

**Res. Asst. PhD
Mustafa Kemal
SEVİNDİR**



Personal Information

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Makine Fakültesi Makine

Mühendisliği Bölümü Barbaros

Bulvarı Beşiktaş/İstanbul

International Researcher IDs

ORCID: 0000-0003-1210-1880

Yoksis Researcher ID: 185418

Education Information

| | |
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| 1999 - 2007 | Doctorate, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Makine Mühendisliği Anabilim Dalı / Isı Proses , Turkey |
| 1996 - 1999 | Postgraduate, Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Makine Mühendisliği Anabilim Dalı / Isı Proses , Turkey |
| 1992 - 1996 | Undergraduate, Yıldız Technical University, Faculty Of Mechanical Engineering, Makine Mühendisliği Bölümü, Turkey |

Foreign Languages

English, B2 Upper Intermediate

Dissertations

| | |
|------|---|
| 2007 | ÇAPRAZ AKIŞ İÇERİSİNDE SICAK JET AKIŞININ SAYISAL VE DENEYSEL İNCELENMESİ , Yıldız Teknik Üniversitesi, Graduate School of Natural and Applied Sciences, Makine Mühendisliği Anabilim Dalı / Isı Proses , Doctorate |
| 1999 | EKMEK FIRINLARINDA ENERJİ EKONOMİSİ, Yıldız Teknik Üniversitesi, Graduate School of Natural and Applied Sciences, Makine Mühendisliği Anabilim Dalı / Isı Proses , Postgraduate |

Research Areas

Mechanical Engineering, Thermodynamics, Heating, Refrigerating and Air Conditioning, Engineering and Technology

Academic Titles / Tasks

| | |
|------------------|---|
| 1996 - Continues | Research Assistant PhD, Yıldız Technical University, Faculty Of Mechanical Engineering, Machine |
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Courses

Undergraduate

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| 2019 - 2020 | BIYOMÜHENDİSLİKTE ISI TRANSFERİ |
| 2019 - 2020, 2018 - 2019, 2017 - 2018 | MÜHENDİSLİK SİSTEMLERİNİN MODELLENMESİ VE SİMÜLASYONU |
| 2018 - 2019, 2017 - 2018 | MÜHENDİSLİK SİSTEMLERİNİN OPTİMİZASYONU |
| 2018 - 2019 | TERMODİNAMİK 1 |

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Adaptation of adsorption cooling system for hot and dry climates: Use of ground water heat exchanger coupled to direct evaporative cooling tower**
Kheireddine M., Benchabane A., Rouag A., Mahbulul I., ARICI M., DEMİR H., SEVİNDİR M. K.
Energy Sources, Part A: Recovery, Utilization and Environmental Effects, vol.45, no.3, pp.9133-9148, 2023 (SCI-Expanded)
- II. **Thermal design of Earth-to-Air Heat Exchanger: Performance analysis of new transient semi-analytical model for short period of continuous operation**
Melhegue M. -, Benchabane A., Rouag A., Mehdid C., DEMİR H., SEVİNDİR M. K., Kheireddine M.
CASE STUDIES IN THERMAL ENGINEERING, vol.40, 2022 (SCI-Expanded)
- III. **An experimental comparison of radiant wall and ceiling cooling system integrated with ground source heat pump and direct expansion fan coil system in a highly glazed office room**
Doğan A., Kayaci N., Demir H., Kemal Sevindir M. K.
Energy and Buildings, vol.273, 2022 (SCI-Expanded)
- IV. **Experimental and numerical investigation of air-side forced convection on wire-on-tube condensers**
GÖNÜL A., AĞRA Ö., ATAYILMAZ Ş. Ö., DEMİR H., SEVİNDİR M. K., TEKE İ.
International Journal of Thermal Sciences, vol.151, 2020 (SCI-Expanded)
- V. **Natural convection heat transfer from horizontal concentric and eccentric cylinder systems cooling in the ambient air and determination of inner cylinder location**
ATAYILMAZ Ş. Ö., DEMİR H., SEVİNDİR M. K., AĞRA Ö., Teke İ., DALKILIÇ A. S.
Heat and Mass Transfer/Waerme- und Stoffuebertragung, vol.53, no.8, pp.2677-2692, 2017 (SCI-Expanded)
- VI. **Modelling the optimum distribution of insulation material**
SEVİNDİR M. K., DEMİR H., AĞRA Ö., ATAYILMAZ Ş. Ö., Teke İ.
Renewable Energy, vol.113, pp.74-84, 2017 (SCI-Expanded)
- VII. **Optimum distribution of thermal insulation material for constant insulation material volume or a given investment cost**
DEMİR H., SEVİNDİR M. K., AĞRA Ö., ATAYILMAZ Ş. Ö., Teke İ.
JOURNAL OF RENEWABLE AND SUSTAINABLE ENERGY, vol.7, no.6, 2015 (SCI-Expanded)

