Prof. MESUT ABUŞKA

Personal Information

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International Researcher IDs
ScholarID: 4lt0MMUAAAAJ
ORCID: 0000-0003-2686-9786
Publons / Web Of Science ResearcherID: H-1765-2018
ScopusID: 57191577559
Yoksis Researcher ID: 104769

Education

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Turkey 2004 - 2010
Postgraduate, Marmara University, Institute For Graduate Studies İn Pure And Applied Sciences, Turkey 1999 - 2002
Undergraduate, Gazi University, Teknik Eğitim Fakültesi, Turkey 1994 - 1998

Foreign Languages

English

Dissertations

Doctorate, Endüstriyel tip ısı pompalı kurutucuda, çekirdeksiz üzümün kurutulması ve enerji analizinin deneysel olarak yapılması, Gazi University, Fen Bilimleri Enstitüsü, 2010
Postgraduate, Jeotermal enerjili üzüm kurutma sistemi tasarımı, Marmara University, Institute For Graduate Studies İn Pure And Applied Sciences, 2002

Research Areas

Avesis Research Areas: Engineering and Technology
WoS Research Areas: Engineering Computing & Technology (Eng)

Academic Positions

Associate Professor, Manisa Celal Bayar University, AKHİSAR MESLEK YÜKSEKOKULU, MAKİNE VE METAL TEKNOLOJİLERİ, 2020 - Present
Assistant Professor, Manisa Celal Bayar University, AKHİSAR MESLEK YÜKSEKOKULU, MAKİNE VE METAL TEKNOLOJİLERİ, 2011 - 2020

Academic and Administrative Experience

Manisa Celal Bayar University, 2012 - Present

Courses

Undergraduate

Klima ve Isı Tekniği, Undergraduate, 2017-2018, 2016-2017, 2015-2016, 2014-2015, 2013-2014, 2012-2013, 2011-2012

Güneş Enerjisi, Undergraduate, 2013-2014

Tütün İşleme Makineleri, Undergraduate, 2012-2013

Associate Degree

Teknik Resim, Associate Degree, 2018-2019, 2017-2018, 2016-2017, 2015-2016, 2014-2015, 2013-2014, 2012-2013, 2011-2012

Meslek Etiği, Associate Degree, 2018-2019

İklimlendirme ve Soğutma Teknolojileri, Associate Degree, 2018-2019, 2017-2018, 2016-2017, 2015-2016, 2014-2015, 2013-2014, 2012-2013, 2011-2012

Kalite Güvence ve Standartları, Associate Degree, 2018-2019

Ofis Yazılımları, Associate Degree, 2018-2019, 2016-2017

İşyeri Uygulama Eğitimi, Associate Degree, 2018-2019, 2017-2018

Doğalgaz Tesisatı, Associate Degree, 2018-2019, 2017-2018, 2016-2017, 2015-2016, 2014-2015, 2013-2014, 2012-2013, 2011-2012

Araştırma Yöntem ve Teknikleri, Associate Degree, 2018-2019, 2017-2018

Sosyal Sorumluluk, Associate Degree, 2017-2018

Bilgisayar Destekli Çizim, Associate Degree, 2017-2018, 2016-2017, 2011-2012

Sistem Analizi ve Tasarımı, Associate Degree, 2016-2017, 2015-2016, 2014-2015, 2013-2014, 2012-2013, 2011-2012

Bilgisayar Destekli Tasarım, Associate Degree, 2016-2017

Bilgisayar Destekli Çizim I, Associate Degree, 2015-2016, 2012-2013, 2011-2012

Meslek Resim, Associate Degree, 2015-2016, 2012-2013, 2011-2012

Isıtma ve Soğutma Sistemleri, Associate Degree, 2014-2015, 2013-2014, 2012-2013, 2011-2012

Mesleki Yabancı Dil, Associate Degree, 2013-2014

Termodinamik, Associate Degree, 2013-2014, 2011-2012

Soğutma Tekniği, Associate Degree, 2013-2014, 2012-2013, 2011-2012

Bilgisayar Destekli Çizim II, Associate Degree, 2012-2013, 2011-2012

Undergraduate Double Major

Hidrolik Pnömatik, Undergraduate Double Major, 2016-2017

Hidrolik Makineler, Undergraduate Double Major, 2015-2016

Doğalgaz ve LPG Teknolojisi, Undergraduate Double Major, 2015-2016

Supervised Theses

ABUŞKA M., Güneş enerjili hava kollektöründe gizli ve duyulur ısı enerjisi depolamanın deneysel incelenmesi, Postgraduate, A.KAYAPUNAR(Student), 2019

Articles

I. **The Thermal Performance of The Plate-fin Heat Sink under Natural Convection at Different Power Levels and Ambient Temperatures**
   ABUŞKA M., ÇORUMLU V.

