

**Assoc. Prof. ABDULKADİR  
ATALAN**



**Personal Information**

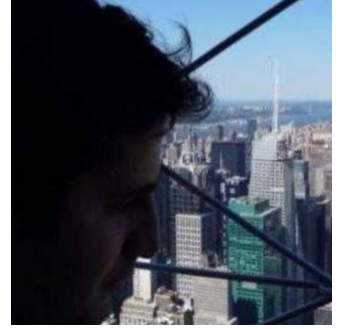
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**International Researcher IDs**

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Publons / Web Of Science ResearcherID: T-9780-2019

ScopusID: 57205533520

Yoksis Researcher ID: 238432

**Education Information**

Doctorate, Marmara University, Institute For Graduate Studies In Pure And Applied Sciences, Department Of Industrial Engineering (Eng), Turkey 2016 - 2019

Doctorate, Clemson University, College of Engineering, Computing and Applied Sciences, Industrial Engineering , United States Of America 2013 - 2016

Postgraduate, Lehigh University, P.C. Rossin College of Engineering and Applied Science, Sağlık Sistemleri Mühendisliği, United States Of America 2011 - 2013

Undergraduate, Selcuk University, Mühendislik Fakültesi, Endüstri Mühendisliği, Turkey 2006 - 2009

**Dissertations**

Doctorate, Development of heuristic optimization methods and experimental simulation design for the components and resources of healthcare, Marmara University, Institute For Graduate Studies In Pure And Applied Sciences, Department Of Industrial Engineering (Eng), 2019

**Research Areas**

Engineering and Technology

**Academic Titles / Tasks**

Associate Professor, Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Endüstri Mühendisliği, 2023 - Continues

Assistant Professor, Gaziantep Science And Technology University, Mühendislik ve Doğa Bilimleri Fakültesi, Endüstri Mühendisliği, 2019 - 2023

Research Assistant, Bayburt University, Mühendislik Fakültesi, Makine Mühendisliği, 2015 - 2019

## Academic and Administrative Experience

Head of Department, Canakkale Onsekiz Mart University, Mühendislik Fakültesi, Endüstri Mühendisliği, 2023 - Continues  
Director of Vocational School, Gaziantep Science And Technology University, Teknik Bilimler Meslek Yüksek Okulu, 2021 - 2022

## Courses

ENDÜSTRİ MÜHENDİSLİĞİNE GİRİŞ, Undergraduate, 2020 - 2021

## Advising Theses

Atalan A., Üretim Tesislerinde İstatistiksel Optimizasyon ile Maliyet Tahmini, Postgraduate, H.MİNE(Student), 2023

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

- I. **Dynamic Price Application to Prevent Financial Losses to Hospitals Based on Machine Learning Algorithms**  
Atalan A., Dönmez C. Ç.  
HEALTHCARE (BASEL), vol.12, no.13, pp.1-21, 2024 (SCI-Expanded)
- II. **Integration of the Machine Learning Algorithms and I-MR Statistical Process Control for Solar Energy**  
Atalan Y. A., Atalan A.  
Sustainability (Switzerland), vol.15, no.18, 2023 (SCI-Expanded)
- III. **Forecasting drinking milk price based on economic, social, and environmental factors using machine learning algorithms**  
Atalan A.  
Agribusiness, vol.39, no.1, pp.214-241, 2023 (SCI-Expanded)
- IV. **Estimation of Postal Service Delivery Time and Energy Cost with E-Scooter by Machine Learning Algorithms**  
İnaç H., Ayözen Y. E., Atalan A., DÖNMEZ C. Ç.  
Applied Sciences (Switzerland), vol.12, no.23, 2022 (SCI-Expanded)
- V. **Integration of Machine Learning Algorithms and Discrete-Event Simulation for the Cost of Healthcare Resources**  
Atalan A., Şahin H., Atalan Y. A.  
Healthcare (Switzerland), vol.10, no.10, 2022 (SCI-Expanded)
- VI. **E-Scooter Micro-Mobility Application for Postal Service: The Case of Turkey for Energy, Environment, and Economy Perspectives**  
Ayözen Y. E., İnaç H., Atalan A., DÖNMEZ C. Ç.  
Energies, vol.15, no.20, 2022 (SCI-Expanded)
- VII. **A cost analysis with the discrete-event simulation application in nurse and doctor employment management**  
Atalan A.  
Journal of Nursing Management, vol.30, no.3, pp.733-741, 2022 (SCI-Expanded)
- VIII. **Estimation of healthcare expenditure per capita of Turkey using artificial intelligence techniques with genetic algorithm-based feature selection**  
Ceylan Z., Atalan A.  
Journal of Forecasting, vol.40, no.2, pp.279-290, 2021 (SSCI)

