

## Asst. Prof. Ayten ÖZKAN

### Personal Information

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### Education Information

Doctorate, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics, Turkey 1992 - 1999

Postgraduate, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics, Turkey 1989 - 1991

Undergraduate, Marmara University, Faculty Of Arts And Sciences, Mathematics, Turkey 1984 - 1988

### Dissertations

Doctorate, K tek sayı olmak üzere  $(v, k, ^\wedge)$ -simetrik dizaynının C-kodu için bir olasılık fonksiyonu tayini ve düzensizlik ölçüsü önerisi, Yildiz Technical University, Faculty of Arts & Science, Department of Mathematics, 2000

### Research Areas

Mathematics, Differential Equations, Mathematics Education, Natural Sciences

### Academic Titles / Tasks

Assistant Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics, 2018 - Continues

Assistant Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics, 2003 - 2018

### Advising Theses

Özkan A., LİNEER OLMAYAN KISMİ DİFERANSİYEL DENKLEMLERİN ANALİTİK ÇÖZÜMLERİ İÇİN YÖNTEMLERİN ARAŞTIRLIMASI, Postgraduate, N.Özdemir(Student), Continues

Özkan A., Değişmeli Olmayan Aykırı Polinom Halkaları Üzerinde Tanımlı DNA kodları, Doctorate, F.GÜRSOY(Student), 2019

Özkan A., 10. sınıf öğrencilerinin analitik geometride hata ve kavram yanılışlarının analizi, Postgraduate, S.KARAPIÇAK(Student), 2018

Özkan A., Sonlu cisimler üzerinde ayrık fourier dönüşümü ve cebirsel kodlama teorisindeki bazı uygulamaları, Postgraduate, S.SELÇUK(Student), 2011

## **Published journal articles indexed by SCI, SSCI, and AHCI**

- I. **A view of solitary wave solutions to the fractional DNA Peyrard-Bishop equation via a new approach**  
Özkan A.  
PHYSICA SCRIPTA, vol.99, no.5, pp.1-16, 2024 (SCI-Expanded)
- II. **A study of novel optical solutions of the space-time fractional cubic nonlinear Schrödinger equation**  
ÖZKAN A., ÖZKAN E. M.  
Optical and Quantum Electronics, vol.56, no.2, 2024 (SCI-Expanded)
- III. **On the soliton solutions of some time conformable equations in fluid dynamics**  
Özkan A.  
INTERNATIONAL JOURNAL OF MODERN PHYSICS B, vol.38, no.2, pp.1-14, 2024 (SCI-Expanded)
- IV. **On the exact solutions of optical perturbed fractional Schrödinger equation**  
Özkan E. M., Yıldırım Ö., Özkan A.  
PHYSICA SCRIPTA, vol.98, no.11, pp.1-10, 2023 (SCI-Expanded)
- V. **On Exact Solutions of Some Space-Time Fractional Differential Equations with M-truncated Derivative**  
Özkan A., Özkan E. M., Yıldırım O.  
FRACTAL AND FRACTIONAL, vol.2023, no.7, pp.1-14, 2023 (SCI-Expanded)
- VI. **The Soliton Solutions for Some Nonlinear Fractional Differential Equations with Beta-Derivative**  
ÖZKAN E. M., ÖZKAN A.  
AXIOMS, vol.10, no.3, 2021 (SCI-Expanded)

## **Articles Published in Other Journals**

- I. **On 1-Absorbing Fuzzy Ideals of Commutative Semirings**  
ÖZKAN E. M., ONAR S., ÖZKAN A., Kaplan İ.  
Journal of Engineering Technology and Applied Sciences, vol.8, no.3, pp.131-141, 2023 (Peer-Reviewed Journal)
- II. **CONSTRUCTION OF A PROBABILITY FUNCTION RELATED TO CODES GENERATED BY SYMMETRIC DESIGN**  
ÖZKAN A.  
International Journal of Recent Advances in Multidisciplinary Research, vol.10, no.8, pp.8705-8708, 2023 (Peer-Reviewed Journal)
- III. **On exact solutions of some important nonlinear conformable time-fractional differential equations**  
Özkan E. M., Özkan A.  
SeMA Journal, vol.80, no.2, pp.303-318, 2023 (Peer-Reviewed Journal)
- IV. **2-ABSORBING INTUITIONISTIC FUZZY IDEALS OF COMMUTATIVE SEMIRINGS**  
Özkan E. M., Onar S., Özkan A., Ayan R.  
JOURNAL OF SCIENCE AND ARTS, vol.23, no.1, pp.187-198, 2023 (ESCI)
- V. **Exact solutions of the space time-fractional Klein-Gordon equation with cubic nonlinearities using some methods**  
ÖZKAN A., ÖZKAN E. M.  
COMPUTATIONAL METHODS FOR DIFFERENTIAL EQUATIONS, vol.10, no.3, pp.674-685, 2022 (ESCI)
- VI. **Analytical Solutions of the Nonlinear (2 + 1)-Dimensional Soliton Equation by Using Some Methods**  
ÖZKAN A.  
Journal of Engineering Technology and Applied Sciences, vol.7, no.2, pp.141-155, 2022 (Peer-Reviewed Journal)
- VII. **On the Misconceptions of 10th Grade Students about Analytical Geometry**  
Özkan A., Özkan E. M., Karapıçak S.  
The Educational Review, USA, vol.2, no.8, pp.417-426, 2018 (Peer-Reviewed Journal)
- VIII. **A Survey on the Factors Being Affected from Spectators of Basketball Players**  
Özkan E. M., Özkan A.  
The Educational Review, USA, vol.2, no.3, pp.217-221, 2018 (Peer-Reviewed Journal)

