

## Assoc. Prof. Şükran ŞEKER

### Personal Information

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### International Researcher IDs

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Yoksis Researcher ID: 106904

### Education Information

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Turkey 2007 - 2013

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Turkey 2005 - 2007

Undergraduate, Yildiz Technical University, Faculty Of Mechanical Engineering, Turkey 2001 - 2004

### Dissertations

Doctorate, Multi-purpose design of mixed model assembly line, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, 2013

Postgraduate, Vehicle routing problems and genetic algorithm approach for time window stochastic vehicle routing problem, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, 2007

### Research Areas

Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, 2020 - Continues

Assistant Professor, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, 2018 - 2020

Research Assistant, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Industry Engineering, 2005 - 2018

### Courses

#### Postgraduate

Research Methods and Scientific Ethics, Postgraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2021 - 2022

Decision Making Under Risk and Uncertainty, Postgraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022

#### Undergraduate

Production Systems, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020

Multi-Criteria Decision Making, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021

## Supervised Theses

- Şeker Ş., Heuristic Model Proposal and Application Based on Fuzzy Logic, Doctorate, A.TURGUT(Student), Continues
- Şeker Ş., Analysis using multi-criteria decision-making method to prevent hazards occurring during the collection of Medical Wastes, Doctorate, B.YENİSARI(Student), Continues
- Şeker Ş., A New Fuzzy Logic-Stochastic Model Approach and Application, Doctorate, Y.EMRE(Student), Continues
- Aydın N., Şeker Ş., MEDICINE DISTRIBUTION WITH AIR VEHICLES: AN APPLICATION, Postgraduate, B.Sadiç(Student), 2022
- Şeker Ş., Customer segmentation and profitability prediction with machine learning methods in the banking sector, Postgraduate, E.ÇİRA(Student), 2022
- Şeker Ş., A model proposal for the transition for recycling systems in water consumption of public areas in Bolu province, Postgraduate, F.BETÜL(Student), 2022
- Şeker Ş., Quality function deployment analysis using Fermatean fuzzy numbers: An example application in the telecommunication industry, Postgraduate, Ö.CEM(Student), 2022
- Şeker Ş., Predicting online educational institution sales with the help of machine learning and examining the impact of the COVID-19 pandemic, Postgraduate, M.TÜRKMEN(Student), 2021
- Şeker Ş., Bankaların sermaye yeterliliği hesaplamalarında operasyonel risk ve Türkiye'deki bankaların operasyonel riske bakışı, Postgraduate, B.HAN(Student), 2019

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

- I. **Multi-Objective Optimization of Car Sharing Points Under Uncertainty for Sustainable Transportation**  
AYDIN N., ŞEKER Ş., Deveci M.  
IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT, vol.71, pp.1959-1968, 2024 (SCI-Expanded)
- II. **Evaluation of agile attributes for low-cost carriers to achieve sustainable development using an integrated MCDM approach**  
ŞEKER Ş.  
Management Decision, 2024 (SSCI)
- III. **Spherical Fuzzy Present Worth Analysis Method for Emergency Hospital Investment Analysis**  
Bolturk E., Şeker Ş.  
IEEE TRANSACTIONS ON ENGINEERING MANAGEMENT, vol.70, no.8, pp.2891-2902, 2023 (SCI-Expanded)
- IV. **A linear programming-based QFD methodology under fuzzy environment to develop sustainable policies in apparel retailing industry**  
AYDIN N., ŞEKER Ş., Deveci M., Ding W., Delen D.  
Journal of Cleaner Production, vol.387, 2023 (SCI-Expanded)
- V. **Fermatean fuzzy based Quality Function Deployment methodology for designing sustainable mobility hub center**  
ŞEKER Ş., AYDIN N.  
Applied Soft Computing, vol.134, 2023 (SCI-Expanded)
- VI. **Risk assessment approach for analyzing risk factors to overcome pandemic using interval-valued q-rung orthopair fuzzy decision making method**  
ŞEKER Ş., Bağlan F. B., AYDIN N., Deveci M., Ding W.  
Applied Soft Computing, vol.132, 2023 (SCI-Expanded)
- VII. **A new risk assessment framework for safety in oil and gas industry: Application of FMEA and BWM based picture fuzzy MABAC**  
AYDIN N., ŞEKER Ş., ŞEN C.

