

Assoc. Prof. Ahmet Numan ÖZAKIN

Personal Information

Web: <https://avesis.atauni.edu.tr/ahmet.ozakin>

International Researcher IDs

ScholarID: liFUgcQAAAAJ

ORCID: 0000-0002-2083-8703

ScopusID: 57197853224

Yoksis Researcher ID: 102194

Education Information

Doctorate, Ataturk University, Fen Bilimleri Enstitüsü, Makine Mühendisliği Anabilim Dalı, Turkey 2016 - 2020

Postgraduate, Ataturk University, Fen Bilimleri Enstitüsü, Makine Mühendisliği, Turkey 2013 - 2016

Undergraduate, Ataturk University, Mühendislik Fakültesi, Makine Mühendisliği, Turkey 2008 - 2013

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, BÜTÜNLEŞİK FOTOVOLTAİK-ISI POMPASI SİSTEMİNİN PERFORMANS ANALİZİ, Ataturk University, Fen Bilimleri Enstitüsü, Makine Mühendisliği Anabilim Dalı, 2020

Postgraduate, Hava soğutmalı fotovoltaik termal (PVT) sisteminin termodinamik analizi, Atatürk Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği, 2016

Research Areas

Mechanical Engineering, Energy, Fluid Mechanics, Alternative Energy Resources, Thermodynamics, Computational fluid dynamics, Thermal Systems, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Ataturk University, Mühendislik Fakültesi, Makine Mühendisliği, 2020 - Continues

Research Assistant PhD, Ataturk University, Mühendislik Fakültesi, Makine Mühendisliği, 2020 - 2020

Research Assistant, Ataturk University, Mühendislik Fakültesi, Makine Mühendisliği, 2017 - 2020

Research Assistant, Ataturk University, Mühendislik Fakültesi, Enerji Sistemleri Mühendisliği, 2013 - 2017

Academic and Administrative Experience

Assistant Coordinator, Ataturk University, Rektörlük, Energy Management Office, 2021 - Continues

Courses

Mühendislikte CFD Uygulamaları, Postgraduate, 2021 - 2022
Heat Transfer 1, Undergraduate, 2021 - 2022
CFD Applications in Engineering, Postgraduate, 2020 - 2021
Statistics and Probability, Undergraduate, 2020 - 2021

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **OPTIMIZATION WITH TAGUCHI METHOD FOR INCREASING THE HEAT TRANSFER AND DRYING EFFICIENCY IN A NOVEL SOLAR COLLECTOR**
Gozubuyuk S., Omeroglu G., ÖZAKIN A. N.
HEAT TRANSFER RESEARCH, no.3, pp.61-74, 2024 (SCI-Expanded)
- II. **EXPERIMENTAL DETERMINATION OF THE EFFECT OF FINS OF DIFFERENT CYLINDRICAL GEOMETRIES ON ELECTRICAL AND THERMAL EFFICIENCY IN AN AIR-COOLED PVT SYSTEM**
Demir M., ÖMEROĞLU G., ÖZAKIN A. N.
HEAT TRANSFER RESEARCH, vol.54, no.3, pp.1-16, 2023 (SCI-Expanded)
- III. **A novel ignition timing strategy to regulate the energy balance during the warm up phase of an SI engine**
Koksal H., Ceviz M. A., YAKUT K., Kaltakkiran G., ÖZAKIN A. N.
CASE STUDIES IN THERMAL ENGINEERING, vol.41, 2023 (SCI-Expanded)
- IV. **TAGUCHI APPROACH FOR EXPERIMENTAL EFFICIENCY ANALYSIS OF ULTIMATE-BLACK COATED FLAT PLATE SOLAR COLLECTOR**
ÖMEROĞLU G., Gozubuyuk S., ÖZAKIN A. N.
HEAT TRANSFER RESEARCH, vol.53, no.10, pp.1-14, 2022 (SCI-Expanded)
- V. **Optimization of operational parameters for a photovoltaic panel cooled by spray cooling**
YEŞİLDAL F., ÖZAKIN A. N., YAKUT K.
Engineering Science and Technology, an International Journal, vol.25, 2022 (SCI-Expanded)
- VI. **EXPERIMENTAL AND NUMERICAL INVESTIGATION OF USING SEMICIRCULAR ROTATING TURBULATORS FOR HEAT TRANSFER AUGMENTATION IN THE PARABOLIC TROUGH SOLAR COLLECTOR**
ÖZAKIN A. N.
HEAT TRANSFER RESEARCH, vol.53, no.15, pp.1-16, 2022 (SCI-Expanded)
- VII. **Experimental determination of cooling performance on heat sinks with cone-jet electrospray mode**
Kabakuş A., YAKUT K., ÖZAKIN A. N., Yakut R.
Engineering Science and Technology, an International Journal, vol.24, pp.665-670, 2021 (SCI-Expanded)
- VIII. **Performance Analysis of Photovoltaic-Heat Pump (PV/T) Combined Systems: A Comparative Numerical Study**
ÖZAKIN A. N., YAKUT K., Khalaji M. N.
JOURNAL OF SOLAR ENERGY ENGINEERING-TRANSACTIONS OF THE ASME, vol.142, no.2, 2020 (SCI-Expanded)
- IX. **Experimental thermodynamic analysis of air-based PVT system using fins in different materials: Optimization of control parameters by Taguchi method and ANOVA**
ÖZAKIN A. N., Kaya F.
Solar Energy, vol.197, pp.199-211, 2020 (SCI-Expanded)
- X. **Effect on the exergy of the PVT system of fins added to an air-cooled channel: A study on temperature and air velocity with ANSYS Fluent**
ÖZAKIN A. N., Kaya F.

