Asst. Prof. MUHAMMET MUSTAFA BAHŞI

Personal Information

Email: mustafa.bahsi@cbu.edu.tr
Web: https://avesis.mcbu.edu.tr/mustafa.bahsi

International Researcher IDs
ScholarID: w1vdt-kAAAAJ
ORCID: 0000-0003-2237-5818
Publons / Web Of Science ResearcherID: L-1040-2013
ScopusID: 57213549698
Yoksis Researcher ID: 115769

Education

Doctorate, Manisa Celal Bayar University, Fen Bilimleri Enstitüsü, Makine Mühendisliği, Turkey 2012 - 2019
Postgraduate, Canakkale Onsekiz Mart University, Lisansüstü Eğitim Enstitüsü, Fen Bilimleri Enstitüsü, Turkey 2009 - 2011
Undergraduate, Canakkale Onsekiz Mart University, Fen Fakültesi, Matematik, Turkey 2005 - 2009

Foreign Languages

English

Certificates, Courses and Trainings

IT, Cryptographic Solutions for Privacy-Preserving Technologies, SABANCI ÜNİVERSİTESİ, 2023

Dissertations

Doctorate, Gecikmeli diferansiyel denklemlerin perturbasyon-iterasyon metodu ile analizi, Manisa Celal Bayar University, Fen Bilimleri Enstitüsü, Makine Mühendisliği, 2019
Postgraduate, Yerel Kapalılık Üzerine, Canakkale Onsekiz Mart University, Lisansüstü Eğitim Enstitüsü, Fen Bilimleri Enstitüsü, 2011

Research Areas

Avesis Research Areas: Artificial Intelligence, Computer Learning and Pattern Recognition, Mechanical, Computer Science
WoS Research Areas: Engineering Mechanical, Computer Science Artificial Intelligence, Computer Science Interdisciplinary Applications, Mathematics Applied
Scopus Research Areas: Automotive Engineering, Artificial Intelligence, Computer Graphics and Computer-Aided Design, Computational Theory and Mathematics

Academic Positions

Lecturer, Manisa Celal Bayar University, KIRKAĞAÇ MESLEK YÜKSEKOKULU, KIRKAĞAÇ MESLEK YÜKSEKOKULU, 2011 - Present

Academic and Administrative Experience

Assistant Director of Vocational School, Manisa Celal Bayar University, Kırkağaç Meslek Yüksekokulu, Mülkiyet Koruma Ve Güvenlik, 2025 - Present
Head of Department, Manisa Celal Bayar University, Kırkağaç Meslek Yüksekokulu, Mülkiyet Koruma Ve Güvenlik, 2023 - Present

Courses

Postgraduate
Uygulamalı Matematik, Postgraduate, 2025 - 2026, 2024 - 2025, 2023 - 2024
Undergraduate
Basic Computer Programming, Undergraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023
Statistics, Undergraduate, 2025 - 2026, 2024 - 2025, 2023 - 2024
Ayrık Yapılar, Undergraduate, 2017 - 2018, 2016 - 2017
Sistem Modelleme ve Simülasyon, Undergraduate, 2016 - 2017
Mühendislik Matematiği, Undergraduate, 2017 - 2018, 2016 - 2017
Olasılık ve İstatistik, Undergraduate, 2016 - 2017
Temel Bilgisayar Programlama, Undergraduate, 2014 - 2015
Associate Degree
Matematik I, Associate Degree, 2025 - 2026, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2021 - 2022
İnovasyon Yönetimi, Associate Degree, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021
Veri Bilimi ve Yapay Zeka, Associate Degree, 2025 - 2026
İstatistik, Associate Degree, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021
Mesleki Matematik, Associate Degree, 2015-2016, 2014-2015, 2013-2014, 2012-2013, 2011-2012
Matematik, Associate Degree, 2015-2016, 2014-2015, 2013-2014, 2012-2013, 2011-2012
TİCARİ MATEMATİK, Associate Degree, 2013-2014, 2012-2013, 2011-2012

