

Assoc. Prof. MERVE ŞENTÜRK ACAR

Personal Information

Office Phone: [+90 228 214 1907](tel:+902282141907)

Fax Phone: [+90 228 214 1907](tel:+902282141907)

Email: merve.senturkacar@bilecik.edu.tr

Web: <https://avesis.bilecik.edu.tr/merve.senturkacar>

International Researcher IDs

ScholarID: OiYav_oAAAAJ

ORCID: 0000-0003-1442-4560

ScopusID: 57194507156

Yoksis Researcher ID: 198864

Education Information

Doctorate, Kütahya Dumlupınar University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (Dr), Turkey 2013 - 2016

Postgraduate, Kütahya Dumlupınar University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (YI) (Tezli), Turkey 2006 - 2009

Undergraduate, Kütahya Dumlupınar University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Turkey 2002 - 2006

Dissertations

Doctorate, Ranque-Hilsch vorteks tüpü destekli hibrit soğutma - kurutma sistemi tasarımı ve termodinamik incelemesi, Kütahya Dumlupınar University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (Dr), 2016

Postgraduate, Jeotermal enerji kaynaklarının optimum kullanım modelinin geliştirilmesi ve yöresel uygulaması, Kütahya Dumlupınar University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (YI) (Tezli), 2009

Academic and Administrative Experience

Bilecik Seyh Edebali University, 2019 - 2020

Bilecik Seyh Edebali University, 2018 - 2019

Kütahya Dumlupınar University, 2015 - 2018

Courses

METAL SEKTÖRÜNDE İSG, Postgraduate, 2020 - 2021

UZMANLIK ALAN DERSİ, Postgraduate, 2020 - 2021, 2019 - 2020

ISI TRANSFERİ, Undergraduate, 2020 - 2021

İŞ SAĞLIĞI VE GÜVENLİĞİ II, Undergraduate, 2020 - 2021

MÜHENDİSLİKTE DENEYSEL METODLAR I, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

SOĞUTMA SİSTEMLERİ VE TERMODİNAMİK ANALİZLERİ, Postgraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

BİTİRME PROJESİ, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

İŞ SAĞLIĞI VE GÜVENLİĞİ I, Undergraduate, 2020 - 2021

TASARIM PROJESİ, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019
JEOTERMAL ENERJİ SİSTEMLERİ, Postgraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019
KORUNMA POLİTİKALARI VE KKD, Undergraduate, 2020 - 2021
GÜÇ SANTRALLERİ, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019
MÜHENDİSLİKTE DENEYSEL METODLAR II, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019
TEZ ÇALIŞMASI, Postgraduate, 2020 - 2021
TERMODİNAMİK II, Undergraduate, 2019 - 2020, 2018 - 2019
BİLİM ETİĞİ, Postgraduate, 2019 - 2020
TERMODİNAMİK I, Undergraduate, 2019 - 2020, 2018 - 2019
YÜKSEK LİSANS TEZ ÇALIŞMASI, Postgraduate, 2019 - 2020
ISITMA VE HAVALANDIRMA, Undergraduate, 2019 - 2020
SEMİNER, Postgraduate, 2018 - 2019
SOĞUTMA TEKNOLOJİSİ, Undergraduate, 2018 - 2019
TESİSAT MESLEK RESMİ, Associate Degree, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015
TERMODİNAMİK, Associate Degree, 2017 - 2018, 2016 - 2017, 2015 - 2016
DOĞALGAZ TESİSATI I, Associate Degree, 2017 - 2018, 2016 - 2017, 2014 - 2015
İŞ SAĞLIĞI VE GÜVENLİĞİ, Associate Degree, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015
DOĞALGAZ DAĞITIM HATLARI, Associate Degree, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015
HİDROLİK VE PNÖMATİK, Associate Degree, 2016 - 2017, 2014 - 2015, 2013 - 2014
TEMEL TESİSAT İŞLEMLERİ, Associate Degree, 2016 - 2017, 2015 - 2016
HİDROLİK-PNÖMATİK, Associate Degree, 2015 - 2016
İKLİMLENDİRME TEKNİĞİ, Associate Degree, 2015 - 2016, 2013 - 2014
DOĞALGAZ TESİSATI 2, Associate Degree, 2015 - 2016
YALITIM TEKNOLOJİSİ, Associate Degree, 2015 - 2016
DOĞALGAZ TESİSATI 1, Associate Degree, 2015 - 2016
ÖLÇME VE KONTROL, Associate Degree, 2014 - 2015
ENERJİ YÖNETİMİ, Associate Degree, 2013 - 2014
TESİSAT SERVİS HİZMETLERİ, Associate Degree, 2013 - 2014
KALİTE GÜVENCESİ VE STANDARTLARI, Associate Degree, 2013 - 2014
DOĞALGAZ TESİSATI II, Associate Degree, 2013 - 2014

