis of sandwich plates with functionally graded cores using peridynamic differential operator and refined zigzag theory**  
Dördüncü M.  
Thin-Walled Structures, vol.146, pp.106468, 2020 (Peer-Reviewed Journal)
13. **Stress wave propagation in a functionally graded adhesive layer between two identical cylinders**  
Dördüncü M., Apalak M. K., Reddy J.  
JOURNAL OF ADHESION, vol.95, pp.1146-1181, 2019 (Peer-Reviewed Journal)
14. **Stress wave propagation in a through-thickness functionally graded adhesive layer**  
Dördüncü M., Apalak M. K., Reddy J.  
Journal of Adhesion Science and Technology, vol.33, no.21, pp.2329-2355, 2019 (Peer-Reviewed Journal)
15. **Weak form of bond-associated non-ordinary state-based peridynamics free of zero energy modes with uniform or non-uniform discretization**  
Madenci E., Dorduncu M., Nam Phan N. P., Gu X.  
ENGINEERING FRACTURE MECHANICS, vol.218, 2019 (Peer-Reviewed Journal)
16. **Stress analysis of laminated composite beams using refined zigzag theory and peridynamic differential operator**  
DÖRDÜNCÜ M.  
COMPOSITE STRUCTURES, vol.218, pp.193-203, 2019 (Peer-Reviewed Journal)
17. **Peridynamic least squares minimization**  
Madenci E., Dorduncu M., Gu X.  
COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING, vol.348, pp.846-874, 2019 (Peer-Reviewed Journal)
18. **Stress wave propagation in adhesively bonded functionally graded cylinders: an improved model**  
Dorduncu M., Apalak M. K., Reddy J. N.  
JOURNAL OF ADHESION SCIENCE AND TECHNOLOGY, vol.33, pp.156-186, 2019 (Peer-Reviewed Journal)
19. **Weak form of peridynamics for nonlocal essential and natural boundary conditions**  
Madenci E., Dorduncu M., Barut A., Nam Phan N. P.  
COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING, vol.337, pp.598-631, 2018 (Peer-Reviewed Journal)
20. **A state-based peridynamic analysis in a finite element framework**  
Madenci E., Dorduncu M., Barut A., Nam Phan N. P.  
ENGINEERING FRACTURE MECHANICS, vol.195, pp.104-128, 2018 (Peer-Reviewed Journal)
21. **Numerical solution of linear and nonlinear partial differential equations using the peridynamic differential operator**  
Madenci E., Dorduncu M., Barut A., Futch M.  
NUMERICAL METHODS FOR PARTIAL DIFFERENTIAL EQUATIONS, vol.33, no.5, pp.1726-1753, 2017 (Peer-Reviewed Journal)
22. **Stress wave propagation in adhesively bonded functionally graded circular cylinders**  
Dorduncu M., APALAK M. K.  
Journal of Adhesion Science and Technology, vol.30, no.12, pp.1281-1309, 2016 (Peer-Reviewed Journal)
23. **Elastic wave propagation in functionally graded circular cylinders**  
Dorduncu M., APALAK M. K., Cherukuri H. P.  
COMPOSITES PART B-ENGINEERING, vol.73, pp.35-48, 2015 (Peer-Reviewed Journal)
24. **Stress wave propagation in adhesively bonded similar and dissimilar circular cylinders**  
Dorduncu M., APALAK M. K.  
JOURNAL OF ADHESION SCIENCE AND TECHNOLOGY, vol.29, no.8, pp.778-806, 2015 (Peer-Reviewed Journal)

Articles Published in Other Journals

1. **Coupling of Peridynamics and Timoshenko Beam Theory for the Stress Analysis of Laminated Composite Materials**  
Dördüncü M.  
Havacılık ve Uzay Teknolojileri Dergisi, vol.14, no.1, pp.53-62, 2021 (Peer-Reviewed Journal)
2. **Peridynamics for the solution of the steady state heat conduction problem in plates with insulated cracks**  
Dördüncü M.  
Havacılık ve Uzay Teknolojileri Dergisi, vol.12, no.2, pp.145-155, 2019 (Peer-Reviewed Journal)
3. **Peridynamic solution of the steady state heat conduction problem in plates with insulated cracks**  
DÖRDÜNCÜ M.  
Journal of Aeronautics and Space Technologies, vol.12, no.2, pp.145-155, 2019 (Peer-Reviewed Journal)
4. **Flexure Analysis of Functionally Graded Plates Using {2,2}-Refined Zigzag Theory**  
Dördüncü M.  
Havacılık ve Uzay Teknolojileri Dergisi, vol.12, no.1, pp.19-30, 2019 (Peer-Reviewed Journal)