Celal Bayar Üniversitesi Fen Bilimleri Dergisi, vol.20, no.3, pp.91-99, 2024 (TRDizin)

II. **Sun-infrared heating film drying analysis of Sultana seedless grapes: Operating modes**
ÇOBAN H., Şevik S., ABUŞKA M.
Thermal Science and Engineering Progress, vol.54, 2024 (SCI-Expanded, Scopus)

III. **Evaluation of prediction and modeling performance using machine learning methods for thermal parameters of heat sinks under forced convection: The case of external validation**
ÇORUMLU V., ALTINTAŞ V., ABUŞKA M.
International Communications in Heat and Mass Transfer, vol.151, 2024 (SCI-Expanded, Scopus)

IV. **Drying of Sultana seedless (Vitis vinifera L.) grape variety in indirect drying chamber using solar air collector with conic dimpled absorber: The case of end-season drying**
ÇOBAN H., ABUŞKA M.
Renewable Energy, vol.220, 2024 (SCI-Expanded, Scopus)

V. **A comparative experimental performance evaluation of solar air collector having absorber plate with convex oval-trench dimple**
ABUŞKA M., Şevik S., Özdilli Ö.
Heat and Mass Transfer/Waerme- und Stoffuebertragung, vol.59, no.10, pp.1871-1894, 2023 (SCI-Expanded, Scopus)

VI. **Plaka Kanatlı Isı Dağıtıcı Termal Performansının Deneysel Olarak Zorlanmış Konveksiyonda İncelenmesi**
ÇORUMLU V., ABUŞKA M.
Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.11, no.4, pp.951-965, 2023 (TRDizin)

VII. **A comparative experimental thermal performance analysis of conical pin fin heat sink with staggered and modified staggered layout under forced convection**
ABUŞKA M., ÇORUMLU V.
Thermal Science and Engineering Progress, vol.37, 2023 (SCI-Expanded, Scopus)

VIII. **Experimental investigation of relative roughness height effect in solar air collector with convex dimples**
Şevik S., Özdilli Ö., ABUŞKA M.
Renewable Energy, vol.194, pp.100-116, 2022 (SCI-Expanded, Scopus)

IX. **Experimental and numerical investigation of thermal performance in solar air heater with conical surface**
ABUŞKA M., Kayapunar A.
Heat and Mass Transfer/Waerme- und Stoffuebertragung, vol.57, no.11, pp.1791-1806, 2021 (SCI-Expanded, Scopus)

X. **Experimental and numerical investigation on the thermal performance of linear LED housings under forced convection**
ABUŞKA M., Şevik S., Özdilli Ö.
International Communications in Heat and Mass Transfer, vol.128, 2021 (SCI-Expanded, Scopus)

XI. **Thermal performance analysis of a novel linear LED housing with inner and outer fins**
Şevik S., ABUŞKA M., Özdilli Ö.
International Communications in Heat and Mass Transfer, vol.119, 2020 (SCI-Expanded, Scopus)

XII. **Enhancing the thermal performance of a solar air heater by using single-pass semi-flexible foil ducts**
Şevik S., ABUŞKA M.
Applied Thermal Engineering, vol.179, 2020 (SCI-Expanded, Scopus)

XIII. **Experimental performance analysis of sensible heat storage in solar air collector with cherry pits/powder under the natural convection**
ABUŞKA M., Şevik S., Kayapunar A.
Solar Energy, vol.200, pp.2-9, 2020 (SCI-Expanded, Scopus)

XIV. **Comparative energy and exergy performance investigation of forced convection solar air collectors with cherry stone/powder**
ABUŞKA M., Şevik S., Kayapunar A.

Renewable Energy, vol.143, pp.34-46, 2019 (SCI-Expanded, Scopus)

XV. **Experimental analysis of solar air collector with PCM-honeycomb combination under the natural convection**
ABUŞKA M., Şevik S., Kayapunar A.
Solar Energy Materials and Solar Cells, vol.195, pp.299-308, 2019 (SCI-Expanded, Scopus)

XVI. **A comparative investigation of the effect of honeycomb core on the latent heat storage with PCM in solar air heater**
ABUŞKA M., Şevik S., Kayapunar A.
Applied Thermal Engineering, vol.148, pp.684-693, 2019 (SCI-Expanded, Scopus)

XVII. **Thermal performance of flexible air duct using a new absorber construction in a solar air collector**
Şevik S., ABUŞKA M.
Applied Thermal Engineering, vol.146, pp.123-134, 2019 (SCI-Expanded, Scopus)

