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Personal Information

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Education

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Turkey 2016 - 2023
Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Turkey 2014 - 2016
Undergraduate, Gazi University, Mühendislik Fakültesi, Turkey 2006 - 2011

Foreign Languages

English

Dissertations

Doctorate, Açık istasyonlu çok işçili montaj hattı dengeleme problemlerine yönelik yeni çözüm yaklaşımları, Gazi University, Fen Bilimleri Enstitüsü, 2023
Postgraduate, U tipi montaj hattı dengeleme problemlerinde üretim oranının artırılmasına yönelik yeni çözüm yaklaşımları, Gazi University, Fen Bilimleri Enstitüsü, 2016

Research Areas

Avesis Research Areas: Industrial Engineering
WoS Research Areas: Engineering
Scopus Research Areas: General Engineering

Academic Positions

Research Assistant, Manisa Celal Bayar University, 2014 - Present

Courses

Undergraduate

Finansal Yönetim, Undergraduate, 2025 - 2026
Operations Research III, Undergraduate, 2025 - 2026
Modern Sezgisel Yöntemler, Undergraduate, 2023-2024

Articles

I. **Minimizing customer waiting time in drone delivery systems: An optimization approach considering heterogeneous fleets and package setup time using modified coot algorithms**
ŞAHİN M.
INTERNATIONAL JOURNAL OF INDUSTRIAL ENGINEERING COMPUTATIONS, vol.17, no.1, pp.317-336, 2026 (SCI-Expanded, Scopus)

II. **Döngüsel ekonomi performansının dinamik etkinlik ve verimlilik analizi: Avrupa Birliği ülkeleri için VZA ve Malmquist endeksi uygulaması**
KAYGUSUZ B., ŞAHİN M., UÇAR U. Ü.
Bozok Journal of Engineering and Architecture, vol.5, no.1, pp.119-135, 2026 (Peer-Reviewed Journal)

III. **Modeling and analysis of the walking worker assembly line balancing problem considering worker-dependent task durations and walking times to increase production rate**
ŞAHİN M.
JOURNAL OF INDUSTRIAL AND MANAGEMENT OPTIMIZATION, vol.22, no.4, pp.1571-1608, 2026 (SCI-Expanded, Scopus)

IV. **Balancing Assembly Line with Moving Workers and Worker-Dependent Task Times Using Linear Programming Formulation**
Şahin M., Söylemez İ.
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, vol.15, no.1, pp.177-187, 2026 (TRDizin)

V. **The heterogeneous fleet drone delivery problem with total weighted lateness considerations: mathematical models and modified farmland fertility algorithm**
ŞAHİN M., YILDIZ E. A.
International Journal of Systems Science: Operations and Logistics, vol.12, no.1, 2025 (SCI-Expanded, Scopus)

VI. **Novel mathematical modelling approaches and a new lower bounding scheme for multi-manned assembly line balancing problems with walking workers**
ŞAHİN M., KELLEGÖZ T.
Computers and Industrial Engineering, vol.190, 2024 (SCI-Expanded, Scopus)

VII. **A constructive heuristic for the heterogeneous drone delivery problem that considers packages setups and battery capacity with the aim of minimizing weighted total waiting times of customers**
ŞAHİN M.
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, vol.12, no.3, pp.853-862, 2023 (TRDizin)

VIII. **Benders' decomposition based exact solution method for multi-manned assembly line balancing problem with walking workers**
ŞAHİN M., KELLEGÖZ T.
Annals of Operations Research, vol.321, no.1-2, pp.507-540, 2023 (SCI-Expanded, Scopus)

IX. **Balancing Multi-Manned Assembly Lines With Walking Workers: Problem Definition, Mathematical Formulation, and an Electromagnetic Field Optimisation Algorithm**
ŞAHİN M., KELLEGÖZ T.
International Journal of Production Research, vol.57, no.20, pp.6487-6505, 2019 (SCI-Expanded, Scopus)

X. **A new mixed-integer linear programming formulation and particle swarm optimization based hybrid heuristic for the problem of resource investment and balancing of the assembly line with multi-manned workstations**
ŞAHİN M., KELLEGÖZ T.
Computers and Industrial Engineering, vol.133, pp.107-120, 2019 (SCI-Expanded, Scopus)

XI. **Çok işçili montaj hatlarında istasyon ve kaynak yatırımı maliyetinin enküçüklenmesine yönelik**

tavlama benzetimi ve tam sayılı doğrusal programlamaya dayalı yeni bir algoritma
ŞAHİN M., KELLEGÖZ T., SÖYLEMEZ İ.
Dicle Üniversitesi Mühendislik Fakültesi Mühendislik Dergisi, vol.9, no.2, pp.727-739, 2018 (TRDizin)

XII. **Avrupa Ülkelerinin Çevre ve Enerji Performansına Yönelik Etkinlik Değerlendirmesi: Veri Zarflama Analizi Uygulaması**
AYDOĞAN S., ŞAHİN M., SÖYLEMEZ İ.
The International New Issues in Social Sciences, vol.5, no.5, pp.267-282, 2017 (Peer-Reviewed Journal)

