

Lect. PhD KENAN SAKA

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Education Information

Doctorate, Bursa Uludağ University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (Dr), Turkey 2011 - 2016

Postgraduate, Bursa Uludağ University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (YI) (Tezli), Turkey 2009 - 2010

Undergraduate, Gaziantep University, Faculty Of Engineering, Department Of Mechanical Engineering (English), Turkey 2000 - 2005

Research Areas

Engineering and Technology

Courses

FİZİK, Associate Degree, 2017 - 2018

TİCARİ SOĞUTMA SİSTEMLERİ, Associate Degree, 2017 - 2018, 2016 - 2017

HİDROLİK VE PNÖMATİK, Associate Degree, 2017 - 2018, 2016 - 2017

İSİYMA SİSTEMLERİ, Associate Degree, 2017 - 2018

ÖLÇME VE KONTROL, Associate Degree, 2017 - 2018

EV TİPİ SOĞUTMA SİSTEMLERİ, Associate Degree, 2017 - 2018, 2016 - 2017

HAVALANDIRMA SİSTEMLERİ, Associate Degree, 2017 - 2018, 2016 - 2017

ISITMA SİSTEMLERİ, Associate Degree, 2017 - 2018, 2016 - 2017

MUKAVEMET, Associate Degree, 2017 - 2018, 2016 - 2017

İKLİMLENDİRME SİSTEMLERİ, Associate Degree, 2017 - 2018

SOĞUTMA İLKELERİ, Associate Degree, 2017 - 2018, 2016 - 2017

ALIŞILMAMIŞ İMALAT YÖNTEMLERİ, Associate Degree, 2017 - 2018, 2016 - 2017

TESİSAT İŞLEMLERİ, Associate Degree, 2017 - 2018

KAYNAK TEKNOLOJİSİ, Associate Degree, 2017 - 2018, 2016 - 2017

MESLEKİ MATEMATİK I, Associate Degree, 2016 - 2017

MERKEZİ İKLİMLENDİRME SİSTEMLERİ, Associate Degree, 2016 - 2017

TEKNİK RESİM, Associate Degree, 2016 - 2017

KORUYUCU BAKIM VE ARIZA TESPİTİ, Associate Degree, 2016 - 2017

Published journal articles indexed by SCI, SSCI, and AHCI

- I. A Quantitative Examination of the Efficiency of a Biogas-Based Cooling System in Rural Regions
SAKA K.
PROCESSES, vol.11, no.7, 2023 (SCI-Expanded)
- II. Design and Analysis of Gas Diffusion Layers in a Proton Exchange Membrane Fuel Cell
SAKA K., Orhan M. F., Hamada A. T.
COATINGS, vol.13, no.1, 2023 (SCI-Expanded)
- III. Analysis of stack operating conditions for a polymer electrolyte membrane fuel cell