- IX. **Development of nonlinear optimization models for wind power plants using box-Behnken design of experiment: A case study for Turkey**  
Atalan Y. A., TAYANÇ M., ERKAN K., Atalan A.  
Sustainability (Switzerland), vol.12, no.15, 2020 (SCI-Expanded)
- X. **Desirability Optimization Models to Create the Global Healthcare Competitiveness Index**  
Dönmez N. F. K., Atalan A., DÖNMEZ C. Ç.  
Arabian Journal for Science and Engineering, vol.45, no.8, pp.7065-7076, 2020 (SCI-Expanded)
- XI. **Developing Statistical Optimization Models for Urban Competitiveness Index: Under the Boundaries of Econophysics Approach**  
DÖNMEZ C. Ç., Atalan A., Locurcio M.  
Complexity, vol.2019, 2019 (SCI-Expanded)
- XII. **Employment of emergency advanced nurses of Turkey: A discrete-event simulation application**  
Atalan A., DÖNMEZ C. Ç.  
Processes, vol.7, no.1, 2019 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Üretim Tesislerinde İstatistiksel Optimizasyon ile Maliyet Tahmini**  
SABAN H. M., ŞAHİN H., ATALAN A.  
İstatistik ve Uygulamalı Bilimler Dergisi, vol.9, no.1, pp.1-18, 2024 (Peer-Reviewed Journal)
- II. **Forecasting of the Dental Workforce with Machine Learning Models**  
Atalan A., Şahin H.  
Mühendislik bilimleri ve araştırmaları dergisi (Online), vol.6, no.1, pp.125-132, 2024 (Peer-Reviewed Journal)
- III. **Changing the Patient Flow Process for the Green Area of Emergency Department: A Discrete-Event Simulation Approach**  
ATALAN A.  
International Journal of Health Management and Tourism, vol.9, no.1, pp.45-63, 2024 (Peer-Reviewed Journal)
- IV. **Analyzing the Efficiency of Health Resources of Health Institutions in Computer Environment and Calculating Optimum Values**  
Günöz N., ATALAN A.  
Journal of Statistics and Applied Sciences, vol.7, no.2, pp.43-63, 2023 (Peer-Reviewed Journal)
- V. **Application of Integer Response Optimization Models for the Healthcare Resources**  
ATALAN A.  
Acta Infologica, vol.6, no.2, pp.1-12, 2023 (Peer-Reviewed Journal)
- VI. **Estimation of the utilization rates of the resources of a dental clinic by simulation**  
Atalan A., KESKİN A.  
Sigma Journal of Engineering and Natural Sciences, vol.41, no.2, pp.423-432, 2023 (ESCI)
- VII. **Desirability Optimization Based on the Poisson Regression Model: Estimation of the Optimum Dental Workforce Planning**  
ATALAN A.  
International Journal of Health Management and Tourism, vol.7, no.2, pp.200-216, 2022 (Peer-Reviewed Journal)
- VIII. **Design of experiments optimization application in physics: a case study of the damped driven pendulum experiment**  
Atalan A., Şahin H.  
Sigma Journal of Engineering and Natural Sciences, vol.39, no.3, pp.322-330, 2021 (ESCI)
- IX. **EFFECT OF HEALTHCARE EXPENDITURE ON THE CORRELATION BETWEEN THE NUMBER OF NURSES AND DOCTORS EMPLOYED**  
ATALAN A.  
International Journal of Health Management and Tourism, vol.6, no.2, pp.515-525, 2021 (Peer-Reviewed Journal)
- X. **SAĞLIK KAYNAKLARI İÇİN KESİKLİ-OLAY SİMÜLASYONUN VE DENEYSEL OPTİMİZASYON**