Advising Theses

ŞENTÜRK ACAR M., Endüstriyel bisküvi fırınının termodinamik, maliyet analizi ve atık ısı geri kazanımı, Postgraduate, M.ERDOĞAN(Student), 2023
ŞENTÜRK ACAR M., Parabolik Güneş Kollektörlerinde Farklı Akışkan Tercihlerinde Karşılaştırmalı Thermo-ekonomik Analizi, Postgraduate, H.NARİN(Student), 2021
ŞENTÜRK ACAR M., Jeotermal enerji kaynaklı organik rankine çevrimi ve kalina çevriminin termodinamik ve ekonomik analizleri, Postgraduate, M.BOLAT(Student), 2021

Articles Published in Other Journals

- I. **Multi-stage artificial neural network structure-based optimization of geothermal energy powered Kalina cycle**
ŞENTÜRK ACAR M.
Journal of Thermal Analysis and Calorimetry, vol.145, no.3, pp.829-849, 2021 (Scopus)
- II. **OPTIMIZATION of o-TYPE ORC-BINARY GEOTHERMAL POWER PLANT: EATWOS ANALYSIS**
ARSLAN O., ERGENEKON ARSLAN A., ŞENTÜRK ACAR M.
Bilecik Şeyh Edebali Üniversitesi Fen Bilimleri Dergisi, vol.6, pp.222-236, 2019 (Peer-Reviewed Journal)