### Books & Book Chapters

1. **Peridynamics for axisymmetric analysis**  
Mitts C., Madenci E., Dördüncü M.  
in: Peridynamic Modeling, Numerical Techniques, and Applications, Erdogan Madenci, Editor, Elsevier Science, Oxford/Amsterdam , Oxford, 2021
2. **Coupled Peridynamics and XFEM**  
Dördüncü M., Madenci E., Barut A.  
in: Peridynamic Modeling, Numerical Techniques, and Applications, Erdogan Madenci, Editor, Elsevier Science, Oxford/Amsterdam , Oxford, 2021
3. **Peridynamic modeling of laminated composites**  
Madenci E., Dördüncü M.  
in: Size-Dependent Continuum Mechanics Approaches, Esmaeel Ghavanloo, Ahmad Fazelzadeh, Francesco Marotti de Sciarra, Editor, Springer, London/Berlin , Massachusetts, 2020
4. **Peridynamics for Numerical Analysis**  
Madenci E., Barut A., Dördüncü M.  
in: Advances in Computing and Information in Engineering (ACIER) (In-press), John G. Michopoulos, Editor, American Society of Mechanical Engineers (ASME) , Massachusetts, 2020
5. **Peridynamic differential operator for numerical analysis**  
Madenci E., Barut A., DÖRDÜNCÜ M.  
Springer, London/Berlin , New York, 2019

### Refereed Congress / Symposium Publications in Proceedings

1. **Thermomechanical analysis of one dimensional functionally graded plates by using peridynamic theory**  
Dördüncü M.  
2nd International Conference on Computations for Science and Engineering, Rimini, Italy, 30 August - 02 September 2022, vol.0
2. **A Truss Element for Ordinary State-Based Peridynamic Analysis With Uniform or Non-Uniform Discretization**  
Dördüncü M., Kaya K., Madenci E.  
ASME 2021 International Mechanical Engineering Congress & Exposition, Arizona, United States Of America, 1 - 05 November 2021

3. **Elastik zemine oturan tabakalı kompozit kirişlerin eğilme davranışı için geliştirilmiş zikzak teorisi tabanlı karışık sonlu eleman formülasyonu**  
Bab Y., Kutlu A., Dördüncü M.  
21. Ulusal Mekanik Kongresi, Adana, Turkey, 6 - 08 September 2021
4. **Peridynamics for dynamic fracture analysis of two dimensional functionally graded plates under thermal loads**  
Olmus I., Dördüncü M.  
2nd International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Turkey, 18 - 20 August 2021
5. **Weak form of bond-associated non-ordinary state based peridynamics for modeling composite materials**  
Dördüncü M.  
2nd International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Turkey, 18 - 20 August 2021
6. **A novel ordinary state based peridynamic truss element with uniform/nonuniform discretization**  
Dördüncü M., Madenci E.  
2nd International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Turkey, 18 - 20 August 2021
7. **Peridynamic Analysis of One Dimensional Functionally Graded Plates**  
Olmus I., Dördüncü M.  
24th International Conference on Composite Structures- ICCS24 , Porto, Portugal, 14 - 18 June 2021
8. **A peridynamic approach for modeling composite laminates**  
Madenci E., Yaghoobi A., Barut A., DÖRDÜNCÜ M., Phan N.  
AIAA Science and Technology Forum and Exposition, AIAA SciTech Forum 2021, Virtual, Online, 11 - 15 January 2021, pp.1-23
9. **Peridynamics for predicting damage in functionally graded materials**  
Dördüncü M., Olmus I.  
23rd International Conference on Composite Structures, Porto, Portugal, 1 - 04 September 2020
10. **PERIDYNAMICS AND REFINED ZIGZAG THEORY FOR PROGRESSIVE FAILURE ANALYSIS OF VISCOELASTIC COMPOSITES**  
Dördüncü M., Madenci E.  
19th International Conference on New Trends in Fatigue and Fracture, Arizona, United States Of America, 8 - 10 October 2019
11. **PERIDYNAMICS FOR BENDING ANALYSIS OF LAMINATED COMPOSITE PLATES BASED ON REFINED ZIGZAG THEORY**  
Dördüncü M., Ergin Ö. F.  
29th International Workshop on Computational Mechanics of Materials (IWCM29), Dubrovnik, Croatia, 15 - 18 September 2019
12. **Bending behavior of laminated composite plates with embedded cracks by using refined zigzag theory**  
Dördüncü M., Ergin Ö. F.  
1st International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Turkey, 22 - 23 August 2019
13. **A State-Based Peridynamic Truss Element for Progressive Failure Analysis of Composites**  
Dördüncü M., Madenci E.  
1st International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Ankara, Turkey, 22 - 23 August 2019
14. **Non-ordinary State-based Peridynamics Free of Zero Energy Modes**  
Madenci E., Dördüncü M.  
15th U.S. National Congress on Computational Mechanics (USNCCM15), Texas, United States Of America, 28 July - 01 August 2019