## **TASARIMININ UYGULANMASI-YOZGAT BOZOK ÜNİVERSİTESİ ARAŞTIRMA VE UYGULAMA HASTANESİ**

AYAZ ATALAN Y., ÇIRAKLI Ü., TEMEL B. B., ATALAN A.

Uluslararası Yönetim Bilim Sistemleri ve Bilgisayar Bilimleri Dergisi, vol.5, no.1, pp.63-85, 2021 (Peer-Reviewed Journal)

- XI. **Evaluation of Healthcare Economics of OECD Countries: Multi-Objective Statistical Optimization Model**  
ATALAN A., DÖNMEZ C. Ç.  
Acta Infologica, vol.5, no.1, pp.2-9, 2021 (Peer-Reviewed Journal)
- XII. **Development of Design of Experiment Optimization to Obtain High-Quality Sugar**  
AYAZ ATALAN Y., ATALAN A.  
Journal of Statistics and Applied Sciences, vol.2, no.1, pp.1-7, 2021 (Peer-Reviewed Journal)
- XIII. **Correspondence about "Is the lockdown important to prevent the COVID-19 pandemic? Effects on psychology, environment and economy-perspective"**  
Atalan A.  
Annals of Medicine and Surgery, vol.65, 2021 (ESCI)
- XIV. **A Statistical Analysis of the Relationship Between Meteorological Parameters and the Spread of COVID-19 Cases: Comparison Between Turkey and Italy**  
AYAZ ATALAN Y., ATALAN A.  
Journal of Statistics and Applied Sciences, vol.1, no.2, pp.76-84, 2020 (Peer-Reviewed Journal)
- XV. **LOGISTIC PERFORMANCE INDEX OF OECD MEMBERS**  
ATALAN A.  
Akademik Araştırmalar ve Çalışmalar Dergisi, vol.12, no.23, pp.608-619, 2020 (Peer-Reviewed Journal)
- XVI. **Is the lockdown important to prevent the COVID-19 pandemic? Effects on psychology, environment and economy-perspective**  
Atalan A.  
Annals of Medicine and Surgery, vol.56, pp.38-42, 2020 (ESCI)
- XVII. **Optimizing experimental simulation design for the emergency departments**  
Atalan A., DÖNMEZ C. Ç.  
Brazilian Journal of Operations and Production Management, vol.17, no.4, 2020 (ESCI)
- XVIII. **Forecasting for Healthcare Expenditure of Turkey Covering the Years of 2018-2050**  
ATALAN A.  
Gümüşhane Üniversitesi Sağlık Bilimleri Dergisi, vol.9, no.1, pp.8-16, 2020 (Peer-Reviewed Journal)
- XIX. **DEVELOPING OPTIMIZATION MODELS TO EVALUATE HEALTHCARE SYSTEMS**  
Atalan A., Kaplan Dönmez N. F., DÖNMEZ C. Ç.  
Sigma Journal of Engineering and Natural Sciences, vol.38, no.2, pp.853-873, 2020 (ESCI)
- XX. **A TRENDLINE ANALYSIS FOR HEALTHCARE EXPENDITURE PER CAPITA OF OECD MEMBERS**  
Atalan A., Çınar Z., Çınar M.  
Sigma Journal of Engineering and Natural Sciences, vol.11, pp.23-35, 2020 (ESCI)
- XXI. **Yüksek-Eğitimli Uzman Hemşire İstihdamı ile Acil Servis Kalitesinin Yükseltilmesi için Simülasyon Uygulaması: Türkiye Sağlık Sistemi**  
ATALAN A., DÖNMEZ C. Ç., AYAZ ATALAN Y.  
International journal of advances in engineering and pure sciences (Online), vol.30, no.4, pp.318-338, 2018 (Peer-Reviewed Journal)
- XXII. **TÜRKİYE SAĞLIK EKONOMİSİ İÇİN İSTATİSTİKSEL ÇOK AMAÇLI OPTİMİZASYON MODELİNİN UYGULANMASI**  
ATALAN A.  
The Journal of Business, Economic and Management Research, vol.1, no.1, pp.34-51, 2018 (Peer-Reviewed Journal)
- XXIII. **EKONOFİZİK YAKLAŞIMI İLE KENTSEL REKABETÇİLİK İNDEKSİNİN OLUŞTURULMASI**  
DÖNMEZ C. Ç., ATALAN A.  
Elektronik Sosyal Bilimler Dergisi (elektronik), vol.17, no.66, pp.549-560, 2018 (Peer-Reviewed Journal)