Articles Published in Other Journals

- I. **Experimental Investigation of the Water Droplet Evaporation on Inclined Surfaces by Taguchi and ANOVA Optimization Analysis**
Yıldırım A., Ağra Ö., Sevindir M. K.
JOURNAL OF THERMAL SCIENCE AND ENGINEERING APPLICATIONS, vol.16, pp.1-10, 2024 (Peer-Reviewed Journal)
- II. **Endüstriyel Bulaşık Makinelerinde Enerji Verimliliğinin Artırılması**
Emanet Ö., Kürekci N. A., Sevindir M. K.
Tesisat Mühendisliği, no.201, pp.1-7, 2024 (Peer-Reviewed Journal)
- III. **Experimental investigation of thermal comfort performance of a radiant wall and ceiling panel system**
DOĞAN A., Kayaci N., DEMİR H., SEVİNDİR M. K.

Journal of Thermal Engineering, vol.8, no.4, pp.551-561, 2022 (Scopus)

- IV. **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)
- V. **Artificial Neural Network Techniques for the Determination of Condensation Nusselt Number in Horizontal Smooth Tubes**
Sevindir M. K., Gönül A., Çebi A., Mercan H.
Süleyman Demirel Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.23, no.3, pp.871-877, 2019 (Peer-Reviewed Journal)
- VI. **CO2 NH3 KASKAD SOĞUTMA SİSTEMİNİN TERMODİNAMİK ANALİZİ VE PERFORMANS DEĞERLENDİRMESİ**
ÖZYURT A., ERDÖNMEZ N., YILMAZ B., YILMAZ D., SEVİNDİR M. K., MANÇUHAN E.
TESİSAT MÜHENDİSLİĞİ DERGİSİ, pp.25-32, 2016 (Peer-Reviewed Journal)
- VII. **THE PERFORMANCE ASSESSMENT OF FUEL CELL TECHNOLOGY IN RESIDENTIAL APPLICATION**
KURULAR S., GÜLBAHÇE M., SEVİNDİR M. K., YURTSEVEN A.
The REHVA European HVAC Journal, vol.51, 2014 (Non Peer-Reviewed Journal)
- VIII. **MÜZE HVAC UYGULAMASINDA NEM KONTROLÜNÜN KARŞILAŞTIRMALI PSİKROMETRİK ANALİZİ VE SİSTEMLERİN ENERJİ TÜKETİMLERİNİN İNCELENMESİ**
BİLGE M., SEVİNDİR M. K., HEPERKAN H. A.
ISITMA, SOĞUTMA, HAVALANDIRMA, KLİMA, YANGIN VE SIHHİ TESİSAT DERGİSİ, pp.58-63, 2011 (Non Peer-Reviewed Journal)
- IX. **BİR ENDÜSTRİYEL TESİSTE ENERJİ KULLANIMI**
HEPERKAN H. A., SEVİNDİR M. K.
TÜRK TESİSAT MÜHENDİSLERİ DERNEĞİ DERGİSİ, pp.9-17, 2002 (Non Peer-Reviewed Journal)

