

## Assoc. Prof. Vildan ÖZKIR

### Personal Information

**Office Phone:** [+90 212 383 2903](tel:+902123832903)

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

**Web:** <https://sites.google.com/view/vildanozkir/anasayfa>

**Address:** Barbaros Bulvarı, Yıldız Teknik Üniversitesi Beşiktaş Kampüsü Endüstri Mühendisliği. Bölümü A307 Yıldız- Beşiktaş İstanbul

### International Researcher IDs

ScholarID: vildanozkir

ORCID: 0000-0002-2609-5234

ScopusID: 45661518900

Yoksis Researcher ID: 173774

### Education Information

Postgraduate, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, -, Turkey 2002 - 2004

### Research Areas

Industrial Engineering , Optimization Theory and Methods, Multiobjective Optimization, Engineering and Technology

### Academic and Administrative Experience

Deputy Head of Department, Yıldız Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, 2020 - 2022

Staj Başkanı, Yıldız Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, 2011 - 2022

### Courses

#### Undergraduate

OPERATIONS RESEARCH 1, Undergraduate, 2018 - 2019

OPERATIONS RESEARCH 2, Undergraduate, 2018 - 2019

Numerical Analysis, Undergraduate, 2018 - 2019

### Supervised Theses

Özkr V., Fleet Assignment and Bank Structure Integration in Airline Scheduling Problem, Doctorate, M.Enis(Student), 2021

Özkr V., Data analytics in industrial applications, Postgraduate, Ö.DÖĞER(Student), 2018

Özkr V., A Novel Algorithm for solving large scale bin-packing problems, Postgraduate, S.TEKİL(Student), 2017

Özkr V., Simulation of passenger process in airport terminal, Postgraduate, R.PINAR(Student), 2017

Özkr V., Constructing Highly Consistent Matrices in the Analytic Hierarchy Process, Postgraduate, Ş.KOYUN(Student), 2014

Özkr V., Electromagnetism-like Heuristics for solving Travelling Salesman Problem, Postgraduate, B.TOPCU(Student), 2014

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

- I. **Extended flexible capacity planning methodology with flight network contribution to the airline fleet assignment problem**  
Enki Y., ÖZKIR V., ŞEN C., Enis Çiftçi M.  
Expert Systems with Applications, vol.255, 2024 (SCI-Expanded)
- II. **Integrated optimisation model for airline bank structure and fleet assignment problem**  
Ciftci M. E., ÖZKIR V.  
Annals of Operations Research, vol.342, no.1, pp.265-285, 2024 (SCI-Expanded)
- III. **A Fermatean fuzzy MCDM method for selection and ranking Problems: Case studies**  
Aydoğan H., ÖZKIR V.  
Expert Systems with Applications, vol.237, 2024 (SCI-Expanded)
- IV. **Multi-objective 3D bin packing problem with load balance and product family concerns**  
Erbayrak S., ÖZKIR V., Yildirim U. M.  
COMPUTERS & INDUSTRIAL ENGINEERING, vol.159, 2021 (SCI-Expanded)
- V. **Two-phase heuristic algorithm for integrated airline fleet assignment and routing problem**  
ÖZKIR V., Özgür M. S.  
Energies, vol.14, no.11, 2021 (SCI-Expanded)
- VI. **Optimising flight connection times in airline bank structure through Simulated Annealing and Tabu Search algorithms**  
Çiftçi M. E., Özkr V.  
Journal of Air Transport Management, vol.87, 2020 (SSCI)
- VII. **Simulation-based assessment methodology to improve ground service operations at a hub airport**  
Parkan P., Özkr V.  
TRANSPORTATION PLANNING AND TECHNOLOGY, vol.43, no.5, pp.520-538, 2020 (SCI-Expanded)
- VIII. **An Effective Extension of Fuzzy TOPSIS Method for Hierarchically Structured Group Decision Making Problems**  
Özkr V., Demirel T.  
JOURNAL OF MULTIPLE-VALUED LOGIC AND SOFT COMPUTING, vol.26, pp.295-314, 2016 (SCI-Expanded)
- IX. **A three-stage methodology for initiating an effective management system for electronic waste in Turkey**  
Ozkr V., Efendigil T., Demirel T., Demirel N. C., Devenci M., Topcu B.  
RESOURCES CONSERVATION AND RECYCLING, vol.96, pp.61-70, 2015 (SCI-Expanded)
- X. **A Fuzzy Mixed Integer Linear Programming Model for A Reverse Logistics System with A Real Case Application**  
Özkan B., Basligil H., Kaya İ., Özkr V.  
JOURNAL OF MULTIPLE-VALUED LOGIC AND SOFT COMPUTING, vol.25, pp.269-289, 2015 (SCI-Expanded)
- XI. **Multi-objective optimization of closed-loop supply chains in uncertain environment**  
ÖZKIR V., Basligil H.  
JOURNAL OF CLEANER PRODUCTION, vol.41, pp.114-125, 2013 (SCI-Expanded)
- XII. **Modelling product-recovery processes in closed-loop supply-chain network design**  
Özkr V., Basligil H.  
INTERNATIONAL JOURNAL OF PRODUCTION RESEARCH, vol.50, pp.2218-2233, 2012 (SCI-Expanded)
- XIII. **A fuzzy assessment framework to select among transportation investment projects in Turkey**  
ÖZKIR V., DEMİREL T.

