

Prof. ABUZER ÖZSUNAR

Personal Information

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Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (Dr), Turkey 1993 - 1999

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (YI) (Tezli), Turkey 1988 - 1993

Undergraduate, Gazi University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Turkey 1983 - 1987

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Yatay ve eğimli kanallarda laminar akışta karışık konveksiyon ile ısı transferinin deneysel ve sayısal olarak incelenmesi, Gazi University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (Dr), 1999

Postgraduate, Linyit yakılan sobaların deneysel incelenmesi ve soba kovanında ısı transferi analizi, Gazi University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (YI) (Tezli), 1991

Research Areas

Engineering and Technology

Academic Titles / Tasks

Professor, Gazi University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2018 - Continues

Associate Professor, Gazi University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2012 - 2018

Lecturer, Gazi University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2002 - 2012

Research Assistant, Gazi University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 1988 - 2002

Academic and Administrative Experience

Vice Dean, Gazi University, Mühendislik Fakültesi, 2019 - 2020

Gazi University, Mühendislik Fakültesi, 2016 - 2019

Gazi University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2015 - 2019

Courses

MOMENTUM VE KÜTLE TRANSFERİ, Postgraduate, 2021 - 2022, 2020 - 2021

Araştırma Teknikleri ve Yayın Etiği(ASELSAN AKADEMİ), Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

İleri Akışkanlar Mekaniği, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

Makine Müh. Giriş, Undergraduate, 2019 - 2020, 2018 - 2019

Ölçme ve Veri Değerlendirir, Undergraduate, 2017 - 2018, 2016 - 2017

Scientific Research Methods and Publication Ethics, Postgraduate, 2017 - 2018

Advising Theses

Özsunar A., Buhar odası yaklaşımı ile uzay uygulamalarında elektronik soğutma performans analizi, Postgraduate, B.BODUR(Student), 2022

Özsunar A., Koşal A., EXPERIMENTAL AND NUMERICAL INVESTIGATION OF HIGH ASPECT RATIO STRAIGHT RECTANGULAR MICROCHANNEL, Doctorate, M.PARLAK(Student), 2022

ÖZSUNAR A., Numerical Solution Of Proton Exchange Membrane Fuel Cell With Serpentine Channel, Postgraduate, H.gÜNÜŞEN(Student), 2019

ÖZSUNAR A., Güdümlü füzelerde kullanılan baskı devre kartlarındaki gerinimlerin deneysel olarak tespiti ve füze ateşleme mekanizmasına etkisinin araştırılması, Postgraduate, M.ARINÇ(Student), 2019

ÖZSUNAR A., Thermo Mechanical Analysis Of Flanged Coupled Reactor Pressure Vessel Under High Pressure And Temperature, Postgraduate, M.KEMAL(Student), 2019

ÖZSUNAR A., Numerical Analysis Of Thermoelectric Cooler And Heat Pipe Cooling Performance In Electronic Devices, Postgraduate, G.ÇELİK(Student), 2019

ÖZSUNAR A., Design, Installation And Performance Tests Of A Test Room According To Ashrae 138 For Experimental Investigation Of Underfloor Radiant Cooling System, Postgraduate, G.ŞAHİN(Student), 2019

Özsunar A., Serpantin kanallı proton aktaran membran yakıt hücresinin sayısal çözümü, Postgraduate, H.GÜNÜŞEN(Student), 2019

ÖZSUNAR A., Numerical Modeling Of Plasma Formation In Plasma Torch And Parametric Investigation, Postgraduate, F.DEMİR(Student), 2018

ÖZSUNAR A., Thermodynamic Analysis Of An Absorption Combined System For Electricity Production, Postgraduate, Z.ABDUALRAHMAN(Student), 2017

ÖZSUNAR A., 3d Numerical Simulation Of Argon Dc Non-Transferred Arc Plasma Torch, Postgraduate, W.KHALED(Student), 2016

ÖZSUNAR A., Experimental Investigation Of Optimum Radiant To Convective Split Ratio For Hybrid Hvac Systems, Postgraduate, M.FATİH(Student), 2015