- III. **Multi-Criteria Making-Decision Modeling of b-type ORC-Binary Geothermal Power Plant: EATWOS Analysis**
ARSLAN O., ERGENEKON ARSLAN A., ŞENTÜRK ACAR M.
Bilecik Şeyh Edebali Üniversitesi Fen Bilimleri Dergisi, vol.6, no.1, pp.29-48, 2019 (Peer-Reviewed Journal)
- IV. **Islak Kireçli Baca Gazı Desülfürüzyon Sistemi Termodinamik ve Ekonomik Analizi**
ŞENTÜRK ACAR M., KAYAPINAR O., ARSLAN O.
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, vol.21, no.2, pp.359-368, 2018 (Peer-Reviewed Journal)
- V. **Linyit Üretim Prosesinin Ekserjitik Değerlendirmesi: Sli Örneği**
ŞENTÜRK ACAR M., SARAYDAR M., ARSLAN O.
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, vol.21, no.1, pp.55-63, 2018 (Peer-Reviewed Journal)
- VI. **Akışkan Yatakta Rejim Bölgesinin Isı Transferine Etkisi**
ERBAŞ O., TOPAL H., ŞENTÜRK ACAR M., ARSLAN O.
Bilecik Şeyh Edebali Üniversitesi Fen Bilimleri Dergisi, vol.4, no.2, pp.24-27, 2017 (Peer-Reviewed Journal)
- VII. **Techno-Economic Analysis Of Ranque-Hilsch Vortex Tube Aided Hybrid Cooling And Drying System**
ŞENTÜRK ACAR M., ARAT H., ARSLAN O.
International Journal of Mechanical Engineering, vol.1, pp.62-68, 2016 (Peer-Reviewed Journal)
- VIII. **The Effect of Cold Stream of Vortex Tube on Efficiency of the Vapor Compression Refrigeration System**
ŞENTÜRK ACAR M., ARSLAN O.
Avrupa Bilim ve Teknoloji Dergisi, vol.3, no.6, pp.25-28, 2015 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **SOLAR ENERGY POWERED ORC DESIGN and THERMODYNAMIC ANALYSIS FOR MARDİN PROVINCE**
ÜNAL F., ŞENTÜRK ACAR M.
KARADENİZ 11th INTERNATIONAL CONFERENCE ON APPLIED SCIENCES, Trabzon, Turkey, 17 December 2022, pp.68-76
- II. **ENERGY ANALYSIS OF AN ORGANIC RANKINE CYCLE**
Erdoğan M., ŞENTÜRK ACAR M.
3. INTERNATIONAL CAPPADOCIA SCIENTIFIC RESEARCH CONGRESS, Nevşehir, Turkey, 11 December 2022, vol.1, pp.1572-1578
- III. **ENERGY AND EXERGY ANALYSIS OF ORGANIC RANKINE CYCLE DRIVEN BY THE LOWTEMPERATURE GEOTHERMAL ENERGY SOURCES**
UÇAN H. N., ŞENTÜRK ACAR M., SÖĞÜT M. Z.
INTERNATIONAL SYMPOSIUM ON ENERGY MANAGEMENT AND SUSTAINABILITY, İstanbul, Turkey, 05 April 2022, pp.118
- IV. **Jeotermal Enerji Kaynaklı Organik Rankine Çevrimi ve Kalina Çevriminin Enerji Verimliliği Açısından Karşılaştırılması**
BOLAT M., ŞENTÜRK ACAR M.
6. Uluslararası Gap Matematik Mühendislik-Fen ve Sağlık Bilimleri Kongresi, 26 - 28 June 2021
- V. **Performance Analysis of Solar and Geothermal Energy Powered Kalina Cycle**
ŞENTÜRK ACAR M., ARSLAN O.
5th International Anatolian Energy Symposium, Trabzon, Turkey, 24 - 25 March 2021, pp.184-194
- VI. **Optimization of Ranque-Hilsch Vortex Tube Integrated Vapor Compression Cooling Cycle by EATWOS**
ARSLAN O., ŞENTÜRK ACAR M.
International Congress on Afro-Eurasian Research V, 19 - 22 April 2019, pp.368-373
- VII. **Optimization of Ranque-Hilsch Vortex Tube Integrated Drying System by EATWOS**
ARSLAN O., ŞENTÜRK ACAR M.
International Congress on Afro-Eurasian Research V, 19 - 22 April 2019, pp.374-378
- VIII. **Thermodynamical Analysis of Geothermalpowered Organic Rankine Cycle for R-1233ZD, R600, R-**

245FA and R-236FA

ŞENTÜRK ACAR M.

Mas International European Congresson Mathematics, Engineering, Natural Andmedical Sciences-IV, Antalya, Turkey, 21 - 23 March 2019, pp.96-106

