

Personal Information

Email: neozdemir@gelisim.edu.tr

Web: <https://avesis.gelisim.edu.tr/neozdemir>

International Researcher IDs

ORCID: 0000-0003-1649-0625

Publons / Web Of Science ResearcherID: GZN-2279-2022

ScopusID: 57205299953

Yoksis Researcher ID: 44044

Education Information

Doctorate, Yildiz Technical University, Kimya-Metalurji Fakültesi, Matematik Mühendisliği Bölümü, Turkey 2013 - 2019

Postgraduate, Balıkesir University, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), Turkey 2011 - 2013

Undergraduate, Afyon Kocatepe University, Fen-Edebiyat Fakültesi, Matematik Bölümü, Turkey 2007 - 2011

Dissertations

Doctorate, Kısmi Diferansiyel Denklemlerin Nümerik Çözümleri için Gegenbauer Dalgacık Galerkin Yöntemi, Yildiz Technical University, Kimya-Metalurji Fakültesi, Matematik Mühendisliği Bölümü, 2019

Postgraduate, Kompleks Bölgelerde Tanımlı Fonksiyon Uzaylarında Yaklaşım Problemleri, Balıkesir University, Fen Bilimleri Enstitüsü, Matematik (YI) (Tezli), 2013

Academic Titles / Tasks

Assistant Professor, Istanbul Gelisim University, FACULTY OF ENGINEERING AND ARCHITECTURE, SOFTWARE ENGINEERING, 2021 - Continues

Research Assistant, Yildiz Technical University, Kimya-Metalurji Fakültesi, Matematik Mühendisliği Bölümü, 2013 - 2019

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Bright soliton of the third-order nonlinear Schrödinger equation with power law of self-phase modulation in the absence of chromatic dispersion**
Durmus S. A., ÖZDEMİR N., SEÇER A., ÖZİŞİK M., BAYRAM M.
Optical and Quantum Electronics, vol.56, no.5, 2024 (SCI-Expanded)
- II. **Nonlinear complex generalized zakharov dynamical system inconformal sense utilizing new kudryashov method**
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Physica Scripta, vol.99, no.2, 2024 (SCI-Expanded)
- III. **Revealing optical soliton solutions of Schrödinger equation having parabolic law and anti-cubic law with weakly nonlocal nonlinearity**
Özdemir N., Altun S., Secer A., Ozisik M., Bayram M.
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- IV. **Bright soliton of Stochastic perturbed Biswas-Milovic equation with cubic-quintic-septic law having multiplicative white noise**
ÖZDEMİR N., Altun S., ÖZİŞİK M., SEÇER A., BAYRAM M.
Revista Mexicana de Fisica, vol.70, no.2, 2024 (SCI-Expanded)
- V. **Investigation of soliton solutions to the Peyrard-Bishop-Deoxyribo-Nucleic-Acid dynamic model with beta-derivative**
SEÇER A., ÖZİŞİK M., BAYRAM M., ÖZDEMİR N., ÇINAR M.
Modern Physics Letters B, 2024 (SCI-Expanded)
- VI. **Bright soliton of the perturbed Schrödinger–Hirota equation with cubic–quintic–septic law of self-phase modulation in the presence of spatiotemporal dispersion**
ÖZDEMİR N., Altun S., SEÇER A., ÖZİŞİK M., BAYRAM M.
European Physical Journal Plus, vol.139, no.1, 2024 (SCI-Expanded)
- VII. **Optical soliton solutions of the nonlinear Schrödinger equation in the presence of chromatic dispersion with cubic-quintic-septic-nonic nonlinearities**
Ozdemir N., Secer A., Ozisik M., Bayram M.
PHYSICA SCRIPTA, vol.98, no.11, pp.1-10, 2023 (SCI-Expanded)
- VIII. **On the soliton solutions to the density-dependent space time fractional reaction–diffusion equation with conformable and M-truncated derivatives**
ESEN H., ÖZDEMİR N., SEÇER A., BAYRAM M., Sulaiman T. A., Ahmad H., Yusuf A., Albalwi M. D.
Optical and Quantum Electronics, vol.55, no.10, 2023 (SCI-Expanded)
- IX. **Soliton solutions of Heisenberg spin chain equation with parabolic law nonlinearity**
Altun S., ÖZDEMİR N., ÖZİŞİK M., SEÇER A., BAYRAM M.
Optical and Quantum Electronics, vol.55, no.8, 2023 (SCI-Expanded)
- X. **Optical solitons for the Biswas-Milovic equation with anti-cubic law nonlinearity in the presence of spatio-temporal dispersion**
Ozdemir N.
Physica Scripta, vol.98, no.8, 2023 (SCI-Expanded)
- XI. **Optical solitons for the dispersive Schrödinger–Hirota equation in the presence of spatio-temporal dispersion with parabolic law**
ÖZDEMİR N., SEÇER A., ÖZİŞİK M., BAYRAM M.
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- XII. **Extraction of soliton waves from the longitudinal wave equation with local M-truncated derivatives**
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- XIII. **Investigation of optical soliton solutions of higher-order nonlinear Schrödinger equation having Kudryashov nonlinear refractive index**
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- XIV. **On the investigation of optical soliton solutions of cubic–quartic Fokas–Lenells and Schrödinger–Hirota equations**
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- XV. **Obtaining the soliton solutions of local M-fractional magneto-electro-elastic media**
Ozdemir N., Seçer A., Özışık M., Bayram M.
Heliyon, vol.9, no.1, 2023 (SCI-Expanded)
- XVI. **Soliton and other solutions of the (2+1)-dimensional Date-Jimbo-Kashiwara-Miwa equation with conformable derivative**
Ozdemir N., Seçer A., Özışık M., Bayram M.
Physica Scripta, vol.98, no.1, 2023 (SCI-Expanded)
- XVII. **Optical solitons for Radhakrishnan–Kundu–Lakshmanan equation in the presence of perturbation term and having Kerr law**

