

## Prof. Beyza ÖZKÖK

### Personal Information

**Email:** bahlat@yildiz.edu.tr

**Web:** <https://avesis.yildiz.edu.tr/bahlat>

### International Researcher IDs

ScholarID: 8HeguvYAAAAJ

ORCID: 0000-0003-2763-1665

Publons / Web Of Science ResearcherID: AAZ-5860-2020

ScopusID: 25227250700

Yoksis Researcher ID: 118595

### Education Information

Post Doctorate, University of Florida, Industrial And Systems Engineering, Center Of Applied Optimization (Cao), United States Of America 2009 - 2010

Doctorate, Istanbul University, Sayısal Yöntemler, Sayısal Yöntemler, Turkey 2004 - 2008

Postgraduate, Istanbul University, Sayısal Yöntemler, Sayısal Yöntemler, Turkey 2002 - 2004

Postgraduate, Marmara University, Bankacılık Sigortacılık, Sigortacılık, Turkey 2002 - 2004

Masters (Non-Thesis), Istanbul University, Ortaöğretim Alan Öğretmenliği , Matematik Öğretmenliği Programı, Turkey 2002 - 2003

Undergraduate, Istanbul University, Faculty Of Science, Matematik, Turkey 1998 - 2002

### Foreign Languages

English, B2 Upper Intermediate

### Research Areas

Social Sciences and Humanities, Management, Quantitative Methods, Industrial Engineering , Decision Theory, Multi Criteria Decision Making, Supply Chain and Logistics Management, Mathematics, Optimization, Game Theory, Natural Sciences, Engineering and Technology

### Academic Titles / Tasks

Professor, Yildiz Technical University, Faculty Of Economic And Administrative Sciences, Department Of Administration, 2019 - Continues

Associate Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics, 2015 - 2019

Assistant Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics, 2009 - 2015

Research Assistant, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathematics, 2004 - 2009

### Academic and Administrative Experience

Deputy Head of Department, Yildiz Technical University, Faculty Of Economic And Administrative Sciences, Department Of Administration, 2021 - Continues

Head of Department, Yildiz Technical University, Faculty of Economic and Administrative Sciences, Department of Administration, 2019 - Continues

Head of Department, Yildiz Technical University, Faculty Of Economic And Administrative Sciences, Department Of Administration, 2024 - 2027

Head of Department, Yildiz Technical University, Faculty Of Economic And Administrative Sciences, Department Of Administration, 2024 - 2027

## Advising Theses

Özkök B., ÇOK KRİTERLİ KARAR VERME TEKNİKLERİ VE ALTMAN Z SKOR MODELİ İLE FİNANSAL PERFORMANS KARŞILAŞTIRILMASI: BİST TURİZM İŞLETMELERİ ÜZERİNE BİR UYGULAMA, Postgraduate, G.ÜNAL(Student), 2024

Özkök B., Çok Amaçlı Lineer Kesirli Programlama Problemine İteratif Bir Çözüm Önerisi, Doctorate, S.AKIN(Student), 2023

ÖZKÖK B., ÇOK AMAÇLI ÇOK PERİYOTLU ÇOK ÜRÜNLÜ KAPALI DEVRE TEDARİK ZİNCİRİ YÖNETİMİ İÇİN BİR BULANIK MODEL ÖNERİSİ, Postgraduate, S.AKIN(Student), 2017

ÖZKÖK B., Çok Aşamalı Çok Amaçlı Tedarik Zinciri Sistemine Bulanık Bir Yaklaşım, Postgraduate, S.Ercan(Student), 2016

ÖZKÖK B., Araç Rotalama Problemi, Postgraduate, F.Celalettin(Student), 2016

ÖZKÖK B., Kapalı Devre Tedarik Zinciri Problemine Bulanık Karar Verme Yaklaşımı, Postgraduate, E.Budak(Student), 2016

## Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Yıldız Teknik Üniversitesi, January, 2018