Articles Published in Other Journals

- I. **Improving the Thermal Efficiency of the Parabolic Trough Solar Collector: An Overview**
Yesildal F., ÖZAKIN Ö., Mahdi BAAMEL S., AL-AGELE A. A.
Karadeniz Fen Bilimleri Dergisi, vol.13, no.3, pp.781-800, 2023 (Peer-Reviewed Journal)
- II. **Comparison of electro-spray and mechanical spray atomization cooling performances on heat sinks**
Kabakus A., YAKUT K., ÖZAKIN A. N.
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, no.2, pp.765-773, 2023 (ESCI)
- III. **CFD Analysis of Using Umbrella Shaped Turbulators to Improve Heat Transfer in a Horizontal Pipe**
ÖZAKIN A. N.
International Journal of Innovative Research and Reviews, vol.6, no.1, pp.30-34, 2022 (Peer-Reviewed Journal)
- IV. **Numerical analysis of the effect of single and cascade air jets on heat and flow characteristics in plane surface heat sinks**
ÖZAKIN A. N., KABAKUŞ A.
Gümüşhane Üniversitesi Fen Bilimleri Dergisi, vol.12, no.3, pp.839-847, 2022 (Peer-Reviewed Journal)
- V. **Numerical Investigation of Heat Transfer Characteristics on Differential Square Fin Heat Sinks**
KABAKUŞ A., ÖZAKIN A. N.
International Journal of Innovative Research and Reviews, vol.6, no.1, pp.76-81, 2022 (Peer-Reviewed Journal)
- VI. **Numerical Analysis of Heat and Flow Characteristics of Decaying Flow in Different Geometries Created Externally in a Horizontal Pipe**
ÖZAKIN A. N., ÖNER İ. V.
Karadeniz Fen Bilimleri Dergisi, vol.12, no.1, pp.414-424, 2022 (Peer-Reviewed Journal)
- VII. **Çarpan jetle ısı transferinde geometrik parametrelerin sayısal optimizasyonu: Yanıt yüzey yöntemi**
ÖZAKIN A. N., YEŞİLDAL F.
Gümüşhane Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.12, no.1, pp.357-369, 2022 (Peer-Reviewed Journal)
- VIII. **Hava Soğutmalı PVT Panellerde Panel Yüzey Sıcaklığını Etkileyen Kontrol Parametrelerinin Optimizasyonu**
ÖZAKIN A. N., KAYA F.
İğdır Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.10, no.1, pp.509-519, 2020 (Peer-Reviewed Journal)
- IX. **Effect of Using Fins on Cell Temperature at Air-Based PVT**
ÖZAKIN A. N., KAYA F.
İğdır Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.10, no.1, pp.477-488, 2020 (Peer-Reviewed Journal)
- X. **Techniques for Enhancing and Maintaining Electrical Efficiency of Photovoltaic Systems**
YEŞİLYURT M. K., NASİRİ M., ÖZAKIN A. N.
International Journal of New Technology and Research (IJNTR), vol.4, pp.44-53, 2018 (Peer-Reviewed Journal)
- XI. **Experimental Investigation of Thermal Performance of Photovoltaic Thermal (PVT) Systems**
ÖZAKIN A. N., YEŞİLYURT M. K., YAKUT K.
International Journal of Engineering Research Science, vol.12, pp.23-27, 2017 (Peer-Reviewed Journal)
- XII. **Operational Stability and Degradation of Organic Solar Cells**
Yılmaz E. Ç., Yeşilyurt M. K., Öner İ. V., Ömeroğlu G., Özakin A. N.
Periodicals of Engineering and Natural Sciences, vol.5, pp.152-160, 2017 (Scopus)
- XIII. **Alternatif Enerji Kaynağı Olarak Kaya Gazı**
KARSLI S., ÖZAKIN A. N., GÜLLÜCE H., KAYA F., YEŞİLYURT M. K.
Doğalgaz Dergisi, pp.69-74, 2016 (Peer-Reviewed Journal)
- XIV. **The Effects on Heat Saving of Lightweight Aggregate Based on Pumice**
GÜLLÜCE H., KAYA F., ÖZAKIN A. N., KARSLI S.
International Journal of Thales Engineering Sciences, vol.2, pp.44-48, 2016 (Peer-Reviewed Journal)
- XV. **SHALE GAS POTENTIAL IN TURKEY AND ITS ROLE IN WORLD ENERGY MARKETS**