XVIII. **The effect of blowing direction on heat sink performance by thermal imaging**
ABUŞKA M., Şevik S., ALTINTAŞ V.
Journal of Thermal Engineering, vol.4, no.6, pp.2470-2480, 2018 (Scopus, TRDizin)

XIX. **Energy and exergy analysis of solar air heater having new design absorber plate with conical surface**
ABUŞKA M.
Applied Thermal Engineering, vol.131, pp.115-124, 2018 (SCI-Expanded, Scopus)

XX. **Yutucu Plaka Üzerine Konik Yayların Yerleştirildiği Güneş Enerjili Hava Kollektörünün Bulanık Mantık ile Modellenmesi**
ABUŞKA M., AKGÜL M. B., ALTINTAŞ V.
Politeknik Dergisi, vol.20, no.4, pp.907-914, 2017 (TRDizin)

XXI. **Energy, exergy, economic and environmental (4E) analyses of flat-plate and V-groove solar air collectors based on aluminium and copper**
ABUŞKA M., Şevik S.
Solar Energy, vol.158, pp.259-277, 2017 (SCI-Expanded, Scopus)

XXII. **Experimental Study on Thermal Performance of a Novel Solar Air Collector Having Conical Springs on Absorber Plate**
ABUŞKA M., AKGÜL M. B.
Arabian Journal for Science and Engineering, vol.41, no.11, pp.4509-4516, 2016 (SCI-Expanded, Scopus)

Papers Presented at Peer-Reviewed Scientific Conferences

I. **Effect of flow rate on nocturnal cooling performance of solar air collector**
ABUŞKA M.
19th International Istanbul Scientific Research Congress on Life, Engineering, Architecture, and Mathematical Sciences, İstanbul, Turkey, 16 - 18 November 2024, pp.130-131, (Summary Text)

II. **GÜNEŞ ENERJİLİ HAVA KOLLEKTÖRÜNÜN NEGATİF ELEKTROMANYETİK RADYASYON (GECE ETKİSİ) KOŞULLARINDA SOĞUTMA PERFORMANSININ İNCELENMESİ**
ABUŞKA M.
ASES VIII. INTERNATIONAL HEALTH, ENGINEERING AND SCIENCES CONFERENCE APRIL 06-07 2024, IZMIR, TURKIYE, İzmir, Turkey, 6 - 07 April 2024, pp.61-62, (Summary Text)

III. **Performance investigation of solar collector with staggered array concave dimple roughened absorber plate**
ABUŞKA M., ŞEVİK S.
International Journal of Arts Sciences (IJAS) American Canadian Conference for Academic Disciplines, 11 - 14 June 2019

IV. **Thermal performance of standard and stripe painted absorber plate in solar air collectors**
ŞEVİK S., ABUŞKA M.

International Journal of Arts Sciences (IJAS) American Canadian Conference for Academic Disciplines, 11 - 14 June 2019

V. **Experimental Investigation of the Effect of Using Honeycomb Core on the Latent Heat Storage in Solar Air Collector**
Kayapunar A., ABUŞKA M., ŞEVİK S.
14th International Conference on Energy Storage, Adana, Turkey, 25 - 28 April 2018, pp.1093-1103, (Full Text)

VI. **Experimental Investigation of Sensible Heat Storage with Cherry Pits in Solar Air Collector**
Kayapunar A., ABUŞKA M., ŞEVİK S.
14th International Conference on Energy Storage, Adana, Turkey, 25 - 28 April 2018, pp.1082-1092, (Full Text)

VII. **The Effect of Glass and Polycarbonate Cover Usage on the Efficiency of Solar Air Heater**
ABUŞKA M., ŞEVİK S.
International Conference on Energy and Thermal Engineering, İstanbul, Turkey, 25 - 28 April 2017, pp.125-128, (Full Text)

VIII. **The Effect of Blowing Direction on Heat Sink Performance by Thermal Imaging**
ABUŞKA M., ŞEVİK S., ALTINTAŞ V.
International Conference on Energy and Thermal Engineering, İstanbul, Turkey, 25 - 28 April 2017, pp.563-568, (Full Text)

IX. **Prediction of the Outlet Air Temperature of Solar Air Collector with Artificial Neural Network**
ABUŞKA M., ALTINTAŞ V., ŞEVİK S.
International Conference on Energy and Thermal Engineering, İstanbul, Turkey, 25 - 28 April 2017, pp.204-208, (Full Text)

X. **Thermal performance of natural convection solar air collector with conical surface geometry for vertical application**
ABUŞKA M., ALTINTAŞ V.
8th International Ege Energy Syposium, 11 - 13 May 2016, (Full Text)

