

Asst. Prof. SENA AYDOĞAN

Personal Information

Office Phone: [+90 312 582 3845](tel:+903125823845)

Email: senaaydogan@gazi.edu.tr

Web: <https://avesis.gazi.edu.tr/senaaydogan>

Address: Gazi Üniversitesi, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, Maltepe, Ankara

International Researcher IDs

ScholarID: iYW1zr4AAAAJ

ORCID: 0000-0003-1267-1779

Publons / Web Of Science ResearcherID: ABA-4726-2021

ScopusID: 57201616522

Yoksis Researcher ID: 207972

Education

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Endüstri Mühendisliği (Dr), Turkey 2016 - 2021

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Endüstri Mühendisliği (YI) (Tezli), Turkey 2013 - 2015

Undergraduate, Gazi University, Mühendislik Fakültesi, Endüstri Mühendisliği Bölümü, Turkey 2008 - 2012

Dissertations

Doctorate, Heterojen bilgi ağlarında dilsel özetleme, Gazi University, Fen Bilimleri Enstitüsü, 2021

Postgraduate, Bulanık dilsel özetlemenin olasılıklı belirsizliği dikkate alan bir genişlemesi, Gazi University, Fen Bilimleri Enstitüsü, Endüstri Mühendisliği (YI) (Tezli), 2015

Research Areas

Artificial Intelligence, Computer Learning and Pattern Recognition, Fuzzy Sets and Systems, Industrial Engineering

Academic Positions

Assistant Professor, Gazi University, Mühendislik Fakültesi, Endüstri Mühendisliği, 2023 - Continues

Research Assistant, Gazi University, Mühendislik Fakültesi, Endüstri Mühendisliği, 2014 - 2023

Researcher, Iowa State University, College of Engineering, Department of Industrial and Manufacturing Systems Engineering, 2019 - 2019

Academic and Administrative Experience

assistant Secretary General, Gazi University, Rektörlük, Gazi Üniversitesi, 2024 - Continues

Program Accreditation-Self-Assessment Committee Member, Gazi University, Mühendislik Fakültesi, Endüstri Mühendisliği, 2024 - 2025

Member of Department Strategic Planning Commission, Gazi University, Mühendislik Fakültesi, Endüstri Mühendisliği,

2022 - 2025

Courses

Undergraduate

Endüstri Mühendisliğinde Tasarım I, Undergraduate, 2024 - 2025
Bilimsel Araştırma Teknikleri , Undergraduate, 2024 - 2025, 2023 - 2024
Uygulamalı Makine Öğrenmesi , Undergraduate, 2023 - 2024
Applied Machine Learning, Undergraduate, 2023 - 2024
Endüstri Mühendisliğinde Tasarım II, Undergraduate, 2023 - 2024
Performance Evaluation and Management, Undergraduate, 2024 - 2025, 2023 - 2024
Fuzzy Set Theory, Undergraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023
Endüstri Mühendisliğinde Tasarım I, Undergraduate, 2024 - 2025, 2023 - 2024
Bilimsel Araştırma Teknikleri, Undergraduate, 2023 - 2024, 2022 - 2023
Bulanık Küme Teorisi , Undergraduate, 2022 - 2023

Advising Graduates (Non-Thesis)

Aydoğan S., A System for Real-Time Monitoring and Reporting of Precision Mechanical Assembly Line Using Image Processing and Artificial Intelligence Technology , Masters (Non-Thesis, Evening Education), M.YANKAŞ(Student), 2025

Journal articles indexed in SCI, SSCI, and AHCI

- I. **An explainable risk classification model by integrating fuzzy multiple criteria sorting and fuzzy linguistic summarization**
Durmaz E. D., AYDOĞAN S., Gölcük İ.
Applied Soft Computing, vol.181, 2025 (SCI-Expanded)
- II. **Machine Learning Analysis to Identify Predictive Factors of Caudal Epidural Pulse Radiofrequency in the Treatment of Coccygodynia**
Sir E., AYDOĞAN S., Sir G. D., Celenlioglu A. E.
Journal of Pain Research, vol.18, pp.2839-2848, 2025 (SCI-Expanded)
- III. **Investigating the carbon border adjustment mechanism transition process with linguistic summarization method: A situational analysis of exporting countries**
ŞENER FİDAN F., AYDOĞAN S., AKAY D.
Advanced Engineering Informatics, vol.61, 2024 (SCI-Expanded)
- IV. **Linguistic summarization of visual attention and developmental functioning of young children with autism spectrum disorder**
Ozturk D., AYDOĞAN S., KÖK İ., Akin Bulbul I., ÖZDEMİR S., ÖZDEMİR S., AKAY D.
HEALTH INFORMATION SCIENCE AND SYSTEMS, no.1, 2024 (SCI-Expanded)
- V. **Precision in decision-making: a novel Z-number DEA approach for European country rankings**
Eligüzel N., AYDOĞAN S.
Kybernetes, 2024 (SCI-Expanded)
- VI. **Interval type-2 fuzzy linguistic summarization using restriction levels**
AYDOĞAN S.
Neural Computing and Applications, vol.35, no.35, pp.24947-24957, 2023 (SCI-Expanded)
- VII. **Linguistic summarization to support supply network decisions**
Aydoğan S., Okudan Kremer G. E., Akay D.
JOURNAL OF INTELLIGENT MANUFACTURING, vol.32, no.6, pp.1573-1586, 2021 (SCI-Expanded)