- IX. **Bilecik İli Güneş Enerjisi Destekli Orc Güç Santrali Tasarımı: Therminol-VP1/R-134a Örneği**
KILIÇ D., ŞENTÜRK ACAR M., ARSLAN O.
International Conference on Energy Research (ENRES-2018), 31 October - 02 November 2018
- X. **Bilecik İli Güneş Enerjisi Destekli Orc Güç Santrali Tasarımı: Eriyik TUZ/R-134a Örneği**
KILIÇ D., ŞENTÜRK ACAR M., ARSLAN O.
International Conference on Energy Research (ENRES-2018), 31 October - 02 November 2018
- XI. **BİLECİK İLİ GÜNEŞ ENERJİSİ DESTEKLİ ORC GÜÇSANTRALİ TASARIMI: THERMINOL-VP1/R-134a ÖRNEĞİ**
KILIÇ D., ŞENTÜRK ACAR M., ARSLAN O.
International Conference on Energy Research, 31 October - 02 November 2018, pp.70-81
- XII. **BİLECİK İLİ GÜNEŞ ENERJİSİ DESTEKLİ ORC GÜÇ SANTRALİ TASARIMI: ERİYİK TUZ/R-134a ÖRNEĞİ**
KILIÇ D., ŞENTÜRK ACAR M., ARSLAN O.
International Conference on Energy Research, 31 October - 02 November 2018, pp.98-109
- XIII. **Performance Analysis of Isopentane, R123, and R141b for Organic Rankine Cycle Used inWaste Heat Recovery System**
AKBULUT A., ARAT H., ŞENTÜRK ACAR M., ARSLAN O.
INTERNATIONAL CONGRESS ON ENGINEERING AND LIFE SCIENCE, 26 - 29 April 2018, pp.923-929
- XIV. **Thermodynamic Analysis of Waste Heat Recovery System in Glass Industry**
AKBULUT A., ARAT H., ŞENTÜRK ACAR M., ARSLAN O.
INTERNATIONAL CONGRESS ON ENGINEERING AND LIFE SCIENCE, 26 - 29 April 2018, pp.918-922
- XV. **DETERMINATION OF THE EFFECTIVE PARAMETERS OF RANQUE-HILSCH VORTEX TUBE INTEGRATED VOPOUR COMPRESSION COOLING SYSTEM USING DATA ENVELOPING ANALYSIS**
ŞENTÜRK ACAR M., ERGENEKON ARSLAN A., ARSLAN O.
INTERNATIONAL CONGRESS ON AFRO - EURASIAN RESEARCH IV, 27 - 29 April 2018, pp.370-377
- XVI. **DATA ENVELOPING ANALYSIS OF RANQUE-HILSCH VORTEX TUBE AIDED DRYING SYSTEM**
ŞENTÜRK ACAR M., ARSLAN O.
INTERNATIONAL CONGRESS ON AFRO - EURASIAN RESEARCH IV, Budapest, Hungary, 27 - 29 April 2018, pp.410-416
- XVII. **EFFECTIVENESS ANALYSIS OF ORC-BINARY GEOTHERMAL POWER PLANT USING DATA ENVELOPING**
ERGENEKON ARSLAN A., ŞENTÜRK ACAR M., ARSLAN O.
INTERNATIONAL CONGRESS ON AFRO - EURASIAN RESEARCH IV, 27 - 29 April 2018, pp.110-118
- XVIII. **DATA ENVELOPING BASED EFFECTIVENESS ANALYSIS OF INTEGRATED GEOTHERMAL SYSTEM: SIMAV CASE STUDY**
ERGENEKON ARSLAN A., ŞENTÜRK ACAR M., ARSLAN O.
INTERNATIONAL CONGRESS ON AFRO - EURASIAN RESEARCH IV, 27 - 29 April 2018
- XIX. **ANN Based Optimization of Vapour Compression Refrigeration System with Ground Source Heat Pump**
ŞENTÜRK ACAR M., ÜNAL F.
EJONS International Congress on Mathematic, Engineering and Natural Sciences - III, 21 - 22 April 2018
- XX. **KÜTAHYA-SİMAV BÖLGESEL ISITMA SİSTEMİ İÇİN GÜNEŞ ENERJİSİDESTEKLİ JEOTERMAL KAYNAKLI ISI POMPASININ TERMODİNAMİK ANALİZİ**
ARAT H., ŞENTÜRK ACAR M., AKBULUT A., ARSLAN O.
21. ULUSAL ISI BİLİMİ VE TEKNİĞİ KONGRESİ, Turkey, 13 - 16 September 2017
- XXI. **Kütahya-Simav Bölgesel Isıtma Sistemi İçin Güneş Enerjisi Destekli Jeotermal Kaynaklı Isı Pompasının Termodinamik Analizi**
ARAT H., ŞENTÜRK ACAR M., AKBULUT A., ARSLAN O.
21. Ulusal Isı Bilimi ve Tekniği Kongresi, 13 - 16 September 2017

