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Education Information

Doctorate, Georgia Institute of Technology, Engineering, United States Of America 2012 - 2013

Postgraduate, Georgia Institute of Technology, Engineering, Electrical and Computer Engineering, United States Of America 2009 - 2011

Postgraduate, University of Delaware, Engineering, Ocean Engineering, United States Of America 2007 - 2009

Undergraduate, Boğaziçi Üniversitesi, Engineering (Civil, Mechanical, Chemical, Electrical, Industrial), Civil Engineering, Turkey 2002 - 2007

Research Areas

Electrical and Electronics Engineering, Optics and Photonics, Electromagnetic, Wave Propagation and Remote Sensing, Civil Engineering, Geotechnical, Hydraulic, Mechanical

Academic Titles / Tasks

Associate Professor, İstanbul Teknik Üniversitesi, İnşaat, İnşaat Mühendisliği, 2019 - Continues

Associate Professor, Boğaziçi Üniversitesi, Engineering (Civil, Mechanical, Chemical, Electrical, Industrial), 2018 - Continues

Associate Professor, Işık Üniversitesi, Faculty Of Engineering, 2018 - 2019

Assistant Professor, Işık Üniversitesi, Faculty Of Engineering, 2013 - 2018

Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **The solution of the long-wave equation for various nonlinear depth and breadth profiles in the power-law form**
Bayındır C., Farazande S.
Dynamics of Atmospheres and Oceans, vol.96, 2021 (Journal Indexed in SCI Expanded)
- II. **Efficient sensing of von Karman vortices using compressive sensing**
Bayındır C., Namli B.
COMPUTERS & FLUIDS, vol.226, 2021 (Journal Indexed in SCI)
- III. **Self-localized solitons of the nonlinear wave blocking problem**
Bayındır C.
DYNAMICS OF ATMOSPHERES AND OCEANS, vol.93, 2021 (Journal Indexed in SCI)
- IV. **Zeno dynamics of quantum chirps**
Bayındır C.
PHYSICS LETTERS A, vol.389, 2021 (Journal Indexed in SCI)