#### XXIV. Central Composite Design Optimization Using Computer Simulation Approach

ATALAN A.

FLEXSIM, vol.7, no.7, pp.5-18, 2014 (Peer-Reviewed Journal)

### Books & Book Chapters

- I. **A Study on the Analysis of Customer Satisfaction in Hotel Businesses in Istanbul With the Kano Model**  
ERSEN M., KESKİN A., ATALAN A.  
in: Cases on Traveler Preferences, Attitudes, and Behaviors: Impact in the Hospitality Industry, Catenazzo, Giuseppe, Editor, IGI Global, Hershey, pp.256-270, 2023
- II. **Analysis of the Impact of Air Transportation on the Spread of the COVID-19 Pandemic**  
ATALAN A., AYAZ ATALAN Y.  
in: Challenges and Opportunities for Transportation Services in the Post-COVID-19 Era, Catenazzo, Giuseppe, Editor, IGI Global, Hershey, pp.68-87, 2022
- III. **Factors Affecting Clean Energy Investments for Zero Emissions: OECD Countries**  
AYAZ ATALAN Y., KESKİN A., ATALAN A.  
in: Clean Energy Investments for Zero Emission Projects An Analysis on How to Reduce the Carbon Footprint, Dinçer Hasan, Yüksel Serhat, Editor, Springer, Cham., pp.203-2019, 2022
- IV. **Sağlık Sistemlerinde Sağlık Yönetimi Genel Bakış, Güncel Sorunlar, Uygulamalar ve Yaklaşımlar**  
ATALAN A.  
Gece Kitaplığı, Ankara, 2021
- V. **Application of Linear Regression Model to Forecast Re-appointment Time of Patients in the Oncology Department**  
ATALAN A.  
in: The Evaluations and Researches in Social Sciences and Humanities, Sarioglan Mehmet, Sansar Fatih, Editor, Livre De Lyon, Lyon, pp.360-377, 2021
- VI. **SAĞLIK HARCAMALARI İLE YATAK SAYISININ HASTANE KALİŞ SÜRESİNE ETKİSİ**  
ATALAN A.  
in: SAĞLIK BİLİMLERİ ALANINDA GÜNCEL ÇALIŞMALAR, ATİK DİLEK, Editor, Duvar Yayınları, Ankara, pp.5-19, 2021
- VII. **SAĞLIK SÜREÇ YÖNETİMİNDE İSTATİSTİKSEL SÜREÇ KONTROLÜ**  
ATALAN A.  
in: Dijital Dönüşüm ve Bilişim Sistemleri, Talan Tarık, Aktürk Cemal, Editor, Efe Akademi, İstanbul, pp.7-18, 2021

