

Assoc. Prof. AYŞE FİDAN ALTUN

Personal Information

Office Phone: [+90 224 294 2604](tel:+902242942604) Extension: 42604

Email: aysealtun@uludag.edu.tr

Web: <https://avesis.uludag.edu.tr/aysealtun>

International Researcher IDs

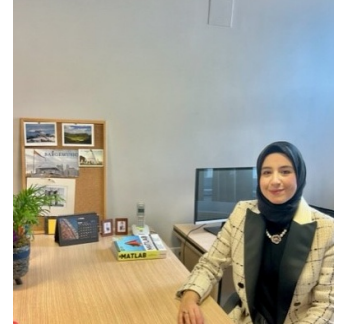
ScholarID: 13eWxV8AAAAJ

ORCID: 0000-0001-7236-8398

Publons / Web Of Science ResearcherID: ABB-9566-2020

ScopusID: 57200424999

Yoksis Researcher ID: 248805



Education Information

Doctorate, Bursa Uludağ University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (Dr), Turkey 2016 - 2021

Postgraduate, Bursa Uludağ University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (YI) (Tezli), Turkey 2013 - 2016

Undergraduate, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, Makine Mühendisliği Bölümü, Turkey 2006 - 2010

Foreign Languages

English, C1 Advanced

Certificates, Courses and Trainings

Vocational Course, Yaklaşık Sıfır Enerjili Bina (NZEB), TTMD, 2022

Environment and Sustainability, ECI training school, Valencia, EUPHORE Chamber, Valencia, Spain, 2020

Vocational Training, 13th Summer School on Exergy and Its Application, Marmara University and Istanbul Commerce University, 2016

Renewable Energy Sources, COST Action-TU1205-Building Integrated Solar Thermal Systems, Katalonya Politeknik Üniversitesi (Universitat Politècnica de Catalunya), Barcelona, 2016

Vocational Course, Mekanik Tesisat Uzman Mühendisi (Isı yalıtımı, Sıhhi Tesisat, Isıtma Tesisatı, Soğutma Tesisatı, Havalandırma Tesisatı, Havuz Tesisatı, Klima Tesisatı), MMO Bursa Şubesi, 2013

Vocational Course, Yangın Tesisatı Uzman Mühendisi, MMO Bursa Şubesi, 2012

Establishing and Managing a Company, Contemporary American Business Practices (Management Track), The City University of New York Bernard M. Baruch College, 2011

Dissertations

Doctorate, ŞEBEKEDEN BAĞIMSIZ, GÜNEŞ VE RÜZGAR KAYNAKLI, BATARYA VE HİDROJEN DEPOLAMALI HİBRİT ENERJİ SİSTEMLERİNİN DİNAMİK MODELLEMESİ, ENERJİ, EKSERJİ VE SEVİYELENDİRİLMİŞ MALİYET ANALİZİ, Bursa

Uludağ University, FEN BİLİMLERİ ENSTİTÜSÜ, 2021

Postgraduate, Ulusal ve uluslararası yeşil bina sertifikasyonlarının enerji performansı açısından değerlendirilmesi, Bursa

Uludağ University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (YI) (Tezli), 2016

Research Areas

Renewable Energy Systems, Alternative Energy Resources, Energy storage technologies, Solar energy, Hydrogen Technologies and Fuel Cells , Geothermal energy

Academic Titles / Tasks

Associate Professor, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, MAKİNA MÜHENDİSLİĞİ, 2023 - Continues

Assistant Professor, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, MAKİNA MÜHENDİSLİĞİ, 2022 - 2023

Lecturer PhD, Bursa Uludağ University, ORHANGAZI YENİKÖY ASİL ÇELİK MYO, MAKİNE VE METAL TEKNOLOJİLERİ, 2021 - 2022

Research Assistant, Bursa Uludağ University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (Dr), 2016 - 2021

