

## Prof. ESMA YILDIZ ÖZKAN



### Personal Information

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### International Researcher IDs

ScholarID: Hfiyu0kAAAAJ

ORCID: 0000-0003-1283-833X

Publons / Web Of Science ResearcherID: AAA-5403-2021

ScopusID: 56044952100

Yoksis Researcher ID: 203553

### Education Information

Doctorate, Gazi University, Fen Fakültesi, Matematik, Turkey 2010 - 2014

Postgraduate, Gazi University, Fen Fakültesi, Matematik, Turkey 2006 - 2009

Undergraduate, Hacettepe University, Eğitim Fakültesi, Ortaöğretim Fen Ve Matematik Alanlar Eğitimi Bölümü, Turkey 1999 - 2005

### Foreign Languages

English, B2 Upper Intermediate

German, B2 Upper Intermediate

### Certificates, Courses and Trainings

Vocational Training, Courses relating to academic interest and research, The Middle East Institute at Georgia State University , 2012

Foreign Language, Intensive English Program, Georgia State University, 2012

### Dissertations

Doctorate, Kompleks  $q$ -balazs-szabados operatörlerinin yaklaşım özellikleri, Gazi University, Fen Fakültesi, Matematik Bölümü, 2014

Postgraduate, İki değişkenli  $q$ -Meyer-König ve Zeller operatörlerinin Korovkin tipi yaklaşım özellikleri, Gazi University, Fen Fakültesi, Matematik Bölümü, 2009

### Research Areas

Functional Analysis, Approximations and Expansions

## Academic Titles / Tasks

Professor, Gazi University, Fen Fakültesi, Matematik, 2023 - Continues  
Associate Professor, Gazi University, Fen Fakültesi, Matematik, 2017 - 2023  
Lecturer PhD, Gazi University, Fen Fakültesi, Matematik, 2014 - 2017  
Research Assistant, Gazi University, Fen Fakültesi, Matematik, 2007 - 2014

## Academic and Administrative Experience

Farabi Program Institutional Coordinator, Gazi University, Fen Fakültesi, Matematik Bölümü, 2018 - 2019

## Courses

Research Project I, Undergraduate, 2024 - 2025, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019  
Mathematics I, Undergraduate, 2024 - 2025  
Research Project II, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018  
Mathematics II, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020  
Fuzzy Approximation, Postgraduate, 2021 - 2022  
Real Analysis II, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019  
Real Analysis, Postgraduate, 2021 - 2022, 2019 - 2020, 2018 - 2019, 2017 - 2018  
Mathematics II, Undergraduate, 2020 - 2021  
Real Analysis I, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020  
Methods and Thecniques in Mathematics Teaching I, Undergraduate, 2021 - 2022  
Mathematics I, Undergraduate, 2021 - 2022  
Mathematics II (1), Undergraduate, 2019 - 2020  
Mathematics I (2), Undergraduate, 2020 - 2021, 2018 - 2019  
Mathematics I (1), Undergraduate, 2020 - 2021  
Mathematics II (2), Undergraduate, 2019 - 2020, 2018 - 2019  
Mathematics I (1), Undergraduate, 2019 - 2020, 2018 - 2019  
Mathematics II (1), Undergraduate, 2018 - 2019  
Mathematics II (2), Undergraduate, 2018 - 2019  
Approximation in Analytic Functions Space I, Postgraduate, 2019 - 2020, 2018 - 2019  
Mathematics I (2), Undergraduate, 2019 - 2020, 2018 - 2019  
Mathematics I (1), Undergraduate, 2019 - 2020, 2018 - 2019  
Mathematics II (12), Undergraduate, 2017 - 2018  
Mathematics II (13), Undergraduate, 2017 - 2018  
Mathematics II (11), Undergraduate, 2017 - 2018  
Mathematics II (10), Undergraduate, 2017 - 2018

## Advising Theses

Yıldız Özkan E., Approximation of generalized balazs operators, Doctorate, G.AKSOY(Student), 2023  
Yıldız Özkan E., Approximation by a class of Bernstein-type rational functions, Postgraduate, A.Elif(Student), 2022  
Yıldız Özkan E., Approximation of q-Baskakov-Durrmeyer type operators, Postgraduate, B.CÖMERT(Student), 2021  
Yıldız Özkan E., Approximation Of q-Stancu-Beta Type Operators, Postgraduate, M.KORKMAZ(Student), 2021

## Designed Lessons

Yıldız Özkan E., Fuzzy Approximation, Postgraduate, 2020 - 2021

Yıldız Özkan E., Methods and Techniques in Mathematics Teaching I, Undergraduate, 2017 - 2018

