

Asst. Prof. BENGİ YILDIZ

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: IYS-6217-2023

ScopusID: 56414389000

Yoksis Researcher ID: 47238

Biography

Dr. Bengi YILDIZ'ın temel araştırma alanları kararlılık analizi, dinamik sistemler, matematiksel modelleme, kesirli analizdir.

Education

Doctorate, Bilecik Seyh Edebali University, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli) (Anadolu Üniv. Ortak), Turkey 2011 - 2015

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), Turkey 2009 - 2011

Undergraduate, Hacettepe University, Fen Fakültesi, Matematik Bölümü, Turkey 2002 - 2008

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Dinamik Sistemlerin Kararlılığı Probleminin Optimizasyon Yöntemleri Yardımıyla İncelenmesi, Bilecik Seyh Edebali University, FEN BİLİMLERİ ENSTİTÜSÜ, Matematik (YI) (Tezli) (Anadolu Üniv. Ortak), 2015

Postgraduate, Neutrixler ve gama fonksiyonu, Hacettepe University, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), 2011

Research Areas

Mathematics

Academic Positions

Assistant Professor, Bilecik Seyh Edebali University, Fen Fakültesi, Matematik, 2016 - Continues
Research Assistant, Bilecik Seyh Edebali University, Fen Fakültesi, Matematik, 2010 - 2015

Academic and Administrative Experience

Bilecik Seyh Edebali University, 2020 - 2020

Bilecik Seyh Edebali University, 2017 - 2020

Bilecik Seyh Edebali University, 2019 - 2019

Courses

Postgraduate

MAT501 İleri Analiz, Postgraduate, 2018 - 2019

MAT546 Diferansiyel Denklemler, Postgraduate, 2018 - 2019

Undergraduate

MAT201 Diferansiyel Denklemler, Undergraduate, 2018 - 2019, 2015 - 2016

MAT202 Analiz IV, Undergraduate, 2018 - 2019

MAT211 Diferansiyel Denklemler I, Undergraduate, 2018 - 2019

MAT212 Diferansiyel Denklemler II, Undergraduate, 2018 - 2019

MAT429 Sayısal Yöntemler, Undergraduate, 2018 - 2019, 2015 - 2016

MAT201 Analiz III, Undergraduate, 2018 - 2019

İNM202 Mühendislik Matematiği, Undergraduate, 2018 - 2019

MAT301 Kompleks Fonksiyonlar Teorisi I, Undergraduate, 2015 - 2016

MAT401 Fonksiyonel Analiz, Undergraduate, 2015 - 2016

MAT320 Nümerik Analiz, Undergraduate, 2015 - 2016

MAT102 Matematik II, Undergraduate, 2015 - 2016

MAT218 Metrik Uzaylar, Undergraduate, 2015 - 2016

MAT302 Kompleks Fonksiyonlar Teorisi II, Undergraduate, 2015 - 2016

MAT402 Reel Analiz, Undergraduate, 2015 - 2016

Supervised Theses

YILDIZ B., Kesirli mertebeden sistemlerin kararlılık analizi, Postgraduate, Z.ÖNEŞ(Student), 2023

YILDIZ B., Özel matris ailelerinin kararlılık problemleri, Postgraduate, S.ACAR(Student), 2019

Journal articles indexed in SCI, SSCI, and AHCI

- I. **A general solution procedure for nonlinear single degree of freedom systems including fractional derivatives**
YILDIZ B., Sınır S., Sınır B. G.
International Journal of Non-Linear Mechanics, vol.169, 2025 (SCI-Expanded)
- II. **Common diagonal solutions to the Lyapunov inequalities for interval systems**
YILDIZ B., Büyükköroğlu T., Dzhafarov V.
Journal of Inequalities and Applications, vol.2016, no.1, 2016 (SCI-Expanded)

Articles Published in Other Journals

- I. **Analytical Rational Solitons of the Modified Lakshmanan-Porsezian-Daniel Equation**
GİRESUNLU İ. B., YILDIZ B.
Universal Journal of Mathematics and Applications, vol.6, no.2, pp.53-64, 2023 (Scopus)
- II. **Stability analysis and numerical simulation of dynamic and fractional SEIRD models for spread of nCOVID-19 in Turkey**
Yildiz B., Haspolat E., Yilmaz A. H., Önes Z.
Asian-European Journal of Mathematics, vol.15, no.12, 2022 (ESCI)
- III. **Fractional Order of a New 7D Hyperchaotic Lorenz-like System**
Haspolat E., Yıldız B.
Konuralp Journal of Mathematics, vol.9, no.1, pp.76-89, 2021 (Peer-Reviewed Journal)
- IV. **Common Diagonal Solutions for Second Order Complex Family**
YILDIZ B., CAFER V.
Turkish Journal of Science, vol.4, no.1, pp.39-45, 2019 (Peer-Reviewed Journal)