SAKA K., Orhan M. F.
ENERGY, vol.258, 2022 (SCI-Expanded)
- IV. A Study and Assessment of the Status of Energy Efficiency and Conservation at School Buildings
Ragab K. M., Orhan M. F., SAKA K., Zurigat Y.
SUSTAINABILITY, vol.14, no.17, 2022 (SCI-Expanded)
- V. Design and Optimization of Fuel Cells: A Case Study on Polymer Electrolyte Membrane Fuel Cell Power Systems for Portable Applications
Orhan M. F., SAKA K., Yousuf M.
ADVANCES IN POLYMER TECHNOLOGY, vol.2022, 2022 (SCI-Expanded)
- VI. AN INVESTIGATION ON HYDROGEN PRODUCTION CAPACITY OF A PHOTOVOLTAIC POWER PLANT
SAKA K.
FRESENIUS ENVIRONMENTAL BULLETIN, vol.31, no.3A, pp.3542-3550, 2022 (SCI-Expanded)
- VII. Analysis and modeling of a membrane electrode assembly in a proton exchange membrane fuel cell
Orhan M. F., SAKA K., Kahraman H.
JOURNAL OF RENEWABLE AND SUSTAINABLE ENERGY, vol.12, no.4, 2020 (SCI-Expanded)
- VIII. INVESTIGATION OF PARAMETERS AFFECTING THE OPTIMUM THERMAL INSULATION THICKNESS FOR BUILDINGS IN HOT AND COLD CLIMATES
CANBOLAT A. S., Bademlioglu A. H., SAKA K., KAYNAKLI Ö.
THERMAL SCIENCE, vol.24, no.5, pp.2891-2903, 2020 (SCI-Expanded)
- IX. Performance Assessment and Solution Procedure for Series Flow Double-Effect Absorption Refrigeration Systems Under Critical Operating Constraints
Yilmaz I. H., SAKA K., KAYNAKLI Ö., KAŞKA Ö.
ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.44, no.6, pp.5997-6011, 2019 (SCI-Expanded)
- X. Exploitable biomass status and potential of the Southeastern Anatolia Region, Turkey
Yilmaz I. H., SAKA K.
ENERGY SOURCES PART B-ECONOMICS PLANNING AND POLICY, vol.13, no.1, pp.46-52, 2018 (SCI-Expanded)
- XI. A thermodynamic evaluation on high pressure condenser of double effect absorption refrigeration system
Yilmaz I. H., SAKA K., KAYNAKLI Ö.
ENERGY, vol.113, pp.1031-1041, 2016 (SCI-Expanded)
- XII. Energy and exergy analysis of a double effect absorption refrigeration system based on different heat sources
KAYNAKLI Ö., SAKA K., KAYNAKLI F.
ENERGY CONVERSION AND MANAGEMENT, vol.106, pp.21-30, 2015 (SCI-Expanded)

