

## Res. Asst. MURAT ÖZKAYA

### Personal Information

**Email:** murat.ozkaya@comu.edu.tr

**Web:** <https://avesis.comu.edu.tr/murat.ozkaya>

### International Researcher IDs

ScholarID: RSIOTVwAAAAJ

ORCID: 0000-0001-7241-4710

ScopusID: 57203287222

Yoksis Researcher ID: 331129

### Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Mathematical Engineering, Turkey 2020 - Continues

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Mathematical Engineering, Turkey 2016 - 2018

Undergraduate, Bolu Abant İzzet Baysal University, Faculty Of Arts And Sciences, Turkey 2011 - 2016

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Postgraduate, The Roles of Matrix Norms in the Game Theory, Istanbul Technical University, Fen Bilimleri Enstitüsü, Mathematical Engineering, 2018

### Research Areas

Quantitative Methods, Mathematics, Game Theory

### Academic Titles / Tasks

Research Assistant, Canakkale Onsekiz Mart University, Siyasal Bilgiler Fakültesi, İşletme, 2020 - Continues

### Academic and Administrative Experience

Erasmus Program Department Coordinator, Canakkale Onsekiz Mart University, Siyasal Bilgiler Fakültesi, İşletme, 2022 - Continues

Bölüm Kalite Komisyonu Üyesi, Canakkale Onsekiz Mart University, Siyasal Bilgiler Fakültesi, İşletme, 2022 - Continues  
Adaptation/Exemption Committee Member, Canakkale Onsekiz Mart University, Siyasal Bilgiler Fakültesi, İşletme, 2022 - Continues

Birim Kalite Komisyonu Üyesi, Canakkale Onsekiz Mart University, Siyasal Bilgiler Fakültesi, İşletme, 2021 - Continues

## Taught Courses And Trainings

Özkaya M., Python Eğitimi, 2022 - 2022

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

- I. **Matrix norm methods for zero-sum fuzzy matrix games with payoffs of triangular fuzzy numbers**  
İzgi B., Köçken H., Özkaya M.  
APPLIED MATHEMATICS AND COMPUTATION, vol.479, pp.128874, 2024 (SCI-Expanded)
- II. **Matrix norm based hybrid Shapley and iterative methods for the solution of stochastic matrix games**  
İzgi B., Özkaya M., Üre N. K., Perc M.  
APPLIED MATHEMATICS AND COMPUTATION, vol.473, pp.128638, 2024 (SCI-Expanded)
- III. **Machine learning driven extended matrix norm method for the solution of large-scale zero-sum matrix games**  
İzgi B., Özkaya M., Üre N. K., Perc M.  
JOURNAL OF COMPUTATIONAL SCIENCE, vol.68, pp.101997, 2023 (SCI-Expanded)
- IV. **Extended matrix norm method: Applications to bimatrix games and convergence results**  
İzgi B., Özkaya M., Üre N. K., Perc M.  
APPLIED MATHEMATICS AND COMPUTATION, vol.438, pp.127553, 2023 (SCI-Expanded)
- V. **Axioms of Decision Criteria for 3D Matrix Games and Their Applications**  
Özkaya M., İzgi B., Perc M.  
MATHEMATICS, vol.10, no.23, pp.4524, 2022 (SCI-Expanded)
- VI. **Effects of the Quarantine on the Individuals' Risk of Covid-19 Infection: Game Theoretical Approach**  
Özkaya M., İzgi B.  
ALEXANDRIA ENGINEERING JOURNAL, vol.60, no.4, pp.4157-4165, 2021 (SCI-Expanded)
- VII. **A new perspective to the solution and creation of zero sum matrix game with matrix norms**  
İzgi B., Özkaya M.  
APPLIED MATHEMATICS AND COMPUTATION, vol.341, pp.148-159, 2019 (SCI-Expanded)

