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International Researcher IDs

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Publons / Web Of Science ResearcherID: GZG-3283-2022

ScopusID: 56237501700

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Education Information

Doctorate, Wayne State University, Mechanical Engineering, United States Of America 2012 - 2017

Postgraduate, Wayne State University, Mechanical Engineering, United States Of America 2010 - 2012

Dissertations

Doctorate, Strain Rate Dependence And Impact Behavior Of ABS (Acrylonitrile-Butadiene-Styrene) Amorphous Thermoplastic, Wayne State University, Mechanical Engineering, 2017

Postgraduate, Free vibration analyses of abs (acrylonitrile-butadiene-styrene) rectangular plates with completely free boundary conditions, Wayne State University, Mechanical Engineering, 2012

Research Areas

Mechanical Engineering, NDT Engineering, Material, Acoustics and Noise Control, Mechanical Vibrations, Finite Element Methods, Mechanical Testing

Academic Titles / Tasks

Assistant Professor, Yozgat Bozok University, Faculty of Engineering-Architecture, Makine Mühendisliği, 2023 - Continues

Lecturer, Yozgat Bozok University, Faculty of Engineering-Architecture, Makine Mühendisliği, 2018 - Continues

Academic and Administrative Experience

Deputy Head of Department, Yozgat Bozok University, Faculty of Engineering-Architecture, Makine Mühendisliği, 2023 - Continues

Courses

Mekanik Titreşimler, Undergraduate, 2023 - 2024

Tahribatsız Hasar Analiz Yöntemleri ve Kompozit Malzemelere Uygulamaları, Postgraduate, 2024 - 2025

Kompozit Malzemelerin Mekaniği, Postgraduate, 2023 - 2024

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Determination of optimal dimensions of polymer-based rectangular hollow sections based on both adequate-strength and local buckling criteria: Analytical and numerical studies**
Nuraliyev M., Dundar M. A., Sahin D. E.
MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, vol.52, no.2, pp.1159-1189, 2024 (SCI-Expanded)
- II. **Exploring the strain rate influence on shear yield behavior of acrylonitrile-butadiene-styrene: Experimental and numerical study**
Dundar M. A.
JOURNAL OF THERMOPLASTIC COMPOSITE MATERIALS, vol.0, no.0, pp.1-30, 2024 (SCI-Expanded)
- III. **A Novel Approach for the Optimum Cross-Section Design of Thin-Walled Box Section Beams Subject to Oblique Bending Based on Both Adequate-Strength and Local Stability Conditions.**
Nuraliyev M., Dundar M. A., Akyildiz H. K., Sahin D. E.
Structures, vol.67, no.1, pp.1-29, 2024 (SCI-Expanded)
- IV. **A novel analytical method for local buckling check of box sections with unequal wall thicknesses subjected to bending**
Nuraliyev M., Dundar M. A., Akyildiz H. K.
MECHANICS OF ADVANCED MATERIALS AND STRUCTURES, vol.1, no.1, pp.1-24, 2024 (SCI-Expanded)
- V. **Examination of compressive and flexural behaviors of acrylonitrile-butadiene-styrene filled with hemp fiber particles**
Ozenc O., Dündar M. A., Sahin D. E.
JOURNAL OF THERMOPLASTIC COMPOSITE MATERIALS, vol.37, no.2, pp.743-771, 2024 (SCI-Expanded)
- VI. **A novel approach for the determination of optimal diameter of shaft with keyway: Analytical and numerical study**
Nuraliyev M., Dündar M. A., Akyildiz H. K., Sahin D. E.
Mechanics Based Design of Structures and Machines, vol.52, no.8, pp.5610-5636, 2024 (SCI-Expanded)
- VII. **A novel approach for the determination of optimal diameter of shaft with keyway: Analytical and numerical study**
Nuraliyev M., Dündar M. A., Akyıldız H. K., Şahin D. E.
MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, vol.0, no.0, pp.1-27, 2023 (SCI-Expanded)
- VIII. **Investigation of effects of added hemp fiber particles on tensile behavior of acrylonitrile-butadiene-styrene**
Ozenc O., Dundar M. A., Sahin D. E.
JOURNAL OF COMPOSITE MATERIALS, vol.57, no.15, pp.2421-2436, 2023 (SCI-Expanded)
- IX. **Numerical prediction of mechanical behavior of acrylonitrile-butadiene-styrene under three-point bending and impact loadings by Anand-Gurtin material model**
DÜNDAR M. A., Dhaliwal G. S., NURALIYEV M., Ayorinde E. O.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.236, no.22, pp.11024-11040, 2022 (SCI-Expanded)
- X. **Tensile, compression, and flexural characteristics of acrylonitrile-butadiene-styrene at low strain rates: Experimental and numerical investigation**
Dundar M. A., Dhaliwal G. S., Ayorinde E., Al-Zubi M.
POLYMERS & POLYMER COMPOSITES, vol.29, no.5, pp.331-342, 2021 (SCI-Expanded)
- XI. **Experimental and numerical investigation on flexural behavior of acrylonitrile-butadiene-styrene polymer**
Dundar M. A., Dhaliwal G. S., Ayorinde E.