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

- I. **Passenger satisfaction assessment in the aviation industry using Type-2 fuzzy TOPSIS**  
Usun S., Akın Baş S., Meniz B., Özkök B.  
Journal of Air Transport Management, vol.119, 2024 (SSCI)
- II. **An iterative approach for the solution of fully fuzzy linear fractional programming problems via fuzzy multi-objective optimization**  
Akın Baş S., Özkök B.  
AIMS MATHEMATICS, vol.9, no.6, pp.15361-15384, 2024 (SCI-Expanded)
- III. **GREEN VEHICLE ROUTING MODEL VIA LINEAR FRACTIONAL PROGRAMMING: A RETAIL CASE STUDY FOR MARMARA REGION, TÜRKİYE**  
AKIN BAŞ S., ÖZKÖK B.  
International Journal of Industrial Engineering : Theory Applications and Practice, vol.30, no.4, pp.933-940, 2023 (SCI-Expanded)
- IV. **An exact iterative algorithm to solve a linear fractional programming problem**  
Kocken H., Özkök B., Ahlatcioglu M.  
SCIENTIA IRANICA INTERNATIONAL JOURNAL OF SCIENCE & TECHNOLOGY, vol.0, pp.1-27, 2022 (SCI-Expanded)
- V. **Multilevel AHP approach with interval type-2 fuzzy sets to portfolio selection problem**  
Meniz B., Bas S. A., Ozkok B. A., Tiryaki F.  
Journal of Intelligent and Fuzzy Systems, vol.40, no.5, pp.8819-8829, 2021 (SCI-Expanded)
- VI. **An iterative algorithm to solve a linear fractional programming problem**

- Ozkok B.  
Computers and Industrial Engineering, vol.140, 2020 (SCI-Expanded)
- VII. **Finding fuzzy optimal and approximate fuzzy optimal solution of fully fuzzy linear programming problems with trapezoidal fuzzy numbers**  
Ozkok B.  
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.36, no.2, pp.1389-1400, 2019 (SCI-Expanded)
- VIII. **A mixed integer programming approach to a square fully fuzzy linear equation**  
AHLATCIOĞLU M., Albayrak I., Kocken H. G., Ozkok B.  
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.31, no.3, pp.2009-2015, 2016 (SCI-Expanded)
- IX. **An approach for finding fuzzy optimal and approximate fuzzy optimal solution of fully fuzzy linear programming problems with mixed constraints**  
Özkök B., Albayrak F. İ., Köçken H., Ahlatcioğlu M.  
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.31, pp.623-632, 2016 (SCI-Expanded)
- X. **A compensatory fuzzy approach to multi-objective linear supplier selection problem with multiple-item**  
Ozkok B., TIRYAKI F.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, no.9, pp.11363-11368, 2011 (SCI-Expanded)
- XI. **Fuzzy portfolio selection using fuzzy analytic hierarchy process**  
TIRYAKI F., Ahlatcioglu B.  
INFORMATION SCIENCES, vol.179, pp.53-69, 2009 (SCI-Expanded)

## Articles Published in Other Journals

- I. **A Fuzzy Programming Based Approach to a Multi-Objective Multi-Echelon Green Closed-Loop Supply Chain Problem**  
Kocken K., ÖZKÖK B., KÖÇKEN H.  
Cybernetics and Information Technologies, vol.23, no.3, pp.40-55, 2023 (ESCI)
- II. **A novel iterative method to solve a linear fractional transportation problem**  
Bas S., Kocken H., ÖZKÖK B.  
PAKISTAN JOURNAL OF STATISTICS AND OPERATION RESEARCH, vol.18, no.1, pp.151-166, 2022 (ESCI)
- III. **A fuzzy approach to multi-objective mixed-integer linear programming model for multi-echelon closed-loop supply chain with multi-product multi-time period**  
Bas S. A., Ozkok B. A.  
Operations Research and Decisions, vol.30, no.1, pp.25-46, 2020 (ESCI)
- IV. **Fuzzy Decision Making Methodology for Portfolio Selection Problem Under Uncertainty: An Application at Borsa İstanbul (BIST)**  
Özkök B.  
Alphanumeric Journal, vol.7, no.1, pp.55-70, 2019 (Peer-Reviewed Journal)
- V. **Integer linear programming model for vehicle routing problem and an application in the food industry**  
ÖZKÖK B., Kurul F. C.  
ISTANBUL UNIVERSITY JOURNAL OF THE SCHOOL OF BUSINESS, vol.43, no.2, pp.251-260, 2014 (ESCI)
- VI. **A Compensatory Fuzzy Approach to Multi Objective Linear Transportation Problem with Fuzzy Parameters**  
Köçken H., Özkök B., Tiryaki F.  
EUROPEAN JOURNAL OF PURE AND APPLIED MATHEMATICS, vol.7, no.3, pp.369-386, 2014 (ESCI)
- VII. **Space pruning monotonic search for the non-unique probe selection problem.**  
PAPPALARDO E., Ozkok B., PARDALOS P.  
International journal of bioinformatics research and applications, vol.10, pp.59-74, 2014 (Scopus)
- VIII. **Araç rotalama problemine tam sayılı lineer programlama modeli ve gıda sektöründe bir uygulama**