- VIII. **IoT based sustainable smart waste management system evaluation using MCDM model under interval-valued q-rung orthopair fuzzy environment**  
ŞEKER Ş.  
Technology in Society, vol.71, 2022 (SSCI)
- IX. **A Novel Risk Assessment Approach Using a Hybrid Method Based On Fine-Kinney and Extended MCDM Methods Under Interval-Valued Intuitionistic Fuzzy Environment**  
ŞEKER Ş.  
International Journal of Information Technology and Decision Making, vol.21, no.5, pp.1591-1616, 2022 (SCI-Expanded)
- X. **A Pythagorean cubic fuzzy methodology based on TOPSIS and TODIM methods and its application to software selection problem**  
ŞEKER Ş., Kahraman C.  
SOFT COMPUTING, vol.26, no.5, pp.2437-2450, 2022 (SCI-Expanded)
- XI. **Planning Location of Mobility Hub for Sustainable Urban Mobility**  
Aydın N., Şeker Ş., Özkan B.  
SUSTAINABLE CITIES AND SOCIETY, no.81, pp.1-14, 2022 (SCI-Expanded)
- XII. **A new model for risk assessment in glass manufacturing using Risk Matrix based IVIF-TOPSIS method**  
Şeker Ş.  
Journal Of Intelligent & Fuzzy Systems, vol.42, pp.541-550, 2022 (SCI-Expanded)
- XIII. **Assessment of hydrogen production methods via integrated MCDM approach under uncertainty**  
ŞEKER Ş., AYDIN N.  
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.47, no.5, pp.3171-3184, 2022 (SCI-Expanded)
- XIV. **Socio-economic evaluation model for sustainable solar PV panels using a novel integrated MCDM methodology: A case in Turkey**  
Şeker Ş., Kahraman C.  
Socio-Economic Planning Sciences, vol.77, 2021 (SCI-Expanded)
- XV. **Determining the location of isolation hospitals for COVID-19 via Delphi-based MCDM method**  
AYDIN N., ŞEKER Ş.  
INTERNATIONAL JOURNAL OF INTELLIGENT SYSTEMS, vol.36, no.6, pp.3011-3034, 2021 (SCI-Expanded)
- XVI. **Integration of Fuzzy AHP with Other Fuzzy Multicriteria Methods: A State of the Art Survey**  
Kahraman C., Çevik Onar S., Öztayşi B., Şeker Ş., Karaşan A.  
Journal Of Multiple-Valued Logic And Soft Computing, vol.95, pp.61-92, 2020 (SCI-Expanded)
- XVII. **WASPAS based MULTIMOORA method under IVIF environment for the selection of hub location**  
Aydın N., Şeker Ş.  
Journal of Enterprise Information Management, vol.33, pp.1233-1256, 2020 (SSCI)
- XVIII. **Hydrogen production facility location selection for Black Sea using entropy based TOPSIS under IVPF environment**  
Şeker Ş., Aydın N.  
International Journal of Hydrogen Energy, vol.45, pp.15855-15868, 2020 (SCI-Expanded)
- XIX. **Sustainable Public Transportation System Evaluation: A Novel Two-Stage Hybrid Method Based on IVIF-AHP and CODAS**  
Şeker Ş., Aydın N.  
INTERNATIONAL JOURNAL OF FUZZY SYSTEMS, vol.22, pp.257-272, 2020 (SCI-Expanded)
- XX. **A novel interval-valued intuitionistic trapezoidal fuzzy combinative distance-based assessment (CODAS) method**  
Şeker Ş.  
SOFT COMPUTING, vol.24, pp.2287-2300, 2020 (SCI-Expanded)
- XXI. **A novel integrated MCDM approach: An application for selection of the optimal Fiber optical access network strategy**