## Articles Published in Other Journals

- I. **A novel multiple criteria ranking approach for determining the Most Valuable Player (MVP) of a sport season: A numerical study from NBA league**  
DEĞİRMENCİ A., ÖZKIR V.  
Journal of Soft Computing and Decision Analytics, vol.1, 2023 (Peer-Reviewed Journal)
- II. **A request selection and dynamic pricing in physical internet**  
GÜLÜM M. N., ÖZKIR V., YILDIRIM U. M.  
Recent Advances in Science and Engineering, vol.2, no.2, pp.1-6, 2022 (Peer-Reviewed Journal)
- III. **Survey System Using Blockchain for Scientific Research**  
ÇELİK S. E., ÖZKIR V.  
Quantrade Journal of Complex Systems in Social Sciences, vol.3, no.2, pp.45-67, 2021 (Peer-Reviewed Journal)
- IV. **Belirsizlik Altında Çevre Bilinçli Tedarikçi Seçimi Probleminin İncelenmesi**  
ÖZKIR V.  
Doğuş Üniversitesi Dergisi, vol.19, no.1, pp.23-37, 2018 (Peer-Reviewed Journal)
- V. **Application of the random key based electromagnetism-like heuristic for solving travelling salesman problems**  
Özkr V., Topçu B.  
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.24, no.1, pp.76-82, 2018 (ESCI)
- VI. **Extended Consistency Analysis For Pairwise Comparison Method**  
KOYUN YILMAZ Ş., ÖZKIR V.  
International Journal of the Analytic Hierachy Process, vol.10, no.1, pp.117-134, 2018 (Scopus)
- VII. **AN EFFICIENT MADM METHOD: ELECTROMAGNETISM-LIKE METHOD FOR SELECTION AND ORDERING**  
Özkr V., Topçu B.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.35, no.3, pp.513-522, 2017 (ESCI)
- VIII. **Constructing small WEEE collection system in Istanbul A decision support system and conceptual design proposal**  
ÖZKIR V.  
An International Journal of Optimization and Control: Theories Applications, vol.7, no.1, pp.16-27, 2017 (Peer-Reviewed Journal)
- IX. **Konteyner Yükleme Problemlerinin İncelenmesi ve Lojistik Sektöründe Bir Uygulama**  
TEKİL S., ÖZKIR V.  
Toros Üniversitesi İktisadi İdari ve Sosyal Bilimler Dergisi, vol.3, no.5, pp.213-224, 2016 (Peer-Reviewed Journal)
- X. **Application of Fuzzy AHP and ANP Methods for Chemical Reactions in Nitrochlorobenzen Formation**  
YETİZ E., ALCAN P., ÖZKIR V., BAŞLIGİL H.  
Sigma Journal of Engineering and Natural Sciences, vol.27, no.3, pp.177-189, 2009 (Peer-Reviewed Journal)