## Books & Book Chapters

- I. **Multi-Attribute Decision Making Using Interval Type-2 Fuzzy AHP and Its Application on Borsa Istanbul (BIST)**  
Özkök B., Köçken H.  
in: Interdisciplinary Perspectives on Operations Management and Service Evaluation, Panagiotis Manolitzas, Constantin Zopounidis, Michael Talias, Evangelos Grigoroudis, Nikolaos Matsatsinis, Editor, IGI Global, Pennsylvania, pp.30-56, 2021
- II. **A Type-2 Fuzzy TOPSIS-Based Methodology for the Analysis of Investment Decisions**  
KÖÇKEN H., ÖZKÖK B.  
in: Part of the Advances in Intelligent Systems and Computing book series (AISC, volume 1301), Allahviranloo T., Salahshour S., Arica N., Editor, Springer, Cham, Cham, pp.359-367, 2021
- III. **A Short Review on Supplier Selection Problem Methods Under Uncertainty**  
ÖZKÖK B., FİDAN KEÇECİ N.  
in: Handbook of Research on Transdisciplinary Knowledge Generation, Victor X. Wang, Editor, IGI GLOBAL, pp.157-168, 2019
- IV. **Short Review of Multi Criteria Decision Making Approaches for Supplier Selection Problem**  
KÖÇKEN H., ÖZKÖK B.  
in: Encyclopedia of Information Science and Technology, Khosrow-Pour, Mehdi, Editor, IGI Global, pp.282-290, 2014
- V. **Combinatorial Optimization Algorithms**  
Pappalardo E., ÖZKÖK B., M. Pardalos P.  
in: Handbook of Combinatorial Optimization, P.M. Pardalos, D.-Z. Du, R.L. Graham, Editor, Springer, New York, pp.559-593, 2013
- VI. **Fuzzy Analytic Hierarchy Process and its application to E-marketplace Selection**  
ÖZKÖK B., Pappalardo E.  
in: Enterprise Business Modeling, Optimization Techniques, and Flexible Information Systems, Papajorgji, P., Guimarães, A. M., Guarracino, M. R., Editor, Igi Global, Hershey, Pa, pp.26-44, 2013
- VII. **A Review on Applied Data Mining Techniques to Stock Market Prediction**  
Fidan N., ÖZKÖK B.  
in: Enterprise Business Modeling, Optimization Techniques, and Flexible Information Systems, Papajorgji, P., Guimarães, A. M., Guarracino, M. R., Editor, Igi Global, Hershey, Pa, pp.108-126, 2013

## Refereed Congress / Symposium Publications in Proceedings

- I. **A Hybrid Fuzzy Approach to Analyze Patient Satisfaction Considering Hospital Technical Requirements**  
Özkök B., Yafez E.  
10th International Conference on Advances in Statistics, Budapest, Hungary, 19 - 21 April 2024
- II. **Comparison Of Financial Performance With Multiple Criteria Decision Making Approach**  
Beken G. Ü., Özkök B.  
8. INTERNATIONAL PALANDÖKEN SCIENTIFIC STUDIES CONGRESS, Erzurum, Turkey, 9 - 10 March 2024, pp.242
- III. **Lineer Kesirli Programlama İle Perakende Sektöründe Çevre Dostu Araç Rotalama Uygulaması**  
Akn Baş S., Özkök B., Meniz B., Öztürk Uşun S.  
42. YÖNEYLEM ARAŞTIRMASI VE ENDÜSTRİ MÜHENDİSLİĞİ ULUSAL KONGRESİ, Gaziantep, Turkey, 1 - 03 November 2023, pp.124

