# Asst. Prof. ERDİ DAŞDEMİR

## Personal Information

**Office Phone:** +90 312 297 8950 Extension: 117
**Fax Phone:** +90 312 297 8953
**Email:** edasdemir@hacettepe.edu.tr
**Other Email:** erdidasdemir@gmail.com
**Web:** https://www.erdidasdemir.com
**Address:** Hacettepe Üniversitesi, Endüstri Mühendisliği Bölümü, Beytepe

**International Researcher IDs**
ORCID: 0000-0003-3277-4177
Yoksis Researcher ID: 110885

## Biography

I am a Ph.D. in Operations Research and an assistant professor in the Department of Industrial Engineering, Hacettepe University. I had my Ph.D. degree (2021) from the Industrial Engineering Department of METU 2021, and received my B.S. (2013) and M.S. (2015) degrees in the same field from Hacettepe University. In 2019, I worked as a visiting researcher in the Applied Operations Research Lab of the Department of Industrial and Systems Engineering of the University at Buffalo, US.

I do research in data science with a focus on mathematical optimization, multi-objective programming, and evolutionary algorithms. The main application areas of my research are the routing problems of manned and unmanned vehicles, and supply chain problems. I have publications in well-known academic journals. I have attended and given talks at more than fifteen international conferences. I am also actively cooperating as a consultant with partners from the business world on their optimization and data science problems.

In terms of programming skills, I have been using the R programming platform for a variety of projects for over eight years. I've been coding in Python for the past two years. I have hands-on experience with HTML/CSS, PHP, SQL, and JavaScript languages. I mostly use LATEX for preparing documents, especially manuscripts. I have been using the GUROBI solver extensively for mathematical optimization.

If you have any questions, please feel free to visit www.erdidasdemir.com for more information about me or contact me at edasdemir@hacettepe.edu.tr.

## Education Information

Doctorate, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Industrial Engineering, Turkey 2015 - 2021
Postgraduate, Hacettepe University, Fen Bilimleri Esntitüsü, Endüstri Mühendisliği Bölümü, Turkey 2013 - 2015
Undergraduate, Hacettepe University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, Turkey 2008 - 2013

## Foreign Languages

English, C1 Advanced

## Dissertations

Doctorate, Preference-based Heuristics to Bi-objective UAV Route Planning, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Industrial Engineering, 2021

Postgraduate, Phase I analysis of variables type correlated data, Hacettepe Üniversitesi, Fen Bilimleri Enstitüsü, Endüstri Mühendisliği (Yl), 2015

## Research Areas

Simulation and Modelling, Industrial Engineering, Stochastic Modeling, Optimization Theory and Methods, Multiobjective Optimization, Linear Programming, Heuristic Methods, Integer and Mixed Integer Programming, Multi Criteria Decision Making, Supply Chain and Logistics Management, Optimization, Engineering and Technology

## Academic Titles / Tasks

Assistant Professor, Hacettepe University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, 2022 - Continues

Research Assistant, Hacettepe University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, 2013 - 2021

Researcher, State University of New York at Buffalo, School of Engineering and Applied Sciences, 2019 - 2019

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

I. **Bi-objective parameter setting problem of a genetic algorithm: an empirical study on traveling salesperson problem**
Akduran Y., DAŞDEMİR E., TESTİK M. C.
Applied Intelligence, vol.53, no.22, pp.27148-27162, 2023 (SCI-Expanded)

II. **UAV routing for reconnaissance mission: A multi-objective orienteering problem with time-dependent prizes and multiple connections**
Daşdemir E., Batta R., Köksalan M., Tezcaner Öztürk D.
COMPUTERS & OPERATIONS RESEARCH, vol.145, 2022 (SCI-Expanded)

III. **A Multi-objective open vehicle routing problem with overbooking: Exact and heuristic solution approaches for an employee transportation problem**
Daşdemir E., Testik M. C., Tezcaner Öztürk D., Tuncer Şakar C., Güleryüz G., Testik Ö. M.
OMEGA, vol.108, pp.1-16, 2022 (SCI-Expanded)

IV. **A flexible reference point-based multi-objective evolutionary algorithm: An application to the UAV route planning problem**
DAŞDEMİR E., Koksalan M., TEZCANER ÖZTÜRK D.
COMPUTERS & OPERATIONS RESEARCH, vol.114, 2020 (SCI-Expanded)

V. **Selecting Health Care Improvement Projects: A Methodology Integrating Cause-and-Effect Diagram and Analytical Hierarchy Process**
TESTİK Ö. M., SHAYGAN A., DAŞDEMİR E., SOYDAN G.
QUALITY MANAGEMENT IN HEALTH CARE, vol.26, no.1, pp.40-48, 2017 (SCI-Expanded)

VI. **Evaluation of Phase I analysis scenarios on Phase II performance of control charts for autocorrelated observations**
DAŞDEMİR E., WEISS C., TESTİK M. C., KNOTH S.
QUALITY ENGINEERING, vol.28, no.3, pp.293-304, 2016 (SCI-Expanded)

## Articles Published in Other Journals

I. **Unmanned Aerial Vehicle Information Collection Missions with Uncertain Characteristics**
Moskal M. D., DAŞDEMİR E., Batta R.
INFORMS Journal on Computing, vol.35, no.1, pp.120-137, 2023 (Scopus)


# Refereed Congress / Symposium Publications in Proceedings

I. **UAV Routing to Maximize Information Gain in a Monitored Environment with Time and Radar Restrictions**
Daşdemir E., Batta R., Köksalan M., Tezcaner Öztürk D.
INFORMS Annual Meeting 2019, Washington, United States Of America, 13 - 16 November 2019, pp.1