KARSLI S., KAYA F., GÜLLÜCE H., ÖZAKIN A. N.

Mugla Journal of Science and Technology, vol.2, pp.27-29, 2016 (Peer-Reviewed Journal)

XVI. Effects of Using Phase Change Materials On the Cold Start Exhaust Emissions Characteristics of Diesel Engines

KAYA F., CEVİZ M. A., KALELİ A., GÜLLÜCE H., ÖZAKIN A. N.

Mugla Journal of Science and Technology, 2016 (Peer-Reviewed Journal)

XVII. EFFECTS OF USING PHASE CHANGE MATERIALS ON THE COLD START EXHAUST EMISSIONS CHARACTERISTICS OF DIESEL ENGINES

KAYA F., CEVİZ M. A., KALELİ A., GÜLLÜCE H., ÖZAKIN A. N.

Mugla Journal of Science and Technology, pp.15-18, 2016 (Peer-Reviewed Journal)

XVIII. Importance of Renewable Energy in Cold Climate Regions

KARSLI S., ÖZAKIN A. N., KAYA F., GÜLLÜCE H.

International Journal of Thales Engineering Sciences, vol.2, pp.1-6, 2016 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. R22, R134A, R407C Soğutucu Gazlarının Soğutma Çevrimlerinin Analizi

DEMİR M., ÖZAKIN A. N.

ASES II. International Health, Engineering and Sciences Conference, Kayseri, Turkey, 19 - 21 August 2022, pp.55-56

II. Farklı Geometrilerdeki Türbülatoörlere Sahip Yatay Borudaki Isı Transferi Karakteristiklerinin Taguchi Metodu İle Optimizasyonu

ÖZAKIN A. N.

International Symposium on Advanced Engineering Technologies, Kahramanmaraş, Turkey, 16 - 18 June 2022, pp.108-113

III. Geometric Optimization of The Heat Sink With Curved Fin Design By Impingement Air Jet

ÖZAKIN A. N., KABAKUŞ A.

International Technology Sciences and Design Symposium, Giresun, Turkey, 02 June 2022, pp.13

IV. ELEKTROSPREY SOĞUTMADA NOZUL ÇAPI VE SAYISININ ISI TRANSFERİNE ETKİLERİNİN BELİRLENMESİ

KABAKUŞ A., YAKUT K., ÖZAKIN A. N.