XI. **Outlet Temperature Prediction of Trapeze Solar Air Heater with Fuzzy Logic Model**
ABUŞKA M., ALTINTAŞ V.
8th International Ege Energy Syposium, 11 - 13 May 2016, (Full Text)

XII. **Yutucu Plaka Üzerine Konik Yayların Yerleştirildiği Güneş Enerjili Hava Kollektörünün Isıl Verim Analizi ve Yapay Sinir Ağları ile Modellenmesi**
ALTINTAŞ V., AKGÜL M. B., ABUŞKA M.
12. Ulusal Tesisat Mühendisliği Kongresi, İzmir, Turkey, 8 - 11 April 2015, vol.2, pp.1805-1816, (Full Text)

XIII. **Konik Yüzey Geometrili Güneş Enerjili Hava Kollektörünün Dikey Uygulamada Isıl Verim Analizi**
ABUŞKA M., AKGÜL M. B., ALTINTAŞ V.
20. Ulusal Isı Bilimi ve Tekniği Kongresi (ULIBTK'15), Balıkesir, Turkey, 2 - 05 September 2015, pp.444-450, (Full Text)

XIV. **Artificial Neural Network Modeling of the Thermal Performanceof a Novel Solar Air Absorber Plate**
ABUŞKA M., AKGÜL M. B., ALTINTAŞ V.
ISITES 2015, 3 - 05 June 2015, (Full Text)

XV. **YUTUCU PLAKA ÜZERİNE KONİK YAYLARINYERLEŞTİRİLDİĞİ GÜNEŞ ENERJİLİ HAVAKOLLEKTÖRÜNÜN ISIL VERİM ANALİZİ VE YAPAY SİNİRAĞLARI İLE MODELLENMESİ**
ALTINTAŞ V., AKGÜL M. B., ABUŞKA M.
12. ULUSAL TESĠSAT MÜHENDĠSLĞĞĠ KONGRESĠ, Turkey, 8 - 11 April 2015, (Full Text)

XVI. **Güneş Enerjili Hava Kollektöründe Selektif Boya Kullanımının Isıl Verime Etkisinin Deneysel Olarak İncelenmesi**
ABUŞKA M., AKGÜL M. B.
2nd International Symposium on Innovative Technologies in Engineering and Science, Karabük, Turkey, 18 - 20 June 2014, pp.1594-1602, (Full Text)

XVII. **The Modelling of Solar Air Collector with Thermal Efficiency Analysis and Artificial Neural Networks**
ABUŞKA M., ALTINTAŞ V., AKGÜL M. B.
International Conference on Thermophysical and Mechanical Properties of Advanced Materials 3rd Rostocker

Symposium on Thermophysical Properties for Technical Thermodynamics, Çeşme/İzmir, Turkey, 12 - 15 June 2014, pp.58-65, (Full Text)

XVIII. **Jeotermal Enerjili Üzüm Kurutma Sistem Tasarımı**
ABUŞKA M., BİNARK A. K.
3. Uluslar Arası İleri Teknolojiler Sempozyumu, Ankara, Turkey, 18 - 20 August 2003, vol.4, pp.180-195, (Full Text)

Funded Projects

ABUŞKA M., Kayapunar A., Project Supported by Higher Education Institutions, Güneş Enerjili Hava Kollektöründe Gizli ve Duyulur Isı Enerjisi Depolamanın Deneysel İncelenmesi, 2017 - 2018
ABUŞKA M., AYDIN Y., ÇOBAN H., Project Supported by Higher Education Institutions, Konik Yüzey Geometrili Güneş Enerjili Hava Isıtma Kollektörünün Geliştirilmesi ve Çekirdeksiz Üzüm için Kurutma Parametrelerinin Belirlenerek Enerji Analizinin Yapılması, 2013 - 2015
ABUŞKA M., AYDIN Y., ÇOBAN H., Project Supported by Higher Education Institutions, BAP Infrastructure, Konik Yüzey Geometrili Güneş Enerjili Hava Isıtma Kollektörünün Geliştirilmesi ve Konik Yüzey Geometrili Güneş Enerjili Hava Isıtma Kollektörünün Geliştirilmesi ve Çekirdeksiz Üzüm İçin Kurutma Parametrelerinin Belirlenerek Enerji Analizinin Yapılması, 2013 - 2015

Metrics

Publication: 40
Citation (WoS): 656
Citation (Scopus): 904
H-Index (WoS): 12
H-Index (Scopus): 14

Non Academic Experience

Org. Kenan Evren Endüstri Meslek Lisesi/Tesisat Teknolojisi Bölümü/Alaşehir-MANİSA, Teknik Öğretmen
Ümraniye Endüstri Meslek Lisesi/Doğalgaz ve Isıtma Bölümü/Ümraniye-İSTANBUL, Teknik Öğretmen