Books

- I. **Performance Evaluation of Refrigerants Used in a Flash-System Refrigeration with Regarding to Environmental Aspects**
MANÇUHAN E., YILMAZ B., SEVİNDİR M. K., YILMAZ D.
in: Multidisciplinary Approaches to Sustainability, Refika BAKOĞLU, Müge Leyla YILDIZ, Editor, IJOPEC Publication, Londrina, pp.201-237, 2017
- II. **Performance Analysis of a Cascade Refrigeration System with the Replacement of HFC Refrigerants with Natural Ones**
YILMAZ B., MANÇUHAN E., ERDÖNMEZ N., SEVİNDİR M. K., YILMAZ D.
in: ENGINEERING APPROACHES ON SUSTAINABILITY, CAN ZEHRA SEMRA , YILMAZ BARIŞ, GENÇ SEVAL, SEÇKİN CANDENİZ, Editor, IJOPEC Publication, 2016

Papers Published in Refereed Scientific Meetings

- I. **FANLI PİŞİRİCİ CİHAZLARDA MOTOR DÖNÜŞ DEVRİ VE YÖNÜNÜN SİRKÜLASYON DEBİSİNE ETKİSİNİN NÜMERİK VE DENEYSEL İNCELENMESİ**
Önal M., Ağra Ö., Sevindir M. K.
ULUSLARARASI KATILIMLI 24. ISI BİLİMİ VE TEKNİĞİ KONGRESİ, Ankara, Turkey, 6 - 08 September 2023, vol.2, pp.562-571
- II. **NUMERICAL AND EXPERIMENTAL INVESTIGATION OF EVAPORATION CHARACTERISTICS OF A SESSILE WATER DROPLET ON A HEATED SUBSTRATE**
Yılmaz M., Saitoğlu E. E., Yıldırım A., Sevindir M. K.
6th International Conference on Advances in Mechanical Engineering, İstanbul, Turkey, 20 October 2021, pp.681-689
- III. **Experimental investigation of thermal comfort performance of a radiant wall and ceiling panel system**

Doğan A., Kayacı N., Demir H., Sevindir M. K.

6th International Conference on Advances in Mechanical Engineering, İstanbul, Turkey, 20 - 22 October 2021, pp.611-623

