

# Prof. Fatma TİRYAKİ

## Personal Information

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## Education Information

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Turkey 1987 - 1993

## Research Areas

Social Sciences and Humanities, Management, Quantitative Methods, Mathematics, Optimization, Natural Sciences

## Academic Titles / Tasks

Professor, Yildiz Technical University, Faculty Of Arts & Science, Department Of Mathemeatics, 2006 - Continues

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

- I. **Genetic Algorithm Optimization with Selection Operator Decider**  
Meniz B., Tiryaki F.  
Arabian Journal for Science and Engineering, 2024 (SCI-Expanded)
- II. **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)
- III. **A Fuzzy Approach Using Generalized Dinkelbach's Algorithm for Multiobjective Linear Fractional Transportation Problem**  
Cetin N., TİRYAKİ F.  
MATHEMATICAL PROBLEMS IN ENGINEERING, 2014 (SCI-Expanded)
- IV. **A compensatory fuzzy approach to multi-objective linear supplier selection problem with multiple-item**  
Ozkok B., TİRYAKİ F.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, no.9, pp.11363-11368, 2011 (SCI-Expanded)
- V. **Fuzzy portfolio selection using fuzzy analytic hierarchy process**  
TİRYAKİ F., Ahlatcioglu B.  
INFORMATION SCIENCES, vol.179, pp.53-69, 2009 (SCI-Expanded)
- VI. **Interactive fuzzy programming for decentralized two-level linear fractional programming (DTLLFP) problems**  
Ahlatcioglu M., Tiryaki F.  
OMEGA-INTERNATIONAL JOURNAL OF MANAGEMENT SCIENCE, vol.35, no.4, pp.432-450, 2007 (SCI-Expanded)
- VII. **Using analytic hierarchy process (AHP) in location selection for a yarn factory: A case study**  
Guner A. F., TIRYAKI F., AKKAYA G.  
INTERNATIONAL JOURNAL OF INDUSTRIAL ENGINEERING-THEORY APPLICATIONS AND PRACTICE, vol.13, no.4,

pp.334-340, 2006 (SCI-Expanded)

- VIII. **Fuzzy stock selection using a new fuzzy ranking and weighting algorithm**  
Tiryaki F., Ahlatcioglu M.  
APPLIED MATHEMATICS AND COMPUTATION, vol.170, no.1, pp.144-157, 2005 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Genetic algorithm approach to asymmetric capacitated vehicle routing: A case study on bread distribution in Istanbul, Türkiye**  
Meniz B., Tiryaki F.  
DECISION SCIENCE LETTERS, vol.13, no.3, pp.605-616, 2024 (ESCI)
- II. **SOLVING THE MULTI-OBJECTIVE FRACTIONAL SOLID TRANSPORTATION PROBLEM BY USING DIFFERENT OPERATORS**  
Kara N., TIRYAKI F.  
Journal of Mathematical Sciences (United States), 2024 (Scopus)
- III. **Using some fuzzy aggregation operators for multi objective linear transportation problem**  
Köçken H., Tiryaki F.  
SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BILIMLERI DERGISI, vol.32, no.4, pp.399-421, 2014 (ESCI)
- IV. **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)
- V. **A Hierarchical Supply Chain Planning Model for a Perishable Item with Stochastic Lifetime**  
GÜNAY AKDEMİR H., TIRYAKI F.  
Balkan Journal of Mathematics, pp.1-15, 2013 (Peer-Reviewed Journal)
- VI. **Bilevel Stochastic Transportation Problem with Exponentially Distributed Demand**  
TIRYAKI F.  
Bitlis Eren University Journal of Science and Technology, vol.2, no.1, pp.32-37, 2012 (Peer-Reviewed Journal)
- VII. **İki Seviyeli Kesikli Stokastik Taşıma Problemi Elektronik Meslek Yüksekokulları Dergisi Cilt 1 Sayı 1 Aralık 2011 Sayfa 198 210 ISSN 2146 7684**  
GÜNAY AKDEMİR H., TIRYAKI F.  
Elektronik Meslek Yüksekokulları Dergisi, vol.1, no.1, pp.198-210, 2011 (Peer-Reviewed Journal)
- VIII. **İki Seviyeli Kesikli Stokastik Taşıma Problemi**  
TIRYAKI F.  
Elektronik Meslek Yüksekokulları Dergisi, vol.1, no.1, pp.198-210, 2011 (Peer-Reviewed Journal)
- IX. **The Use of Data Envelopment Analysis for Stocks Selection on Istanbul Stock Exchange**  
TIRYAKI F.  
İstanbul Üniversitesi İşletme Fakültesi Dergisi, vol.30, no.2, pp.29-51, 2001 (Peer-Reviewed Journal)
- X. **Being linearization objective cutting plane algorithm for the pure integer linear fractional programming problem**  
AHLATCIOĞLU M., TIRYAKI F.  
Journal of Institute of Mathematics & Computer Sciences (Computer Science Series), vol.12, no.2, pp.219-226, 2001 (Peer-Reviewed Journal)
- XI. **Pazarlık Kümeleri Yoluyla Çok Amaçlı Lineer Programlama ÇALP Problemine Ağırlık Bularak Çözüm Öneren Etkileşimli Bir Yöntem**  
AHLATCIOĞLU M., TIRYAKI F.  
Marmara Üniversitesi Fen Bilimleri Enstitüsü Dergisi, no.16, pp.147-161, 2000 (Peer-Reviewed Journal)
- XII. **Pür Tamsayılı Lineer Kesirli Programlama Problemi İçin Lineerleştirilmiş Amaç Kesen Düzlem Algoritması**

AHLATCIOĞLU M., TİRYAKİ F.

