Asst. Prof. MUSTAFA OĞUZ NALBANT



Personal Information

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International Researcher IDs
ScholarID: 2zfaKy8AAAAJ
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Publons / Web Of Science ResearcherID: AAK-3206-2021
ScopusID: 56303381400
Yoksis Researcher ID: 271107

Education

Doctorate, Manisa Celal Bayar University, FEN BİLİMLERİ ENSTİTÜSÜ, Turkey 2019 - 2022
Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, -, Turkey 2014 - 2016
Undergraduate, Bayburt University, Turkey 2009 - 2013
Undergraduate, Universita Degli Studi di Salerno, Italy 2010 - 2011

Foreign Languages

English

Dissertations

Doctorate, Kademeli nano kiriş titreşimlerinin yerel olmayan elastisite teorisine göre incelenmesi, Manisa Celal Bayar University, 2022
Postgraduate, Elektrik tahrikli asansörlerin lineer grafik yöntemiyle modellenmesi ve dinamik analizi, Yildiz Technical University, Faculty Of Mechanical Engineering, 2016

Research Areas

Avesis Research Areas: Mechanical Engineering, Machine Theory and Dynamics
WoS Research Areas: Engineering Mechanical, Engineering Computing & Technology (Eng), Natural Sciences (Sci), Engineering, Natural Sciences General, Mathematics, Physics, Mechanics
Scopus Research Areas: Automotive Engineering, General Engineering, General Mathematics

Academic Positions

Assistant Professor, Manisa Celal Bayar University, Soma Meslek Yüksekokulu, Elektronik Ve Otomasyon, 2025 - Present

Lecturer PhD, Manisa Celal Bayar University, Soma Meslek Yüksekokulu, Elektronik Ve Otomasyon, 2017 - 2025

Courses

Associate Degree

İşletmede Mesleki Eğitim, Associate Degree, 2025 - 2026
Sterilization Devices, Associate Degree, 2025 - 2026
Malzeme Teknolojisi, Associate Degree, 2025 - 2026
Girişimcilik, Associate Degree, 2025 - 2026
Mukavemet, Associate Degree, 2025 - 2026
Fizik Tedavi Cihazları, Associate Degree, 2025 - 2026
Biyomedikal Cihazlara Giriş, Associate Degree, 2025 - 2026
Meslek Etiği, Associate Degree, 2025 - 2026
Mukavemet, Associate Degree, 2024 - 2025
Makine Elemanları, Associate Degree, 2025 - 2026
Ameliyat Cihazları, Associate Degree, 2025 - 2026
Teknik ve Meslek Resmi, Associate Degree, 2025 - 2026
Malzeme Teknolojisi, Associate Degree, 2025 - 2026
Malzeme Teknolojisi, Associate Degree, 2024 - 2025
Yaşam Destek Cihazları, Associate Degree, 2025 - 2026
Teknik Resim, Associate Degree, 2025 - 2026
MESLEK ETİĞİ, Associate Degree, 2024 - 2025
Biyomedikal Cihazlara Giriş, Associate Degree, 2024 - 2025
MADEN MAKİNALARI VE EKİPMANLARI, Associate Degree, 2023-2024
BİYOMEDİKAL CİHAZLARA GİRİŞ, Associate Degree, 2023-2024, 2022-2023, 2020-2021
MUKAVEMET, Associate Degree, 2023-2024, 2022-2023
BİLGİSAYAR DESTEKLİ TASARIM, Associate Degree, 2023-2024, 2022-2023
ANATOMİ VE FİZYOLOJİ, Associate Degree, 2023-2024, 2022-2023
FİZİK TEDAVİ CİHAZLARI, Associate Degree, 2023-2024, 2022-2023, 2020-2021
AMELİYAT CİHAZLARI, Associate Degree, 2023-2024, 2022-2023, 2020-2021
BİLGİSAYAR DESTEKLİ ÜRETİM, Associate Degree, 2023-2024
TALAŞSIZ İMALAT YÖNTEMLERİ, Associate Degree, 2023-2024, 2021-2022, 2018-2019
GİRİŞİMCİLİK, Associate Degree, 2023-2024, 2018-2019
CNC FREZE TEKNOLOJİLERİ, Associate Degree, 2023-2024
TEKNİK RESİM, Associate Degree, 2023-2024, 2022-2023
SOSYAL SORUMLULUK, Associate Degree, 2023-2024
İŞLETMEDE MESLEKİ EĞİTİM, Associate Degree, 2023-2024, 2022-2023
MALZEME TEKNOLOJİLERİ, Associate Degree, 2023-2024
İŞ YERİ UYGULAMA EĞİTİMİ, Associate Degree, 2022-2023
MALZEME TEKNOLOJİSİ, Associate Degree, 2022-2023, 2020-2021
TIBBİ GÖRÜNÜTÜLEME CİHAZLARI, Associate Degree, 2020-2021
YAŞAM DESTEK CİHAZLARI, Associate Degree, 2020-2021
ÖLÇME VE KONTROL, Associate Degree, 2019-2020
KAYNAK TEKNOLOJİSİ, Associate Degree, 2019-2020
TEKNİK VE MESLEK RESMİ, Associate Degree, 2019-2020
TIBBİ CİHAZ MEVZUATI, Associate Degree, 2019-2020
İLERİ İMALAT YÖNTEMLERİ, Associate Degree, 2018-2019
KALİTE YÖNETİMİ, Associate Degree, 2018-2019
TOPLAM VERİMLİ BAKIM VE PERİYODİK KONTROL, Associate Degree, 2017-2018