## Books

- I. **Genetik Algoritma**  
Özkr V.  
in: Makine Öğrenmesinde Sınıflandırma Yöntemleri ve R Uygulamaları, Ersoy ÖZ, Selçuk ALP, Editor, Nobel Yayın Dağıtım, İstanbul, pp.93-110, 2019
- II. **Multi-objective Decision Analysis in Strategic Supply Chain Design**

ÖZKİR V.

in: Hierarchical Planning and Information Sharing Techniques in Supply Chain Management, Taghipour, A., Editor, Igi Global Publications, Hershey, pp.163-178, 2019

**III. Multi-objective Decision Analysis in Strategic Supply Chain Design**

ÖZKİR V.

in: Hierarchical Planning and Information Sharing Techniques in Supply Chain Management, Atour Taghipour, Editor, IGI Global, Hershey, PA, pp.163-178, 2019

**IV. Genetik Algoritma**

ÖZKİR V.

in: Makine Öğrenmesinde Sınıflandırma Yöntemleri ve R Uygulamaları, Selçuk Alp, Ersoy Öz, Editor, NOBEL Akademik Yayınları, İstanbul, pp.93-110, 2019

**V. Lojistikte Dış Kaynak ve Önemi**

Özkır V.

in: Lojistik Yönetimi, Umut Rifat Tuzkaya, Editor, ATATURK ÜNİVERSİTESİ Açık Öğretim Fakülte Kitabevi, Erzurum, pp.45-60, 2018

**VI. Dağıtım planlama ve ulaştırma**

TUZKAYA U. R., TUZKAYA G., ÖZKİR V., APAK S., KÜÇÜK B., TAŞEL F.

in: DAĞITIM KANALLARI PLANLAMASI, Umut Rifat Tuzkaya, Vecihi Yiğit, Editor, Açık Öğretim Fakülte Kitabevi, Erzurum, 2017

## Papers Published in Refereed Scientific Meetings

**I. Havayolu Filo Atama Problemine Uçuş Ağı Katkısı ile Genişletilmiş Esnek Kapasite Planlama Metodolojisi Önerisi**

Enki Y., ÖZKİR V., ŞEN C., ÇİFTÇİ M. E.

41. Yöneylem Araştırması ve Endüstri Mühendisliği (YA/EM) Ulusal Kongresi, Denizli, Turkey, 26 October 2022, pp.103

**II. Havayolu Filo Atama Problemine Uçuş Ağı Katkısı İle Genişletilmiş Esnek Kapasite Planlama Metodolojisi Önerisi**

ENKİ Y., ÖZKİR V., ŞEN C., ÇİFTÇİ M. E.

41. Yöneylem Araştırması ve Endüstri Mühendisliği (YA/EM) Ulusal Kongresi, Denizli, Turkey, 26 October 2022

**III. Üç Boyutlu Konteyner Yükleme Problemleri**

ÖZKİR V., ERBAYRAK S.

Yöneylem Araştırması ve Endüstri Mühendisliği 38. Ulusal Kongresi, Turkey, 26 - 29 June 2018

**IV. A Survey of Industrial Engineering Students' Learning Types**

KOYUN YILMAZ Ş., ASLAN M. E., ÖZKİR V.

13th Balkan Conference on Operational Research, Belgrad, Serbia And Montenegro, 25 May 2018, pp.1

**V. Effects of Personality Traits on Decision Support Systems**

ÖZKURT P., KOYUN YILMAZ Ş., ASLAN M. E., ÖZKİR V.

13th Balkan Conference on Operational Research, 25 - 28 May 2018, pp.17

**VI. Artificial Neural Network Models for Reducing Spoiled Product Return Rate in FMCG**

KOYUN YILMAZ Ş., BAYIRALAN İ. K., SANCAKTAR Ç., ÖZKİR V.

International Conference on Computational and Statistical Methods in Applied Sciences, Samsun, Turkey, 09 November 2017

**VII. Konteyner Yükleme Problemlerinin İncelenmesi ve Lojistik Sektöründe Uygulama**

TEKİL S., ÖZKİR V., KOYUN YILMAZ Ş.