- Ozdemir N.
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- XVIII. **Two Analytical Schemes for the Optical Soliton Solution of the $(2 + 1)$ Hirota–Maccari System Observed in Single-Mode Fibers**
Ozdemir N., Secer A., Ozisik M., Bayram M.
UNIVERSE, vol.8, no.11, pp.1-12, 2022 (SCI-Expanded)
- XIX. **Perturbation of dispersive optical solitons with Schrödinger–Hirota equation with Kerr law and spatio-temporal dispersion**
Ozdemir N., Seçer A., Özışık M., Bayram M.
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- XX. **Novel soliton solutions of Sasa-Satsuma model with local derivative via an analytical technique**
Ozdemir N., Esen H., Seçer A., Bayram M.
Journal of Laser Applications, vol.34, no.2, 2022 (SCI-Expanded)
- XXI. **Optical solitons and other solutions to the Hirota-Maccari system with conformable, M-truncated and beta derivatives**
Ozdemir N., Esen H., Seçer A., Bayram M., Yusuf A., Sulaiman T. A.
Modern Physics Letters B, vol.36, no.11, 2022 (SCI-Expanded)
- XXII. **On solitary wave solutions for the perturbed Chen–Lee–Liu equation via an analytical approach**
ESEN H., Ozdemir N., SEÇER A., Bayram M.
Optik, vol.245, 2021 (SCI-Expanded)
- XXIII. **Optical Soliton Solutions to Chen Lee Liu model by the modified extended tanh expansion scheme**
Ozdemir N., ESEN H., SEÇER A., Bayram M., Yusuf A., Sulaiman T. A.
Optik, vol.245, 2021 (SCI-Expanded)
- XXIV. **An algorithm for numerical solution of some nonlinear multi-dimensional parabolic partial differential equations[Formula presented]**
Ozdemir N., Seçer A., Bayram M.
Journal of Computational Science, vol.56, 2021 (SCI-Expanded)
- XXV. **Solitary wave solutions of chiral nonlinear Schrödinger equations**
Esen H., Ozdemir N., Seçer A., Bayram M., Sulaiman T. A., Yusuf A.
Modern Physics Letters B, vol.35, no.30, 2021 (SCI-Expanded)
- XXVI. **Optical solitons and other solutions to the Radhakrishnan-Kundu-Lakshmanan equation**
Ozdemir N., ESEN H., SEÇER A., Bayram M., Sulaiman T. A., Yusuf A., Aydin H.
Optik, vol.242, 2021 (SCI-Expanded)
- XXVII. **An effective computational approach based on Gegenbauer wavelets for solving the time-fractional Kdv-Burgers-Kuramoto equation**
SEÇER A., Ozdemir N.
Advances in Difference Equations, vol.2019, no.1, 2019 (SCI-Expanded)
- XXVIII. **The Gegenbauer wavelets-based computational methods for the coupled system of Burgers' equations with time-fractional derivative**
Ozdemir N., SEÇER A., BAYRAM M.
Mathematics, vol.7, no.6, 2019 (SCI-Expanded)
- XXIX. **Modified laguerre wavelet based galerkin method for fractional and fractional-order delay differential equations**
SEÇER A., Ozdemir N.
Thermal Science, vol.23, 2019 (SCI-Expanded)
- XXX. **A hermite polynomial approach for solving the SIR model of epidemics**
SEÇER A., Ozdemir N., BAYRAM M.
Mathematics, vol.6, no.12, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **Traveling wave structures of some fourth-order nonlinear partial differential equations**