Articles Published in Other Journals

- I. Energy assessment of an integrated hydrogen production system

- Shahin M. S., Orhan M. F., SAKA K., Hamada A. T., Uygul F.
International Journal of Thermofluids, vol.17, 2023 (Scopus)
- II. **Üç Kademeli Soğurmeli Soğutma Sisteminin Enerji ve Ekserji Analizi**
SAKA K.
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, vol.8, no.3, pp.1075-1085, 2019 (Peer-Reviewed Journal)
- III. **An Evaluation of Overcast Weather on Generation of a Grid Connected PV Power Plant**
SAKA K.
Journal of Current Research on Engineering, Science and Technology, vol.5, no.1, pp.19-28, 2019 (Peer-Reviewed Journal)
- IV. **Bursa'nın Hayvansal Biyokütle Enerji Potansiyeli Üzerine Bir İnceleme**
SAKA K.
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.18, no.3, pp.1167-1173, 2018 (Peer-Reviewed Journal)
- V. **ENERGY POTENTIAL OF ANIMAL BIOMASS IN TURKEY**
SAKA K., YILMAZ İ. H., CANBOLAT A. S., KAYNAKLI Ö.
European Journal of Technique, vol.8, no.2, pp.160-167, 2018 (Peer-Reviewed Journal)
- VI. **Üç-kademeli Bir Soğurmeli Soğutma Siteminde Kaynاتıcılara Bağlı Enerji ve Ekserji Analizi**
SAKA K., YILMAZ İ. H., GÖKSU T. T.
Gazi Mühendislik Bilimleri Dergisi, vol.4, no.1, pp.67-76, 2018 (Peer-Reviewed Journal)
- VII. **AN EVALUATION ON SOLAR POWERED HYDROGEN PRODUCTION**
SAKA K., CANBOLAT A. S.
The International Journal of Energy Engineering Sciences, vol.3, no.2, pp.26-35, 2018 (Peer-Reviewed Journal)
- VIII. **AGRICULTURAL BIOMASS POTENTIAL IN TURKEY**
SAKA K., YILMAZ İ. H.
International Journal of Management and Applied Science, vol.3, no.2, pp.79-81, 2017 (Peer-Reviewed Journal)
- IX. **Optimization Of Insulation Thickness For External Walls Considering Different Climatic Conditions**
KAYNAKLI Ö., CANBOLAT A. S., SAKA K., YAMANKARA DENİZ R.
International Journal of Advances in Mechanical and Civil Engineering, 2017 (Peer-Reviewed Journal)
- X. **DETERMINATION OF OPTIMUM THERMAL INSULATION THICKNESSES CONSIDERING THE SEASONAL ENERGY REQUIREMENTS**
KAYNAKLI Ö., SAKA K., KAYNAKLI Z.
International Journal of Mechanical And Production Engineering, vol.4, no.6, pp.71-75, 2016 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **TÜRKİYE'NİN HAYVANSAL KAYNAKLI BİYOGAZKAPASİTESİ**
APAYDIN M., SAKA K.
in: Fen ve Matematik Bilimleri Alanında Akademik Çalışmalar, Turgay SEÇKİN, Editor, Gece Publishing, Ankara, pp.161-170, 2020
- II. **BURSA 'NIN YENİLENEBİLİR ENERJİ GÖRÜNÜMÜ**
SAKA K.
in: MÜHENDİSLİKTE GÜNCEL KONULAR, HAMEŞ, Editor, NOBEL AKADEMİK YAYINCILIK EĞİTİM DANIŞMANLIK TİC. LTD. ŞTİ., Ankara, pp.139-149, 2018
- III. **BURSA 'NIN HA YVANSAL BİYOKÜLTE ENERJİ POTANSİYELİ**
SAKA K.
in: MÜHENDİSLİKTE GÜNCEL KONULAR, YAKUP HAMEŞ, Editor, NOBEL AKADEMİK YAYINCILIK EĞİTİM DANIŞMANLIK TİC. LTD. ŞTİ., Ankara, pp.151-159, 2018
- IV. **TURKEY'S BIOMASS ENERGY POTENTIAL: AN EVALUATION OF ENERGY MINISTRY'S MAP**
SERDAR A., SAKA K.

