

DENİZ ELMACI

ASST. PROF.

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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAC-4403-2022

ScopusID: 57431877100

Yoksis Researcher ID: 284335



Learning Knowledge

Doctorate

2017 - 2022

Ege University, Fen Bilimleri Enstitüsü, Uygulamalı Matematik (Dr), Turkey

Postgraduate

2014 - 2017

Ege University, Fen Bilimleri Enstitüsü, Uygulamalı Matematik (YI) (Tezli), Turkey

Undergraduate

2004 - 2009

Ege University, Faculty Of Science, Matematik Bölümü, Turkey

Dissertations

Doctorate, Matrix properties of Euler polynomials and applications of functional integro-differential equations, Ege University, Fen Bilimleri Enstitüsü, 2022

Postgraduate, Ayrık dinamik sistemlerin kaotik doğrusal dönüşümleri ve matematiksel modellemesi, Ege University, Fen Bilimleri Enstitüsü, Uygulamalı Matematik (YI) (Tezli), 2017

Academic Titles / Tasks

Assistant Professor

2023 - Continues

Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü

Lecturer

2018 - 2020

Dokuz Eylul University, Bergama Meslek Yüksekokulu, Bilgisayar Teknolojileri Bölümü

Scholarships

2211/A Yurt İçi Genel Doktora Bursu, TÜBİTAK, 2017 - 2022

Published journal articles indexed by SCI, SSCI, and AHCI

1. **Complex Dynamics of a Discrete Prey–Predator Model Exposing to Harvesting and Allee Effect on the Prey Species with Chaos Control**
Elmacı D., Kangalgil F.
INTERNATIONAL JOURNAL OF BIFURCATION AND CHAOS IN APPLIED SCIENCES AND ENGINEERING, vol.34, no.9, pp.2450114, 2024 (SCI-Expanded)
2. **Shifted Legendre method for solutions of Riccati type functional differential equations and application of RL circuit model**
Elmacı D., Yüzbaşı Ş., Baykuş Savaşaneril N.
INTERNATIONAL JOURNAL OF NUMERICAL MODELLING: ELECTRONIC NETWORKS, DEVICES AND FIELDS, vol.36, no.6, 2023 (SCI-Expanded)
3. **On the application of Euler's method to linear integro differential equations and comparison with existing methods**
Elmacı D., Baykuş Savaşaneril N., Dal F., Sezer M.
TURKISH JOURNAL OF MATHEMATICS, vol.46, no.1, pp.99-122, 2022 (SCI-Expanded)
4. **A matrix-collocation method for solutions of singularly perturbed differential equations via Euler polynomials**
Elmacı D., Yüzbaşı Ş., Baykuş Savaşaneril N.
TURKISH JOURNAL OF MATHEMATICS, vol.46, no.8, pp.3260-3275, 2022 (SCI-Expanded)

Articles Published in Other Journals

1. **Güvenlik Kültürü: Son On Yıldaki (2013-2023) Yayınların Bibliyometrik Analizi**
ELMACI D., KUN S., KOÇAK Ç. C.
Karaelmas İş Sağlığı ve Güvenliği Dergisi, vol.7, no.3, pp.163-174, 2023 (Peer-Reviewed Journal)
2. **Numerical Solution of High-Order Linear Fredholm Integro-Differential Equations by Lucas Collocation Method**
Elmacı D., Baykuş Savaşaneril N.
International Journal of Informatics and Applied Mathematics, vol.5, no.2, pp.23-40, 2023 (Peer-Reviewed Journal)
3. **Solutions of high-order linear Volterra integro-differential equations via Lucas polynomials**
Elmacı D., Baykuş Savaşaneril N.
Montes Taurus Journal of Pure and Applied Mathematics, vol.5, no.2, pp.22-33, 2023 (Peer-Reviewed Journal)
4. **Stability, Neimark-Sacker Bifurcation Analysis of a Prey-Predator Model with Strong Allee Effect and Chaos Control**
ELMACI D., KANGALGİL F.
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.15, no.3, pp.775-787, 2022 (Peer-Reviewed Journal)
5. **The Lucas Polynomial Solution of Linear Volterra-Fredholm Integral Equations**
Elmacı D., Baykuş Savaşaneril N.
Matrix Science Mathematic, vol.6, no.1, pp.21-25, 2022 (Peer-Reviewed Journal)
6. **Lucas Collocation Method for the Solution of Differential Difference Equations**
Elmacı D., Baykuş Savaşaneril N.
New Trends in Mathematical Sciences, vol.10, no.4, pp.115-127, 2022 (Peer-Reviewed Journal)
7. **Delay integro differential equations solutions with Euler polynomials method**
ELMACI D., BAYKUŞ SAVAŞANERİL N.
New Trends in Mathematical Science, vol.9, no.3, pp.7-20, 2021 (Peer-Reviewed Journal)
8. **Euler polynomials method for solving linear integro differential equations**
Elmacı D., Baykuş Savaşaneril N.
New Trends in Mathematical Science, vol.9, no.3, pp.21-34, 2021 (Peer-Reviewed Journal)
9. **EULER AND TAYLOR POLYNOMIALS METHOD FOR SOLVING VOLTERRA TYPE INTEGRO DIFFERENTIAL EQUATIONS WITH NONLINEAR TERMS**
Elmacı D., Baykuş Savaşaneril N., Dal F., Sezer M.