Articles

I. **A Spectral Taylor Polynomial Solution of Euler-Bernoulli Beam Equation by a Matrix Approach**
Tatar Ö., Bahşı M. M., Çevik M.
Journal of Dynamics, Energy and Utility, vol.1, no.1, pp.1-12, 2025 (Peer-Reviewed Journal)

II. **Machine learning for the prediction of problems in steel tube bending process**
Görüş V., Bahşı M. M., Çevik M.
Engineering Applications of Artificial Intelligence, vol.133, 2024 (SCI-Expanded, Scopus)

III. **Improved Jacobi Matrix Method for Solving Multi-Functional Integro-Differential Equations with Mixed Delays**
Bahşı M. M., Çevik M.
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, vol.16, no.4, pp.393-401, 2020 (TRDizin)

IV. **Jacobi polynomial solutions of Volterra integrodifferential equations with weakly singular kernel**
Bahşı M. M., Çevik M., Sezer M.
New Trends in Mathematical Sciences, vol.6, no.3, pp.24-38, 2018 (Peer-Reviewed Journal)

V. **Improved Jacobi matrix method for the numerical solution of Fredholm integro-differential-difference equations**

Bahşı M. M., Kurt Bahşı A., Çevik M., Sezer M.
MATHEMATICAL SCIENCES, vol.10, no.3, pp.83-93, 2016 (ESCI)

VI. **Orthoexponential polynomial solutions of delay pantograph differential equations with residual error estimation**
BAHŞI M. M., Çevik M., Sezer M.
Applied Mathematics and Computation, vol.271, pp.11-21, 2015 (SCI-Expanded, Scopus)

VII. **Numerical solution of pantograph-type delay differential equations using perturbation-iteration algorithms**
BAHŞI M. M., Çevik M.
Journal of Applied Mathematics, vol.2015, 2015 (Scopus)

VIII. **Solution of the delayed single degree of freedom system equation by exponential matrix method**
Çevik M., BAHŞI M. M., Sezer M.
Applied Mathematics and Computation, vol.242, pp.444-453, 2014 (SCI-Expanded, Scopus)

IX. **Taylor matrix solution of the mathematical model of the RLC circuits**
BAHŞI M. M., Çevik M.
Mathematical and Computational Applications, vol.18, no.3, pp.467-475, 2013 (Scopus, TRDizin)

Books

I. **Predıctıon Of CNC Tube Bending Outcomes Using Explainable Ai-Supported Advanced Boosting Algorithms**
Bahşı M. M.
in: Emerging Trends in Mechanical Engineering: Theory, Applications, and Innovative Approaches, Prof. Dr. Murat MAKARACI, Editor, Vizetek Yayıncılık, Ankara, pp.86-100, 2026

II. **Olasılık Teorisi ve Olasılık Dağılımları**
Muğaloğlu T., Erbaş N., Sağır A., Bahşı M. M., Çelenli Başaran A. Z., Altıntaş T., Meral S., Kaşkır Kesin F., Sevimli Saitoğlu Y.
in: İstatistik, Şimşek Kandemir Aysen,Benli Tahir, Editor, Lisans, İstanbul, pp.81-103, 2015

Papers Presented at Peer-Reviewed Scientific Conferences

I. **NUMERICAL SOLUTION OF THE PANTOGRAPH TYPE DIFFERENTIAL EQUATION USING JACOBI NEURAL NETWORK**
Bahşı M. M., Kurt Bahşı A.
5TH INTERNATIONAL ARTIFICIAL INTELLIGENCE AND DATA SCIENCE CONGRESS (ICADA 2025) , Zonguldak, Turkey, 24 - 25 April 2025, pp.514-522, (Full Text)

II. **A New Perturbation-Iteration Method for Solving Delay Differential Equations**
Bahşı M. M., Çevik M.
2 nd International Students Science Congress, İzmir, Turkey, 4 - 05 May 2018, pp.123-127, (Full Text)

III. **TROESCH PROBLEMİNİN PERTURBASYON İTERASYON YÖNTEMİ İLE ANALİZİ**
Bahşı M. M., Çevik M.
XX. ULUSAL MEKANİK KONGRESİ, Bursa, Turkey, 5 - 09 September 2017, pp.722-727, (Full Text)