Yıldız Özkan E., Approximation in Analytic Functions Spaces I, Postgraduate, 2017 - 2018

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

- I. **Approximation results by fuzzy Bernstein type rational functions via interval-valued fuzzy number**  
Yıldız Özkan E., Hazarika B.  
SOFT COMPUTING, vol.27, no.11, pp.6893-6901, 2023 (SCI-Expanded)
- II. **A New Kantorovich-Type Rational Operator and Inequalities for Its Approximation**  
Yildiz Ozkan E.  
MATHEMATICS, vol.10, no.12, 2022 (SCI-Expanded)
- III. **Approximation by Tensor-Product Kind Bivariate Operator of a New Generalization of Bernstein-Type Rational Functions and Its GBS Operator**  
Yildiz Ozkan E., Aksoy G.  
MATHEMATICS, vol.10, no.9, 2022 (SCI-Expanded)
- IV. **Some inequalities and numerical results estimating error of approximation for tensor product kind bivariate quantum beta-type operators and pertaining to GBS variant**  
Yildiz Ozkan E.  
JOURNAL OF INEQUALITIES AND APPLICATIONS, vol.2022, no.1, 2022 (SCI-Expanded)
- V. **Inequalities for Approximation of New Defined Fuzzy Post-Quantum Bernstein Polynomials via Interval-Valued Fuzzy Numbers**  
Yildiz Ozkan E.  
SYMMETRY-BASEL, vol.14, no.4, 2022 (SCI-Expanded)
- VI. **On a New Generalization of Bernstein-Type Rational Functions and Its Approximation**  
Yildiz Ozkan E., Aksoy G.  
MATHEMATICS, vol.10, no.6, 2022 (SCI-Expanded)
- VII. **INEQUALITIES AND NUMERICAL RESULTS OF APPROXIMATION FOR BIVARIATE  $q$ -BASKAKOV-DURRMEYER TYPE OPERATORS INCLUDING  $q$ -IMPROPER INTEGRAL**  
Yildiz Ozkan E.  
Journal of Mathematical Inequalities, vol.16, no.2, pp.499-512, 2022 (SCI-Expanded)
- VIII. **Quantitative Estimates for the Tensor Product  $(p,q)$ -Balazs-Szabados Operators and Associated Generalized Boolean Sum Operators**  
Yildiz Ozkan E.  
FILOMAT, vol.34, no.3, pp.779-793, 2020 (SCI-Expanded)
- IX. **Approximation by  $(p,q)$ -Analogue of Balazs-Szabados Operators**  
Yildiz Ozkan E., Ispir N.  
FILOMAT, vol.32, no.6, pp.2257-2271, 2018 (SCI-Expanded)
- X. **Approximation by Complex Bivariate Balazs-Szabados Operators**  
Yildiz Ozkan E.  
BULLETIN OF THE MALAYSIAN MATHEMATICAL SCIENCES SOCIETY, vol.39, no.1, pp.1-16, 2016 (SCI-Expanded)
- XI. **Approximation properties of bivariate complex  $q$ -Balazs-Szabados operators of tensor product kind**  
Yıldız Özkan E.  
JOURNAL OF INEQUALITIES AND APPLICATIONS, 2014 (SCI-Expanded)
- XII. **Statistical Approximation Properties of  $q$ -Balazs-Szabados-Stancu Operators**  
Yildiz Ozkan E.  
FILOMAT, vol.28, no.9, pp.1943-1952, 2014 (SCI-Expanded)
- XIII. **Approximation properties of complex  $q$ -Balazs-Szabados operators in compact disks**  
Ispir N., Yıldız Özkan E.  
JOURNAL OF INEQUALITIES AND APPLICATIONS, 2013 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Some new inequalities and numerical results of bivariate Bernstein-type operator including Bézier basis and its GBS operator**  
Yıldız Özkan E., Akpınar N. N.  
Mathematical Foundations of Computing, vol.6, no.3, pp.500-511, 2023 (ESCI)
- II. **Approximation by Fuzzy (p, q)-Bernstein-Chlodowsky Operators**  
Yildiz Ozkan E.  
Sahand Communications in Mathematical Analysis, vol.19, no.2, pp.113-132, 2022 (ESCI)
- III. **Approximation properties of Kantorovich type q-Balazs-Szabados operators**  
Yildiz Ozkan E.  
DEMONSTRATIO MATHEMATICA, vol.52, no.1, pp.10-19, 2019 (Peer-Reviewed Journal)
- IV. **Approximation Properties of Bivariate Generalization of Meyer König And Zeller Type Operators**  
Ince Ilarslan H. G., Yildiz Ozkan E.  
ANALELE STIINTIFICE ALE UNIVERSITATII AL I CUZA DIN IASI - MATEMATICA, vol.63, no.1, pp.181-191, 2017 (Scopus)
- V. **An Upper Estimate of Complex q-Balazs-Szabados-Kantorovich Operators on Compact Disks**  
Yildiz Ozkan E.  
GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.29, no.2, pp.479-486, 2016 (ESCI)