JOURNAL OF SCIENCE AND ARTS, no.2, pp.395-406, 2021 (ESCI)

10. **A Higher Dimensional Chaotic Linear Transformations of Colored Image Encryptions**
Elmacı D., Bas Catak N.
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.12, no.2, pp.687-694, 2019 (Peer-Reviewed Journal)
11. **An Efficient Image Encryption Algorithm for the Period of Arnold s CAT Map**
Elmacı D., Bas Catak N.
International Journal of Intelligent Systems and Applications in Engineering, vol.1, no.6, pp.80-84, 2018 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

1. **Stability Analysis and Flip Bifurcation of Prey – Predator System Incorporating the Allee Effect**
KANGALGİL F., ELMACI D.
International Conference on Mathematical Modeling with Modern Applications, İstanbul, Turkey, 04 June 2024
2. **Neimark-Sacker Bifurcation and Stability Analysis of Prey – Predator System Expose to Harvesting and Allee Effect**
KANGALGİL F., ELMACI D.
International Conference on Mathematical Modeling with Modern Applications, İstanbul, Turkey, 04 June 2024
3. **A New Computational Method to Solve the Boundary Value Problems Associated with Elliptic Partial Differential Equations**
Elmacı D., Baykuş Savaşaneril N.
8TH INTERNATIONAL CONGRESS ON LIFE, ENGINEERING, AND APPLIED SCIENCES IN A CHANGING WORLD, 07 January 2023
4. **Stability Analysis of Prey – Predator System Involving Multiple Allee Effect**
Elmacı D., Kangalgil F.
International Conference on Mathematics and Mathematics Education (ICMME - 2022), Denizli, Turkey, 22 - 24 September 2022
5. **A COMPUTATIONAL METHOD FOR SOLVING A CLASS OF VOLTERRA TYPE INTEGRO DIFFERENTIAL EQUATIONS WITH NONLINEAR TERMS BY MEANS OF EULER AND TAYLOR POLYNOMIALS**
ELMACI D., BAYKUŞ SAVAŞANERİL N., SEZER M.
9th INTERNATIONAL EUROPEAN CONFERENCE ON MATHEMATICS,ENGINEERING, NATURAL MEDICALSCIENCES, Bursa, Turkey, 8 - 10 November 2019, pp.1-9
6. **EULER POLYNOMIAL SOLUTIONS OF FIRST ORDER NEUTRAL TYPE INTEGRO DIFFERENTIAL EQUATIONS WITH VARIABLE DELAYS**
ELMACI D., BAYKUŞ SAVAŞANERİL N., SEZER M.
9th INTERNATIONAL EUROPEANCONFERENCE ON MATHEMATICS,ENGINEERING, NATURAL MEDICALSCIENCES, Bursa, Turkey, 8 - 10 November 2019, pp.87-95
7. **EULER POLYNOMIAL APPROACH FOR SOLVING SYSTEM OFLINEAR DELAY DIFFERENTIAL EQUATIONS WITHVARIABLE COEFFICIENTS**
ELMACI D., BAYKUŞ SAVAŞANERİL N., SEZER M.
ULUSLARARASI 30 AĞUSTOS BİLİMSEL ARAŞTIRMALAR SEMPOZYUMU, İzmir, Turkey, 28 - 31 August 2019, pp.301-310
8. **EULER MATRIX METHOD BASED ON RESIDUAL FUNCTIONFOR SOLVING ABEL-TYPE NONLINEAR DIFFERENTIALEQUATIONS**
ELMACI D., BAYKUŞ SAVAŞANERİL N., SEZER M.
ULUSLARARASI 30 AĞUSTOS BİLİMSEL ARAŞTIRMALAR SEMPOZYUMU, İzmir, Turkey, 28 - 31 August 2019, pp.295-300
9. **Euler-Taylor Matrix Technique for Solving a Class of High Order Delay Differential Equations with Nonlinear Terms**
ELMACI D., BAYKUŞ SAVAŞANERİL N., SEZER M.