- IV. **AIR DEMAND AND SMOKE CONTROLS FOR VENTILATION OF A ROAD TUNNEL**
KAYACI N., SEVİNDİR M. K., DEMİR H., EFECAN Ö.
5TH INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING, 17 - 19 December 2019
- V. **CFD SIMULATION FOR WIND COMFORT AND SAFETY IN TRANSITION ZONES: A CASE STUDY**
KAYACI N., SEVİNDİR M. K., DEMİR H., DİZDAR İ.
5TH INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING, 17 - 19 December 2019
- VI. **KONVEKTİF KURUTMA FIRININDA TUĞLA ÇAMURUNUN KURUTMA KARAKTERİSTİĞİNİN İNCELENMESİ**
Kuş B., YILDIRIM A., SEVİNDİR M. K., AĞRA Ö.
4. Uluslararası Katılımlı Anadolu Enerji Sempozyumu, 18 - 20 April 2018
- VII. **FARKLI TEL ÇAPLARINA GÖRE TELLİ TİP YOĞUŞTURUCULARDA HAVA TARAFI ISI GEÇİŞİNİN SAYISAL İNCELENMESİ**
GÖNÜL A., SEVİNDİR M. K., AĞRA Ö., DEMİR H., ATAYILMAZ Ş. Ö.
4 Uluslararası Katılımlı Anadolu Enerji Sempozyumu, 18 - 20 April 2018
- VIII. **Experimental end numerical investigation of squeezing efficiency at washing machines**
Pınarbaşı A., Doğan A., Sevindir M. K., Teke İ.
3rd INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING ISTANBUL 2017, İstanbul, Turkey, 21 December 2017, pp.1-9
- IX. **ALIŞVERİŞ MERKEZLERİNDEKİ YEMEK KATLARININ YANGIN RİSKİ AÇISINDAN DEĞERLENDİRİLMESİ**
AKGÜN M., SEVİNDİR M. K.
TÜYAK 2017 ULUSLARASI YANGIN VE GÜVENLİK SEMPOZYUMU VE SERGİSİ, İstanbul, Turkey, 9 - 10 November 2017
- X. **PERFORMANCE EVALUATION OF REFRIGERANTS USED IN A FLASH-SYSTEM REFRIGERATION WITH REGARDING TO ENVIRONMENTAL ASPECTS**
MANÇUHAN E., YILMAZ B., SEVİNDİR M. K., YILMAZ D.
2nd International Sustainability Conference, 26 - 28 October 2017
- XI. **AKIŞKAN YATAKLI KURUTUCUDA KÜLTÜR MANTARININ KURUMA KARAKTERİSTİĞİNİN İNCELENMESİ**
Çermaoğlu M. F., YILDIRIM A., SEVİNDİR M. K., AĞRA Ö.
21. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 13 - 16 September 2017
- XII. **PERFORMANCE ANALYSIS OF A CASCADE REFRIGERATION SYSTEM WITH THE REPLACEMENT OF HFC REFRIGERANTS WITH NATURAL ONES**
YILMAZ B., MANÇUHAN E., ERDÖNMEZ N., SEVİNDİR M. K., YILMAZ D.
ISC 2016: International Sustainability Congress, İstanbul, Turkey, 1 - 03 December 2016
- XIII. **The economic comparison of seawater source heat pump application and electric heating on bridge heating in winter**
SEVİNDİR M. K., DEMİR H., ATAYILMAZ Ş. Ö., KAYACI N., GÖNÜL A.
Proceedings of 2nd International Conference on Mechanical and Aeronautical Engineering, BANGKOK, 13 - 14 July 2016
- XIV. **Numerical Modeling Of Horizontal Ground Source Heat Pump System For Snow Melting On Pavements**
KAYACI N., GÖNÜL A., DEMİR H., ATAYILMAZ Ş. Ö., SEVİNDİR M. K.
2nd International Conference on Mechanical and Aeronautical Engineering, 13 - 14 July 2016
- XV. **PERFORMANCE ANALYSIS OF AN EXPERIMENTAL R404A CO2 CASCADE REFRIGERATION SYSTEM FOR DIFFERENT STANDART CONDITIONS**
ÖZYURT A., YILMAZ D., YILMAZ B., MANÇUHAN E., SEVİNDİR M. K.
8th International Ege Energy Symposium and Exhibition, Afyonkarahisar, Turkey, 11 - 13 May 2016
- XVI. **THE ECONOMIC ANALYSIS OF GRAY WATER USE IN A SAMPLE RESIDENTIAL BUILDING**
KÜREKÇİ N. A., SEVİNDİR M. K., ÇUBUK M. H.
2ND INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING (ICAME 2016), 10 - 13 May 2016