IV. **FİBONACCİ SIRALAMA YÖNTEMİ İLE BAGLEY-TORVİK DENKLEMİNİN SAYISAL ÇÖZÜMÜ**
Kurt Bahşı A., Sezer M., Bahşı M. M.
XX. ULUSAL MEKANİK KONGRESİ, Bursa, Turkey, 5 - 09 September 2017, pp.694-700, (Full Text)

V. **Jacobi Collocation Method for Solving Mathieu Equation**
Bahşı M. M., Çevik M.
International Students Science Conferance, İzmir, Turkey, 5 - 06 May 2017, pp.73, (Summary Text)

VI. **The Space Fractional Diffusion Equation with Variable Coefficients Using Fibonacci Collocation**

Method
AYŞE K. B., YALÇINBAŞ S., BAHŞI M. M.
International Conferance on Advences on Applied and Computational Mechanics, 5 - 07 August 2015, (Summary Text)

VII. **Jacobi Collocation Method for Numerical Solutions of the Fractional Convection Diffusion Equations with Variable Coefficients**
Bahşı M. M., Çevik M., Kurt Bahşı A.
International Conference on Advances in Applied and Computational Mechanics, İzmir, Turkey, 5 - 07 August 2015, (Full Text)

VIII. **Eksenel Yüklemeye Maruz Değişken Kesitli Euler Bernoulli Kirişinin Üstel Matris Yöntemi ile Enine Titreşim Analizi**
Bahşı M. M., Çevik M.
XVIII. ULUSAL MEKANİK KONGRESİ, Manisa, Turkey, 26 - 30 August 2013, pp.94-104, (Full Text)

Funded Projects

BAHŞI M. M., Project Supported by Higher Education Institutions, Kısmi Diferansiyel Denklemlerin Nümerik Çözümleri için Fibonacci Sıralama Collocation Metodu ve Residüel Hata Analizi, 2014 - 2016
PROJE B. E., BAHŞI M. M., AYŞE KURT BAHŞI A. K. B., Project Supported by Higher Education Institutions, BAP Research Project, Kısmi Diferansiyel Denklemlerin Nümerik Çözümleri İçin Fibonacci Sıralama (Collocation) Metodu ve Residüel Hata Analizi, 2014 - 2016
PROJE B. E., BAHŞI M. M., KURT A., Project Supported by Higher Education Institutions, BAP Research Project, Gecikmeli Diferansiyel Denklemlerin Perturbasyon-İterasyon Metodu İle Analizi, 2014 - 2016
BAHŞI M. M., Project Supported by Higher Education Institutions, Gecikmeli Diferansiyek Denklemlerin Perturbasyon İterasyon Yöntemi ile Analizi, 2014 - 2016
PROJE B. E., BAHŞI M. M., Project Supported by Higher Education Institutions, BAP Other, Değişken Kesitli Fonksiyonel Derecelendirilmiş Malzeme(Fdm) Kirişlerin Titreşim Analizi, 2014 - 2015
BAHŞI M. M., Project Supported by Higher Education Institutions, Değişken kesitli fonksiyonel derelendirilmiş malzeme kirişlerin titreşim analizi, 2014 - 2015

Activities in Scientific Journals

Journal of Artificial Intelligence and Data Science, Committee Member, 2024 - Present

Metrics

Publication: 20
Citation (WoS): 72
Citation (Scopus): 116
H-Index (WoS): 4
H-Index (Scopus): 5

Non Academic Experience

Ministry, T. C. Milli Eğitim Bakanlığı, Akhisar Macide Ramiz Taşkınlar Fen Lisesi, Eğitmen
Technology Development Zone, Manisa Teknokent A. Ş., KALYBEAI YAZILIM BİLİŞİM VE TEKNOLOJİ TİCARET ANONİM ŞİRKETİ, Yapay Zeka Araştırmacısı
Ministry, T. C. Milli Eğitim Bakanlığı, İzmir Buca Hüseyin Avni Karabacak Lisesi, Matematik Öğretmeni

Business Establishment Private, T. C. Mili Eğitim Bakanlığı, Çanakkale Uğur Dershanesi , Matematik Öğretmeni