Esen H., Ozdemir N., Seer A., Bayram M.
Journal of Ocean Engineering and Science, vol.8, no.2, pp.124-132, 2023 (Scopus)
- II. **M-truncated soliton solutions of the fractional (4+1)-dimensional Fokas equation**
Özdemir N.
International Journal of Optimization and Control: Theories and Applications, vol.13, no.1, pp.123-129, 2023 (ESCI)
- III. **Wavelet-based Numerical Approaches for Solving the Korteweg-de Vries (KdV) Equation**
Özdemir N., Seer A.
Turkish Journal of Mathematics and Computer Science, vol.14, no.1, pp.44-55, 2022 (Peer-Reviewed Journal)
- IV. **A NUMERICAL ALGORITHM BASED ON ULTRASPHERICAL WAVELETS FOR SOLUTION OF LINEAR AND NONLINEAR KLEIN-GORDON EQUATIONS**
Özdemir N., Seer A.
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES, vol.38, no.3, pp.1307-1319, 2020 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **Reveal of optical pulse envelop of the perturbed Schrödinger-Hirota equation with anti-cubic law nonlinearity**
Altun S., Özdemir N., Seer A., Özişik M., Bayram M.
International Conference on Nonlinear Science and Complexity, İstanbul, Turkey, 10 - 15 July 2023, pp.99
- II. **On optical soliton solution of the nonlinear Schrödinger's equation having Quadrupled Power-Law Non- linearity**
Özdemir N.
International Conference on Nonlinear Science and Complexity, İstanbul, Turkey, 10 - 15 July 2023, pp.110
- III. **Bright soliton structure of perturbed Schrödinger- Hirota equation with cubic-quintic-septic law of self-phase modulation**
Özdemir N., Seer A., Özişik M., Bayram M.
International Conference on Nonlinear Science and Complexity, İstanbul, Turkey, 10 - 15 July 2023, pp.103
- IV. **Investigation of optical soliton solutions of higher order nonlinear Schrödinger equations with Kudryashov nonlinear refractive index**
ÇINAR M., ÖNDER İ., ÖZDEMİR N., ESEN H., ÖZİŞİK M., SEER A., BAYRAM M.
Sixth International Conference on Analysis and Applied Mathematics - ICAAM 2022, İstanbul, Turkey, 31 October 2022, pp.131
- V. **Soliton Solutions of the Boiti-Leon-Manna-Pempinelli Equation**
ÖZDEMİR N.
11TH INTERNATIONAL EURASIAN CONFERENCE ON MATHEMATICAL SCIENCES AND APPLICATIONS, İstanbul, Turkey, 29 August 2022, pp.137
- VI. **Optical soliton solutions of nonlinear Schrödinger-Hirota model involving nonlinear chromatic dispersion**
ÖZİŞİK M., SEER A., BAYRAM M., ÖZDEMİR N., ÇINAR M., ESEN H., ÖNDER İ.
10th (Online) International Conference on Applied Analysis and Mathematical Modeling (ICAAMM22), İstanbul, Turkey, 01 July 2022, pp.33
- VII. **An investigation of the DNA Peyrard-Bishop equation with beta-derivative**
SEER A., ÖZİŞİK M., ÖZDEMİR N., ÇINAR M., BAYRAM M.
10th (Online) International Conference on Applied Analysis and Mathematical Modeling (ICAAMM22), İstanbul, Turkey, 01 July 2022, pp.47
- VIII. **An investigation on nonlinear higher order Schrödinger equation having refractive indices and chromatic dispersion**