POLYMER ENGINEERING AND SCIENCE, vol.60, no.11, pp.2930-2944, 2020 (SCI-Expanded)

- XII. **Investigation for impact behavior of acrylonitrile-butadiene-styrene amorphous thermoplastic**
Dundar M. A., Dhaliwal G. S.
POLYMER TESTING, vol.89, 2020 (SCI-Expanded)

Articles Published in Other Journals

- I. **Comparative assessment of element types for evaluating local elastic buckling behavior of rectangular hollow sections using finite element analysis**
Dündar M. A., Ercan K., Özenç O.
Journal of innovative engineering and natural science (Online), vol.5, no.1, pp.128-147, 2025 (Peer-Reviewed Journal)
- II. **Parametric study on the assessment of the local buckling behavior of perforated square hollow sections with non-uniform wall thickness under axial compression**
Dündar M. A., Nuraliyev M.
Journal of innovative engineering and natural science (Online), vol.4, no.2, pp.326-353, 2024 (Peer-Reviewed Journal)
- III. **Determination of Optimal Cross-Section Dimensions of Rectangular Hollow Sections Under Oblique Bending: Analytical and Numerical Study.**
Nuraliyev M., Dündar M. A.
journal of innovative engineering and natural science, vol.4, no.1, pp.198-219, 2024 (Peer-Reviewed Journal)
- IV. **Four Point Flexural Response of Acrylonitrile-Butadiene-Styrene**
Dhaliwal G. S., Dundar M. A.
JOURNAL OF COMPOSITES SCIENCE, vol.4, no.2, 2020 (ESCI)
- V. **Sound and vibration considerations of some materials for automotive engineering applications**
Al-Zubi M., Ayorinde E., Alshabatat N., Dundar M. A., Murty Y.
American Journal of Applied Sciences, vol.11, no.10, pp.1784-1797, 2014 (Scopus)
- VI. **Vibro-Acoustic Characterization and Optimization of Periodic Cellular Material Structures (PCMS) for NVH Applications**
Dündar M. A.
Journal of Materials Science Research, vol.2, pp.1-11, 2013 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **ULTRA YÜKSEK MOLEKÜL AĞIRLIKLI POLİETİLEN MALZEMENİN BASMA DENEYİNDE FARKLI DEFORMASYON HIZLARI ALTINDA MEKANİK ÖZELLİKLERİNİN İNCELENMESİ**
Ercan K., Dündar M. A., Akyıldız H. K.
AICMES 2nd INTERNATIONAL CONFERENCE ON CURRENT SCIENTIFIC STUDIES , Tel-Aviv-Yafo, Israel, 6 - 09 April 2023, vol.2, no.11, pp.62-69
- II. **NUMERICAL INVESTIGATION OF DYNAMIC CHARACTERISTICS OF HEMP PARTICLE-ADDED ACRYLONITRILE-BUTADIENESTYRENE (ABS) THERMOPLASTIC BIOCOMPOSITES**
Özenç O., Nuraliyev M., Dündar M. A., Şahin D. E.
ICHEAS 4th International Conference On Health, Engineering And Applied Sciences, Dubai, United Arab Emirates, 14 - 16 April 2023, pp.206-217
- III. **EXPERIMENTAL MODAL ANALYSIS OF NATURAL FIBER REINFORCED ACRYLONITRILEBUTADIENE-STYRENE (ABS) THERMOPLASTIC BIOCOMPOSITES**
Özenç O., Nuraliyev M., Dündar M. A., Şahin D. E.
ICHEAS 4th International Conference On Health, Engineering And Applied Sciences, Dubai, United Arab Emirates, 14 - 16 April 2023, pp.194-205