## Articles Published in Other Journals

- I. **The Accession Process of Finland and Sweden to NATO by Türkiye's Perspective from the Point of Game Theory**  
Özkaya M., Baştan Y., İzgi B.  
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.24, no.3, pp.583-592, 2024 (Peer-Reviewed Journal)
- II. **Modeling the War of Militarily Inequivalent Two Countries by Game Theory**  
Özkaya M., Bakkaloğlu A.  
Journal of advanced research in natural and applied sciences (Online), vol.9, no.2, pp.268-275, 2023 (Peer-Reviewed Journal)
- III. **The Effects of the Big Data Concept on the Marketing Mix**  
Bil E., Özkaya M.  
Afyon Kocatepe Üniversitesi Sosyal Bilimler Dergisi, vol.24, no.3, pp.969-980, 2022 (Peer-Reviewed Journal)
- IV. **Influencerların Algılanan Özelliklerinin Tüketici Satın Alma Davranışı Üzerindeki Etkisi**  
Bil E., İnal M., Özkaya M.  
Pazarlama ve Pazarlama Araştırmaları Dergisi, vol.15, no.1, pp.219-244, 2022 (Peer-Reviewed Journal)
- V. **Mathematical Modeling of an International Crisis with Game Theory**  
Özkaya M., İzgi B.  
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, vol.10, no.4, pp.1334-1341, 2021 (Peer-Reviewed Journal)

- VI. **A Brief Comparison of Big Data Analysis and Traditional Marketing Research**  
Bil E., Özkaya M.  
TroyAcademy, vol.6, no.2, pp.462-476, 2021 (Peer-Reviewed Journal)
- VII. **The Demonstration of the Necessity of Agriculture Insurance by the Game Theory: Matrix Norm Approach**  
İzgi B., Özkaya M.  
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.20, no.5, pp.824-831, 2020 (Peer-Reviewed Journal)
- VIII. **Demonstration of the Fairness of a Matrix Game with Matrix Norms**  
İzgi B., Özkaya M.  
Int. J. Adv. Eng. Pure Sci., no.2, pp.126-132, 2018 (Peer-Reviewed Journal)
- IX. **Norm Inequalities and Applications in 3-Dimensional Matrices**  
İzgi B., Özkaya M.  
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, no.31302, pp.906-913, 2017 (Peer-Reviewed Journal)

## **Books & Book Chapters**

- I. **Gelişen Ekonomisiyle Çanakkale**  
Dalyancı H. L., Sağlam M. S., Özkaya M.  
in: Çanakkale Araştırmaları Sosyal, Kültürel, Ekonomik ve Çevresel Yönleriyle Çanakkale, Prof. Dr. Hüseyin Erkul, Prof. Dr. Pelin Kanten, Doç. Dr. Erkan Bil, Dr. Öğr. Üyesi Hafize Seçtim, Editor, Beta Yayınevi, İstanbul, pp.133-152, 2023

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **A Matrix Norm-Based Solution for Zero Sum Fuzzy Matrix Games: Fuzzy Matrix Norm Method**  
İzgi B., Köçken H., Özkaya M.  
12. International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 19 - 23 July 2024, pp.186
- II. **Application of 3D Decision Criteria for the Selection of an Ally**  
Özkaya M., Baştan Y., İzgi B.  
12. International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 19 - 23 July 2024, pp.185
- III. **Solution of Markov Reward Games Using Convolutional Neural Networks**  
Özkaya M., İzgi B.  
12. International Conference on Applied Analysis and Mathematical Modeling, İstanbul, Turkey, 19 - 23 July 2024, pp.203-204
- IV. **Numerical Approach for Stochastic Matrix Games with Chaos Number Transformations**  
İzgi B., Özkaya M.  
International Conference on Modern Problems of Mathematics, Mechanics and their Applications, Baku, Azerbaijan, 20 - 22 June 2024, pp.242-243
- V. **Hybrid Shapley Iteration for Stochastic Matrix Games**  
İzgi B., Özkaya M.  
International Conference on Modern Problems of Mathematics, Mechanics and their Applications, Baku, Azerbaijan, 20 - 22 June 2024, pp.244-245
- VI. **Application of Matrix Norm Method with Artificial Intelligence**  
İzgi B., Özkaya M., Üre N. K.  
2. International Congress on Modern Sciences, Toskent, Uzbekistan, 16 - 17 December 2022, pp.806-815