- 3rd International Student Science Congress, İzmir, Turkey, 3 - 04 May 2019, pp.394-401
10. **An Euler Matrix Technique for Solving Nonlinear Duffing Differential Equation by Using Euler Polynomials**
ELMACI D., BAYKUŞ SAVAŞANERİL N., SEZER M.
3rd International Student Science Congress, İzmir, Turkey, 3 - 04 May 2019, pp.386-393
11. **Colored Image Encryptions with Chaotic Linear Transformations.**
ELMACI D., ÇATAK N.
4th International Conference on Computational and Experimental Science and Engineering (ICCESEN-2017), 4 - 08 October 2017
12. **Signal Encryption Using Arnold's CAT Map**
ELMACI D., BAS CATAK N.
9th International Conference on Information Security Cryptology, 25 - 26 October 2016
13. **Markov Chains Modelling of the Game of Craps**
ELMACI D., CELİK C., BAS CATAK N.
International Conference on Applied Analysis and Mathematical Modeling, 8 - 12 June 2015

Academic and Administrative Experience

2023 - Continues	Adaptation/Exemption Committee Member	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2021 - Continues	Birim Stratejik Plan Komisyonu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2019 - Continues	Birim Kalite Komisyonu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2018 - Continues	Meslek Yüksekokulu Akademik Kurul Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2022 - 2024	Meslek Yüksekokulu Kurulu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim Ve Organizasyon Bölümü
2022 - 2024	Meslek Yüksekokulu Yönetim Kurulu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim Ve Organizasyon Bölümü
2022 - 2024	Assistant Director of Vocational School	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim Ve Organizasyon Bölümü
2021 - 2022	Internship Committee Member	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2021 - 2022	Meslek Yüksekokulu Yönetim Kurulu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2021 - 2022	Meslek Yüksekokulu Kurulu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2021 - 2022	Assistant Director of Vocational School	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2019 - 2020	Meslek Yüksekokulu Yönetim Kurulu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü

2019 - 2020	Meslek Yüksekokulu Kurulu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2019 - 2020	Assistant Director of Vocational School	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Bilgisayar Teknolojileri Bölümü
2019 - 2020	Staj Başkanı	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2019 - 2019	Meslek Yüksekokulu Kurulu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2019 - 2019	Assistant Director of Vocational School	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Bilgisayar Teknolojileri Bölümü
2019 - 2019	Meslek Yüksekokulu Yönetim Kurulu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü
2018 - 2019	Meslek Yüksekokulu Kurulu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Bilgisayar Teknolojileri Bölümü
2018 - 2019	Assistant Director of Vocational School	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Bilgisayar Teknolojileri Bölümü
2018 - 2019	Meslek Yüksekokulu Yönetim Kurulu Üyesi	Dokuz Eylul University, Bergama Meslek Yüksekokulu, Yönetim ve Organizasyon Bölümü

Courses

Mathematics II, Associate Degree, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

9.Sınıf Matematik, Associate Degree, 2024 - 2025

Industrial Hygiene, Associate Degree, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2018 - 2019

10. Sınıf Matematik, Associate Degree, 2024 - 2025

Mathematics I, Associate Degree, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2020 - 2021, 2019 - 2020, 2018 - 2019