ULIBTK'21 Uluslararası Katılımlı 23. Isı Bilimi ve Tekniğı Kongresi, Gaziantep, Turkey, 08 September 2021

V. PERFORMANCE ANALYSIS OF AN EVAPORATOR HAVING RECTANGULAR FINS ON PHOTOVOLTAIC-HEAT PUMP COMBINED SYSTEM

ÖZAKIN A. N., YAKUT K., KABAKUŞ A., OSTA M. H., YEŞİLDAL F.

ULIBTK'21 Uluslararası Katılımlı 23. Isı Bilimi ve Tekniğı Kongresi, Gaziantep, Turkey, 08 September 2021

VI. FOTOVOLTAİK SİSTEMLERDE SPREY SOĞUTMANIN DENEYSSEL ANALİZİ

OSTA M. H., ÖZAKIN A. N., YEŞİLDAL F., YAKUT K.

ULIBTK'21 Uluslararası Katılımlı 23. Isı Bilimi ve Tekniğı Kongresi, Gaziantep, Turkey, 08 September 2021

VII. Yeni Tasarım Evaporatörün PV/T-Isı Pompası Bütünleşik Sistemine Etkisinin Sayısal Olarak İncelenmesi

ÖZAKIN A. N., YAKUT R., YAKUT K.

22. ISI BİLİMİ VE TEKNİĞİ KONGRESİ, Kocaeli, Turkey, 11 - 14 September 2019

VIII. Energy Analysis of Asphalt Plants

YAKUT K., KAYA Ö., OSTA M. H., ÖZAKIN A. N.

ISASE 2018, 26 - 28 November 2018

IX. Energy Efficiency and Energy Management in Asphalt Plants

KAYA Ö., YAKUT K., ÖZAKIN A. N., OSTA M. H.

ISASE 2018, 26 - 28 November 2018

X. The Effect of Spray Characteristics on Drop Diameters and SMD Correlations

YEŞİLDAL F., YAKUT K., KARABEY A., ÖZAKIN A. N.

ISASE2018, Erzurum, Turkey, 26 - 28 November 2018, pp.62-67

- XI. **Energy Storage: Need, Value, Perspectives and Prospects**
YEŞİLYURT M. K., ÖNER İ. V., ÖMEROĞLU G., YILMAZ E. Ç., ÖZAKIN A. N.
2nd International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017
- XII. **Fotovoltaik Termal (PVT) Sistemlerin Isıl Performansının Deneysel Olarak İncelenmesi**
ÖZAKIN A. N., YEŞİLYURT M. K., ÖNER İ. V., YAKUT K.
2nd International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017
- XIII. **A Numerical Analysis Of Heat Characteristics For Different Heat Sinks With Impingement Jet**
YAKUT R., YAKUT K., ÖZAKIN A. N., KARABEY A.
International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017, pp.1056-1062
- XIV. **Soğuk İklim Bölgelerinde, Isınma Maksatlı Isı Pompası ve Fotovoltaik PV Hibrit Sistemlerinin Kullanımının Araştırılması**
ÖNER İ. V., YEŞİLYURT M. K., YILMAZ E. Ç., ÖMEROĞLU G., ÖZAKIN A. N.
2nd International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017, pp.1411
- XV. **Experimental Investigation of Thermal Performance in Photovoltaic Thermal (PVT) Systems**
ÖZAKIN A. N., YEŞİLYURT M. K., ÖNER İ. V., YAKUT K.
2nd International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017, pp.386-390
- XVI. **Degradation and Stabilization of Organic Solar Cells**
YILMAZ E. Ç., YEŞİLYURT M. K., ÖNER İ. V., ÖZAKIN A. N.
International Conference on Engineering and Natural Science, Budapest, Hungary, 3 - 07 May 2017
- XVII. **USING THE PUMICE IN CONSTRUCTION AS AN INSULATION MATERIAL**
GÜLLÜCE H., KARSLI S., ÖZAKIN A. N., KAYA F.
INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, Sarajevo, Bosnia And Herzegovina, 24 - 28 May 2016, pp.203
- XVIII. **SHALE GAS DRILLING AND ITS EFFECTS ON OIL MARKETS**
ÖZAKIN A. N., KARSLI S., GÜLLÜCE H., KAYA F.
INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, Sarajevo, Bosnia And Herzegovina, 24 - 28 May 2016, pp.197
- XIX. **USING THE PUMICE IN CONSTRUCTION AS AN INSULATION MATERIAL**
GÜLLÜCE H., KARSLI S., ÖZAKIN A. N., KAYA F.
INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, Sarajevo, Bosnia And Herzegovina, 24 - 28 May 2016
- XX. **SHALE GAS DRILLING AND ITS EFFECTS ON OIL MARKETS**
ÖZAKIN A. N., KARSLI S., GÜLLÜCE H., KAYA F.
INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, Sarajevo, Bosnia And Herzegovina, 24 - 28 May 2016
- XXI. **Using Phase Changing Materials to Reduce the Cold Start and Warm up Problems of DI Diesel Engines**
KAYA F., CEVİZ M. A., GÜLLÜCE H., KARSLI S., ÖZAKIN A. N.
INTERNATIONAL PHYSICS CONFERENCE AT THE ANATOLIAN PEAK, Erzurum, Turkey, 25 - 27 February 2016
- XXII. **The heat recovery with heat transfer methods from solar photovoltaic systems**
ÖZAKIN A. N., Karsli S., Kaya F., GÜLLÜCE H.
1st International Physics Conference at the Anatolian Peak, IPCAP 2016, Erzurum, Turkey, 25 - 27 February 2016, vol.707
- XXIII. **Importance of Renewable Energy in Cold Climate Regions**
KARSLI S., ÖZAKIN A. N., KAYA F., GÜLLÜCE H.
INTERNATIONAL PHYSICS CONFERENCE AT THE ANATOLIAN PEAK, Erzurum, Turkey, 25 - 27 February 2016
- XXIV. **Using Phase Changing Materials to Reduce the Cold Start and Warm up Problems of DI Diesel Engines**
KAYA F., CEVİZ M. A., GÜLLÜCE H., KARSLI S., ÖZAKIN A. N.