Courses

Heat Transfer, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022

Numerical Analysis, Undergraduate, 2023 - 2024

District Heating Systems, Undergraduate, 2024 - 2025, 2023 - 2024

MERKEZİ İSITMA SİSTEMLERİ, Undergraduate, 2024 - 2025, 2023 - 2024

Yangın Tesisatı ve Yangından Korunma , Undergraduate, 2023 - 2024, 2022 - 2023

Heat Exchanger Design , Undergraduate, 2023 - 2024, 2022 - 2023

Isı Transferi, Undergraduate, 2024 - 2025, 2023 - 2024

Birleşik Isı-Güç Sistemleri, Doctorate, 2022 - 2023

Enerji Üretim Sistemleri, Undergraduate, 2022 - 2023

EXERGY APPLICATIONS OF THERMAL SYSTEMS, Doctorate, 2023 - 2024

Ölçme ve Kontrol, Associate Degree, 2022 - 2023

Bilgisayar Destekli Çizim I, Associate Degree, 2021 - 2022

Araştırma Yöntem ve Teknikleri, Associate Degree, 2021 - 2022

Teknik Resim, Associate Degree, 2022 - 2023

Yenilenebilir Enerji Kaynakları, Associate Degree, 2021 - 2022

Makine Meslek Resmi, Associate Degree, 2021 - 2022

Termodinamik, Associate Degree, 2021 - 2022

Termodinamik, Associate Degree, 2021 - 2022

Girişimcilik, Associate Degree, 2021 - 2022

Jury Memberships

Post Graduate, Post Graduate, Bursa Uludağ Üniversitesi, July, 2024

Post Graduate, Post Graduate, Bursa Uludağ Üniversitesi, August, 2023

Post Graduate, Post Graduate, Bursa Uludağ Üniversitesi, July, 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Comprehensive Thermodynamic Performance Evaluation of Various Gas Liquefaction Cycles for Cryogenic Energy Storage**
Kılıç M., Altun A. F.
SUSTAINABILITY, vol.15, no.24, 2023 (SCI-Expanded)
- II. **Dynamic modelling and multi-objective optimization of off-grid hybrid energy systems by using battery or hydrogen storage for different climates**
Kılıç M., Altun A. F.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.60, no.48, pp.22834-22854, 2023 (SCI-Expanded)
- III. **A Conceptual Design and Analysis of a Novel Trigeration System Consisting of a Gas Turbine Power Cycle with Intercooling, Ammonia-Water Absorption Refrigeration, and Hot Water Production**
ALTUN A. F.
SUSTAINABILITY, vol.14, no.19, 2022 (SCI-Expanded)
- IV. **Numerical Simulation and Analytical Evaluation of the Collection Efficiency of the Particles in a Gas by the Wire-Plate Electrostatic Precipitators**
Kılıç M., Mutlu M., Altun A. F.
APPLIED SCIENCES-BASEL, vol.12, no.13, 2022 (SCI-Expanded)
- V. **Determination of Optimum Building Envelope Parameters of a Room concerning Window-to-Wall Ratio, Orientation, Insulation Thickness and Window Type**
Altun A. F.
BUILDINGS, vol.12, no.3, 2022 (SCI-Expanded)
- VI. **Design and performance evaluation based on economics and environmental impact of a PV-wind-diesel and battery standalone power system for various climates in Turkey**
Altun A. F., Kılıç M.
RENEWABLE ENERGY, vol.157, pp.424-443, 2020 (SCI-Expanded)
- VII. **Economic feasibility analysis with the parametric dynamic simulation of a single effect solar absorption cooling system for various climatic regions in Turkey**
Altun A. F., Kılıç M.
Renewable Energy, vol.152, pp.75-93, 2020 (SCI-Expanded)
- VIII. **Thermodynamic performance evaluation of a geothermal ORC power plant**
Altun A. F., Kılıç M.
Renewable Energy, vol.148, pp.261-274, 2020 (SCI-Expanded)

Articles Published in Other Journals

- I. **DESIGN AND THERMODYNAMIC PERFORMANCE ANALYSIS OF AN AMMONIA-WATER ABSORPTION REFRIGERATION AND MICROTURBINE COMBINED SYSTEM**
Altun A. F.
Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, vol.27, no.2, pp.765-784, 2022 (Peer-Reviewed Journal)
- II. **Influence of Window Parameters on the Thermal Performance of Office Rooms in Different Climate Zones of Turkey**
Altun A. F., Kılıç M.
INTERNATIONAL JOURNAL OF RENEWABLE ENERGY RESEARCH, vol.9, pp.226-243, 2019 (ESCI)
- III. **DYNAMIC SIMULATION OF A PV/WIND HYBRID POWER GENERATION SYSTEM: CASE STUDY OF BURSA PROVINCE**
Altun A. F., Kılıç M.
Uludağ University Journal of The Faculty of Engineering, vol.24, no.12, pp.571-582, 2019 (Peer-Reviewed Journal)
- IV. **Synthesis of knowledge on utilization of adsorption filters for healthy indoor environments**
Altun A. F., Kılıç M.
Romanian Journal of Civil Engineering, vol.10, no.3, pp.223-229, 2019 (Peer-Reviewed Journal)
- V. **An investigation of the ammonia adsorption performance on different adsorbents for cooling**

applications

Altun A. F., Kılıç M.

