

Res. Asst. PhD Serkan ERDEM

Personal Information

Email: serdem@yildiz.edu.tr

Web: <https://avesis.yildiz.edu.tr/serdem>

International Researcher IDs

ScholarID: KUGY6kkAAAAJ

ORCID: 0000-0002-9553-6769

Publons / Web Of Science ResearcherID: ABB-5007-2020

ScopusID: 36450394300

Yoksis Researcher ID: 174439

Education Information

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Makine Mühendisliği, Turkey
2007 - 2013

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Makine Mühendisliği, Turkey
2005 - 2007

Undergraduate, Yildiz Technical University, Faculty Of Mechanical Engineering, Makine Mühendisliği, Turkey 2001 - 2005

Research Areas

Mechanical Engineering, Thermodynamics, Engineering and Technology

Academic Titles / Tasks

Research Assistant PhD, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2013 - Continues

Research Assistant, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2005 - 2013

Academic and Administrative Experience

Yıldız Teknik Üniversitesi, Mezunlar Koordinatörlüğü, 2018 - Continues

Courses

Tesisat Bilgisi , Undergraduate, 2018 - 2019

Bina Otomasyonu ve İşletmesi, Undergraduate, 2017 - 2018

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Investigation of Chinese-Style Greenhouse Usage Across Europe**
Erdem S., Onan C.
ENERGIES, vol.17, no.21, pp.1-15, 2024 (SCI-Expanded)
- II. **Analysis of optimum insulation thickness for external walls at different orientations based on real-time measurements**
Onan C., Erdem S., Özkan D. B., Baykal C.
Thermal Science, vol.24, no.3, pp.2035-2046, 2020 (SCI-Expanded)
- III. **The effects of fin-and-tube evaporator geometry on heat pump performance under dehumidifying conditions**
Erdem S.
INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.57, pp.35-45, 2015 (SCI-Expanded)
- IV. **Numerical Investigation of the Effect of Using CO₂ as the Refrigerant in a Heat Pump Tumble Dryer System**
Erdem S., Heperkan H. A.
DRYING TECHNOLOGY, vol.32, pp.1923-1930, 2014 (SCI-Expanded)
- V. **CFD and Experimental Analysis of a Falling Film outside Smooth and Helically Grooved Tubes**
ONAN C., OZKAN D. B., ERDEM S.
ADVANCES IN MECHANICAL ENGINEERING, 2014 (SCI-Expanded)
- VI. **Exergy analysis of a solar assisted absorption cooling system on an hourly basis in villa applications**
ONAN C., ÖZKAN D. B., ERDEM S.
ENERGY, vol.35, no.12, pp.5277-5285, 2010 (SCI-Expanded)

Articles Published in Other Journals

- I. **R1234yf and R744 as alternatives to R134a at mobile air conditioners**
ONAN C., ERDEM S.
Journal of Energy Systems, vol.5, no.4, pp.284-295, 2021 (Scopus)
- II. **Effects of Using Air Curtains on Energy Consumption During Cooling Season Under Different Climate Conditions**
Erdem S., Onan C.
International Journal of Air-Conditioning and Refrigeration, vol.29, no.4, pp.1-9, 2021 (ESCI)
- III. **TMY (Tipik Meteorolojik Yıl) Metodu Kullanılarak 4 Farklı İklim Bölgesinin Analizi**
Onan C., Erdem S., Sevindir M. K.
Tesisat Mühendisliği, vol.2021, no.183, pp.20-27, 2021 (Peer-Reviewed Journal)
- IV. **Investigation of the Effect on Performance of Using Direct Evaporative Cooler Operating with Different Water Temperature for All Provinces of Turkey**
Onan C., Erdem S.
Tesisat Mühendisliği, no.180, pp.30-40, 2020 (Peer-Reviewed Journal)
- V. **Effect of Heating and Cooling Degree Day Values on Optimum Insulation Thickness in Buildings**
Kürekci N. A., Erdem S.
Tesisat Mühendisliği, no.172, pp.7-20, 2019 (Peer-Reviewed Journal)
- VI. **Exergy assessments by using real-time measurements in a factory**
Onan C., Ozkan D. B., Erdem S.
International Journal of Mechanical Engineering and Robotics Research, vol.6, no.2, pp.147-153, 2017 (Scopus)
- VII. **Isı Pompalarının Isıtma ve Soğutma Kapasitelerinin Belirlenmesine Yönelik Bir Modelleme Çalışması**
ERDEM S., ONAN C., ÖZKAN D. B., HEPERKAN H. A.
Tesisat Mühendisliği, 2016 (Peer-Reviewed Journal)
- VIII. **Isıtma ve Soğutma Sistemlerinde Yenilenebilir Enerji Uygulamaları**
ERDEM S., ONAN C., ÖZKAN D. B.