- VIII. **Concept design evaluation by using Z-axiomatic design**
Aydođan S., Gunay E. E., Akay D., Kremer G. E. O.
COMPUTERS IN INDUSTRY, vol.122, 2020 (SCI-Expanded)
- IX. **An Extension of Fuzzy Linguistic Summarization Considering Probabilistic Uncertainty**
Aydođan S., Akay D., Boran F. E., Yager R. R.
INTERNATIONAL JOURNAL OF UNCERTAINTY FUZZINESS AND KNOWLEDGE-BASED SYSTEMS, vol.26, no.2,
pp.195-215, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **Ensuring Flight Safety by Optimizing Test Points in Fighter Aircraft**
Atmaca H. E., AYDOĐAN S., Narli H. Y., Bakir R.
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, 2025 (ESCI)
- II. **PREDICTING BITCOIN MINING ENERGY CONSUMPTION USING MACHINE LEARNING: A CASE FOR K-NEAREST NEIGHBORS REGRESSION**
Eligüzel N., aydođan s.
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, vol.14, no.1, pp.561-582, 2025 (Peer-Reviewed Journal)
- III. **Linguistic Summarization for Analyzing Earthquake Impact: A Study on the 2023 Kahramanmaraş Earthquakes in Türkiye**
AYDOĐAN S., Eliguzel N.
Gazi University Journal of Science, vol.38, no.2, pp.833-845, 2025 (ESCI)
- IV. **Collaborative Planning with Biclustering**
Demiray A., Ates F., AYDOĐAN S., AKAY D.
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, 2024 (ESCI)
- V. **Urban Mobility Patterns with Linguistic Summarization: Insights from Bicycle Data**
ŞENER FİDAN F., AYDOĐAN S., AKAY D.
Erciyes Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.39, no.3, pp.538-547, 2023 (Peer-Reviewed Journal)
- VI. **Clustering Application and Evaluation of the Countries' Word Risk and Climate Risk Indices**
Eligüzel N., Aydođan S., Eligüzel İ. M.
INTERNATIONAL JOURNAL OF APPLIED MATHEMATICS ELECTRONICS AND COMPUTERS, vol.11, no.1, pp.13-19,
2023 (Peer-Reviewed Journal)
- VII. **Avrupa Ülkelerinin Çevre ve Enerji Performansına Yönelik Etkinlik Deđerlendirmesi: Veri Zarflama Analizi Uygulaması**
AYDOĐAN S., ŞAHİN M., SÖYLEMEZ İ.
The International New Issues in Social Sciences, vol.5, no.5, pp.267-282, 2017 (Peer-Reviewed Journal)
- VIII. **Linguistic Summarization of Structured Patent Data**
Esen Yıldız İ., Aydođan S., Boran F. E., Akay D.
INTERNATIONAL JOURNAL OF COMPUTER AND INFORMATION TECHNOLOGY, vol.11, no.9, pp.1024-1027, 2017
(Peer-Reviewed Journal)

Papers Presented at Peer-Reviewed Scientific Conferences

- I. **PERFORMANCE EVALUATION OF GREEN UNIVERSITIES IN TÜRKİYE**
AYDOĐAN S., ŞENER FİDAN F.
3rd INTERNATIONAL EGE CONGRESS ON SCIENTIFIC RESEARCH, İzmir, Turkey, 20 - 22 December 2024, (Full Text)
- II. **CLEAN CLOTHES, CLEAN PURCHASING: A SUSTAINABLE APPROACH TO BUYING WASHING MACHINES USING CODAS MULTI-CRITERIA DETERMINATION**
ŞENER FİDAN F., AYDOĐAN S.