15. **Peridynamics for predicting thermal expansion coefficient of graphene**  
Madenci E., Barut A., Dorduncu M.  
69th IEEE Electronic Components and Technology Conference, ECTC 2019, Nevada, United States Of America, 28 - 31 May 2019, pp.825-833
16. **Progressive failure analysis of composites based on peridynamics and refined zigzag theory**  
Madenci E., DÖRDÜNCÜ M., Barut A., Phan N. D.  
AIAA Scitech Forum, 2019, California, United States Of America, 7 - 11 January 2019
17. **Peridynamic Modeling of Composite Laminates**  
Madenci E., DÖRDÜNCÜ M., Barut A., Phan N. D.  
ASME 2018 International Mechanical Engineering Congress & Exposition, Pittsburgh, United States Of America, 9 - 15 November 2018
18. **Peridynamic Modeling of Composite Panels Under Impact Loading**  
Madenci E., DÖRDÜNCÜ M., Phan N. D.  
12th International Conference on Sandwich Structures, Lausanne, Switzerland, 19 - 22 August 2018
19. **Direct Coupling of Peridynamics with Finite Elements Without a Transition Zone**  
Madenci E., DÖRDÜNCÜ M., Barut A., Phan N. D.  
13th World Congress in Computational Mechanics, New York, United States Of America, 22 - 27 July 2018
20. **Peridynamic modeling of impact damage in laminated composites**  
Madenci E., DÖRDÜNCÜ M., Barut A., Phan N. D.  
18th International Conference on New Trends in Fatigue and Fracture, Lisbon, Portugal, 17 - 20 July 2018
21. **Peridynamics Guided Crack Growth in Isogeometric Analysis**  
Madenci E., DÖRDÜNCÜ M., Phan N. D.  
10th European Solid Mechanics Conference, Bologna, Italy, 2 - 06 July 2018
22. **A State-Based Peridynamic Element**  
Madenci E., DÖRDÜNCÜ M., Barut A., Phan N. D.  
The 18th U.S. National Congress on Theoretical and Applied Mechanics, Chicago, United States Of America, 4 - 09 June 2018
23. **Coupling of peridynamics with finite elements without an overlap zone**  
Madenci E., Barut A., Dorduncu M., Phan N. D.  
AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, 2018, Florida, United States Of America, 8 - 12 January 2018
24. **Weak form of peridynamics**  
Madenci E., Dorduncu M., Barut A., Phan N. D.  
AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, 2018, Florida, United States Of America, 8 - 12 January 2018
25. **Peridynamics for progressive failure analysis of composites**  
Madenci E., Dorduncu M., Phan N.  
33rd Technical Conference of the American Society for Composites 2018, Washington, United States Of America, 24 - 27 September 2018, vol.1, pp.599-613
26. **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, United States Of America, 8 - 12 January 2018
27. **Weak Form of Peridynamic Equilibrium Equations**  
DÖRDÜNCÜ M., Madenci E., Barut A.  
ASME 2017 International Mechanical Engineering Congress & Exposition, Tampa, FL, United States Of America, 3 - 09 November 2017
28. **Peridynamics for solving nonlinear partial differential equations**  
Madenci E., DÖRDÜNCÜ M.  
14th U.S. National Congress on Computational Mechanics (USNCCM14), Montreal, Canada, 17 - 20 July 2017
29. **A three-node flat shell element based on Refined Zigzag Theory**

DÖRDÜNCÜ M., Tessler A., Madenci E.

3rd International Conference on Mechanics of Composites, Bologna, Italy, 4 - 07 July 2017

**30. Peridynamic augmented XFEM**

DÖRDÜNCÜ M., Barut A., Madenci E., Phan N. D.