- IX. **A study on the visualization skills of 6th Grade Students**  
 ÖZKAN A., Arıkan E. E., ÖZKAN E. M.  
 Universal Journal of Educational Research, vol.6, no.2, pp.354-359, 2018 (Scopus)
- X. **An examination in Turkey Error analysis of Mathematics students on group theory**  
 Arıkan E. E., Özkan E. M., Özkan A.  
 Educational Research and Reviews, vol.10, no.16, pp.2352-2361, 2015 (Peer-Reviewed Journal)
- XI. **Error Correction in Linear Codes With Computer**  
 Seçer A., Özkan A., Bayram M.  
 Dumluipinar Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.16, pp.31-38, 2008 (Peer-Reviewed Journal)
- XII. **Classification of rational singularities of surfaces**  
 ÖZÇUBUKCU Z., Tosun M., ÖZKAN A.  
 International journal of pure and applied mathematics, pp.85-110, 2007 (Peer-Reviewed Journal)
- XIII. **On The Classification of Rational Singularities of Surfaces**  
 TOSUN M., ÖZKAN A., ZERRİN O.  
 INTERNATIONAL JOURNAL OF PURE AND APPLIED MATHEMATICS, vol.41, no.1, pp.85-110, 2007 (Peer-Reviewed Journal)
- XIV. **Fuzzy Grup ve Fuzzy İdealler Üzerine**  
 ÖZKAN A., ÖZKAN E. M., YENİ S. E.  
 Yıldız Teknik Üniversitesi Dergisi, vol.1, pp.1-8, 2003 (Peer-Reviewed Journal)
- XV. **Bazı Cebirsel Yapılar Üzerine**  
 ÖZKAN E. M., ÖZKAN A.  
 Yıldız Teknik Üniversitesi Dergisi, vol.3, pp.57-66, 2002 (Peer-Reviewed Journal)
- XVI. **A Different Approach to Coding Theory**  
 ÖZKAN A., ÖZKAN E. M.  
 Pakistan Journal of Applied Sciences, vol.2, no.11, pp.1032-1033, 2002 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Bipolar Fuzzy Soft Hyperlattices**  
 Yeşilmen G., Özkan E. M., Onar S., Özkan A.  
 15th Algebraic Hyperstructures and its Applications Conference (AHA2023), İstanbul, Turkey, 28 - 30 July 2023, pp.27
- II. **On Analytical Solutions Of Space-Time Fractional Variant Boussinesq Equation With Beta Derivative**  
 Özdemir N., Özkan A.  
 9th International IFS and Contemporary Mathematics and Engineering Conference, Mersin, Turkey, 8 - 11 July 2023, pp.163-164
- III. **On 1-Absorbing Bipolar Fuzzy Primary Ideals of Commutative Semirings**  
 Kaplan İ., Özkan E. M., Onar S., Özkan A.  
 4th International Eurasian Conference on Science, Engineering and Technology, Ankara, Turkey, 14 - 16 December 2022, pp.61
- IV. **On 2-Absorbing Bipolar Fuzzy Primary Ideals of Commutative Semirings**  
 Ayan R., Özkan E. M., Onar S., Özkan A.  
 4th International Congress on Applied Sciences, Engineering and Mathematics (ICASEM), Tekirdağ, Turkey, 20 - 23 October 2022, pp.15
- V. **On 1-Absorbing Vague Ideals of Commutative Semirings**  
 Kaplan İ., Özkan E. M., Onar S., Özkan A.  
 4th International Congress on Applied Sciences, Engineering and Mathematics (ICASEM), Tekirdağ, Turkey, 20 - 23 October 2022, pp.14
- VI. **A Note on 2-Absorbing Vague Ideals of Commutative Semirings**  
 Özkan E. M., Onar S., Özkan A., Ayan R.