Bulgarian Chemical Communications, vol.50, pp.45-52, 2018 (Scopus)

Books & Book Chapters

- I. PANDEMİ DÖNEMİNDE BİNALARDAKİ ISITMA-SOĞUTMA VE HAVALANDIRMA SİSTEMLERİNİN İYİLEŞTİRİLMESİ**
Altun A. F.
in: MÜHENDİSLİK ALANINDA ULUSLARARASI ARAŞTIRMALAR V, Prof. Dr. Servet Soygüder, Editor, Eğitim Yayınevi, Konya, pp.71-87, 2022
- II. Farklı Aerodinamik Kanat Yapılarının Sayısal Analizi**
Altun A. F., Kılıç M.
in: Mühendislik Alanında Uluslararası Araştırmalar V, Servet Soygüder, Editor, Eğitim Yayınevi, Konya, pp.19-38, 2022
- III. FARKLI AERODİNAMİK KANAT YAPILARININ SAYISAL ANALİZİ**
Altun A. F., Kılıç M.
in: MÜHENDİSLİK ALANINDA ULUSLARARASI ARAŞTIRMALAR V, Prof. Dr. Servet Soygüder, Editor, Eğitim Yayınevi, Konya, pp.19-37, 2022
- IV. Achieving Sustainable Buildings via Energy Efficiency Retrofit: Case Study of a Hotel Building**
KILIÇ M., ALTUN A. F.
in: Lecture Notes in Civil Engineering, Fırat S., Kinuthia J., Abu-Tair A., Editor, Springer, Cham, pp.97-107, 2018
- V. Achieving Green Building Standards via Energy Efficiency Retrofit: A Case Study of an Industrial Facility**
Kılıç M., Altun A. F.
in: Exergetic, Energetic and Environmental Dimensions, Dinçer,İ.,Colpan,C.O. and Kızılkcan,O., Editor, Elsevier Science, Oxford/Amsterdam , London, pp.97-107, 2018

Refereed Congress / Symposium Publications in Proceedings

- I. Thermodynamic Analysis of Triple-Level Desalination System on Dual-Level Binary Geothermal Power Plant By Using Heat Waste on the Condenser and A Brine Reinjected Into the Ground**
KILIÇ M., Zikri A., ALTUN A. F., Dzaky M. I.
7. Uluslararası Öğrenci Bilimler Kongresi, İstanbul, Turkey, 15 December 2023
- II. Dynamic modelling of off-grid hybrid energy systems with different energy storage options by using either battery or hydrogen production**
Altun A. F., Kılıç M.
The Sixth International Hydrogen Technologies Congress (IHTEC-2022), Çanakkale, Turkey, 23 - 26 January 2022, pp.1-5
- III. Comparative investigations of a mechanical and adsorption integrated refrigeration system performances using ammonia with different adsorbents**
Anjrini M., Kılıç M., Altun A. F.
The Sixth International Hydrogen Technologies Congress (IHTEC-2022), Çanakkale, Turkey, 23 - 26 January 2022, pp.6-10
- IV. MODELLING OF INDOOR AIR QUALITY IN A ROOM WITH AN AIR CLEANER**
Mutlu M., Altun A. F., Kılıç M.
ULIBTK'21 Uluslararası Katılımlı 23. Isı Bilimi ve Tekniği Kongresi, 08-10 Eylül 2021, GAZİANTEP, Gaziantep, Turkey, 8 - 10 September 2021, vol.2, pp.1506-1513
- V. The Improvement of the Heating, Cooling and Air Conditioning (HVAC) Units in Existing Buildings**

after Covid 19 Pandemic: A Case Study

Altun A. F.