58th AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, 2017, Texas, United States Of America, 9 - 13 January 2017

**31. Peridynamic solution of free boundary problems**

DÖRDÜNCÜ M., Barut A., Madenci E.

ASME 2016 International Mechanical Engineering Congress & Exposition, Phoenix, Az, United States Of America, 11 - 17 November 2016

**32. Stress Wave Propagation in a Functionally Graded Cylinder**

APALAK M. K. , DÖRDÜNCÜ M.

14 th International Symposium Functionally Graded Materials Multiscale & Multifunctional Structures, Bayreuth, Germany, 18 - 21 September 2016, pp.173-177

**33. Peridynamic truss element for viscoelastic deformation**

DÖRDÜNCÜ M., Barut A., Madenci E.

57th AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference, 2016, California, United States Of America, 4 - 08 January 2016

**34. Ordinary-state based peridynamic truss element**

DÖRDÜNCÜ M., Barut A., Madenci E.

56th AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference 2015, Florida, United States Of America, 5 - 09 January 2015

**35. A refined zigzag element for modeling sandwich construction with embedded stiffeners**

DÖRDÜNCÜ M., Barut A., Madenci E., Tessler A.

56th AIAA/ASCE/AHS/ASC Structures, Structural Dynamics, and Materials Conference 2015, Florida, United States Of America, 5 - 09 January 2015

**36. Failure prediction in sandwich panels under blast loading using a refined zigzag element**

Dorduncu M., Barut A., Madenci E.

54th AIAA/ASME/ASCE/AHS/ASC Structures, Structural Dynamics and Materials Conference, Boston, MA, United States Of America, 8 - 11 April 2013

## Advising Theses

Kayran A., Dördüncü M., MESH INDEPENDENT METHOD FOR PROGRESSIVE FAILURE ANALYSIS OF COMPOSITE STRUCTURES, Doctorate, O.Dede(Student), Continues

Dördüncü M., Fonksiyonel Kademelenendirilmiş Yapılarda Meydana Gelen Hasarların Peridinamik Yöntemi Kullanılarak İncelenmesi, Postgraduate, İ.Olmuş(Student), Continues

Dördüncü M., Statik ve Dinamik Yükler Etkisindeki Tabakalı Kompozit Kirişlerin Yapısal Analizleri için Yeni Bir Zikzak Sonlu Eleman Formülasyonu Geliştirilmesi, Postgraduate, B.YURTSEVER(Student), 2022

## Activities in Scientific Journals

Solid and Structural Mechanics, Committee Member, 2021 - Continues

Mechanics Of Materials, Committee Member, 2020 - Continues

## Memberships / Tasks in Scientific Organizations

Teorik ve Uygulamalı Mekanik Türk Millî Komitesi, Member of Science Committee, 2022 - Continues, Turkey



Society of Engineering Science (SES) , Member, 2021 - Continues, United States Of America  
Turkish Solid Mechanics Group, Member of Science Committee, 2019 - Continues, Turkey  
The American Institute of Aeronautics and Astronautics (AIAA), Member, 2013 - Continues  
Makine Mühendisleri Odası, Member, 2011 - Continues

## Tasks In Event Organizations

Dördüncü M., 2nd International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Scientific Congress, Ankara, Turkey, Ağustos 2021

Dördüncü M., 19th International Conference on New Trends in Fatigue and Fracture, Scientific Congress, Arizona, United States Of America, Ekim 2019

Dördüncü M., 1st International Workshop on Plasticity, Damage and Fracture of Engineering Materials, Scientific Congress, Ankara, Turkey, Ağustos 2019

Dördüncü M., 9th International Conference on Recent Advances in Space Technologies, Scientific Congress, İstanbul, Turkey, Haziran 2019

## Metrics

Publication: 69

Citation (WoS): 300

Citation (Scopus): 380

H-Index (WoS): 9

H-Index (Scopus): 9

## Invited Talks

Ordinary state-based truss element, Workshop, The University of North Carolina at Charlotte, United States Of America, July 2016

## Research Areas

Mechanical Engineering, Mechanical, Solid Mechanics, Fracture Mechanics, Finite Element Methods, Mathematics, Integral Equations, Numerical Analysis, Natural Sciences, Engineering and Technology

## Non Academic Experience

State Agency, Nasa Langley Research Center

Other, Fluted-Core Sandwich Composite Structures, Nasa Larc.