in: Researches on science and art in 21st century turkey, Hasan Arapgirlioğlu, Atilla Atik, Robert L. Elliott, Edward Turgeon, Editor, Gece Publishing, Ankara, pp.2668-2672, 2017

Refereed Congress / Symposium Publications in Proceedings

- I. A STUDY AND ASSESSMENT OF THE STATUS OF ENERGY EFFICIENCY AND CONSERVATION AT SCHOOL BUILDINGS
Ragab K. M., SAKA K., Zurigat Y., ORHAN M. F.
22. Isı Bilimi ve Tekniği Kongresi, Kocaeli, Turkey, 11 - 14 September 2019, pp.73-84
- II. An Investigation on Hydrogen Production Capacity of a PV Power Plant in Bursa, Turkey
SAKA K., ORHAN M. F., KAHRAMAN H.
9TH INTERNATIONAL100 RENEWABLEENERGY CONFERENCE, İstanbul, Turkey, 24 - 26 April 2019, pp.3-15
- III. Analysis and Modeling of Gaskets, End Plates and Current Collectors in a Proton Exchange Membrane Fuel Cell
SAKA K., ORHAN M. F., KAHRAMAN H.
9TH INTERNATIONAL100 RENEWABLEENERGY CONFERENCE, İstanbul, Turkey, 24 - 26 April 2019, pp.16-31
- IV. ANIMAL BASED BIOGAS CAPACITY OF TURKEY
APAYDIN M., SAKA K.
I. Uluslararası Şişli Bilim Kongresi, İstanbul, Turkey, 24 - 25 October 2019, pp.53
- V. An Integrated Solar Hydrogen Production System: Energy Assessment of an Electrolyzer Coupled with a Rankine Cycle
Shahin M. S., ORHAN M. F., Uygul F., SAKA K.
4th International Hydrogen Technologies Congress, Edirne, Turkey, 20 - 23 June 2019, pp.112-115
- VI. Design and Building PEM Fuel Cell Stacks with Different Configurations: Stack Operation Conditions
ORHAN M. F., KAHRAMAN H., SAKA K.
4th International Hydrogen Technologies Congress, Edirne, Turkey, 20 - 23 June 2019, pp.71-74
- VII. Scooter Propulsion System Powered by Hydrogen Fuel Cell- PEM
SAKA K., Erar Y., Dadouch B., Haddad J., Al Qassab A., Hag Ali İ., ORHAN M. F.
VII. INTERNATIONAL RENEWABLE FUELS COMBUSTION AND FIRE CONFERENCE IN ENGINEERING, Antalya, Turkey, 10 - 13 March 2019, pp.101-129
- VIII. DAILY HYDROGEN PRODUCTION EVALUATION USING SOLAR ENERGY IN BURSA, TURKEY
SAKA K.
3rd INTERNATIONAL ENERGY ENGINEERING CONGRESS, Gaziantep, Turkey, 18 - 19 October 2018, pp.320-328
- IX. A PRACTICAL SOFTWARE FOR THERMODYNAMIC ANALYSIS OF ABSORPTION REFRIGERATION CYCLES USING H₂O/LiBr AND NH₃/H₂O SOLUTION PAIRS
CANBOLAT A. S., SAKA K., KAYNAKLI F., YAMANKARA DENİZ N., KAYNAKLI Ö.
4th Anatolian Energy Symposium with International Participation, Edirne, Turkey, 18 - 20 April 2018
- X. BURSA'DA BULUNAN ŞEBEKE BAĞLANTILI BİR PV GÜÇ SANTRALİNİN GÜNLÜK ELEKTRİK ÜRETİMİ
SAKA K., KAYNAKLI Ö., YAMANKARA DENİZ R.
4th Anatolian Energy Symposium with International Participation, Edirne, Turkey, 18 - 20 April 2018, pp.1479-1485
- XI. SEASONAL GENERATION OF A GRID CONNECTED PV POWER PLANT
SAKA K.
6. EUROPEAN CONFERENCEON RENEWABLE ENERGY SYSTEMS, İstanbul, Turkey, 25 - 27 June 2018, pp.77-82
- XII. AN EVALUATION ON POTENTIAL ENERGY OF ANIMAL BIOMASS IN TURKEY
SAKA K.
6. EUROPEAN CONFERENCE ON RENEWABLE ENERGY SYSTEMS, İstanbul, Turkey, 25 - 27 June 2018, pp.83-89
- XIII. Performance analysis of a grid-connected PV power plant in Bursa, Turkey
SAKA K.
Alternative Energy Sources, Materials and Technologies, Plovdiv, Bulgaria, 14 - 15 May 2018, pp.10