- IV. **Havayolu Endüstrisinde Yolcu Memnuniyetinin Bulanık Çok Kriterli Karar Verme Teknikleri Kullanılarak Değerlendirilmesi**  
Özkök B., Öztürk Uşun S., Meniz B., Akın Baş S.  
42. YÖNEYLEM ARAŞTIRMASI VE ENDÜSTRİ MÜHENDİSLİĞİ ULUSAL KONGRESİ, Gaziantep, Turkey, 1 - 03 November 2023, pp.102
- V. **Havalimanı Hizmet Memnuniyetinin Makine Öğrenmesi Teknikleri Kullanılarak Değerlendirilmesi**  
Öztürk Uşun S., Özkök B., Akın Baş S., Meniz B.  
42. YÖNEYLEM ARAŞTIRMASI VE ENDÜSTRİ MÜHENDİSLİĞİ ULUSAL KONGRESİ, Gaziantep, Turkey, 1 - 03 November 2023, pp.101
- VI. **Linear Fractional Programming Method for Optimizing of Inventory Model with Price-Dependent Demand Rate**  
Akın Baş S., Özkök B.  
Sixth International Conference on Analysis and Applied Mathematics, Antalya, Turkey, 31 October - 06 November 2022, pp.35-36
- VII. **AN INVESTMENT DECISION MAKING METHODOLOGY BASED ON TYPE-2 FUZZY AHP: A CASE STUDY ON BORSA ISTANBUL (BIST)**  
Özkök B., Köçken H.  
International Conference on Applied Research in Management, Business and Economics, Barcelona, Spain, 5 - 07 April 2019, pp.50-61
- VIII. **Analytical Hierarchy Process with Type-2 Fuzzy Sets**  
Cinar K., AKIN S., ÖZKÖK B.  
INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELING, 2019, İstanbul, Turkey, 10 March 2019, pp.243
- IX. **On the solution of a fully fuzzy linear programming problem**  
Özkök B.  
INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELING, İstanbul, Turkey, 10 - 13 March 2019, pp.148
- X. **A Fuzzy Approach to Multi Objective Multi Echelon Green Closed Loop Supply Chain**  
Köçken K., Özkök B.  
INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELING, İstanbul, Turkey, 10 - 13 March 2019, pp.158
- XI. **A multi-objective mixed integer linear programming model proposal for multi-echelon closed-loop supply chain network**  
AKIN S., ÖZKÖK B.  
INTERNATIONAL CONFERENCE ON APPLIED ANALYSIS AND MATHEMATICAL MODELING, 2018, İstanbul, Turkey, 20 June 2018, pp.21-22
- XII. **On the Solution of a nxn Fully Fuzzy Linear Equation System with Triangular Fuzzy Numbers**  
Ahlatcıoğlu M., Albayrak F. İ., Köçken H., Özkök B.  
ICWOMA (International Conference and Workshop On Mathematical Analysis), Kuala-Lumpur, Malaysia, 27 - 30 May 2014, pp.36
- XIII. **Fuzzy approaches to supplier selection problem**  
Özkök B., Köçken H.  
International Conference on Mathematical Sciences and Istatistic 2013, (ICMSS 2013), Kuala-Lumpur, Malaysia, 5 - 07 February 2013, vol.1557, pp.355-360
- XIV. **A Fuzzy Approach to Multi Objective Multi Echelon Supply Chain**  
ÖZKÖK B., Ercan S., Budak E.  
First International Conference on Analysis and Applied Mathematics (ICAAM-2012), Gümüşhane, Turkey, 18 October 2012, pp.43
- XV. **A Fuzzy Max-Min Approach to Multi Objective, Multi Echelon Closed Loop Supply Chain**  
ÖZKÖK B., Budak E., Ercan S.  
First International Conference on Analysis and Applied Mathematics (ICAAM-2012), Gümüşhane, Turkey, 18