MATHEMATICS II, Associate Degree, 2023 - 2024, 2022 - 2023, 2019 - 2020, 2018 - 2019

İTFAİYECİLİK VE YANGINDAN KORUNMA, Associate Degree, 2023 - 2024, 2018 - 2019

Mathematics I, Associate Degree, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2020 - 2021, 2019 - 2020, 2018 - 2019

Mathematics 1, Associate Degree, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2018 - 2019

FİZİK, Associate Degree, 2022 - 2023, 2020 - 2021, 2019 - 2020

Mathematics II, Associate Degree, 2021 - 2022

Mathematics II, Associate Degree, 2021 - 2022

GÖNÜLLÜLÜK ÇALIŞMALARI, Associate Degree, 2020 - 2021

Professional Ethics, Associate Degree, 2021 - 2022

Mathematics for Business I, Undergraduate, 2021 - 2022

Mathematics 1, Associate Degree, 2021 - 2022

Mathematics 1, Associate Degree, 2021 - 2022

MÜHENDİSLİK BİLİMİ, Associate Degree, 2020 - 2021

Professional Ethics, Associate Degree, 2021 - 2022

Mathematics 1, Associate Degree, 2021 - 2022

Mathematics 1, Associate Degree, 2021 - 2022

Computer Applications, Undergraduate, 2021 - 2022

FİZİK, Associate Degree, 2018 - 2019

KİMYA, Associate Degree, 2018 - 2019

TEMEL BİLGİ TEKNOLOJİLERİ, Associate Degree, 2018 - 2019

TEMEL BİLGİ TEKNOLOJİLERİ, Associate Degree, 2018 - 2019

Activities in Scientific Journals

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, Editor, 2022 - Continues

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, Technical Redactor, 2019 - Continues

Scientific Refereeing

Iranian Journal of Numerical Analysis and Optimization, Other Indexed Journal, December 2024

Iranian Journal of Numerical Analysis and Optimization, Other Indexed Journal, April 2024

IRANIAN JOURNAL OF SCIENCE AND TECHNOLOGY, TRANSACTION A: SCIENCE, SCI Journal, March 2024

CUMHURİYET SCIENCE JOURNAL, National Scientific Refreed Journal, January 2024

Journal of New Theory, National Scientific Refreed Journal, September 2023

JOURNAL OF SUPERCOMPUTING, SCI Journal, September 2023

Adıyaman Üniversitesi Fen Bilimleri Dergisi, National Scientific Refreed Journal, September 2023

CUMHURİYET SCIENCE JOURNAL, National Scientific Refreed Journal, August 2023

CUMHURİYET SCIENCE JOURNAL, National Scientific Refreed Journal, April 2023

Montes Taurus Journal of Pure and Applied Mathematics, National Scientific Refreed Journal, December 2022

Journal of New Theory, National Scientific Refreed Journal, June 2022

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, November 2021

Fundamental journal of mathematics and applications (Online), National Scientific Refreed Journal, December 2020

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, July 2020

IET IMAGE PROCESSING, SCI Journal, September 2018

Metrics

Publication: 28

Citation (WoS): 1

Citation (Scopus): 1

H-Index (WoS): 1

H-Index (Scopus): 1

Congress and Symposium Activities

International Conference on Mathematical Modeling with Modern Applications, Attendee, İstanbul, Turkey, 2024

INTERNATIONAL CONFERENCE ON MATHEMATICS AND MATHEMATICS EDUCATION, Attendee, Denizli, Turkey, 2022

Research Areas

Mathematics, Differential Equations, Dynamic Systems and Ergodic Theory, Integral Equations, Integral Transformations, Computational Calculation, Numerical Analysis

Non Academic Experience

Bige Koray Kurs Merkezi

Sadık Susamcıođlu Anadolu Lisesi M¼d¼rl¼đ¼

Yergin ¼zel ¼đretim Kurumları Bas. Yay. Tur. Taş. San. Tic. Ltd. Şti.

¼zel Maral Dershane Hiz. Eđt. İnş. Tic. Ltd. Şti.

¼demiş ¼zel Maral Ođuz Eđt. Okul Ltd. Şti.

¼zel Maral Dershane Hiz. Eđt. İnş. Tic. Ltd. Şti.