- V. **Self-localized solitons of a q-deformed quantum system**
 Bayındır C., Altintas A. A. , Ozaydin F.
 COMMUNICATIONS IN NONLINEAR SCIENCE AND NUMERICAL SIMULATION, vol.92, 2021 (Journal Indexed in SCI)
- VI. **Rogue heat and diffusion waves**
 Bayındır C.
 CHAOS SOLITONS & FRACTALS, vol.139, 2020 (Journal Indexed in SCI)
- VII. **q-Deformed three-level quantum logic**
 Altintas A. A. , Ozaydin F., Bayındır C.
 QUANTUM INFORMATION PROCESSING, vol.19, no.8, 2020 (Journal Indexed in SCI)
- VIII. **Rogue quantum harmonic oscillations**
 Bayındır C.
 PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, vol.547, 2020 (Journal Indexed in SCI)
- IX. **Self-localized solutions of the Kundu-Eckhaus equation in nonlinear waveguides**
 Bayındır C.
 RESULTS IN PHYSICS, vol.14, 2019 (Journal Indexed in SCI)
- X. **FCC-hh: The Hadron Collider: Future Circular Collider Conceptual Design Report Volume 3**
 Abada A., Abbrescia M., AbdusSalam S. S. , Abdyukhanov I., Abelleira Fernandez J., Abramov A., Aburaia M., Acar A. O. , Adzic P. R. , Agrawal P., et al.
 EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, vol.228, no.4, pp.755-1107, 2019 (Journal Indexed in SCI)
- XI. **HE-LHC: The High-Energy Large Hadron Collider Future Circular Collider Conceptual Design Report Volume 4**
 Abada A., Abbrescia M., AbdusSalam S. S. , Abdyukhanov I., Abelleira Fernandez J., Abramov A., Aburaia M., Acar A. O. , Adzic P. R. , Agrawal P., et al.
 EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, vol.228, no.5, pp.1109-1382, 2019 (Journal Indexed in SCI)
- XII. **FCC Physics Opportunities: Future Circular Collider Conceptual Design Report Volume 1**
 Abada A., Abbrescia M., AbdusSalam S. S. , Abdyukhanov I., Fernandez J. A. , Abramov A., Aburaia M., Acar A. O. , Adzic P. R. , Agrawal P., et al.
 EUROPEAN PHYSICAL JOURNAL C, vol.79, no.6, 2019 (Journal Indexed in SCI)
- XIII. **FCC-ee: The Lepton Collider: Future Circular Collider Conceptual Design Report Volume 2**
 Abada A., Abbrescia M., AbdusSalam S. S. , Abdyukhanov I., Fernandez J. A. , Abramov A., Aburaia M., Acar A. O. , Adzic P. R. , Agrawal P., et al.
 EUROPEAN PHYSICAL JOURNAL-SPECIAL TOPICS, vol.228, no.2, pp.261-623, 2019 (Journal Indexed in SCI)
- XIV. **Freezing optical rogue waves by Zeno dynamics**
 Bayındır C., Ozaydin F.
 OPTICS COMMUNICATIONS, vol.413, pp.141-146, 2018 (Journal Indexed in SCI)
- XV. **Assessment and Enhancement of SAR Noncoherent Change Detection of Sea-Surface Oil Spills**
 Bayındır C., Frost J. D. , Barnes C. F.
 IEEE JOURNAL OF OCEANIC ENGINEERING, vol.43, no.1, pp.211-220, 2018 (Journal Indexed in SCI)
- XVI. **Rogue wave spectra of the Kundu-Eckhaus equation**
 Bayındır C.
 PHYSICAL REVIEW E, vol.93, no.6, 2016 (Journal Indexed in SCI)
- XVII. **Rogue waves of the Kundu-Eckhaus equation in a chaotic wave field**
 Bayındır C.
 PHYSICAL REVIEW E, vol.93, no.3, 2016 (Journal Indexed in SCI)
- XVIII. **Compressive Spectral Method for the Simulation of the Nonlinear Gravity Waves**
 Bayındır C.
 SCIENTIFIC REPORTS, vol.6, 2016 (Journal Indexed in SCI)
- XIX. **Early detection of rogue waves by the wavelet transforms**
 Bayındır C.
 PHYSICS LETTERS A, vol.380, pp.156-161, 2016 (Journal Indexed in SCI)
- XX. **A note on the cylindrical solitary waves in an electron-acoustic plasma with vortex electron**

distribution

Demiray H., Bayindir C.

PHYSICS OF PLASMAS, vol.22, no.9, 2015 (Journal Indexed in SCI)

XXI. The effects of surface gravity waves on high-frequency acoustic propagation in shallow water

Karjadi E. A. , Badiey M., Kirby J. T. , Bayindir C.

IEEE Journal of Oceanic Engineering, vol.37, no.1, pp.112-121, 2012 (Journal Indexed in SCI Expanded)