ÖZSUNAR A., Numerical investigation and optimization of fluid flow and heat transfer performances of cross-cut heat sinks, Postgraduate, U.ÇINGİ(Student), 2013

ÖZSUNAR A., NUMERICAL ANALYSIS OF QUENCHING PROCESS IN A POWDER METAL CYLINDRICAL SCRAP, Postgraduate, G.PEKER(Student), 2008

ÖZSUNAR A., NUMERICAL ANALYSIS OF CONDUCTION IN MULTI-LAYERED ELECTRONIC EQUIPMENT, Postgraduate, F.NUSRET(Student), 2007

Published journal articles indexed by SCI, SSCI, and AHCI

- High aspect ratio microchannel heat sink optimization under thermally developing flow conditions based on minimum power consumption**
Parlak M., ÖZSUNAR A., KOŞAR A.
APPLIED THERMAL ENGINEERING, vol.201, 2022 (SCI-Expanded)

- II. **Investigation of the effect of gas flow rate and electric current on plasma jet temperature and velocity at torch exit by CFD analysis**
Sunjuq W. K. W., Yurtkuran E., Özsunar A., Ünal R.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.33, pp.361-369, 2018 (SCI-Expanded)
- III. **Thermal transport in thin dielectric films with minute size aluminum dot in relation to microelectronics**
Ali H., Yilbas B. S., Al-Sharafi A., ÖZSUNAR A.
APPLIED THERMAL ENGINEERING, vol.127, pp.1025-1035, 2017 (SCI-Expanded)
- IV. **Potential for using recycled glass sand in engineered cementitious composites**
Siad H., Lachemi M., Sahmaran M., Mesbah H. A., Hossain K. M. A., ÖZSUNAR A.
MAGAZINE OF CONCRETE RESEARCH, vol.69, no.17, pp.905-918, 2017 (SCI-Expanded)
- V. **Experimental investigation of energy-optimum radiant-convective heat transfer split for hybrid heating systems**
Evren M. F., ÖZSUNAR A., Kilkis B.
ENERGY AND BUILDINGS, vol.127, pp.66-74, 2016 (SCI-Expanded)
- VI. **A NUMERICAL FORMULATION OF HEAT CONDUCTION IN IRREGULAR, STATIC OR TRANSLATING/ROTATING, PLANAR DOMAINS**
bin Mansoor S., ÖZSUNAR A., Yilbas B. S.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.29, no.4, pp.727-733, 2014 (SCI-Expanded)
- VII. **A NUMERICAL INVESTIGATION TO THE EFFECT OF POROSITY ON THE COOLING CURVES OF THE POWDER CYLINDER SPECIMEN FOR QUENCHING PROCESSES**
ÖZSUNAR A., Peker G.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.25, no.2, pp.299-309, 2010 (SCI-Expanded)
- VIII. **The prediction of maximum temperature for single chips' cooling using artificial neural networks**
ÖZSUNAR A., ARCAKLIOĞLU E., Nusret Dur F.
HEAT AND MASS TRANSFER, vol.45, no.4, pp.443-450, 2009 (SCI-Expanded)
- IX. **Experimental investigation of mixed convection heat transfer in a horizontal and inclined rectangular channel**
Ozsunar A., Baskaya Ş., Sivrioglu M.
HEAT AND MASS TRANSFER, vol.38, no.3, pp.271-278, 2002 (SCI-Expanded)
- X. **Numerical analysis of Grashof number, Reynolds number and inclination effects on mixed convection heat transfer in rectangular channels**
Ozsunar A., Baskaya Ş., Sivrioglu M.
INTERNATIONAL COMMUNICATIONS IN HEAT AND MASS TRANSFER, vol.28, no.7, pp.985-994, 2001 (SCI-Expanded)
- XI. **Numerical investigation of fluid flow in a duct with rectangular cross section under laminar mixed convection conditions Dikdörtgen kesitli bir kanalda laminar karışık konveksiyon şartlarındaki akışın sayısal olarak incelenmesi**
Özsunar A., Başkaya Ş., Sivrioğlu M.
Journal of the Faculty of Engineering and Architecture of Gazi University, vol.15, pp.71-86, 2000 (SCI-Expanded)

Articles Published in Other Journals

- I. **3D Cfd Modelling of Non-transferred Argon Plasma Torch**
Demir F., Yurtkuran E., Ünal R., Özsunar A.
Materials Today Proceedings, vol.32, pp.12-17, 2020 (Peer-Reviewed Journal)
- II. **İki Hücreli PEM Yakıt Pili Yığının Sayısal Analizi**

Arıç T., Bilgili M., Özsunar A.

Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.7, no.4, pp.999-1011, 2019 (Peer-Reviewed Journal)

III. Orta ve Batı Karadeniz Bölgesi Rüzgar Enerjisi tahmin Çalışmaları

Doğancı Ö., ERTÜRK M. A. E., ÖZSUNAR A., ARCAKLIOĞLU E.

İleri Teknoloji Bilimleri Dergisi, vol.5, no.1, pp.153-163, 2016 (Peer-Reviewed Journal)

IV. Yatay dikdörtgen kesitli bir kanalda laminar karışık konveksiyon şartlarında ısı transferi ve sıcaklık dağılımının incelenmesi

Özsunar A., Başkaya Ş.

Gazi Üniversitesi Fen Bilimleri Dergisi Part: C Tasarım ve Teknoloji, vol.14, pp.505-518, 2001 (Peer-Reviewed Journal)

V. KARE KESİTLİ YATAY BİR KANALDA LAMİNER KARIŞIK KONVEKSİYON AKIŞIN İNCELENMESİ
ÖZSUNAR A.

TEKNOLOJİ, 2001 (Peer-Reviewed Journal)

VI. YATAY DİKDÖRTGEN KESİTLİ BİR KANALDA LAMİNER KARIŞIK KONVEKSİYON ŞARTLARINDA ISI TRANSFERİ VE SICAKLIK DAĞILIMININ İNCELENMESİ YATAY DİKDÖRTGEN KESİTLİ BİR KANALDA LAMİNER KARIŞIK KONVEKSİYON ŞARTLARINDA ISI TRANSFERİ VE SICAKLIK DAĞILIMININ İNCELENMESİ

ÖZSUNAR A., BAŞKAYA Ş., SİVRİOĞLU M.

Gazi Üniversitesi Fen Bilimleri Dergisi, 2000 (Peer-Reviewed Journal)

VII. Dikdörtgen kesitli bir kanalda laminar karışık konveksiyon şartlarındaki akışın sayısal olarak incelenmesi

ÖZSUNAR A., BAŞKAYA Ş., SİVRİOĞLU M.

Gazi Üniv. Müh.-Mim. Fakültesi Dergisi, vol.15, no.1, pp.71-86, 2000 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Numerical Study of Multi Hot Spot GaN Cooling in a Cold Plate Considering Different Flow Networks**
Parlak M., Ors E., ÖZSUNAR A.
19th InterSociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, ITherm 2020, Florida, United States Of America, 21 - 23 July 2020, pp.482-490
- II. **PEM Yakıt Pillerinde Su İçeriğinin Hücre Performansı Üzerine Etkilerinin Sayısal İncelenmesi**
Günüşen H., BİLGİLİ M., ÖZSUNAR A.
22. Isı Bilimi ve Tekniği Kongresi (ULIBTK 2019), Kocaeli, Turkey, 11 - 14 September 2019, vol.3, pp.131-136
- III. **MEASUREMENT OF THERMAL STRAIN ON A PRINTED CIRCUIT BOARD**
Demirtaş M., ÖZSUNAR A., Altıntaş B.
International Natural Science, Engineering and Material Technologies Conference, İstanbul, Turkey, 9 - 10 September 2019
- IV. **3D MODELLING OF DC NON-TRANSFERED ARC PLASMA TORCH AND INVESTIGATION OF CREATION OF ARC ROOT IN THE TORCH**
DEMİR F., YURTKURAN E., ÜNAL R., ÖZSUNAR A.
The Porous and Powder Materials Symposium and Exhibitions, 12 - 15 September 2017
- V. **IMPROVEMENT OF PLASMA TORCH GEOMETRY BY CFD FORMETAL POWDER PRODUCTION**
YURTKURAN E., ÜNAL R., ÖZSUNAR A.
The Porous and Powder Materials Symposium and Exhibitions, 12 - 15 September 2017
- VI. **Numerical Modeling of Torch Design for Plasma Atomization**
YURTKURAN E., ÜNAL R., ÖZSUNAR A.
7th International Advances in Applied Physics and Materials Science Congress, 22 - 26 April 2017
- VII. **3D CFD Modelling of Argon Non-Transferred Plasma Torch**
Demir F., Yurtkuran E., Ünal R., Özsunar A.