37. Yöneylem Araştırması ve Endüstri Mühendisliği Ulusal Kongresi, İstanbul, Turkey, 05 July 2017, pp.99

**VIII. Hub Havaalanında Terminal Simülasyon Modeli**

PARKAN R. P., ÖZKİR V.

37. Yöneylem Araştırması ve Endüstri Mühendisliği Ulusal Kongresi, İstanbul, Turkey, 5 - 07 July 2017

- IX. Tek Boyutlu Kutulama Problemlerinin Klasik Kutulama Algoritmaları ve Genetik Algoritma ile Çözümü**  
ÖZKIR V., ERBAYRAK S., TEKİL S.  
Yöneylem Araştırması ve Endüstri Mühendisliği 36. Ulusal Kongresi, İzmir, Turkey, 13 - 15 July 2016
- X. Büyük Boyutlu Kutulama Problemlerinin İncelenmesi ve Çözümü İçin Sezgisel Algoritmaların Uygulanması**  
TEKİL S., ÖZKIR V.  
5. ULUSAL LOJİSTİK VE TEDARİK ZİNCİRİ KONGRESİ, Mersin, Turkey, 26 - 28 May 2016
- XI. Past Present and Future of MADM Techniques**  
TÜZÜN S., DEMİREL T., ÖZKIR V., TOPCU Y. İ.  
23rd International Conference on Multiple Criteria Decision Making MCDM 2015 - Bridging Disciplines, 3 - 07 August 2015
- XII. Survey results of E-Waste Quantity and recycling strategy development: the case of Istanbul**  
DEMİREL T., TOPCU B., DEVECİ M., ÇETİN DEMİREL N., EFENDİĞİL T., ÖZKIR V.  
YA/EM 2013, İstanbul, Turkey, 07 July 2013
- XIII. Developing a strategy for collection and recycling of E Waste in Turkey**  
TOPÇU B., ÖZKIR V., EFENDİĞİL T., ÇETİN DEMİREL N., DEMİREL T., DEVECİ M.  
26th European Conference on Operational Research, Roma, Italy, 1 - 04 July 2013
- XIV. Developing a Strategy for Collection and Recycling of E-Waste in Turkey**  
Özkr V., Efendigil T., Çetin Demirel N., DEMİREL T., Deveci M.  
26th European Conference on Operational Research, 01 July 2013
- XV. Multi-criteria evaluation to prioritize the organic farm site using extended Vikor method**  
DEMİREL T., Tüzün S., ÖZKIR V.  
14th International Conference on Information Processing and Management of Uncertainty in Knowledge-Based Systems, IPMU 2012, Catania, Italy, 9 - 13 July 2012, pp.432-440
- XVI. A FRAMEWORK PROPOSAL UPON THE ESTIMATION OF ELECTRONIC-WASTE PRODUCTS IN ISTANBUL**  
EFENDİĞİL T., ÖZKIR V., Demirel N. C., DEMİREL T., Oudemir O.  
10th International Conference on Fuzzy Logic and Intelligent Technologies in Nuclear Science (FLINS), İstanbul, Turkey, 26 - 29 August 2012, vol.7, pp.1184-1189
- XVII. A COMPREHENSIVE ANALYSIS FOR THE METRICS OF SUPPLYCHAIN DESIGN STRATEGIES**  
ÖZKIR V., DEMİREL T.  
the 15th International Research/Expert Conference on Trends in the Development of Machinery and Associated Technology, Prague, 12 - 18 September 2011, pp.353-356
- XVIII. A Genetic Algorithm Approach for Minimizing Total Tardiness in Parallel Machine Scheduling Problems**  
DEMİREL T., ÖZKIR V., Demirel N. C., TASDELEN B.  
World Congress on Engineering (WCE 2011), London, Canada, 6 - 08 July 2011, pp.1190-1193
- XIX. Investigating Optimal EOL Recall Policy for Environmentally Conscious Supply Chain Network**  
ÖZKIR V., BAŞLIGİL H.  
24rd European Conference on Operational Research, 11 - 13 July 2010
- XX. A System Dynamics Model For Inventory Planning in Closed Loop Supply Chain Network**  
AYDIN Y., ÖZKIR V., BAŞLIGİL H.  
VII International Logistics and Supply Chain Congress, İstanbul, Turkey, 5 - 06 October 2009
- XXI. Optimizing Closed Loop Supply Chain Network Design with Sustainability Consideration**  
ÖZKIR V., BAŞLIGİL H.  
23rd European Conference on Operational Research, 5 - 08 July 2009
- XXII. Modeling Reverse Flows in A Closed Loop Supply Chain Network**  
ÖZKIR V., ÖNDEMİR Ö., BAŞLIGİL H.  
International Conference on Prospects for Research in Transport and Logistics on a Regional - Global Scal, İstanbul, Turkey, 12 - 14 February 2009
- XXIII. Tersine Lojistik Sistemlerinin Tasarımına Yönelik Çözüm Önerileri**