### Refereed Congress / Symposium Publications in Proceedings

- I. **Testing the estimated patient waiting times of the Random Forest algorithm by SPC**  
ATALAN A.  
4th International Conference on Engineering and Applied Natural Sciences, Turkey, 20 November 2023
- II. **Utilization of Machine Learning to Predict Costs of Patients in the Emergency Department: Random Forest and Linear Regression Algorithms**  
ATALAN A.  
2nd International Conference on Contemporary Academic Research, Konya, Turkey, 4 - 05 November 2023
- III. **Estimation of Length of Patient Stay (LOS) based on ML Algorithms**  
ATALAN A.  
1st International Conference on Recent and Innovative Results in Engineering and Technology, Turkey, 16 August 2023, vol.1, pp.1-8
- IV. **The Effect of Social Expenditures on Poverty: A Research on Türkiye**

KESKİN A., ATALAN A., KESKİN A., Beşoluk E.

1st edition of the International Conference FMOS 2023, Switzerland, 08 June 2023

- V. **Integration of Discrete-Event Simulation and Statistical Process Control Methods**  
ATALAN A.  
1st International Conference on Pioneer and Innovative Studies, Konya, Turkey, 25 May 2023
- VI. **Neural Network and Random Forest Algorithms for Estimation of the Waiting Times Based on the DES in ED**  
ATALAN A.  
1st International Conference on Contemporary Academic Research, Konya, Turkey, 17 May 2023, pp.1-8
- VII. **Statistical optimization of forecast data from Adaptive Boosting and Support Vector Machine Algorithms**  
ATALAN A.  
2nd International Conference on Engineering, Natural and Social Sciences, Konya, Turkey, 04 April 2023
- VIII. **Nonlinear Optimization Models of Box-Behnken Experimental Design: Turbine Simulation for Wind Power Plant**  
ATALAN A., AYAZ ATALAN Y.  
3rd International Conference on Engineering and Applied Natural Sciences, Konya, Turkey, 14 - 17 January 2023, pp.384-392
- IX. **Integration of Design of Experiment and Machine Learning: A numerical case study**  
ATALAN A.  
1st International Conference on Scientific and Academic Research, Konya, Turkey, 10 - 13 December 2022, pp.354-361
- X. **k-Nearest Neighbor and random forest algorithms to predict appointment compliance of patients in the chemotherapy department**  
ATALAN A.  
4th International Conference on Applied Engineering and Natural Sciences ICAENS 2022, Konya, Turkey, 10 - 13 November 2022, pp.868-874
- XI. **Comparison of Machine Learning Algorithm and Statistical Method in the Prediction Data: Linear Regression Approach**  
ATALAN A.  
2nd International Conference on Engineering and Applied Natural Sciences, Konya, Turkey, 15 - 18 October 2022, pp.633-638
- XII. **Application of Machine Learning Methods for the Number of Patients Treated and Patient Waiting Time**  
ATALAN A.  
1st International Conference on Innovative Academic Studies, Konya, Turkey, 10 - 13 September 2022, pp.1753-1758
- XIII. **ANALYSIS OF PATIENT FLOW DIAGRAM STRUCTURE IN HEALTH MANAGEMENT**  
ATALAN A.  
ISPEC 7. ULUSLARARASI SOSYAL VE BEŞERİ BİLİMLER KONGRESİ, Muş, Turkey, 18 - 19 September 2021, pp.17-23
- XIV. **Future of Renewable Energy Production: OECD Study**  
ATALAN A., AYAZ ATALAN Y.  
3rd International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 19 - 21 September 2019, pp.218-222
- XV. **Logistic Performance Index of OECD Members by Estimation Series**  
ATALAN A., AYAZ ATALAN Y.  
3rd International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 19 - 21 September 2019, pp.214-217
- XVI. **Critique of Quality Tools in Healthcare: A Literature Survey**  
ÇINAR Z., ÇINAR M., ATALAN A.  
3rd International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 19 - 21 September 2019,