- INTERNATIONAL PHYSICS CONFERENCE AT THE ANATOLIAN PEAK, Erzurum, Turkey, 25 - 27 February 2016
- XXV. **The Effectss on Heat Saving of Lightweight Aggregate Based on Pumice**
GÜLLÜCE H., KAYA F., ÖZAKIN A. N., KARSLI S.
INTERNATIONAL PHYSICS CONFERENCE AT THE ANATOLIAN PEAK, Erzurum, Turkey, 25 - 27 February 2016,
pp.138
- XXVI. **TÜRKİYE DE KAYA GAZI POTANSİYELİ ve EKONOMİK BEKLENTİLER**
KARSLI S., KAYA F., GÜLLÜCE H., ÖZAKIN A. N.
MÜHENDSİLİKTE YENİ TEKNOLOJİLER SEMPOZYUMU, Turkey, 22 - 24 October 2015
- XXVII. **TÜRKİYE DE KAYA GAZI POTANSİYELİ ve EKONOMİK BEKLENTİLER**
KARSLI S., KAYA F., GÜLLÜCE H., ÖZAKIN A. N.
MÜHENDSİLİKTE YENİ TEKNOLOJİLER SEMPOZYUMU, Bayburt, Turkey, 22 - 24 October 2015
- XXVIII. **Termoelektrik ve Soğutma Destekli PV-Cell Termodinamik Verim Analizi**
ÖZAKIN A. N., KARSLI S., KAYA F., GÜLLÜCE H.
Mühendislikte Yeni Teknolojiler Sempozyumu (2015)/Bayburt, 22 October 2015
- XXIX. **Türkiye de Kaya Gazı Potansiyeli ve DünyaEnerji Piyasasındaki Rolü**
KARSLI S., KAYA F., GÜLLÜCE H., ÖZAKIN A. N.
3. ANADOLU ENERJİ SEMPOZYUMU, Muğla, Turkey, 1 - 03 October 2015, pp.184-189
- XXX. **Termoelektrik Pv Cell İklimlendirme Üçlü Hibrid Sistemi Tasarımı ve Analizi**
ÖZAKIN A. N., KARSLI S., KAYA F., GÜLLÜCE H.
3. ANADOLU ENERJİ SEMPOZYUMU, Muğla, Turkey, 1 - 03 October 2015, pp.164-168

Metrics

Publication: 60

Citation (WoS): 92

Citation (Scopus): 106

H-Index (WoS): 4

H-Index (Scopus): 4