- Şeker Ş.  
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.38, pp.565-575, 2020 (SCI-Expanded)
- XXII. **Passenger Satisfaction Evaluation of Public Transportation in Istanbul by Using Fuzzy Quality Function Deployment Methodology**  
Bilişik Ö. N., Şeker Ş., Aydın N., Güngör N., Baraçlı H.  
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.44, pp.2811-2824, 2019 (SCI-Expanded)
- XXIII. **Water treatment technology selection using hesitant Pythagorean fuzzy hierachical decision making**  
Öztayşi B., Onar S. C., Şeker Ş., Kahraman C.  
JOURNAL OF INTELLIGENT & FUZZY SYSTEMS, vol.37, pp.867-884, 2019 (SCI-Expanded)
- XXIV. **Application of Fuzzy DEMATEL Method for Analyzing Occupational Risks on Construction Sites**  
Şeker Ş., Zavadskas E. K.  
SUSTAINABILITY, vol.9, 2017 (SCI-Expanded)
- XXV. **A combined DEMATEL and grey system theory approach for analyzing occupational risks: A case study in Turkish shipbuilding industry**  
Şeker Ş., Recal F., Basligil H.  
HUMAN AND ECOLOGICAL RISK ASSESSMENT, vol.23, pp.1340-1372, 2017 (SCI-Expanded)
- XXVI. **A Weighted Multiobjective Optimization Method for Mixed-Model Assembly Line Problem**  
Şeker Ş., Ozgurler M., Tanyas M.  
JOURNAL OF APPLIED MATHEMATICS, 2013 (SCI-Expanded)
- XXVII. **A fuzzy ANP approach to shipyard location selection**  
Güneri A. F., Cengiz M., Şeker Ş.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.36, pp.7992-7999, 2009 (SCI-Expanded)
- XXVIII. **The use of Arena simulation programming for decision making in a workshop study**  
Güneri A. F., Seker Ş.  
COMPUTER APPLICATIONS IN ENGINEERING EDUCATION, vol.16, pp.1-11, 2008 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Analyzing occupational risks of pharmaceutical industry under uncertainty using a Bow-Tie analysis**  
Şeker Ş.  
An International Journal of Optimization and Control: Theories Applications (IJOCTA), vol.9, no.2, 2019 (Peer-Reviewed Journal)
- II. **Analysis of the Turkish Consumer Electronics Firm using SWOT-AHP Method**  
Şeker Ş., Özgürler M.  
Procedia - Social and Behavioral Sciences, vol.58, pp.1544-1554, 2012 (Peer-Reviewed Journal)

## Books

- I. **Future of Digital Transformation**  
HAKTANIR AKTAŞ E., KAHRAMAN C., ŞEKER Ş., DOĞAN O.  
in: Intelligent Systems in Digital Transformation, Kahraman Cengiz, Haktanır Elif, Editor, Springer, pp.611-638, 2022
- II. **Fuzzy Quality Function Deployment Method for Smart Phone Product Design**  
Şeker Ş.  
in: Customer Oriented Product Design, Cengiz Kahraman, Selçuk Cebi, Editor, Springer, London/Berlin , Aarau, pp.57-71, 2020
- III. **Assessing Customer Preferences on a New Design of Refrigerator Using Conjoint Analysis**  
Aydın N., Şeker Ş.  
in: Customer Oriented Product Design. Studies in Systems, Decision and Control, Kahraman C., Cebi S, Editor,

Springer, London/Berlin , Aarau, pp.417-428, 2020

**IV. BATI ÜLKELERİNDE RİSK VE KRİZ YÖNETİMİ ÖRNEKLERİ**

Şeker Ş.

in: AFETLERDE RİSK VE KRİZ YÖNETİMİ, Selcuk Cebi, Editor, Atatürk Üniversitesi, Erzurum, pp.1-21, 2017