7th Virtual International Conference on Science, Technology and Management in Energy, Belgrade, Serbia, 16 - 17 December 2021, pp.1-5

- VI. **THE EFFECT OF THE UV AIR CLEANING DEVICES ON THE INDOOR AIR QUALITY**
Altun A. F., Kılıç M., Mutlu M.
23. ISI BİLİMİ VE TEKNİĞİ KONGRESİ 23rd CONGRESS ON THERMAL SCIENCE AND TECHNOLOGY, Gaziantep, Turkey, 8 - 10 September 2021, pp.1-5
- VII. **NUMERICAL SIMULATION ON THE COLLECTION EFFICIENCY OF THE PARTICLES IN THE AIR BY THE WIRE-PLATEELECTROSTATIC PRECIPITATORS**
Kılıç M., Mutlu M., Altun A. F.
15th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (ATE-HEFAT 2021), Johannesburg, South Africa, 26 - 28 July 2021, pp.1672-1676
- VIII. **EXPERIMENTAL EVALUATION OF CIGARETTE SMOKE REMOVAL PERFORMANCE OF VARIOUS INDOOR AIR CLEANING DEVICES**
KILIÇ M., MUTLU M., ALTUN A. F.
15th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (ATE-HEFAT 2021), South Africa, 26 - 28 July 2021, pp.875-878
- IX. **Dynamic simulation and economic analysis of a hybrid stand-alone power system with hydrogen production and storage for various climates in Turkey.**
ALTUN A. F., KILIÇ M.
Alternative Energy Sources, Materials Technologies (AESMT'20), Varna, Bulgaria, 8 - 09 June 2020, pp.71-72
- X. **Dynamic simulation and thermo-economic optimization of a hybrid stand-alone power system for various climates in Turkey**
ALTUN A. F., KILIÇ M.
Alternative Energy Sources, Materials Technologies (AESMT'20), Varna, Bulgaria, 8 - 09 June 2020, pp.41-42
- XI. **Wind Energy Generation and Potential Assessment of Armutlu District**
Altun A. F., Kılıç M.
22nd Congress on Thermal Science and Technology, Kocaeli, Turkey, 11 - 14 September 2019, vol.1, pp.41-46
- XII. **Utilization of electrostatic precipitators for healthy indoor environments**
ALTUN A. F., KILIÇ M.
13th REHVA World Congress, CLIMA 2019, Bucharest, Romania, 26 - 29 May 2019, vol.111
- XIII. **Dynamic simulation and parametric study of a single effect solar absorption cooling system**
ALTUN A. F., KILIÇ M.
Alternative Energy Sources, Materials Technologies (AESMT'19), Sofya, Bulgaria, 3 - 04 June 2019, vol.1, pp.9-10
- XIV. **Energy and exergy analysis of a real geothermal ORC power plant**
Altun A. F., Kılıç M.
Alternative Energy Sources, Materials Technologies (AESMT'19), Sofija, Bulgaria, 3 - 04 June 2019, vol.1, pp.35-36
- XV. **Synthesis of knowledge on utilization of adsorption filters for healthy indoor environments.**
Altun A. F., Kılıç M.
REHVA 13th HVAC World Congress (CLIMA 2019), Bucuresti, Romania, 26 - 29 May 2019, pp.223-229
- XVI. **An investigation of the ammonia adsorption performance on different adsorbents for cooling applications.**
ALTUN A. F., KILIÇ M.
Alternative Energy Sources, Materials Technologies (AESMT'18), Plovdiv, Bulgaria, 14 - 15 May 2018, vol.50, pp.45-52
- XVII. **Renewable Energy Integration in Urban Systems: Case Study of Armutlu District.**
ALTUN A. F., KILIÇ M.
3rd Conference of Interdisciplinary Research on Real Estate (2018 CIRRE Conference), Groningen, Netherlands, 20 - 21 September 2018, pp.197-209
- XVIII. **Geçmişten günümüze otomobil aydınlatma sistemleri**

Şentürk S., Altun A. F., Sevilgen G., Kılıç M.

OTEKON 2018, 9th International Automotive Technologies Congress, Bursa, Turkey, 7 - 08 May 2018, vol.1, pp.1844

XIX. Energy efficiency analysis of residential buildings through transient simulation.

ALTUN A. F., KILIÇ M.

(PT2018) 5th International Academic Conference on Places and Technologies, Belgrade, Serbia And Montenegro, 26 - 27 April 2018, vol.1, pp.332-339

XX. Geothermal district heating systems design: Case study of Armutlu district.

ALTUN A. F., KILIÇ M.