Y.T.Ü. Dergisi, vol.1, pp.1-9, 1999 (Peer-Reviewed Journal)

XIII. **Çok Amaçlı Lineer Kesirli Programlama Problemi Çözümüne Analitik Hiyerarşi Yaklaşımı**

AHLATCIOĞLU M., TİRYAKİ F.

Yıldız Teknik Üniversitesi Dergisi, vol.1, pp.68-76, 1998 (Peer-Reviewed Journal)

XIV. **Using Fuzzy Linear Regression to Estimate Relationship between Forest Fires and Meteorological Conditions**

TİRYAKİ F.

APPLICATIONS AND APPLIED MATHEMATICS-AN INTERNATIONAL JOURNAL, 1 (ESCI)

### **Papers Published in Refereed Scientific Meetings**

- I. **Genetik Algoritmada Yeni Bir Seçilim Yaklaşımı Ve Kapasiteli Araç Rotalama Problemi Örneklemesi**  
Meniz B., Tiryaki F.  
42. YÖNEYLEM ARAŞTIRMASI VE ENDÜSTRİ MÜHENDİSLİĞİ ULUSAL KONGRESİ, Gaziantep, Turkey, 1 - 03 November 2023, pp.96
- II. **Mobile app evaluation application with AHP method based on interval type-2 fuzzy sets**  
Meniz B., Tiryaki F.  
5th International Conference on Analysis and Applied Mathematics, ICAAM 2020, Mersin, Turkey, 23 - 30 September 2020, vol.2325
- III. **INTERVAL TYPE-2 FUZZY AHP METHOD WITH MULTILEVEL HIERARCHICAL STRUCTURE: AN APPLICATION ON CAR SELECTION**  
Meniz B., Tiryaki F.  
3. ULUSLARARASI İSTATİSTİK MATEMATİK VE ANALİTİK YÖNTEMLER KONGRESİ, İstanbul, Turkey, 12 - 13 March 2020, pp.54
- IV. **A RISK ASSESSMENT APPLICATION COMPARISON WITH INTERVAL TYPE-2 FUZZY TOPSIS METHOD**  
Meniz B., Tiryaki F.  
3. ULUSLARARASI İSTATİSTİK MATEMATİK VE ANALİTİK YÖNTEMLER KONGRESİ, İstanbul, Turkey, 12 - 13 March 2020, pp.53
- V. **Using some fuzzy aggregation operators for Multi-Objective Linear Transportation Problem**  
Köçken H., Tiryaki F.  
International Conference on Applied Analysis and Algebra (ICAAA 2011), İstanbul, Turkey, 29 June - 02 July 2011, pp.250
- VI. **Using some fuzzy aggregation operators for Multi-Objective Linear Transportation Problem**  
TİRYAKİ F.  
ICAAA 2011, 01 July 2011
- VII. **Bulanık En Kısa Yol Problemi ve Bir Uygulama**  
KÖÇKEN H., TİRYAKİ F.  
Yöneylem Araştırması ve Endüstri Mühendisliği 2008 (YA/EM'2008) 28. Ulusal Kongresi, Turkey, 1 - 04 July 2008
- VIII. **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
- IX. **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
- X. **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
- XI. **A Compensatory Fuzzy Approach to Multiobjective Solid Transportation Problem**  
Tiryaki F., Köçken H.

Mathematical Methods in Engineering International Symposium (MME-06), Ankara, Turkey, 27 - 29 April 2006, pp.1-10

- XII. **A Compensatory Fuzzy Approach to Multiple Objective Linear Transportation Problem**  
Tiryaki F., Köçken H.  
Innovations in Intelligent Systems and Applications, INISTA'2005, İstanbul, Turkey, 15 - 18 October 2005, pp.79-82
- XIII. **Fuzzy Stock Selection using Fuzzy Analytic Hierarchy Process**  
Tiryaki F., ÖZKÖK B.  
IFORS Triennial 2005 Conference, 11 July 2005
- XIV. **Bulanık Fiyat, Arz ve Talep Miktarlı Çok Amaçlı Lineer Taşıma Problemine Bir Dengeleyici Yaklaşım**  
Tiryaki F., ÖZKÖK B., Gönce H.  
Yöneylem Araştırması ve Endüstri Mühendisliği 2005 (YA/EM 2005) 25. Ulusal Kongresi, İstanbul, Turkey, 04 July 2005, pp.54
- XV. **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
- XVI. **An Application of the Analytic Hierarchy Process to Location Selection.**  
AKKAYA G., GÜNERİ A. F., TİRYAKİ F.  
5th EURO/INFORMS Joint International Meeting, İstanbul, Turkey, 6 - 10 July 2003

## Supported Projects

TİRYAKİ F., MENİZ B., Project Supported by Higher Education Institutions, Dinamik Yapıda Yeni Bir Genetik Algoritma Önerisi: Seçim Operatörü Kararlı Genetik Algoritma (SOKGA) ve Asimetrik Kapasiteli Araç Rotalama Problemi Üzerine Bir Uygulama, 2023 - 2024

## Metrics

Publication: 39

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