**Papers Published in Refereed Scientific Meetings**

- I. **Şubat 2023 Depremlerinin Bölgede Oluşturduğu Etkiler ve Yapay Zeka ile Afet Yönetim Planlaması**  
Doğan U., Yüzer N., Acar U., Akbaba M. F., Akbulut M. T., Akgün C., Akın O., Akkaya H. C., Akpınar B., Aktaş Z., et al.  
Türkiye Ulusal Jeodezi Komisyonu (TUJK) XXII. Sempozyumu 2023, Trabzon, Turkey, 29 November - 01 December 2023, pp.5-6
- II. **Prediction of the Solar Radiation by using Machine Learning Algorithms**  
Yazıcı K., Geçici E., Şeker Ş.  
3rd International Symposium of Scientific Research and Innovative Studies, Balıkesir, Turkey, 15 - 18 March 2023, pp.258-268
- III. **Evaluation Model for Supply Chain Agility in a Fuel Oil Supply Company**  
ŞEKER Ş.  
4th International Conference on Intelligent and Fuzzy Systems (INFUS), Bornova, Turkey, 19 - 21 July 2022, vol.505, pp.199-207
- IV. **HAVA ARAÇLARI İLE İLAÇ DAĞITIMI: BİR UYGULAMA**  
Sadıç B., Aydın N., Şeker Ş.  
8th International Congress on Engineering, Architecture and Design, İstanbul, Turkey, 6 - 07 December 2021, pp.415-424
- V. **BOLU İLİ KAMU ALANLARININ SU TÜKETİMLERİNDE GERİ DÖNÜŞÜM SİSTEMLERİNE GEÇİŞ SÜRECİ İÇİN BİR MODEL ÖNERİSİ**  
BAĞLAN F. B., ŞEKER Ş., AYDIN N.  
8th International Congress on Engineering, Architecture and Design, İstanbul, Turkey, 06 December 2021
- VI. **Risk Matrix Technique Based Fuzzy MCDM Risk Assessment Method and Application in Glass Industry**  
Şeker Ş.  
International Conference on Intelligent and Fuzzy Systems, INFUS 2020, İstanbul, Turkey, 21 - 23 July 2020, pp.1336-1344
- VII. **Site Selection for Solar Power Plants Using Integrated Two-stage Hybrid Method based on Intuitionistic Fuzzy AHP COPRAS approach**  
ŞEKER Ş.  
INFUS: International Conference on Intelligent and Fuzzy Systems, 23 - 25 July 2019
- VIII. **Fuzzy AHP-QFD methodology and its application to Retail Chain**  
ŞEKER Ş.  
INFUS: International Conference on Intelligent and Fuzzy Systems, 23 - 25 July 2019
- IX. **Application of Fuzzy Based VIKOR Approach for Multi Criteria Decision Making (MCDM): A Case Study for Air Traffic Control (ATC) Simulation Software Selection**  
ŞEKER Ş.  
4TH INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING, 19 - 21 December 2018
- X. **AN OCCUPATIONAL RISK ASSESMENT METHOD FOR FIBEROPTIC CABLE INSTALLATION**  
ŞEKER Ş.  
The 14th International Symposium on Operational Research in Slovenia Bled, SLOVENIA, 27 - 29 September 2017
- XI. **Multi Criteria Decision Making For Selection of Renewable Energy Sources**  
ŞEKER Ş.  
International Congress of the New Approaches and Technologies for Sustainable Development, 21 - 24 September 2017