- VII. **S400 vs Patriot: A Brief Analysis with Devision Making Methods under Uncertainty**  
Özkaya M., İzgi B.  
2. International Congress on Modern Sciences, Toskent, Uzbekistan, 16 - 17 December 2022, pp.792-805
- VIII. **The Investigation of the Effects of the Quarantine on Infection Before and After Vaccination During Covid-19 Pandemic Using Game Theory**  
Özkaya M., İzgi B.  
İğdir International Applied Sciences Congress, İğdir, Turkey, 14 - 15 April 2021, pp.175-184
- IX. **Norm Inequalities and Applications in 3-Dimesional Matrices**  
İzgi B., Özkaya M.  
International Conference of Mathematics and Related Sciences, İstanbul, Turkey, 3 - 07 July 2017, vol.1991, pp.200081-200085
- X. **A Novel Approach to Matrix Game Solution**  
İzgi B., Özkaya M.  
I. International Conference on Mathematical and Related Sciences, Antalya, Turkey, 30 April - 04 May 2018, pp.64
- XI. **Some Properties on the 3-Dimensional Matrices**  
İzgi B., Özkaya M.  
I. International Conference on Mathematical and Related Sciences, Antalya, Turkey, 30 April - 04 May 2018, pp.63
- XII. **Fundamental Concept of 3-D Matrices**  
İzgi B., Özkaya M.  
International Conference of Mathematical and Related Sciences, Antalya, Turkey, 4 - 06 April 2018

## Supported Projects

- Bil E., İnal M., Özkaya M., Gürdal S., EU Supported Other Project, Skill Sets and Needs for Behavioral Science Lab, 2023 - 2025
- İzgi B., Üre N. K., TUBITAK Project, Stokastik Oyunlar İçin Matris Norm Tabanlı Yeni Çözüm Yöntemleri Ve Yapay Zeka Uygulamaları, 2021 - 2023

## Activities in Scientific Journals

Management and Political Sciences Reviews, Assistant Editor/Section Editor, 2023 - Continues

## Scientific Refereeing

- JOURNAL OF COMPUTATIONAL AND APPLIED MATHEMATICS, Journal Indexed in SCI-E, September 2023
- SOFT COMPUTING, Journal Indexed in SCI-E, August 2023
- SOFT COMPUTING, Journal Indexed in SCI-E, December 2022
- JOURNAL OF BUILDING ENGINEERING, Journal Indexed in SCI-E, September 2021

## Tasks In Event Organizations

- Kanten P., Özkaya M., Orak H., İnal M., 9. International Scientific Conference on Business Administration, Scientific Congress, Çanakkale, Turkey, Mayıs 2024
- Kıray A., Kanten P., Orak H., Özkaya M., İnal M., Örgüt Kuramı Sempozyumu, Scientific Congress, Çanakkale, Turkey, Şubat 2023
- Kanten P., Pazarcık Y., Bayraktar Köse E., Özkaya M., İnal M., Orak H., Lisansüstü Öğrenci Kongresi, Scientific Congress, Çanakkale, Turkey, Kasım 2022
- Pazarcık Y., Bayraktar Köse E., İnal M., Orak H., Özkaya M., MONUS Y., 9.Örgütsel Davranış Kongresi, Scientific Congress,

Çanakkale, Turkey, Kasım 2022

## **Metrics**

Publication: 29

Citation (WoS): 14

H-Index (WoS): 2