- 9th International Congress on Fundamental and Applied Sciences (ICFAS2022), İstanbul, Turkey, 28 - 30 June 2022, pp.173
- VII. **A Study On 1-Absorbing Intuitionistic Fuzzy Ideals of Commutative Semirings**  
Özkan E. M., Onar S., Özkan A., Kaplan İ.  
9th International Congress on Fundamental and Applied Sciences (ICFAS2022), İstanbul, Turkey, 28 - 30 June 2022, pp.174
- VIII. **Bright soliton solutions for time fractional Korteweg-de Vries equation**  
Özkan E. M., Özkan A.  
5th International Conference on Analysis and Applied Mathematics, ICAAM 2020, Mersin, Turkey, 23 - 30 September 2020, vol.2325
- IX. **Misconceptions in Radical Numbers in Secondary School Mathematics**  
Özkan A.  
11th World Conference on Educational Sciences (WCES-2019), Milan, Italy, 7 - 10 February 2019, pp.205-212
- X. **Misconceptions And Error Analysis Of 10th Grade Students On Analytical Geometry**  
ÖZKAN A., ÖZKAN E. M.  
5th International Intuitionistic Fuzzy Sets and Contemporary Mathematics Conference, 5 - 09 September 2018
- XI. **Error analysis of Mathematics students on Group Theory**  
ÖZKAN E. M., ÖZKAN A.  
9th World Conference on Learning, Teaching and Educational Leadership, 26 - 28 October 2018
- XII. **On The Misconceptions of 10th Grade Students about Analytical Geometry**  
ÖZKAN A., ÖZKAN E. M.  
Interntional Conference on Mathematical Advances and Applications (ICOMAA2018), 11 - 13 May 2018
- XIII. **Misconceptions in Analytic Geometry: the Case of Tenth GradeStudents**  
ÖZKAN A., KARAPIÇAK S.  
10th World Conference on Educational Sciences WCES 2018, 1 - 03 February 2018, pp.28
- XIV. **Misconceptions on Limit and Continuity**  
ÖZKAN E. M., ÖZKAN A.  
10th World Conference on Educational Sciences (WCES-2018), 1 - 03 February 2018, pp.32
- XV. **Mistakes and misconceptions regarding to natural numbers on secondary Mathematics Education**  
ÖZKAN A., ÖZKAN E. M.  
13th International Conference of Algebraic Hyperstructures and its Applications (AHA2017), Turkey, 24 - 27 July 2017
- XVI. **Orta Öğretim 12 Sınıf Öğrencilerinin Modüler Aritmetik Konusundaki Kavram Yanılgıları ve Hata Analizi**  
ÖZKAN A.  
2. Kıbrıs Uluslararası Eğitim Araştırmaları Kongresi CICER15, Girne, Cyprus (Kktc), 3 - 06 December 2015
- XVII. **Misconceptions on the Summation Symbol Subject and Solution Proposals**  
ÖZKAN A., ÖZKAN E. M.  
5th World Conference on Learning, Teaching and Educational Leadership, WCLTA 2014, Prague, Czech Republic, 29 - 31 October 2014, vol.186, pp.670-673
- XVIII. **The Use of Simple-Sample Explanations for Math Education**  
TEPEDELDİRЕН Y. T., Ozkan A.  
5th World Conference on Educational Sciences (WCES), Rome, Italy, 5 - 08 February 2013, vol.116, pp.149-151
- XIX. **A survey on the factors being affected from spectators ofbasketball players in Turkey**  
ÖZKAN E. M., ÖZKAN A.  
WORLD CONFERENCE ON LEARNING, TEACHING AND EDUCATIONAL LEADERSHIP, Barcelona, Spain, 27 October - 29 December 2013
- XX. **Misconception in exponential numbers in IST and IIND level primary school mathematics**  
ÖZKAN E. M., ÖZKAN A.  
4th World Conference on Educational Sciences (WCES), Barcelona, Spain, 2 - 05 February 2012, vol.46, pp.65-69
- XXI. **Misconceptions and learning difficulties in radical numbers**

ÖZKAN A., ÖZKAN E. M.

4th World Conference on Educational Sciences (WCES), Barcelona, Spain, 2 - 05 February 2012, vol.46, pp.462-467

**XXII. Discrete Fourier Transform Over Finite Fields And Its Applications On Algebraic Coding Theory International Conference on Applied Analysis and Algebra**

ÖZKAN A., SELÇUK S.

International Conference on Applied Analysis and Algebra, İstanbul, Turkey, 29 June - 02 July 2011

**XXIII. Mutlak Değer Konusunda Yapılan Kavram Yanılgıları**

ÖZKAN A., ÖZKAN E. M.

International Conference on New Horizons in Education INTE 2010, Magosa, Cyprus (Kktc), 23 - 25 June 2010

## Supported Projects

ÖZKAN A., Karapıçak S., Project Supported by Higher Education Institutions, Matematik Eğitiminde Öğrenme zorlukları Kavram Yanılgıları ve Uygulaması, 2017 - 2018

## Metrics

Publication: 49

Citation (WoS): 27

Citation (Scopus): 36

H-Index (WoS): 3

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