- 7th International Advances in Applied Physics and Materials Science Congress, Aydın, Turkey, 22 - 26 April 2017
- VIII. **Ozsunar A Biyikoglu A Kilkis B Determination of Heat Transfer Coefficient between Heated Floor and Space Using the Principles of ANSI ASHRAE Standard 138 Test Chamber**
EVREN M. F., ÖZSUNAR A., BIYIKOĞLU A., KILKIŞ B.
ASHRAE Winter Conference, 28 January - 01 February 2017
- IX. **Determination of Heat Transfer Coefficient Between Heated Floor and Space Using the Principles of ANSI/ASHRAE Standard 138 Test Chamber**
Evren M. F., ÖZSUNAR A., BIYIKOĞLU A., Kilkis B.
ASHRAE Winter Conference, Nevada, United States Of America, 28 January - 01 February 2017, vol.123, pp.71-81
- X. **3D Cfd modelling of non-transferred argon plasma torch**
DEMİR F., Yurtkuran E., ÜNAL R., ÖZSUNAR A.
7th International Advances in Applied Physics and Materials Science Congress and Exhibition, APMAS 2017, Fethiye, Turkey, 22 - 26 April 2017, vol.32, pp.12-17
- XI. **Experimental Determination of the Optimum Radiant to Convective Heat Transfer Split for Hybrid Heating System**
EVREN M. F., ÖZSUNAR A., KILKIŞ B.
CLIMA 2016 - proceedings of the 12th REHVA World Congress, Aalborg, Denmark, 22 - 25 May 2016
- XII. **Experimental Investigation Of Optimum Radiant To Convective Heat Transfer Split Ratio For Hybrid Hvac Systems**
EVREN M. F., ÖZSUNAR A., KILKIŞ B.
XII. International HVAC+R Technology Symposium, İstanbul, Turkey, 31 March - 02 April 2016, pp.97-103
- XIII. **Yerden Soğutma Sisteminin Deneysel İncelenmesi Ve Isıl Konforda Sağladığı Avantajlar İle Dezavantajların Belirlenmesi**
ÖZSUNAR A.
12. Ulusal Tesisat Mühendisliği Kongresi – 8-11 Nisan, İzmir, 2015., İzmir, Turkey, 8 - 11 April 2015
- XIV. **Kontrollü Bir HVAC Test Odasının Operatif Sıcaklık Temelli Deneysel Doğrulaması**
ÖZSUNAR A.
12. Ulusal Tesisat Mühendisliği Kongresi – 8-11 Nisan, İzmir, 2015., İzmir, Turkey, 8 - 11 April 2015
- XV. **ELEKTRONİK CİHAZLARIN SOĞUTULMASINDA KULLANILAN ISI BORULARININ SAYISAL VE DENEYSEL OLARAK İNCELENMESİ**
ÖZSUNAR A., ERBAŞ M.
ULIBTK'13 19. Ulusal Isı Bilimi ve Tekniği Kongresi 9-12 Eylül 2013, SAMSUN, Turkey, 9 - 12 September 2013

Supported Projects

ÖZSUNAR A., Project Supported by Higher Education Institutions, Bir Yapıya Ait Isı Bacası Olarak Kullanılan Çatı Tasarımı, 2006 - 2008

Metrics

Publication: 33

Citation (WoS): 126

Citation (Scopus): 143

H-Index (WoS): 6

H-Index (Scopus): 8