XIII. **An efficient grouping genetic algorithm for U-shaped assembly line balancing problems with maximizing production rate**
ŞAHİN M., KELLEGÖZ T.
Memetic Computing, vol.9, no.3, pp.213-229, 2017 (SCI-Expanded, Scopus)

XIV. **Increasing production rate in U-type assembly lines with sequence-dependent set-up times**
ŞAHİN M., KELLEGÖZ T.
Engineering Optimization, vol.49, no.8, pp.1401-1419, 2017 (SCI-Expanded, Scopus)

Books

I. **Comparative Analysis of Crossover Operators in Genetic Algorithms for the Uncapacitated P-median Problem**
ŞAHİN M., SÖYLEMEZ İ.
in: International Studies in the Field of Engineering - December 2025, BARDAK SELAHATTİN, ZENK HİLMİ, Editor, Gece Kitaplığı, pp.159-169, 2025

II. **Hücresel İmalatta Parça-Makine Gruplarının Belirlenmesinde Gustafson Kessel ve Bulanık C Ortalamalar Yönteminin Etkinliğinin Karşılaştırılması**
ŞAHİN M.
in: Mühendislik Alanında Uluslararası Çalışmalar, ÖZALP COŞKUN, BARDAK SELAHATTİN, Editor, Serüven Yayınevi, pp.275-292, 2023

Papers Presented at Peer-Reviewed Scientific Conferences

I. **The impact of price forecasting and purchasing timing on costs in consumable material management**
ŞAHİN M.
19th International Conference on Engineering & Natural Sciences, Dubai, United Arab Emirates, 14 - 18 February 2026, pp.62-63, (Summary Text)

II. **A linear programming model for the heterogeneous drone fleet delivery problem considering setup times**
ŞAHİN M.
10th International Aegean Congress on Innovation Technologies & Engineering, İzmir, Turkey, 5 - 07 October 2024, (Summary Text)

III. **Heterojen filolu drone ile teslimat problemi üzerine karşılaştırmalı bir çalışma**
ŞAHİN M., YILDIZ E. A.
42. Yöneylem Araştırması ve Endüstri Mühendisliği Ulusal Kongresi, Gaziantep, Turkey, 1 - 03 November 2023, (Summary Text)

IV. **Towards sustainable last-mile delivery: A new variant of the drone delivery problem**
ŞAHİN M., YILDIZ E. A.
3rd International Symposium on Sustainable Logistics "Digitalization", Mersin, Turkey, 08 June 2023, (Summary Text)

V. **A literature review on sustainable airborne delivery**
YILDIZ E. A., ŞAHİN M.

21st International Logistics and Supply Chain Congress, Gaziantep, Turkey, 19 - 20 October 2023, (Summary Text)

VI. **VERİ ZARFLAMA ANALİZİ İLE AVRUPA ÜLKELERİNİN ÇEVRE VE ENERJİPERFORMANSLARININ ÖLÇÜLMESİ**
AYDOĞAN S., ŞAHİN M., SÖYLEMEZ İ.
III. ULUSLARARASI KAFKASYA ORTA ASYA DIŞ TİCARET VE LOJİSTİK KONGRESİ, Kastamonu, Turkey, 19 - 21 October 2017, pp.23, (Summary Text)

VII. **Çok İşçili Montaj Hatlarında Üretim Oranının Artırılması Ve Kaynak Maliyetinin Minimizasyonuna Yönelik Hibrid Tabu Arama Algoritması**
ŞAHİN M., KELLEGÖZ T.
18. Uluslararası Ekonometri, Yöneylem Araştırması Ve İstatistik Sempozyumu, Trabzon, Turkey, 5 - 07 October 2017, (Summary Text)

VIII. **Montaj Hattı Tasarımı Problemi İçin Tavlama Benzetimi Ve Doğrusal Programlamaya Dayalı Bir Algoritma**
ŞAHİN M., KELLEGÖZ T.
18. Uluslararası Ekonometri, Yöneylem Araştırması Ve İstatistik Sempozyumu, Trabzon, Turkey, 5 - 07 October 2017, (Summary Text)

IX. **Pallet Loading Problem: Literature Review and Research Topics**
KELLEGÖZ T., ÖZCAN U., İŞLEYEN S. K., Hakyemez S., DOĞAN A., ŞAHİN M.
International Conference on Research in Education and Science (ICRES), May 19-22, 2016, Muğla, Turkey, 19 May 2016, (Full Text)

X. **Balancing U Shaped Assembly Lines under Sequence Dependent Setup Times by using a Mathematical Programming Formulation**
ŞAHİN M., KELLEGÖZ T.
International Conference on Research in Education and Science (ICRES), May 19-22, 2016, Muğla, Turkey, 19 - 22 May 2016, (Full Text)

XI. **A Multi-Objective Decision Making Model for Class Selection Problem: A Case Study**
ŞAHİN M., KELLEGÖZ T., KÖKHAN S.
International Conference on Research in Education and Science (ICRES), May 19-22, 2016, Muğla, Turkey, 19 - 22 May 2016, (Full Text)

Metrics

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