Articles

I. **Optimization of hydraulic oil consumption in metal packaging production lines using A3 problem-solving**
Tekin A., Akyurek O., NALBANT M. O.
EKSPLOATACJA I NIEZAWODNOSC-MAINTENANCE AND RELIABILITY, vol.29, no.1, 2027 (SCI-Expanded, Scopus)

II. **Nonlinear stochastic dynamics and P-bifurcation of porous functionally graded nanobeams under multiplicative excitation**
NALBANT M. O.
JOURNAL OF MECHANICAL SCIENCE AND TECHNOLOGY, vol.40, no.8, pp.5729-5737, 2026 (SCI-Expanded, Scopus)

III. **Thermal stability and nonlinear dynamics of porous FGM nanobeams: effects of 1:3 internal resonance on post-buckling stability**
NALBANT M. O.
JOURNAL OF THE BRAZILIAN SOCIETY OF MECHANICAL SCIENCES AND ENGINEERING, vol.48, no.9, 2026 (SCI-Expanded, Scopus)

IV. **Anomaly Detection in the Pressure Turbine of Thermal Power Plant: A Case Study**
NALBANT M. O.
Karadeniz Fen Bilimleri Dergisi, vol.16, no.2, pp.880-901, 2026 (TRDizin)

V. **Size-dependent nonlinear dynamics and 1:3 internal resonance of thermally graded Osteon micro-beams under nonlocal strain gradient theory**
Nalbant M. O.
JOURNAL OF STRAIN ANALYSIS FOR ENGINEERING DESIGN, no.-, pp.1-14, 2026 (SCI-Expanded, Scopus)

VI. **Free Vibrations Analysis of Stepped Nanobeams Using Nonlocal Elasticity Theory**
Nalbant M. O., Bagdatli S. M., Tekin A.
SCIENTIA IRANICA INTERNATIONAL JOURNAL OF SCIENCE & TECHNOLOGY, vol.32, no.3, pp.1-10, 2025 (SCI-Expanded, Scopus)

VII. **Three-to-one internal resonances of stepped nanobeam of nonlinearity**
NALBANT M. O., BAĞDATLI S. M., TEKİN A.
Zeitschrift fur Naturforschung - Section A Journal of Physical Sciences, vol.79, no.4, pp.363-376, 2024 (SCI-Expanded, Scopus)

VIII. **Statistical Analysis Of Noise Exposure Of Workers In The Underground Mining In The Soma Basin Of Turkey**
Tekin A., Nalbant M. O., Orhan M., Tekin F., Suvaydan F., Berki K., Gümüş S., Aydın Savran A.
Mühendislik Bilimleri ve Tasarım Dergisi, vol.11, no.2, pp.449-458, 2023 (TRDizin)