Articles Published in Other Journals

- I. **A SPLIT-STEP FOURIER SCHEME FOR THE DISSIPATIVE KUNDU-ECKHAUS EQUATION AND ITS ROGUE WAVE DYNAMICS**
Bayindir C., Yurtbak H.
TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.11, no.1, pp.56-65, 2021 (Journal Indexed in ESCI)
- II. **A TOMOGRAPHIC APPROACH FOR THE EARLY DETECTION OF 2D ROGUE WAVES**
Bayindir C.
TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.10, no.3, pp.638-649, 2020 (Journal Indexed in ESCI)
- III. **EARLY DETECTION OF ROGUE WAVES USING COMPRESSIVE SAMPLING**
Bayindir C.
TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.9, no.2, pp.198-205, 2019 (Journal Indexed in ESCI)
- IV. **EFFECTS OF GROUND WATER TABLE AND GROUND INCLINATION ON TRAIN INDUCED GROUND-BORNE VIBRATIONS**
Bayindir C.
TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.9, no.4, pp.735-746, 2019 (Journal Indexed in ESCI)
- V. **COMPRESSIVE SPECTRAL RENORMALIZATION METHOD**
Bayindir C.
TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.8, no.2, pp.425-437, 2018 (Journal Indexed in ESCI)
- VI. **Rogue Wavefunctions Due to Noisy Quantum Tunneling Potentials**
BAYINDIR C.
TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.7, pp.236-247, 2017 (Journal Indexed in ESCI)
- VII. **ANALYTICAL AND NUMERICAL ASPECTS OF THE DISSIPATIVE NONLINEAR SCHRODINGER EQUATION**
Bayindir C.
TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.6, no.1, pp.135-142, 2016 (Journal Indexed in ESCI)
- VIII. **Compressive split step Fourier method**
BAYINDIR C.
TWMS JOURNAL OF APPLIED AND ENGINEERING MATHEMATICS, vol.5, pp.298-306, 2015 (Refereed Journals of Other Institutions)
- IX. **Dalgaldardan enerji elde etme teknolojisinin yirminci yüzyıl başında Türkiye deki yansımaları üzerine bir çeviri**
Bayındır A., Bayındır C.
Osmanlı Bilimi Araştırmaları (Studies in Ottoman Science), vol.16, pp.67-70, 2015 (Refereed Journals of Other Institutions)
- X. **A novel nonlinear frequency modulated chirp signal for synthetic aperture radar and sonar imaging**
Bayındır C.

Journal of Naval Science and Engineering (Deniz Harp Okulu Deniz Bilimleri ve Mühendisliği Dergisi), vol.11, pp.68-81, 2015 (Refereed Journals of Other Institutions)

- XI. **Akışkan görüntüleme yöntemleri**
BAYINDIR C.
Tübitak Bilim ve Teknik Dergisi, pp.66-70, 2013 (National Non-Refereed Journal)
- XII. **Denizlerin incelenmesinde elektromanyetik dalgalar**
BAYINDIR C.
Tübitak Bilim ve Teknik Dergisi, pp.64-66, 2011 (National Non-Refereed Journal)
- XIII. **Dev dalgalar**
BAYINDIR C.
Tübitak Bilim ve Teknik Dergisi, pp.54-55, 2011 (National Non-Refereed Journal)
- XIV. **Matematik fizik ve mühendislikte tekil dalgalar**
BAYINDIR C.
Tübitak Bilim ve Teknik Dergisi, pp.62-63, 2011 (National Non-Refereed Journal)

Books & Book Chapters

- I. **Efficient Measurement of the Vibrational Rogue Waves by Compressive Sampling Based Wavelet Analysis**
Bayındır C.
in: Advances in Rotor Dynamics, Control, and Structural Health Monitoring, Subashisa Dutta, Esin İnan, Santosha Kumar Dwivedy, Editor, Springer, London/Berlin , Singapore, pp.327-336, 2020