- XVII. ENERGY AND COST ANALYSIS OF THE ALTERNATIVE HVAC SYSTEM APPLICATIONS FOR A COLLEGE BUILDING IN DOHA QATAR**
SINAR Ü., KIRANT T., MANÇUHAN E., YILMAZ B., SEVİNDİR M. K.
XII. ULUSLARARASI YAPIDA TESİSAT TEKNOLOJİSİ SEMPOZYUMU, İstanbul, Turkey, 31 March - 02 April 2016
- XVIII. CO2 R404A KASKAT SOĞUTMA SİSTEM PERFORMANSININ DENEYSEL İNCELENMESİ**
YILMAZ B., ÖZYURT A., YILMAZ D., SEVİNDİR M. K., MANÇUHAN E.
ULIBTK'15 20. ULUSAL ISI BİLİMİ VE TEKNİĞİ KONGRESİ, Balıkesir, Turkey, 2 - 05 September 2015
- XIX. Experimental Apparatus For The Determination of Velocity Distribution of Hot Round Jet in Cross Flow**
Sevindir M. K., Dalkılıç A. S., Heperkan H. A.
INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING, İstanbul, Turkey, 13 - 15 May 2015, pp.136-140
- XX. EXPERIMENTAL APPARATUS FOR THE DETERMINATION OF VELOCITY DISTRIBUTION OF HOT ROUND JET IN CROSS FLOW**
Sevindir M. K., Dalkılıç A. S., Heperkan H. A.
INTERNATIONAL CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING, İstanbul, Turkey, 13 - 15 May 2015, pp.1-15
- XXI. ENERGY AND EXERGY ANALYSIS AND OPTIMIZATION STUDIES OF A CO2 NH3 CASCADE REFRIGERATION SYSTEM**
YILMAZ B., ERDÖNMEZ N., ÖZYURT A., YILMAZ D., MANÇUHAN E., SEVİNDİR M. K.
International Conference on Ammonia and CO2 Refrigeration Technologies, Ohrid, Macedonia, 16 - 18 April 2015
- XXII. PERFORMANCE ANALYSIS OF AN EXPERIMENTAL R404A CO2 CASCADE REFRIGERATION SYSTEM**
YILMAZ B., ÖZYURT A., YILMAZ D., SEVİNDİR M. K., MANÇUHAN E., ERDÖNMEZ N.
International Conference on Ammonia and CO2 Refrigeration Technologies, Ohrid, Macedonia, 16 - 18 April 2015
- XXIII. Drying Kinetics of kiwi fruits**
GÖNÜL A., AĞRA Ö., SEVİNDİR M. K., ATAYILMAZ Ş. Ö., DEMİR H.
19th International Drying Symposium (IDS 2014) Lyon, France, 2014, 24 - 27 August 2014
- XXIV. THERMODYNAMIC ANALYSIS AND OPTIMIZATION OF CASCADE CONDENSING TEMPERATURE OF A CO2 R744 R404A CASCADE REFRIGERATION SYSTEM**
YILMAZ B., ERDÖNMEZ N., SEVİNDİR M. K., MANÇUHAN E.
15th International Refrigeration and Air Conditioning Conference, PURDUE, United States Of America, 14 - 17 July 2014
- XXV. The Underhood Thermal Management and Cooling Drag Effects of an Active Grille Shutter Prototype for Light Duty Vehicle under Simulated and Real Test Environments 23 25 June 2014 Bordeaux France**
Erdoğan K., Ergenç A. T., Yılmaz Ş., Çırık U., Altın A., Sevindir M. K., Yurtseven A.
First Int. Conf. in Numerical and Experimental Aerodynamics of Road Vehicles and Trains., Bordeaux, France, 23 - 25 June 2014
- XXVI. Determination of pressure drop of pure water flowing upward direction in a double tube heat exchanger having smooth and microfin tubes**
Çebi A., Celen A., Dalkılıç A. S., Sevindir M. K., Wongwises S.
ASME 2014 4th Joint US-European Fluids Engineering Division Summer Meeting, FEDSM 2014, Collocated with the ASME 2014 12th International Conference on Nanochannels, Microchannels, and Minichannels, Illinois, United States Of America, 3 - 07 August 2014
- XXVII. DOMESTIC APPLICATIONS USING PEM TYPE FUEL CELLS**
KURULAR S., GÜLBAHÇE M., SEVİNDİR M. K., YURTSEVEN A.
CLIMAMED VII. MEDITERRANEAN CONGRESS OF CLIMATIZATION, İstanbul, Turkey, 3 - 04 October 2013
- XXVIII. A COMPARISON IN TERMS OF COP VALUES OF REFRIGERANTS USED IN HVAC**
GÖNÜL A., SEVİNDİR M. K., ÖZTÜRK E.
CLIMAMED VII. MEDITERRANEAN CONGRESS OF CLIMATIZATION, İstanbul, Turkey, 3 - 04 October 2013
- XXIX. COOLING SYSTEM OF EDDY CURRENT BRAKE SYSTEM AND WASTE HEAT RECOVERY**
GÜLBAHÇE M., KURULAR S., GÜLBAHÇE M. O., SEVİNDİR M. K.
CLIMAMED VII. MEDITERRANEAN CONGRESS OF CLIMATIZATION, İstanbul, Turkey, 3 - 04 October 2013