IX. **Investigation of nonlinear vibration behavior of the stepped nanobeam**
NALBANT M. O., BAĞDATLI S. M., TEKİN A.
Advances in Nano Research, vol.15, no.3, pp.215-224, 2023 (SCI-Expanded, Scopus)

X. **Statistical Analysis of Noise-induced Brain Electrical Activity of Employees in the Underground Mining Sector in the Soma Basin**
Tekin A., Nalbant M. O., Orhan M., Tekin F., Suvaydan F., Berki K., Gümüş S., Aydın Savran A.
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, vol.18, no.3, pp.331-339, 2022 (TRDizin)

XI. **Yeraltı Madenciliğinde Meydana Gelen Gürültü Şiddetinin İncelenmesi**
Tekin A., Nalbant M. O., Orhan M., Tekin F., Suvaydan F., Berki K., Gümüş S., Aydın Savran A.
Soma Meslek Yüksekokulu Teknik Bilimler Dergisi, vol.1, no.33, pp.16-23, 2022 (Peer-Reviewed Journal)

XII. **Simetrik ve Farklı Oryantasyon Açılarına Sahip Tabakalı Kompozit Kirişlerin Dinamik Analizi**
NALBANT M. O., TEKİN A.
Soma Meslek Yüksekokulu Teknik Bilimler Dergisi, vol.1, no.30, pp.24-34, 2020 (Peer-Reviewed Journal)

XIII. **Ortotropik Malzemeye Sahip Ankastre Kompozit Çubuk Elemanın Titreşiminin Sonlu Elemanlar Yöntemiyle Modellenmesi**
NALBANT M. O.
Soma MYO Teknik Bilimler Dergisi, vol.2, no.29, pp.32-41, 2019 (Peer-Reviewed Journal)

XIV. **Mathematical Modelling of Electrically Driven Elevator via Linear Graph Method, Dynamic Response Analysis and Active Vibration Control**
NALBANT M. O., SEZER S.
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, vol.15, no.3, pp.241-250, 2019 (TRDizin)

XV. **Free Vibration Analysis of a Laminated Beam with Boundary Conditions**
BALCI M., NALBANT M. O., GÜNDOĞDU Ö.
INTERNATIONAL JOURNAL OF AUTOMOTIVE AND MECHANICAL ENGINEERING, vol.9, no.1, pp.1734-1746, 2014 (Scopus)

Books

I. **AI-Based Anomaly Detection for Operational Continuity in Mining and Energy Sectors**
TEKİN A., NALBANT M. O.
in: Current Concepts and Innovative Research in Mechanıcal Engineering, SEZER İSMET, Editor, All Sciences Academy, pp.133-145, 2025

II. **Nano Yapılarda Yerel Olmayan Elastisite Teorisi Uygulamaları**
Nalbant M. O., Tekin A.
in: Mühendislikte Öncü ve Çağdaş Çalışmalar, YİĞİT ENES,ÖZKAYA UMUT, Editor, Duvar Yayınevi, İzmir, pp.143-168, 2023

III. **Galeri Açma Makinelerinin Maruz Kaldığı Titreşimlere Genel Bakış**
Tekin A., Nalbant M. O.
in: Madencilikte Özel Konular, EREN SARICI DİDEM, Editor, BİDGE Yayınları, Ankara, pp.45-71, 2023

Papers Presented at Peer-Reviewed Scientific Conferences

I. **MCST-Based Linear Free Vibration Analysis of Self-Assembling Peptide Nanotubes on an Elastic Foundation**
YEĞİN V., NALBANT M. O.
9th International Conference on Engineering and Applied Natural Sciences, Konya, Turkey, 25 - 26 October 2026, (Full Text)

II. **Multi-Scale Mechanics and Nonlinear Dynamic Analysis of Biological Microstructures**
NALBANT M. O.
International Gaziantep Scientific Research Congress-VI, Gaziantep, Turkey, 21 - 22 May 2026, pp.66-73, (Full Text)

III. **Data-Driven State Estimation For Industrial Process Monitoring: Mset-Based Approach and Anomaly Detection**
TEKİN A., NALBANT M. O., TEKİN F., UYGUR E.
International Gaziantep Scientific Research Congress-VI, Gaziantep, Turkey, 21 - 22 May 2026, pp.59-65, (Full Text)