ÖZİŞİK M., SEÇER A., BAYRAM M., ÖZDEMİR N., ÇINAR M., ESEN H., ÖNDER İ.

10th (Online) International Conference on Applied Analysis and Mathematical Modeling (ICAAMM22), İstanbul, Turkey, 01 July 2022, pp.60

- IX. **Study on the Mikhailov-Novikov-Wang equation to Find the Exact Soliton Solutions**
ÖZDEMİR N., SEÇER A.
Online International Symposium on Applied Mathematics and Engineering (ISAME22), İstanbul, Turkey, 21 January 2022
- X. **Numerical schemes based on Legendre wavelets for Solving Nonlinear Partial Differential Equations**
ÖZDEMİR N., SEÇER A.
9th (Online) International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 11 June 2021
- XI. **On the Approximation of Partial Differential Equations using the Three-Step Wavelet Galerkin Method**
ÖZDEMİR N., SEÇER A.
4th International Conference On Mathematics, İstanbul, Turkey, 27 - 30 October 2020, pp.136
- XII. **Approximate Solutions of Linear and Nonlinear Klein-Gordon Equations**
SEÇER A., ÖZDEMİR N.
International Conference on Computational Methods in Applied Sciences, İstanbul, Turkey, 12 - 16 July 2019, pp.201
- XIII. **Numerical Approaches for solving the Coupled System of Burgers' Equations with Time-Fractional Derivative using Gegenbauer wavelets**
ÖZDEMİR N., SEÇER A., BAYRAM M.
International Conference on Computational Methods in Applied Sciences, İstanbul, Turkey, 12 - 16 July 2019, pp.202-203
- XIV. **An Efficient Legendre Wavelet-Galerkin Based Approximation for the One-Dimensional Heat Equation**
ÖZDEMİR N., SEÇER A., BAYRAM M.
International Conference on Computational Methods in Applied Sciences, İstanbul, Turkey, 12 - 16 July 2019, pp.205-211
- XV. **Wavelets Galerkin Method for the Kdv-Burgers- Kuramoto Equation**
ÖZDEMİR N., SEÇER A.
8th International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 10 - 13 March 2019, pp.163
- XVI. **Solution of the epidemic model by Hermite collocation method**
SEÇER A., ÖZDEMİR N.
7th International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 20 - 24 June 2018, pp.315
- XVII. **Galerkin analysis for Fractional Delay Differential Equations by Modified Laguerre wavelets**
ÖZDEMİR N., SEÇER A.
7th International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 20 - 24 June 2018, pp.167
- XVIII. **Three-Step Wavelet Galerkin Method for Numerical solutions of PDEs Using Daubechies Wavelets**
ÖZDEMİR N., SEÇER A.
3rd International Conference in Pure and Applied Sciences, Dubai, United Arab Emirates, 2 - 06 February 2017, pp.20
- XIX. **A Numerical Study for Fisher's equation by three step wavelet Galerkin method**
ÖZDEMİR N., SEÇER A., BAYRAM M.
2nd International Conference on Pure & Applied Science, İstanbul, Turkey, 1 - 05 June 2016
- XX. **Generalized polynomial chaos approaches for stochastic system of equations**
ÖZDEMİR N., AKINLAR M. A.
International conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 8 - 12 June 2015,

pp.241

XXI. Analysis of chaotic behaviours of random dynamical systems

ÖZDEMİR N., AKINLAR M. A., BAYRAM M.

4th International Conference on Mathematics and Information Science, ZEWAIL CITY, Egypt, 5 - 07 February 2015,
pp.51