

## Asst. Prof. MEHMET AKİF DÜNDAR

### Personal Information

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### International Researcher IDs

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

ScopusID: 56237501700

Yoksis Researcher ID: 280867

### 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, Mühendislik-Mimarlık Fakültesi, Makine Mühendisliği, 2023 - Continues

Lecturer, Yozgat Bozok University, Mühendislik-Mimarlık Fakültesi, Makine Mühendisliği, 2018 - Continues

### Academic and Administrative Experience

Deputy Head of Department, Yozgat Bozok University, Mühendislik-Mimarlık Fakültesi, Makine Mühendisliği, 2023 - Continues

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

- I. **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)
- II. **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)
- III. **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)
- IV. **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)
- V. **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)
- 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., Şahin D. E.  
MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES, vol.0, no.0, pp.1-27, 2023 (SCI-Expanded)
- VII. **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)
- VIII. **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.1, no.1, pp.1-31, 2022 (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. **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)
- II. **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)
- III. **Four Point Flexural Response of Acrylonitrile-Butadiene-Styrene**  
Dhaliwal G. S., Dundar M. A.  
JOURNAL OF COMPOSITES SCIENCE, vol.4, no.2, 2020 (ESCI)
- IV. **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)
- V. **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

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

## Metrics

Publication: 28

Citation (WoS): 47

Citation (Scopus): 54

H-Index (WoS): 4

H-Index (Scopus): 6

## Scholarships

Ministry of Education, Ministry of Education, 2008 - 2017