(PT2018) 5th International Academic Conference on Places and Technologies, Belgrade, Serbia And Montenegro, 26 - 27 April 2018, vol.1, pp.148-156

XXI. Merkezi ısıtma sistemlerinin farklı çalışma sıcaklıkları için incelenmesi: Bir üniversite kampüsü tasarımı örneği.

ALTUN A. F., KILIÇ M.

(AES 2018) 4th Anatolian Energy Symposium with International Participation, Edirne, Turkey, 18 - 20 April 2018

XXII. Achieving Sustainable Buildings via Energy Efficiency Retrofit: Case Study of a Hotel Building

KILIÇ M., ALTUN A. F.

3rd International Sustainable Buildings Symposium (ISBS), U ARAB EMIRATES, 15 - 17 March 2017, vol.7, pp.97-107

XXIII. NANO INSULATION MATERIALS FOR BUILDING APPLICATIONS

ALTUN A. F., KILIÇ M.

INTERNATIONAL CONFERENCE ON ENERGY AND THERMAL ENGINEERING, İstanbul, Turkey, 25 - 28 April 2017

XXIV. Nano insulation materials for building energy efficiency

ALTUN A. F., KILIÇ M.

1st International Conference on Energy and Thermal Engineering, İstanbul, Turkey, 25 - 28 April 2017, pp.25-28

XXV. Comparative analysis of central heating systems working with different flow temperature ranges: A case study of a university campus.

ALTUN A. F., KILIÇ M.

1st International Conference on Energy and Thermal Engineering, İstanbul, Turkey, 25 - 28 April 2017, pp.837

XXVI. ACHIEVING SUSTAINABLE BUILDINGS VIA ENERGY EFFICIENCY RETROFIT A CASE STUDY OF AN INDUSTRIAL BUILDING

KILIÇ M., ALTUN A. F.

8th International Exergy, Energy and Environment Symposium (IEEES 2016), Antalya, Turkey, 1 - 04 May 2016, pp.416-421

Supported Projects

Sevilgen G., Kılıç M., Etemoğlu A. B., Karpat F., Kaya N., Sürmen A., Karamangil M. İ., Kuş A., Çavdur F., Cindoruk S. S., et al, TUBITAK Project, TÜBİTAK 1004 (Mükemmeliyet Merkezi Destek Programı) Elektrikli Taşıtlar İçin Batarya Teknolojileri Araştırma ve Geliştirme Platformu (BATEG), 2022 - 2026

KILIÇ M., KARPAT E., ÇETİN KORUKÇU M., MUTLU M., TÜBİTAK - AB COST Project, İç Ortamlar İçin Taşınabilir Hava Temizleme Sistemi Tasarımı Ve Prototip İmalatı, 2019 - 2021

Scientific Refereeing

ENERGY JOURNAL, SCI Journal, July 2024

International journal of energy studies (Online), National Scientific Refreed Journal, May 2024

RENEWABLE ENERGY, SCI Journal, April 2024

ENERGY SOURCES, Journal Indexed in SCI-E, January 2024

RENEWABLE ENERGY, Journal Indexed in SCI-E, November 2023
Sustainability, Journal Indexed in SCI-E, October 2023
RENEWABLE ENERGY, Journal Indexed in SCI-E, September 2023
RENEWABLE ENERGY, Journal Indexed in SCI-E, August 2023
SUSTAINABILITY, Journal Indexed in SCI-E, April 2023
unconventional resources, Other Indexed Journal, September 2022
Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, National Scientific Refreed Journal, September 2022
RENEWABLE ENERGY, Journal Indexed in SCI-E, March 2022
ADIYAMAN ÜNİVERSİTESİ MÜHENDİSLİK BİLİMLERİ DERGİSİ, National Scientific Refreed Journal, November 2021
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCI-E, November 2021
RENEWABLE ENERGY, SCI Journal, September 2021
RENEWABLE ENERGY, SCI Journal, September 2021

Metrics

Publication: 44
Citation (WoS): 214
Citation (Scopus): 257
H-Index (WoS): 6
H-Index (Scopus): 7

Scholarships

2515 TÜBİTAK-COST Projesi Doktora Bursiyeri (İç ortamlar için taşınabilir hava temizleme sistemi tasarımı ve prototip imalatı), TUBITAK, 2020 - 2021

Awards

Kılıç M., Mutlu M., Altun A. F., BEST PAPER AWARD, The 15Th International Conference On Heat Transfer, Fluid Mechanics And Thermodynamics (Hefat) And Editorial Board Of Applied Thermal Engineering (Ate), July 2021