4. International World Energy Conference, Kayseri, Turkey, 6 - 08 December 2024, (Full Text)
- III. **Linguistic Summarization for Higher Education Institutions in the Context of Sustainable Development Goals: Analysis of THE Impact Ranking Results**
ŞENER FİDAN F., AYDOĞAN S.
8th International Scientific Conference "Telecommunications, Informatics, Energy and Management" – TIEM 2023, 1 - 03 December 2023, (Full Text)
- IV. **Linguistic Comparison of Children with and without ASD through Eye-Tracking Data**
öztürk d., AYDOĞAN S., KÖK İ., AKIN BÜLBÜL I., ÖZDEMİR S., ÖZDEMİR S., AKAY D.
ICCTA 2023: 2023 9th International Conference on Computer Technology Applications, Vienna, Austria, 10 - 12 May 2023, pp.241-246, (Full Text)
- V. **Generating Linguistic Advice for the Carbon Limit Adjustment Mechanism**
ŞENER FİDAN F., AYDOĞAN S., AKAY D.
12th International Symposium on Intelligent Manufacturing and Service Systems, Sakarya, Turkey, 26 - 28 May 2023, (Full Text)
- VI. **EVALUATION OF WORLD RISK AND CLIMATE RISK INDEXES OF THE COUNTRIES: A CLUSTERING ANALYSIS**
ELİGÜZEL N., AYDOĞAN S., ELİGÜZEL İ. M.
10th International Conference on Advanced Technologies (ICAT'22), Van, Turkey, 25 November 2022, (Summary Text)
- VII. **Türkiye'de Endüstri Mühendisliği'nin Bibliyometrik Analizi**
AYDOĞAN S., ELİGÜZEL N.
41. Yöneylem Araştırması ve Endüstri Mühendisliği Ulusal Kongresi, Denizli, Turkey, 26 October 2022, (Summary Text)
- VIII. **An Application of Multi-Objective Scheduling with Fuzzy Measure**
Durmaz E. D., Aydoğan S., Şahin R.
International Conference on Applied Mathematics in Engineering (ICAME'21), Balıkesir, Turkey, 1 - 03 September 2021, pp.134, (Summary Text)
- IX. **Linguistic Summarization of Supply Network Interactions**
AYDOĞAN S., GÜNAY E. E., AKAY D., Kremer G.
10th International Symposium on Intelligent Manufacturing and Service Systems, Sakarya, Turkey, 9 - 11 September 2019
- X. **Decision-making with Z-Axiomatic Design**
Aydoğan S., Akay D., Kremer G., Günay E. E., Park K., Boran F. E.
2019 IISE Annual Conference, Florida, United States Of America, 19 - 21 May 2019, (Full Text)
- XI. **Vaccine Distribution Strategies against Polio: An Analysis of Turkey Scenario**
Günay E. E., Park K., Aydoğan S., Kremer G.
2019 IISE Annual Conference, Florida, United States Of America, 19 - 21 May 2019, (Full Text)
- XII. **Variable Neighborhood – Simulated Annealing Algorithm for Single Machine Total Weighted Tardiness Problem**
AYDOĞAN S.
10th International Statistics Congress, 6 - 08 December 2017, (Summary Text)
- XIII. **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)
- XIV. **Yapılandırılmış Patent Verilerinin Dilsel Özetlemesi**
İĞDE E. Y., AYDOĞAN S., BORAN F. E., AKAY D.
37. Yöneylem Araştırması ve Endüstri Mühendisliği Ulusal Kongresi, Turkey, 5 - 07 July 2017, (Summary Text)
- XV. **OPERASYONEL VE FİNANSAL SAĞLIK VERİSİ İÇİN BULANIK DİLSEL ÖZETLERİN GENETİK ALGORİTMA İLE ÇIKARIMI**

ALTINTOP T., AYDOĞAN S., AKAY D., BORAN F. E., ÜNAL M.

Yöneylem Araştırması ve Endüstri Mühendisliği 36. Ulusal Kongresi, Turkey, 13 - 15 July 2016, (Summary Text)

XVI. **Classification of patients at risk for CO poisoning in an emergency department with CHAID decision tree**

KELEŞ A., DEMİRCAN A., BİLDİK F., AYDOĞAN S., DÜZCE T., AKAY D.

15. Üretim Araştırmaları Sempozyumu, İzmir, Turkey, 14 - 16 October 2015, pp.1109-1113, (Full Text)

Metrics

Publication: 33

Citation (WoS): 49

Citation (Scopus): 61

H-Index (WoS): 3

H-Index (Scopus): 3

Scholarships

YUDAB, YOK, 2019 - 2019

Doktora Burs Programı, TÜBİTAK, 2016 - 2019

Non Academic Experience

Iowa State University, Visiting Scholar