Papers Presented at Peer-Reviewed Scientific Conferences

- I. **Approximate Analytic Solutions of Forced Oscillations of Systems with Fractional Damping Affected by Quadratic Nonlinearity**
GÜMÜŞ Ş., SINIR S., YILDIZ B.
8th International Students Science Congress, İzmir, Turkey, 23 - 24 May 2024, pp.301-307, (Full Text)
- II. **Euler-Bernoulli Beam With Fractional Viscoelastic Boundary Conditions**
KÜZÜN D., SINIR S., YILDIZ B.
18th International Scientific Research Congress Science and Engineering, Ankara, Turkey, 16 - 17 December 2023, pp.104-111, (Full Text)
- III. **Comparative Analysis of Nonlinear SEIRD and SVEIRD Models to Understand the Dynamics of Covid-19 Spread in Alberta**
Haspolat E., Yıldız B.
The Second International Workshop: Constructive Mathematical Analysis, Konya, Turkey, 6 - 08 July 2023, pp.19, (Summary Text)
- IV. **Approximate Solutions of Nonlinear Pendulum with Fractional Damping**
SINIR S., YILDIZ B., SINIR B. G.
5 th International Students Science Congress, İzmir, Turkey, 21 - 22 May 2021, pp.295-299, (Full Text)
- V. **Approximate Solution of Rayleigh's Equation with Nonlinear Fractional Negative Damping**
YILDIZ B., Sınır S., SINIR B. G.
FIRST ONLINE CONFERENCE ON MODERN FRACTIONAL CALCULUS AND ITS APPLICATIONS (OCMFCA-2020), İstanbul, Turkey, 4 - 06 December 2020, (Summary Text)
- VI. **Semi-identical Solution to Nonlinear Euler-Bernoulli Beam Model**
YILDIZ B., Sinir B. G., Sinir S.
3rd International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2019, Ankara, Turkey, 11 - 13 October 2019, (Full Text)
- VII. **On Hurwitz Stability of Matrix Families**
ACAR S., YILDIZ B.
VI. Kadın MAtematikçiler Derneği Çalıştayı, Turkey, 26 - 28 April 2019, (Summary Text)
- VIII. **Comparison of Trigonometrically FGM Euler-Bernoulli Beam Linear Solutions with Two Methods Finite Difference Method and Differential Quadrature Method**
YILDIZ B., Sınır S.
IECMSA-2018, 28 - 31 August 2018, (Summary Text)
- IX. **Tek parametrelili sistemlerde maksimal kararlılık sınırları**
YILDIZ B., BÜYÜKKÖROĞLU T., CAFER V.
30. Ulusal Matematik Sempozyumu, Ankara, Turkey, 6 - 09 September 2017, pp.71, (Summary Text)

- X. **Discrete Time Stability Margins from Stein's Equation**
YILDIZ B., Dzhafarov V., Bhattacharyya S. P.
2nd International Conference on Mathematics and Computers in Sciences and in Industry, MCSI 2015, Sliema, Malta, 17 - 19 August 2015, pp.72-75, (Full Text)
- XI. **Exact Calculation of Cutoff Frequency for Polynomial Families**
ÇELEBİ G., YILDIZ B., BÜYÜKKÖROĞLU T., CAFER V.
International Conference on Advancement in Mathematical Sciences, Antalya, Turkey, 5 - 07 November 2015, (Summary Text)
- XII. **Discrete Time Stability Margins From Stein s Equation 2nd International Conference on Mathematics and Computers in Sciences and Industry MSC I 2015 Sliema MALTA 2015**
YILDIZ B., CAFER V., Bhattacharrya S. P.
2nd International Conference on Mathematics and Computers in Sciences and Industry, Sliema, Malta, 17 - 19 August 2015, (Full Text)
- XIII. **Diagonal stability of uncertain interval systems**
Dzhafarov V., Büyükköroğlu T., YILDIZ B.
12th International Conference on Informatics in Control, Automation and Robotics, ICINCO 2015, Colmar, Alsace, France, 21 - 23 July 2015, vol.1, pp.558-562, (Full Text)
- XIV. **On One Convex Optimization Problem**
YILDIZ B., BÜYÜKKÖROĞLU T., CAFER V.
3st International Eurasian Conference on Mathematical Sciences and Applications, 25 - 28 August 2014, (Summary Text)
- XV. **Common diagonal stability of second order interval systems**
YILDIZ B., Büyükköroğlu T., Dzhafarov V.
11th International Conference on Informatics in Control, Automation and Robotics, ICINCO 2014, Vienna, Austria, 1 - 03 September 2014, vol.1, pp.223-227, (Full Text)

Funded Projects

YILDIZ B., Project Supported by Higher Education Institutions, Kesikli Dinamik Sistemlerin Kararlılık ve Performans Özellikleri, 2017 - 2018

YILDIZ B., Project Supported by Higher Education Institutions, Kesikli ve Sürekli Sistemler için Kanonik Dönüşümler, 2016 - 2017

YILDIZ B., Project Supported by Higher Education Institutions, Parametreye Bağlı Doğrusal Sistemler İçin Parametrik Lyapunov Fonksiyonları, 2015 - 2016

YILDIZ B., Project Supported by Higher Education Institutions, Doğrusal Sistemlerin Kararlılık Özelliklerinin Farklı Yöntemlerle İncelenmesi, 2013 - 2014