- IV. **ULTRA YÜKSEK MOLEKÜL AĞIRLIKLI POLİETİLEN MALZEMENİN EĞİLME DAVRANIŞININ BELİRLENMESİ: DENEYSEL VE NÜMERİK ÇALIŞMA**
Ercan K., Dündar M. A., Akyıldız H. K.
BALKAN 7TH INTERNATIONAL CONFERENCE, Skopje, Macedonia, 3 - 05 February 2023, vol.1, pp.134-144
- V. **MODAL ANALYSIS ON DETERMINATION OF DYNAMIC PARAMETERS OF RECTANGULAR UHMWPE PLATES**
Özenç O., Dündar M. A., Şahin D. E.
6th INTERNATIONAL CONGRESS ON INNOVATIVE SCIENTIFIC APPROACHES, Samsun, Turkey, 19 - 20 December 2021, pp.338-347
- VI. **Determination of impact behavior of ABS from acoustic emission, ultrasound and optics**
Dundar M. A., Ayorinde E., Al-Zubi M.
ASME 2015 International Mechanical Engineering Congress and Exposition, IMECE 2015, Texas, United States Of America, 13 - 19 November 2015, vol.9-2015
- VII. **Investigation of some circular membrane-patch acoustic meta-materials**
Ayorinde E., Al-Zubi M., Mohammad F., Dundar M. A.
ASME 2013 International Mechanical Engineering Congress and Exposition, IMECE 2013, San Diego, CA, United States Of America, 15 - 21 November 2013, vol.9
- VIII. **Plate vibration and geometry study of impact-control ABS**
Dundar M. A., Ayorinde E.
ASME 2013 International Mechanical Engineering Congress and Exposition, IMECE 2013, San Diego, CA, United States Of America, 15 - 21 November 2013, vol.9
- IX. **Experimental and numerical analysis of membrane-patterned meta-materials**
Ayorinde E., Al-Zubi M.
ASME 2012 International Mechanical Engineering Congress and Exposition, IMECE 2012, Houston, TX, United States Of America, 9 - 15 November 2012, vol.8, pp.303-306
- X. **Acoustic and vibration responses of lexan plate constructions**
Al-Zubi M., Dundar A., Ayorinde E., Witus G.
ASME 2012 International Mechanical Engineering Congress and Exposition, IMECE 2012, Houston, TX, United States Of America, 9 - 15 November 2012, vol.8, pp.297-301

Supported Projects

KARADUMAN Y., ŞAHBAZ KARADUMAN N., DÜNDAR M. A., SEÇİNTİ KLOPF H., Project Supported by Higher Education Institutions, Kenevir Lifi Saç Örgü/Dokuma Yapısal Hibrit Kumaşlarla Takviye Edilmiş Polimer Kompozitlerin Mekanik Özellikleri, 2021 - 2024

DÜNDAR M. A., ÖZENÇ O., ŞAHİN D. E., Project Supported by Higher Education Institutions, Kenevir Lif Parçacıklarıyla Güçlendirilmiş Akrilonitril-Bütadien-Stiren (ABS) Malzeme Davranışının İncelenmesi: Deneysel ve Sayısal Çalışma, 2021 - 2024

Scientific Refereeing

POLYMER BULLETIN, Journal Indexed in SCI-E, October 2024

POLYMER ENGINEERING AND SCIENCE, SCI Journal, August 2024

POLYMERS AND POLYMER COMPOSITES, Journal Indexed in SCI-E, May 2022

Metrics

Publication: 30

Citation (WoS): 68

Citation (Scopus): 110

H-Index (WoS): 5

H-Index (Scopus): 6

Scholarships

Ministry of Education, Ministry of Education, 2008 - 2017

Ph.D, University, 2012 - 2016