- XXII. **Performance Analysis of Solar-Geothermal Power Plant**
ŞENTÜRK ACAR M., ARAT H., ERBAŞ O., TOPAL H., Altıncı Y., ARSLAN O.
INTERNATIONAL CONGRESS ON APPLIED SCIENCE AND TECHNOLOGY, 17 - 20 April 2017
- XXIII. **Thermodynamic Analysis of Flue Gas Desulphurization System**
Kayapınar O., ŞENTÜRK ACAR M., ARAT H., ERBAŞ O., TOPAL H., Altıncı Y., ARSLAN O.
INTERNATIONAL CONGRESS ON APPLIED SCIENCE AND TECHNOLOGY, 17 - 20 April 2017
- XXIV. **Thermodynamic Analysis of Simav Geothermal District Heating System Assisted by Solar Energy**
ARAT H., ŞENTÜRK ACAR M., ARSLAN O.
INTERNATIONAL CONFERENCE ON ENGINEERING TECHNOLOGY AND INNOVATION, 22 - 26 March 2017
- XXV. **Thermodynamic Analysis of Ranque Hilsch Vortex Tube Aided Hybrid Cooling and Drying System**
ŞENTÜRK ACAR M., ARAT H., ARSLAN O.
11th Conference on Sustainable Development of Energy, Water and Environment Systems, 4 September - 09 June 2016
- XXVI. **Techno economic Analysis of Ranque Hilsch Vortex Tube Aided Hybrid Cooling and Drying System**
ŞENTÜRK ACAR M., ARAT H., ARSLAN O.
4th International Conference on Integrated Systems and Management for Energy, Development, Environment and Health (ISMAEDELH '16), 17 - 19 June 2016
- XXVII. **Exergoeconomic Evaluation of Geothermal Heat Pump Aided District Heating**
ARAT H., ŞENTÜRK ACAR M., ARSLAN O., AKBULUT A.
12th International Conference on Energy, Environment, Ecosystems and Sustainable Development EEESD'16, 29 - 31 January 2016
- XXVIII. **Thermodynamic analysis of district heating system assisted by geothermal sourced heat pump**
ARAT H., ŞENTÜRK ACAR M., ARSLAN O.
12th International Conference on Energy, Environment, Ecosystem and Sustainable Development (EEESD'16), Venice, Italy, 29 - 31 January 2016, pp.147-152
- XXIX. **Exergoeconomic evaluation of geothermal heat pump aided district heating**
ARAT H., ŞENTÜRK ACAR M., ARSLAN O., AKBULUT A.
12th International Conference on Energy, Environment, Ecosystem and Sustainable Development (EEESD'16), Venice, Italy, 29 - 31 January 2016, pp.84-89
- XXX. **Jeotermal Kaynaklı Isı Pompası Sisteminin Kütahya-Simav Bölgesel Isıtma Sisteminde Kullanılması**
ARAT H., ŞENTÜRK ACAR M., ARSLAN O.
20. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 2 - 05 September 2015
- XXXI. **Ranque-Hilsch Vorteks Tüpü Destekli Kurutma Sisteminin Enerji ve Ekserji Analizi**
ŞENTÜRK ACAR M., ARAT H., ARSLAN O.
20. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 2 - 05 September 2015
- XXXII. **Ranque Hilsch Vorteks Tüpü Destekli Kurutma Sisteminin Enerji ve Ekserji Analizi**
ŞENTÜRK ACAR M., ARAT H., ARSLAN O.
20. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 2 - 05 September 2015
- XXXIII. **Ranque-Hilsch Vorteks Tüpünün Buhar Sıkıştırılmalı Soğutma Sisteminin Etkinliği Üzerindeki Etkisinin İncelenmesi**
ŞENTÜRK ACAR M., ARSLAN O., KÖSE R.
2. Ulusal İklimlendirme Soğutma Eğitimi Sempozyumu ve Sergisi, Turkey, 23 - 25 October 2014
- XXXIV. **The Effect Of Cold Stream Of Vortex Tube On Efficiency Of The Vapor Compression Refrigeration System**
ŞENTÜRK ACAR M., ARSLAN O.
International Conference on Computational and Experimental Science and Engineering ICCES-2014, 25 - 29 October 2014
- XXXV. **The effect of Cold Stream of Vortex Tube on Efficiency of the Vapor Compression Refrigeration System**
ŞENTÜRK ACAR M., ARSLAN O.
International Conference on Computational and Experimental Science and Engineering, 25 - 29 October 2014

Metrics

Publication: 48

Citation (Scopus): 194

H-Index (WoS): 1

H-Index (Scopus): 4