- XXX. **KARBONDİOKSİT SOĞUTUCULU BİR KASKAT SOĞUTMA SİSTEMİNİN SAYISAL ANALİZİ**
YILMAZ B., ERDÖNMEZ N., ÖZYURT A., MANÇUHAN E., SEVİNDİR M. K.
ULIBTK'13 19. ULUSAL ISI BİLİMİ VE TEKNİĞİ KONGRESİ, Samsun, Turkey, 9 - 12 September 2013
- XXXI. **KAPALIÇARŞI SANDAL BEDESTEN İN İKLİMLENDİRİLMESİNDE ISI POMPASI UYGULAMASI**
SEVİNDİR M. K., TEMEL S.
11. ULUSAL TESİSAT MÜHENDİSLİĞİ KONGRESİ, İzmir, Turkey, 17 - 20 April 2013
- XXXII. **YAPI MALZEMELERİNDE BUHAR DİFÜZYONU VE YOĞUŞMA**
HEPERKAN H. A., BİRCAN M. M., SEVİNDİR M. K.
V. ULUSAL TESİSAT MÜHENDİSLİĞİ KONGRESİ VE SERGİSİ, İzmir, Turkey, 3 - 06 October 2001

Other Publications

- I. **Teknogon Teşhir Elemanları San. A.Ş. Çerkezköy OSB'de bulunan fabrika binası ile ilgili Teknik İnceleme ve Değerlendirme Raporu**
ARUN E. G., Yüzer N., Güney D., Kuruşcu A. O., Sevindir M. K.
Other, 2013

Expert Reports

- I. **Teknogon Teşhir Elemanları San.A.Ş.'Nin Çerkezköy OSB'de Bulunan Fabrika Binasının Yıkılan Kısımlarının Malzeme ve Taşıyıcı Sistem Değerlendirilmesini Raporu**
Kuruşcu A. O., Arun E. G., Yüzer N., Sevindir M. K., Güney D.
Yönetim, pp.30, İstanbul, 2013

Supported Projects

| | |
|-------------|--|
| 2022 - 2025 | Isı Pompalı Mikrodalga Destekli Gıda Kurutma Sisteminin Deneysel ve Sayısal İncelenmesi, Project Supported by Higher Education Institutions |
| 2022 - 2024 | POLİMER KOMPOZİT ISI DEĞİŞTİRİCİSİ GELİŞTİRİLMESİ, Project Supported by Higher Education Institutions |
| 2021 - 2024 | Kendinden Basıncılı Oksitleyicileri Kullanan Hibrit Roket Motoru, Project Supported by Higher Education Institutions |
| 2021 - 2024 | Ev Tipi Bulaşık Makinesinde Kurutma Prosesinin İyileştirilmesi, Project Supported by Higher Education Institutions |
| 2021 - 2023 | Endüstriyel Bulaşık Makinelerinde Enerji Verimliliğinin Arttırılması, Project Supported by Higher Education Institutions |
| 2019 - 2021 | Toprak Kaynaklı Isı Pompasıyla Radyant Isıtma Soğutma Sistemlerinin Isıl Konfor Analizinin Deneysel ve Sayısal İncelenmesi, Project Supported by Higher Education Institutions |
| 2017 - 2019 | Endüstriyel soğutucularda kullanılan telli kondenserlerin performanslarının iyileştirilmesi, Project Supported by Higher Education Institutions |
| 2009 - 2012 | Boru ve Kanal İçinde Yoğuşmada Isı Transferi İyileştirme Tekniklerinin İncelenmesi, Project Supported by Other Official Institutions |

Metrics

Publication: 52
Citation (WoS): 18
Citation (Scopus): 59

H-Index (WoS): 2

H-Index (Scopus): 5

Non Academic Experience

1996 - 1997

WILO POMPA SİSTEMLERİ, SATIŞ TEMSİLCİSİ