## Books & Book Chapters

- I. **Approximation Process of the Fuzzy Meyer-König and Zeller Operators**  
Yıldız Özkan E.  
in: Operators, Inequalities and Approximation, Binod Chandra Tripathy, Hemen Dutta, Susanta Kumar Paikray, Bidu Bhusan Jena, Editor, Springer Nature, Singapore, pp.33-51, 2024
- II. **Approximation Process of Bernstein Type Rational Functions**  
Yıldız Özkan E.  
Livre De Lyon, Lyon, 2021
- III. **Current Academic Studies in Science and Mathematics Sciences**  
Yıldız D. E. (Editor), Yıldız Özkan E. (Editor)  
Livre De Lyon, Lyon, 2021
- IV. **Volkov Type and Weighted Approximation Theorems for Bivariate q-Baskakov-Durrmeyer Type Operators**  
Yıldız Özkan E., Cömert B.  
in: Theory and Practice in Mathematics and Natural Sciences, Canan Demir, Editor, Livre De Lyon, Lyon, pp.53-63, 2021
- V. **Volkov Type and Weighted Approximation Theorems for Bivariate q-Stancu-Beta Type Operators**  
Yıldız Özkan E., Korkmaz M.  
in: Theory and Practice in Mathematics and Natural Sciences, Canan Demir, Editor, Livre De Lyon, Lyon, pp.43-52, 2021
- VI. **Fen ve Matematik Bilimlerinde Akademik Çalışmalar**  
Yildiz Özkan E. (Editor)  
Livre De Lyon, Lyon, 2020
- VII. **On Fuzzy Bernstein Polynomials**  
Yıldız Özkan E.  
in: Academic Studies Science and Mathematics, Seçkin Turgay, Editor, Gece Publishing, Ankara, pp.1-12, 2020
- VIII. **Approximation by Fuzzy Bernstein Type Rational Functions**  
Yıldız Özkan E.  
in: Academic Studies in Science and Mathematics Sciences, Sema İşisağ Üçüncü, Tanja V. Soldatović, Editor, Livre de

Lyon, Lyon, pp.71-85, 2020

- IX. **İki Değişkenli  $q$ -Balazs-Szabados-Stancu Operatörleri ve Bu Operatörlerin Genelleştirilmiş Boolean Toplam Operatörlerinin Yaklaşım Özellikleri**  
Yıldız Özkan E.  
in: Fen Bilimleri ve Matematik Alanında Çalışmalar, Aina Adeyinka Temitope, Demircalı Aykut, Editor, Gece Kitapevi, Ankara, pp.2538, 2018
- X. **Riemann Tip  $q$ -İntegral İçeren İki Değişkenli  $q$ -Balazs-Szabados-Kantorovich Operatörlerinin Yaklaşım Özellikleri**  
Yıldız Özkan E.  
in: Fen Bilimleri ve Matematik Alanında Yenilikçi Yaklaşımlar, Aka Sağlıker Hüsniye, Çoğal Sadık, Köroğlu Seçkin, Editor, Gece Kitaplığı, Ankara, pp.75-88, 2018
- XI. **An Upper Quantitative Estimate on a Circular Annulus for Complex Modified Phillips Operators**  
Yıldız Özkan E.  
in: Innovative Approaches in Science and Mathematics, Aka Sağlıker Hüsniye, Çoğal Sadık, Köroğlu Seçkin, Editor, Gece Publishing, Ankara, pp.43-50, 2018
- XII. **Weighted Statistical Approximation of Kantorovich Type  $q$ -Balazs-Szabados Operators Including the Riemann Type  $q$ -Integral**  
Yıldız Özkan E.  
in: Academic Researches in Mathematic and Sciences, Yıldırım Zeki, Editor, Gece Publishing, Ankara, pp.9-19, 2018

## Scientific Refereeing

OPEN MATHEMATICS, SCI Journal, February 2022

## Metrics

Publication: 43

Citation (WoS): 91

Citation (Scopus): 95

H-Index (WoS): 7

H-Index (Scopus): 7

## Scholarships

Domestic Graduate Scholarship, TUBITAK, 2006 - 2009