Refereed Congress / Symposium Publications in Proceedings

- I. **Stabilizing the Self-Localized Solitons of the Kundu-Eckhaus Equation by Dissipation**
Yurtbak H., Bayındır C.
ICAME 2021, Balıkesir, Turkey, 1 - 03 September 2021, no.25, pp.1-6
- II. **Ocean Energy Conversion Analysis by Compressive Sensing**
Alan A. R. , Bayındır C.
ICAME 2021, Balıkesir, Turkey, 1 - 03 September 2021, no.24, pp.1-6
- III. **The Effects of Turbulent Fluctuations on Nonlinear von Kármán Vortex Shedding**
Ateş K., Bayındır C.
ICAME 2021, Balıkesir, Turkey, 1 - 03 September 2021, no.31, pp.1-5
- IV. **Vibration Monitoring of Coastal and Ocean Structures with Pile Foundations Using Compressive Sensing**
Bayındır C.
ICAME 2021, Balıkesir, Turkey, 1 - 03 September 2021, no.8, pp.1-6
- V. **Analysis of Wave Runup, Overtopping and Overwash Parameters via Compressive Sensing**
Alan A. R. , Bayındır C.
ICAME 2021, Balıkesir, Turkey, 1 - 03 September 2021, no.10, pp.1-6
- VI. **The interaction of von Kármán vortices with the solitons of the complex Ginzburg-Landau equation**
Farazande S., Bayındır C.
ICAME 2021, Balıkesir, Turkey, 1 - 03 September 2021, no.33, pp.1-6
- VII. **Analysis of Tsunami and Tsunami-Structure Interaction Parameters by Compressive Sensing**
Bayındır C.
ICAME 2021, Balıkesir, Turkey, 1 - 03 September 2021, no.9, pp.1-6
- VIII. **Vibration Control of a Pier Pile Using Deep Learning LSTM Network**
Namlı B., Bayındır C.

ICAME 2021, Balıkesir, Turkey, 1 - 03 September 2021, no.111, pp.1-6

- IX. **Computational Analysis of the Nonlinear Quantum Harmonic Oscillator**
BAYINDIR C.
ICOVP 2019, Girit, Greece, 1 - 04 September 2019
- X. **A Theoretical Method for the Investigation of the Effects of Soil Improvement on Train Induced Ground-Borne Vibrations**
BAYINDIR C., KESTEN A. S. , ETMINAN E.
13th International Congress on Advances in Civil Engineering, 12 - 14 September 2018
- XI. **Compressive spectral method for the simulation of the waterwaves**
BAYINDIR C.
ICAME 2018, 27 June 2018
- XII. **Efficient measurement of vibrational rogue waves by compressive sampling based wavelet analysis**
BAYINDIR C.
ICOVP 2017, 20 November 2017
- XIII. **On the use of wavelet spectra for the early detection of freakwaves**
BAYINDIR C.
ICCE 2016, 27 November 2016
- XIV. **An extended Kundu-Eckhaus equation for modeling dynamicsof rogue waves in a chaotic wave-current field**
BAYINDIR C.
ACE 2016, 21 September 2016
- XV. **Shapes and statistics of the rogue waves generated by chaoticoccean current**
BAYINDIR C.
ISOPE, 27 June 2016
- XVI. **Rogue wavefunctions due to white-noised quantum tunnelingpotentials**
BAYINDIR C.
ICQSA, 26 May 2016
- XVII. **Hesaplamalı akışkanlar mekaniği çalışmaları için sıkıştırılabilir Fourier tayfı yöntemi**
BAYINDIR C.
19. Ulusal Mekanik Kongresi, Trabzon, Turkey, 24 - 28 August 2015
- XVIII. **Okyanus dalgalarının sıkıştırılabilir Fourier tayfı yöntemiyle hızlı modellenmesi**
BAYINDIR C.
19. Ulusal Mekanik Kongresi, Trabzon, Turkey, 24 - 28 August 2015
- XIX. **Sönümlü değiştirilmiş Korteweg de Vries denkleminin analitik ve hesaplamalı çözüm karşılaştırması**
BAYINDIR C.
19. Ulusal Mekanik Kongresi, Trabzon, Turkey, 24 - 28 August 2015
- XX. **Denizlerdeki petrol kirliliğinin sentetik açıklıklı radar görüntüleri değişim saptama yöntemleriyle tespiti**
BAYINDIR C.
8. Kıyı Mühendisliği Sempozyumu, İstanbul, Turkey, 7 - 09 November 2014, pp.907-918

Supported Projects

Bayındır C., Project Supported by Higher Education Institutions, Kıyı Yapılarının Yapı Sağlığı ve Salınım Özelliklerinin Sıkıştırılabilir Algılama Yöntemiyle İzlenmesi, 2020 - Continues

Citations

Total Citations (WOS):796

h-index (WOS):10