- XIV. **TÜRKİYE'NİN HAYVANSAL BİYOKÜTLE ENERJİSİNİN ALTTÜRLERE GÖRE İNCELENMESİ**
SAKA K., YAMANKARA DENİZ R., CANBOLAT A. S.
4th Anatolian Energy Symposium with International Participation, Edirne, Turkey, 18 - 20 April 2018, pp.1486-1494
- XV. **A PRACTICAL SOFTWARE FOR THERMODYNAMIC ANALYSIS OF ABSORPTION REFRIGERATION CYCLES USING H₂OLiBr AND NH₃H₂O SOLUTION PAIRS**
CANBOLAT A. S., SAKA K., KAYNAKLI F., YAMANKARA DENİZ N., KAYNAKLI Ö.
IV. Uluslararası Katılımlı Anadolu Enerji Sempozyumu, Edirne, Turkey, 18 - 20 April 2018, pp.1574-1581
- XVI. **Bursa'nın Biyokütle Atık Kaynakları**
SAKA K.
Uluslararası Su ve Çevre Kongresi, Bursa, Turkey, 22 - 24 March 2018, pp.2369
- XVII. **Türkiye Gerçekliğinde Meslek Yüksek Okulları**
SAKA K.
International Conference on Quality in Higher Education, Sakarya, Turkey, 7 - 08 December 2017
- XVIII. **A Numerical Study on Heat Transfer Enhancement by Use of Twisted Tape Insert with Varying Pitch Ratio**
GÖKSU T. T., YILMAZ İ. H., SAKA K.
International Advanced Researches Engineering Congress, Osmaniye, Turkey, 16 - 18 November 2017, pp.499
- XIX. **Üç-kademeli Soğurmali Soğutma Sistemlerine Termodinamik Bir Bakış**
SAKA K., YILMAZ İ. H., GÖKSU T. T.
International Advanced Researches Engineering Congress, Osmaniye, Turkey, 16 - 18 November 2017, pp.337-342
- XX. **ÜÇ ETKİLİ SOĞURMALI BİR SOĞUTMA SİSTEMİNİN TERMODİNAMİK TASARIMI**
SAKA K., KAYNAKLI Ö., YAMANKARA DENİZ R.
2. ULUSLARARASI MÜHENDİSLİK MİMARLIK VE TASARIM KONGRESİ, İstanbul, Turkey, 12 - 13 May 2017, pp.382-383
- XXI. **İKİ KADEMELİ BİR ABSORBSİYONLU SOĞUTMA SİSTEMİNDE EŞANJÖR KULLANIMININ TERMODİNAMİK AÇIDAN İNCELENMESİ**
SAKA K.
13. ULUSAL TESİSAT MÜHENDİSLİĞİ KONGRESİ, İzmir, Turkey, 19 - 22 April 2017
- XXII. **Optimization of insulation thickness for external walls considering different climatic conditions**
KAYNAKLI Ö., CANBOLAT A. S., SAKA K., YAMANKARA DENİZ R.
International Conference on Innovative Engineering Technologies (ICIET), 1 - 02 February 2017
- XXIII. **Optimization Of Insulation Thickness For External Walls Considering Different Climatic Conditions**
KAYNAKLI Ö., CANBOLAT A. S., SAKA K., YAMANKARA DENİZ R.
International Conference on Innovative Engineering Technologies, Dubai, United Arab Emirates, 1 - 02 February 2017, pp.1-5
- XXIV. **İLERİ MÜHENDİSLİK EĞİTİMİNDE DENEYSEL VE SİMÜLASYON TABANLI UYGULAMALARIN KARŞILAŞTIRILMASI**
SAKA K., ÖZDEMİR E.
International Conference on Quality in Higher Education, Sakarya, Turkey, 24 - 25 November 2016
- XXV. **AGRICULTURAL BIOMASS POTENTIAL IN TURKEY**
SAKA K., YILMAZ İ. H.
International Conference on Innovative Engineering Technologies, MEKKE, Saudi Arabia, 17 December 2016, pp.27-29
- XXVI. **EXPLOITABLE BIOMASS POTENTIAL OF THE SOUTHEASTERN ANATOLIA REGION**
YILMAZ İ. H., SAKA K.
INTERNATIONAL ENERGY ENGINEERING CONFERENCE 2016, Gaziantep, Turkey, 13 - 14 October 2016, pp.647-652
- XXVII. **Marmara Bölgesinin hayvansal biyokütle dağılımı**
SAKA K., YILMAZ İ. H., KAYNAKLI Ö.
10. International Clean Energy Symposium, 24 - 26 October 2016, pp.158-163