Tesisat Mühendisliği, 2016 (Peer-Reviewed Journal)

- IX. **EFFECT OF INSULATION MATERIAL THICKNESS ON THERMAL INSULATION**
Özkan D. B., Onan C., Erdem S.
Sigma Journal of Engineering and Natural Sciences, vol.2009, no.27, pp.190-196, 2009 (ESCI)
- X. **TS 825 Binalarda Isı Yalıtımı Kuralları Standardındaki Değişikliklerin Analizi**
ONAN C., Erdem S.
Tesisat Mühendisliği Dergisi, no.109, pp.49-52, 2009 (Peer-Reviewed Journal)
- XI. **Yapılarda Yalıtım Uygulamasının Ekonomik Analizi**
Özkan D. B., Onan C., Erdem S., Tural M.
İzolasyon Dünyası, vol.1, no.66, pp.55-59, 2007 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **ECONOMIC ANALYSIS OF AIR CURTAIN USE IN A FACTORY BUILDING**
Onan C., Erdem S.
ISPEC2021, Siirt, Turkey, 16 - 18 May 2021, pp.271-278
- II. **Energy Efficiency Improvement for the Mobile Air Conditioning Systems**
Onan C., Erdem S.
ECRES2021, İstanbul, Turkey, 21 - 23 April 2021, pp.391-395
- III. **ECONOMIC ANALYSIS OF THE HEAT RECOVERY EQUIPMENT IN THE AIR CONDITIONING SYSTEM OF A HOTEL BUILDING DURING WINTER AND SUMMER SEASON**
ÖZKAN D. B., ONAN C., ERDEM S.
3rd CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING ISTANBUL 2017 – ICAME2017, 19 - 21 December 2017
- IV. **INVESTIGATION OF THE PERFORMANCE OF ALTERNATIVE REFRIGERANTS COMPARED TO THE R134A REFRIGERANT**
ONAN C., ERDEM S., ÖZKAN D. B., FİLİZ T.
3rd CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING ISTANBUL 2017 – ICAME2017, 19 - 21 December 2017
- V. **MODELING OF AIR CONDITIONING SYSTEM USING R407C REFRIGERANT IN RAILWAY VEHICLES**
ERDEM S., ÖZKAN D. B., ONAN C.
3rd CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING ISTANBUL 2017 – ICAME2017, 19 - 21 December 2017
- VI. **The Effects of Gas Cooler Inlet Pressure on System Performance in Heat Pump Tumble Dryers**
Erdem S., Onan C., Heperkan H. A., Özkan D. B.
INTERNATIONAL REFRIGERATION AND AIR CONDITIONING CONFERENCE, Indiana, United States Of America, 10 - 16 July 2014, pp.1-10
- VII. **The Effects of Fin Spacing and Tube Outer Diameter of Evaporator on System Performance in Heat Pump Tumble Dryers**
ONAN C., Erdem S., Özkan D. B., Heperkan H. A.
01 July 2014
- VIII. **Use of Alternative Refrigerants in Heat Pump Dryer**
ERDEM S., Heperkan H. A., Özkan D. B.
Humboldt Koleg 2013, 01 December 2013
- IX. **The effect of insulation on energy savings and costs for the current building inventory in Turkey**
ERDEM S., ONAN C., ÖZKAN D. B., Bedirli S. E.
ASME 2012 International Mechanical Engineering Congress and Exposition, IMECE 2012, Houston, TX, United States Of America, 9 - 15 November 2012, vol.7, pp.745-753
- X. **conomic Analysis of Solar Assisted Ground Source Heat Pump System by Comparing Conventional System in Heating and Cooling a Villa.**

Erdem S., Özkan D. B., Onan C.

46th International Congress AICARR, Milan, Italy, 20 - 23 June 2008, pp.1-10

XI. Economic Analysis of Solar Assisted Absorption Cooling Systems in Climatization of the Villas

ONAN C., Özkan D. B., Erdem S.

01 March 2008, vol.1, pp.335-350

Supported Projects

Erdem S., Onan C., Özkan D. B., Heperkan H. A., Industrial Thesis Project, Isı Pompalı Kurutma Sistemlerinde Alternatif Soğutkanların Performansa Etkisinin Sayısal ve Deneysel İncelemesi, 2012 - 2014

Scientific Refereeing

Exergy analysis as a tool to evaluate refrigerant options for a heat pump tumble dryer, SCI Journal, June 2014

Application of thermal resistance based on the entransy concept in the thermodynamic analysis of CO2 evacuated solar collector, SCI Journal, November 2012

Metrics

Publication: 29

Citation (WoS): 57

Citation (Scopus): 64

H-Index (WoS): 3

H-Index (Scopus): 4

Non Academic Experience

Other, International Conference On Power And Energy Systems

EPA Ticaret Makine Sanayi ve Turizm İşletmeleri A. Ş.

MYK

Alexander von Humboldt Vakfı

İstanbul Uygulamalı Gaz ve Enerji Teknolojileri Araştırma Mühendislik Sanayi Ticaret A.Ş.