II. **A Preference-Based Multi-Objective Evolutionary Algorithm Based Solution Approach to Bi and Three-Objective UAV Route Planning Problems in Continuous Space**
Daşdemir E., Tezcaner Öztürk D., Köksalan M.
MCDM 2019 - 25th International Conference on Multiple Criteria Decision Making, İstanbul, Turkey, 16 - 21 June 2019, pp.1

III. **Multi-objective Routing of UAVs**
Daşdemir E., Batta R., Tezcaner Öztürk D., Köksalan M.
39. Yöneylem Araştırması ve Endüstri Mühendisliği Ulusal Kongresi, YAEM 2019, Ankara, Turkey, 12 - 14 June 2019, pp.1

IV. **A Multiobjective Evolutionary Approach to Employee Bus Transportation Problem**
DAŞDEMİR E., TESTİK M. C., TESTİK Ö. M., TUNCER ŞAKAR C.
International Conference on Advanced Technologies, Computer Engineering and Science (ICATCES 2018), Karabük, Turkey, 11 - 13 May 2018

V. **A Preference-Based Evolutionary Algorithm and Implementation on UAV Route Planning in Continuous Space**
DAŞDEMİR E., TEZCANER ÖZTÜRK D., KÖKSALAN M. M.
24th International Conference on MCDM, 10 - 14 July 2017

VI. **Çok Kriterli İnsansız Hava Aracı Rota Planlama Problemi için bir Evrimsel Algoritma**
DAŞDEMİR E., TEZCANER ÖZTÜRK D., KÖKSALAN M. M.
YAEM 2017, Ankara, Turkey, 5 - 07 July 2017

VII. **A Preference Based Evolutionary Algorithm for Bi Objective UAV Route Planning in Continuous Space**
DAŞDEMİR E., TEZCANER ÖZTÜRK D., KÖKSALAN M. M.
INFORMS Annual Meeting 2016, Nashville, United States Of America, 13 - 16 November 2016

VIII. **A Preference based Multi objective Evolutionary Algorithm for Bi objective UAV Route Planning in Continuous Space**
DAŞDEMİR E., TEZCANER ÖZTÜRK D., KÖKSALAN M. M.
12th MCDA/M Summer School, Recife, Brazil, 18 - 29 July 2016

IX. **Phase I Analysis of Autocorrelated Time Series Data**
DAŞDEMİR E., WEISS C., TESTİK M. C., KNOTH S.
European Network for Business and Industrial Statistics (ENBIS) 14 Conference, Linz, Austria, 21 - 25 September 2014

X. **A Cause and Effect Diagram and AHP Based Methodology for Selection of Quality Improvement Projects**
TESTİK Ö. M., Shaygan A., DAŞDEMİR E.
European Network for Business and Industrial Statistics (ENBIS) 14 Conference, Linz, Austria, 21 - 25 September 2014

XI. **A Simulation Based Decision Support Tool For Hospital Bed Capacity Planning**
SÖNMEZ V., DAŞDEMİR E., TESTİK Ö. M., TESTİK M. C.
Global Conference on Healthcare Systems Engineering, 4 - 07 July 2014

XII. **Improving Hospital Billing Processes for Reducing Costs of Billing Errors**
Daşdemir E., Oğuz M. M., Atalay M., Bilgin V., Testik M. C., Soydan G.
European Network for Business and Industrial Statistics (ENBIS) 13 Conference, Ankara, Turkey, 15 - 19
September 2013, pp.1

## Supported Projects

TUNCER ŞAKAR C., DAŞDEMİR E., Project Supported by Higher Education Institutions, Tercih Tabanlı bir Evrimsel
Algoritma ve Sürekli Uzaydaki İnsansız Hava Aracı Rota Planlama Problemi Üzerine Uygulaması, 2017 - 2017
TUNCER ŞAKAR C., DAŞDEMİR E., Project Supported by Higher Education Institutions, Çok Kriterli İnsansız Hava Aracı
Rota Planlama Problemi için bir Evrimsel Algoritma, 2017 - 2017
CHOUSEİN OGLOU O., DAŞDEMİR E., Project Supported by Higher Education Institutions, Sürekli Arazide Hareket Eden
Hava Aracının İki Kriterli Rota Planlaması için Tercih Tabanlı Genetik Algoritmanın Geliştirilmesi, 2016 - 2017
TUNCER ŞAKAR C., DAŞDEMİR E., Project Supported by Higher Education Institutions, Otokorelasyonlu gözlemler için
Faz I analizi senaryolarının kontrol grafiklerinin Faz II performansı üzerindeki etkilerinin değerlendirilmesi, 2016 - 2017
Köksalan M., Tezcaner Öztürk D., Daşdemir E., Türeci H., Other International Funding Programs, Interactive Approaches
for Bi-Objective UAV Route Planning in Continuous Space, 2015 - 2017
Daşdemir E., TUBITAK Project, HACETTEPE ÜNİVERSİTESİ HASTANELERİ FATURALANDIRMA SÜRECİNİN
İYİLEŞTİRİLMESİYLE MALİ KAYIPLARIN AZALTILMASI, 2012 - 2013

## Scientific Refereeing

QUALITY AND RELIABILITY ENGINEERING INTERNATIONAL, SCI Journal, January 2021
SOCIO-ECONOMIC PLANNING SCIENCES, SCI Journal, July 2020
IISE TRANSACTIONS, SCI Journal, October 2019
MILITARY OPERATIONS RESEARCH, SCI Journal, July 2019

## Metrics

Publication: 19
Citation (WoS): 15
Citation (Scopus): 15
H-Index (WoS): 2
H-Index (Scopus): 2

## Scholarships

YUDAB, YOK, 2019 - 2019

## Non Academic Experience

BNB Ltd. Şti.