pp.984-989

- XVII. Estimation of Health Expenditure Per Capita: OECD Countries**  
ÇINAR Z., ÇINAR M., ATALAN A.  
3rd International Conference on Advanced Engineering Technologies (ICADET), Bayburt, Turkey, 19 - 21 September 2019, pp.990-999
- XVIII. Optimizing the Number of Healthcare Resources: Emergency Service Practice**  
ATALAN A., AYAZ ATALAN Y.  
Gevher Nesibe 3. Uluslararası Sağlık Bilimleri Kongresi, Malatya, Turkey, 3 - 04 May 2019
- XIX. Developing Replication Method for Design of Experiment**  
AYAZ ATALAN Y., ATALAN A.  
Gevher Nesibe 3. Uluslararası Sağlık Bilimleri Kongresi, Malatya, Turkey, 3 - 04 May 2019, pp.21-26
- XX. Application of Design of Experiment for Hospital Management**  
AYAZ ATALAN Y., ATALAN A.  
Gevher Nesibe 3. Uluslararası Sağlık Bilimleri Kongresi, Malatya, Turkey, 3 - 04 May 2019, pp.1-10
- XXI. The Importance of Discrete-Event Simulation in Hospital Management**  
ATALAN A., AYAZ ATALAN Y.  
Gevher Nesibe 3. Uluslararası Sağlık Bilimleri Kongresi, Malatya, Turkey, 3 - 04 May 2019
- XXII. Yüksek Kalitede Bir Çimento Üretimi İçin Deney Tasarımı ile Optimizasyon Uygulaması**  
Akaslan M., ATALAN A., CEYHAN A. A., BAYSAL M. E.  
International Science and Academic Congress 2019, Konya, Turkey, 19 - 20 April 2019, pp.158
- XXIII. Enhancing the quality of a healthcare department with the help of optimization modelling: Application of DOE and simulation**  
ATALAN A., AYAZ ATALAN Y.  
5th International Congress on Healthcare Hospital Management, ROMA, Italy, 3 - 04 December 2018, vol.6, pp.58-59
- XXIV. Reduction of Intensity with Employment of Highly-Educated Specialist Nurses in Emergency Services: Application of Discrete-Event Simulation**  
ATALAN A., AYAZ ATALAN Y.  
International Congress on Engineering and Life Science, Kastamonu, Turkey, 26 - 29 April 2018, pp.211
- XXV. Application of Statistical Optimization Model for Wind Energy Performance**  
AYAZ ATALAN Y., ATALAN A.  
International Congress on Engineering and Life Science, Kastamonu, Turkey, 26 - 29 April 2018, pp.539
- XXVI. Implementation of Statistical Optimization Model to Improve quality of Healthcare System in Turkey**  
ATALAN A., AYAZ ATALAN Y.  
International Congress on Engineering and Life Science, Kastamonu, Turkey, 26 - 29 April 2018, pp.212
- XXVII. Optimization Applications for Renewable Energy**  
AYAZ ATALAN Y., ATALAN A.  
International Congress on Engineering and Life Science, Kastamonu, Turkey, 26 - 29 April 2018, pp.535
- XXVIII. Healthcare Engineering Management Technology: Integration of Simulation and Design of Experiment to Optimize the Resources of Healthcare**  
ATALAN A.  
International Conference on Engineering Technologies (ICENTE'17, Konya, Turkey, 7 - 09 December 2017, pp.7
- XXIX. Combining Simulation and Design of Experiment Approach in Healthcare Area**  
ATALAN A.  
Muhendislikte Yeni Teknolojiler, Bayburt, Turkey, 22 - 24 October 2015, pp.66

## Metrics

Publication: 72

Citation (WoS): 304

Citation (Scopus): 396

H-Index (WoS): 7

H-Index (Scopus): 7

**Non Academic Experience**

ULAŖTIRMA, DENİZCİLİK VE HABERLEŖME BAKANLIĐI