BAŞLIGİL H., ÖZKIR V.

II. Ulusal Sistem Mühendisliği Kongresi, İstanbul, Turkey, 6 - 08 February 2008, pp.281-284

**XXIV. Application of Fuzzy Multiple Criteria Decision Making Methods for Project Selection Problems**

ÖZKIR V., ÖNDEMİR Ö., İNAN U. H.

35th International Conference on Computers and Industrial Engineering, İstanbul, Turkey, 19 - 22 June 2005

**XXV. The Problems and Alternative Resolutions Of Integrated Management System s Implementation And Sustainability A Survey On Turkish Industry**

İNAN U. H., BARAÇLI H., ÖZKIR V.

35th International Conference on Computers and Industrial Engineering, İstanbul, Turkey, 19 - 22 June 2005

**XXVI. İş Süreçlerinin İyileştirilmesinde Görsel Simülasyon Tekniğinin Kullanımı ve Bir Hastane Sisteminde Uygulanması**

ÖZKIR V., ÖNDEMİR Ö., BARAÇLI H.

Yöneylem Araştırması ve Endüstri Mühendisliği XXIV. Ulusal Kongresi, Adana, Turkey, 15 - 18 June 2004, pp.220-223

**XXVII. Uygulama Yazılım Paketlerinin Seçim Sürecinde Değerlendirme Kriterleri Aşamasında Kalite Fonksiyonu Açılımı Tekniğinin Kullanılabilirliği**

ŞEN C., ÖZKIR V., BARAÇLI H.

Yöneylem Araştırması ve Endüstri Mühendisliği XXIV. Ulusal Kongresi, Adana, Turkey, 15 - 18 June 2004, pp.323-326

## Supported Projects

Özkir V., TUBITAK Project, Lojistik Operasyonlarda Ayrı Adreslenen Konteyner Yükleme Ve Rotalama Problemleri İçin Makine Öğrenmeli Bütünleşik Model Ve Çözüm Yöntemlerinin Geliştirilmesi, 2023 - 2026

ÖZKIR V., ENKİ Y., Project Supported by Higher Education Institutions, UÇUŞ AĞI KATKI İLE GENİŞLETİLMİŞ HAVAYOLU FİLO ATAMA PROBLEMİ İÇİN ESNEK KAPASİTE PLANLAMA METODOLOJİSİ, 2022 - 2023

ÖZKIR V., Project Supported by Higher Education Institutions, İstanbul Bölgesinde Ömrünü Tamamlamış Elektronik Ürünlerin (E-Atık) Toplanması ve Geri Kazanımı ile ilgili stratejilerin oluşturulması, 2011 - 2014

## Student Project

R & D Project, Perakende Sektöründe Çalışanların Vardiya Çizelgelemesi, Yıldız Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, Turkey, 2023 - 2023

R & D Project, Havayolu Fliio Atama Probleminin İncelenmesi, Yıldız Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, Turkey, 2020 - 2020

## Memberships / Tasks in Scientific Organizations

Yöneylem Araştırması Derneği, Member, 2008 - Continues, Turkey

## Metrics

Publication: 59

Citation (WoS): 158

Citation (Scopus): 341

H-Index (WoS): 4

H-Index (Scopus): 8

## **Non Academic Experience**

Sabancı Üniversitesi, Doktora sonrası arařtırmacı