IV. **Vibration Analysis of Variable Cross-Section Nanobeams using Nonlocal Elasticity Theory**
AKYÜREK O., TEKİN A., NALBANT M. O.
6th International Conference on Engineering, Natural and Social Sciences, Konya, Turkey, 10 - 11 August 2025, pp.39, (Summary Text)

V. **Investigation of Vibrations of Slightly Curved Circular Microbeam Embedded in Elastic Foundation**
NALBANT M. O., TEKİN A.
12st International Academic Studies Conference, Turkey, 19 - 20 September 2023, pp.335-344, (Full Text)

VI. **Investigation of Free Vibrations of Stepped Nanobeam Embedded In Elastic Foundation**
NALBANT M. O., BAĞDATLI S. M., TEKİN A.
5 TH INTERNATIONAL CONFERENCE ON APPLIED ENGINEERING AND NATURAL SCIENCES, Konya, Turkey, 12 - 15 June 2023, vol.1, pp.445-452, (Full Text)

VII. **Investigation of Stepped Nano Beam Vibrations According to Nonlocal Elasticity Theory**

NALBANT M. O., BAĞDATLI S. M., TEKİN A.
1st International Conference on Scientific and Academic Research, Konya, Turkey, 10 - 12 December 2022, pp.87, (Summary Text)

VIII. **The Physiolaogical Effects of Noise in Underground Mining on Worker Health**
NALBANT M. O., TEKİN A., ORHAN M., TEKİN F., SUVAYDAN F., BERKİ K., GÜMÜŞ S., SAVRAN AYDIN A.
International Conference on Engineering Technologies (ICENTE'21), Konya, Turkey, 18 - 20 November 2021, pp.8, (Summary Text)

IX. **Approxımate Solutıons Of The Strongly Nonlınear Duffıng Oscıllator Wıth Fractıonal Derıvatıve Dampıng**
NALBANT M. O., KARAHAN M. M. F.
Manisa Celal Bayar Üniversitesi 3. Uluslararası Üniversite Sanayi İşbirliği, AR-GE ve İnovasyon Kongresi ÜSİTEM, Manisa, Turkey, 21 - 22 April 2018, (Full Text)

X. **Mathematical Modeling Of Electrically Driven Elevator with Linear Graph Method**
NALBANT M. O., SEZER S.
International Congress on Natural and Engineering Sciences, Macedonia, 1 - 05 September 2016, pp.116-124, (Full Text)

Funded Projects

Nalbant M. O., Kuzu E., Bağdatlı S. M., Akkoca Ş., Yapanmış B. E., Project Supported by Higher Education Institutions, BAP Research Project, Termo-Elektromanyetik Yük Altındaki Fonksiyonel Derecelendirilmiş Mikro ve Nano Kirişlerin PINN ve Analitik Yöntemlerle Elde Edilen Titreşim Karakteristiklerinin Karşılaştırılması, 2026 - 2027
Yeğin V., Nalbant M. O., Project Supported by Higher Education Institutions, BAP Research Project, Değiştirilmiş Çift Gerilme Süreklilik Teorisi (MCST) Kullanılarak Elastik Zeminde Kendiliğinden Birleşen Peptit Nanotüplerin Serbest Titreşim Analizi, 2026 - 2027
ORHAN M., NALBANT M. O., TUBITAK Project, Akhisar Bilim Şenliği, 2022 - 2022
TEKİN A., ORHAN M., BERKİ K., NALBANT M. O., SUVAYDAN F., TEKİN F., Project Supported by Higher Education Institutions, BAP Infrastructure, Yeraltı Madenciliğinde Oluşan Gürültünün İşçi Sağlığı Üzerindeki Fizyolojik Etkileri, 2019 - 2022

Metrics

Publication: 28
Citation (WoS): 27
Citation (Scopus): 45
H-Index (WoS): 4
H-Index (Scopus): 4

Non Academic Experience

Çağlar İnş. A.Ş., Teknik Müdür
Kuzu Metal İnş. San. Ve Tic. Ltd. Şti., Süpervizör