- XII. **Multi-Criteria Decision-Making For Selection of Environmentally Friendly Supplier**  
ŞEKER Ş.  
International Congress of the New Approaches and Technologies for Sustainable Development, 21 - 24 September 2017
- XIII. **Interval Type 1 Fuzzy DEMATEL Method for Analyzing Occupational Risks in Construction Industry**  
ŞEKER Ş.  
16th International Conference on Operational Research KOI 2016, 27 - 29 September 2016
- XIV. **MANAGING SUPPLY CHAIN SUSTAINABILITY AND RISKS A REAL CASE STUDY IN TURKEY**  
ŞEKER Ş.  
International Conference on Sustainable Development, 19 - 23 October 2016
- XV. **Determining the Level of Safety Awareness of Workers in Textile Industry**  
Elçin A. E., ŞEKER Ş., Özdemir Y., BİLEN Ö., Başlıgil H.  
8 th International Conference on Occupational Safety Health, 8 - 11 May 2016
- XVI. **Solving The Multi Depot Vehicle Routing Problem With Assignment Algorithm**  
ŞEKER Ş., GÜNERİ A. F., ERMİŞ G.  
13th International Research/Expert Conference, 16 - 21 October 2009
- XVII. **Multi Criteria Decision Making For Logistics Information System Selection**  
ŞEKER Ş., GÜNERİ A. F.  
13th International Research/Expert Conference, TMT 2009, Hammamet, 16 - 21 October 2009
- XVIII. **Bulanık AHP Yöntemi Kullanılarak Tedarikçi Seçimi**  
ŞEKER Ş., GÜNERİ A. F., ERMAN D.  
2. Ulusal Sistem Mühendisliği Kongresi, Turkey, 6 - 08 February 2008
- XIX. **Araç Rotalama Problemlerinin Lineer Programlama Çözülmesi**  
ŞEKER Ş., GÜNERİ A. F., ZOR F.  
2. Ulusal Sistem Mühendisliği Kongresi, Turkey, 6 - 08 February 2008
- XX. **Mixed Model Assembly Line Balancing And Assembly Sequence Selection,**  
ŞEKER Ş., Özgürler M.  
15th International Research/Expert Conference
- XXI. **Supplier Selection Using Fuzzy Extended Analytical Hierarchy Process**  
ŞEKER Ş., Güneri A. F.  
5th International Logistics & Supply Chain Congress
- XXII. **Optimization of a real world Disassembly Problem**  
ŞEKER Ş., Özgürler M.  
EURO|INFORMS 26TH EUROPEAN CONFERENCE ON OPERATIONAL RESEARCH
- XXIII. **An Optimization Method for Solving Assembly Line Balancing Problem**  
ŞEKER Ş., Özgürler M.  
24 th European Conference on Operation Research, Euro XXIV
- XXIV. **Project Management Methodology Selection Using SWOT-Fuzzy AHP**  
Tuzkaya U. R., ŞEKER Ş.  
World Congress On Engineering, 2014
- XXV. **Assembly System Selection Case Study**  
ŞEKER Ş., Özgürler M.  
14th International Research/Expert Conference, Mediterranean
- XXVI. **A Review Of Literature On Mixed-Model Assembly Line Balancing Problem**  
ŞEKER Ş., Özgürler M.  
7th International Logistics & Supply Chain Congress
- XXVII. **A Small World Optimization for Multiple Objects Optimization of Mixed-Model Assembly Line Problem with Parallel Machine**  
ŞEKER Ş., Özgürler M.  
Uncertainty Modeling in Knowledge Engineering and Decision Making Proceedings of the 10th International FLINS Conference

- XXVIII. **Araç Rotalama Problemleri için Lineer Programlama**  
ŞEKER Ş.  
2. Ulusal Sistem Mühendisliği Kongresi
- XXIX. **Multi Criteria Decision Making For Logistics Information System Selection**  
ŞEKER Ş., Özgürler M.  
13th International Research/Expert Conference
- XXX. **Bulanık Analitik Hiyerarşi Prosesi ile Tedarikçi Seçimi**  
ŞEKER Ş.  
2. Ulusal Sistem Mühendisliği Kongresi

## Supported Projects

Geçici E., Şeker Ş., Aydın N., Tuzkaya U. R., Project Supported by Other Official Institutions, Bileşim A.Ş. Operasyonel Süreçlerin Tanımlanması, Süreç İyileştirme Çalışmalarına Dair Ar-Ge Faaliyetleri Yapılması ve Süreç Yönetim Sisteminin Ar-Ge Temelinde Kurgulanması, 2023 - 2024

Aydın N., Şeker Ş., Project Supported by Higher Education Institutions, 06 February 2023 Preliminary Evaluation of the Effects of Pazarcık and Elbistan Earthquakes with Multidisciplinary Research - Hatay Province Example, 2023 - 2024

Edalı M., Aydın N., Özkaya B., Hacı M., Özügül M. D., Demir Ö., Saraçoğlu A., Bakırman T., Alp S., Şeker Ş., et al., Ministry of Transport, Sürdürülebilir ve Akıllı Hareketlilik Stratejisi ve Eylem Planının Oluşturulması, 2021 - 2023

Şeker Ş., Project Supported by Higher Education Institutions, Structural Design and Shock Analyzes of Steering System and Ceiling Type Davit within the Scope of Pakistan Milgem Project, 2021 - 2022

ŞEKER Ş., Bağlan F. B., AYDIN N., Project Supported by Higher Education Institutions, Bolu İli Kamu Alanlarının Su Tüketimlerinde Geri Dönüşüm Sistemlerine Geçiş Süreci İçin Bir Model Önerisi, 2021 - 2022

AYDIN N., Sadiç B., ŞEKER Ş., Project Supported by Higher Education Institutions, Hava Araçları ile İlaç Dağıtımı: Bir Uygulama, 2021 - 2022

## Metrics

Publication: 68  
Citation (WoS): 259  
Citation (Scopus): 741  
H-Index (WoS): 7  
H-Index (Scopus): 17