October 2012, pp.42

- XVI. **A Fuzzy Approach to Closed Loop Supply Chain using Mixed-Integer Linear Programming**  
Özkök B., Köçken H., Budak E.  
International Conference on Applied Analysis and Algebra ICAAA 2012, İstanbul, Turkey, 20 June 2012, pp.76
- XVII. **A New Heuristic Algorithm for the Non-unique Probe Selection Problem**  
Pappalardo E., ÖZKÖK B., Pardalos P.  
INFORMS 2010 Annual Meeting, Austin Texas, United States Of America, 07 November 2010
- XVIII. **A Heuristic Approach for Multi Echelon Supply Chain Networks**  
ÖZKÖK B., Syed M., Pardalos P.  
INFORMS 2010 Annual Meeting, Austin Texas, United States Of America, 07 November 2010
- XIX. **Çok Ürünlü Çok Amaçlı Lineer Tedarikçi Seçim Problemi İçin Bulanık Dengeleyici Bir Yaklaşım**  
ÖZKÖK B., TİRYAKİ F.  
Yöneylem Araştırması ve Endüstri Mühendisliği 28. Ulusal Kongresi YA/EM'08, İstanbul, Turkey, 30 June 2008
- XX. **Çok Ürünlü Çok Amaçlı Lineer Tedarikçi Seçim Problemi için Bulanık Dengeleyici Bir Yaklaşım**  
ÖZKÖK B., TİRYAKİ F.  
Yöneylem Araştırması/ Endüstri Mühendisliği, 28. Ulusal Kongresi, YA/EM 2008, Turkey, 30 June - 02 July 2008
- XXI. **On finding the fuzzy nucleolus of an n-person cooperative game in fuzzy characteristic function form**  
AHLATCIOĞLU M., TİRYAKİ F., ÖZKÖK B.  
5 th International Symposium on Intelligent Manufacturing Systems, Sakarya, Turkey, 29 May 2006, pp.792-802
- XXII. **Fuzzy Stock Selection using Fuzzy Analytic Hierarchy Process**  
Tiryaki F., ÖZKÖK B.  
IFORS Triennial 2005 Conference, 11 July 2005
- XXIII. **Bulanık Fiyat, Arz ve Talep Miktarlı Çok Amaçlı Lineer Taşıma Problemine Bir Dengeleyici Yaklaşım**  
Tiryaki F., ÖZKÖK B., Gonc H.  
Yöneylem Araştırması ve Endüstri Mühendisliği 2005 (YA/EM 2005) 25. Ulusal Kongresi, İstanbul, Turkey, 04 July 2005, pp.54
- XXIV. **A New Fuzzy Approach to Multiple Objective Linear Programming (MOLP) Problems through Shapley Value**  
TİRYAKİ F., ÖZKÖK B.  
International Symposium on Innovations in Intelligent Systems and Applications, İstanbul, Turkey, 15 June 2005, pp.67

## Episodes in the Encyclopedia

- I. **Encyclopedia of Information Science and Technology**  
Köçken H., Özkök B.  
IGI Global Publications, pp.4961-4969, 2015

## Supported Projects

Özkök B., Fidan Keçeci N., Köçken H., Project Supported by Higher Education Institutions, ARALIK TİP-2 BULANIK LİNEER PROGRAMLAMA PROBLEMİNE BİR ÇÖZÜM ÖNERİSİ, 2020 - 2022

Özkök B., Project Supported by Higher Education Institutions, Çok Amaçlı Kapalı Devre Tedarik Zinciri Yönetimi ve Bir Model Önerisi, 2016 - 2017

## Scientific Refereeing

Project Supported by Higher Education Institutions, BAP Research Project, Canakkale Onsekiz Mart University, Turkey,

December 2018

APPLIED SOFT COMPUTING, SCI Journal, May 2016

APPLIED SOFT COMPUTING, SCI Journal, January 2016

Journal Name: Socio-Economic Planning Sciences, SCI Journal, August 2011

Journal Name: Environmental Modeling and Assessment, SCI Journal, August 2011

## **Mobility Activity**

Post Doc, Post Doc, University of Florida, United States Of America, 2010 - 2011

## **Metrics**

Publication: 51

Citation (WoS): 175

Citation (Scopus): 287

H-Index (WoS): 5

H-Index (Scopus): 6

## **Scholarships**

DOKTORA SONRASI ARAŞTIRMA BURSUSU, YOK, 2010 - 2011

## **Awards**

Özkök B., Akademik Teşvik Ödülü, Yıldız Teknik Üniversitesi, January 2012

Özkök B., Uluslararası Bilimsel Yayınları Teşvik Programı (UBYT), Tübitak, January 2011

Özkök B., Uluslararası Bilimsel Yayınları Teşvik Programı, Tübitak, January 2009

Özkök B., Akademik Teşvik Ödülü, Yıldız Teknik Üniversitesi, January 2009

## **Non Academic Experience**

IŞIK ÜNİVERSİTESİ

YEDİTEPE ÜNİVERSİTESİ