- XXVIII. **VEGETAL DERIVED BIOMASS POTENTIAL OF THE MARMARA REGION**
SAKA K., YILMAZ İ. H.
10th International Clean Energy Symposium, İstanbul, Turkey, 24 - 26 October 2016, pp.115-119
- XXIX. **Influence of the Equilibrium Temperature in the Double Stage of the Absorption Refrigeration System**
YILMAZ İ. H., SAKA K., KAYNAKLI Ö.
8th International Ege Energy Syposium, Afyon, Turkey, 11 - 13 May 2016, pp.46-51
- XXX. **MARMARA BÖLGESİNİN HAYVANSAL BİYOKÜTLE DAĞILIMI**
SAKA K., YILMAZ İ. H., KAYNAKLI Ö.
10th International Clean Energy Symposium, İstanbul, Turkey, 24 - 26 October 2016, pp.158-163
- XXXI. **Kentsel Atık Potansiyelinin İncelenmesi: Bursa için Durum Çalışması**
SAKA K., YILMAZ İ. H.
3. ULUSAL ÇEVRE KONGRESİ, Marmaris, Turkey, 24 - 28 September 2016
- XXXII. **INVESTIGATION ON DOUBLE EFFECT DUAL-HEATED ABSORPTION REFRIGERATION SYSTEM**
SAKA K., YILMAZ İ. H., KAYNAKLI Ö.
XII. International HVACR Technology Symposium, İstanbul, Turkey, 31 March - 02 April 2016, pp.123-129
- XXXIII. **Determination of optimum thermal insulation thicknesses considering the seasonal energy requirements**
KAYNAKLI Ö., SAKA K., KAYNAKLI Z.
68th IIER International Conference, Barcelona, Spain, 13 April 2016, pp.19-23
- XXXIV. **MESLEK YÜKSEKOKULLARINDA UYGULAMA DERSLERİNDE KARŞILAŞILAN SORUNLAR**
SAKA K.
International Conference on Quality in Higher Education, Sakarya, Turkey, 2 - 04 December 2015, pp.305-310
- XXXV. **MESLEK YÜKSEKOKULUNDAN MEZUN OLAN ÖĞRENCİLERİN ÇALIŞMA PROFİLLERİ MAKİNE PROGRAMI ÖRNEĞİ**
ÖZDEMİR E., Zafer S., SAKA K.
4th INTERNATIONAL VOCATIONAL SCHOOLS SYMPOSIUM, Yalova, Turkey, 21 - 23 May 2015, pp.1216-1223
- XXXVI. **HAVA SOĞUTMALI ÇIFT KADEMELİ ABSORBSİYONLU SOĞUTMA SİSTEMİNİN ENERJİ VE EKSERJİ ANALİZİ**
SAKA K., YAMANKARADENİZ N., KAYNAKLI F., KAYNAKLI Ö.
TESKON 2015 / 12. ULUSAL TESİSAT MÜHENDİSLİĞİ KONGRESİ, İzmir, Turkey, 8 - 11 April 2015, pp.1137-1151
- XXXVII. **ABSORBSİYONLU SOĞUTMA SİSTEMİNİN SON KULLANICI KRİTERLERİNE GÖRE ENERJİ VE EKSERJİ ANALİZİ**
SAKA K., YAMANKARADENİZ N., KAYNAKLI F., KAYNAKLI Ö.
İKSES'14 ULUSAL İKLİMLENDİRME SOĞUTMA EĞİTİMİ SEMPOZYUMU, Balıkesir, Turkey, 23 - 25 October 2014, pp.261-271
- XXXVIII. **ABSORBSİYONLU SOĞUTMA SİSTEMLERİNİN TERMODİNAMİK ANALİZLERİNDE KULLANILANSİMÜLASYON YÖNTEMLERİNİN KARSILASTIRILMASI**
SAKA K., YAMANKARADENİZ N., KAYNAKLI F., KAYNAKLI Ö.
2. Ulusal İklimlendirme Soğutma Eğitimi Sempozyumu ve Sergisi, Balıkesir, Turkey, 23 - 25 October 2014, pp.136-147
- XXXIX. **ISİNİMLA ISI TRANSFERİNDE OPTİMUM GEOMETRİK BOYUTLARIN HESAPLANMASI**
KAYNAKLI F., YAMANKARADENİZ N., SAKA K.
2. Ulusal İklimlendirme Soğutma Eğitimi Sempozyumu ve Sergisi, Balıkesir, Turkey, 23 - 25 October 2014, pp.582-590
- XL. **Absorbsiyonlu Soğutma Sisteminde Entropi Üretiminin Farklı Çalışma Şartları Altında Analizi**
KAYNAKLI Ö., SAKA K., YAMANKARADENİZ N.
XI. International HVAC+R Technology Symposium, İstanbul, Turkey, 8 - 10 May 2014
- XLI. **Absorbsiyonlu Soğutma Sisteminde Farklı Eriyiklerin Kullanılabilirliği ve Performans Değerlerinin İncelenmesi**
KAYNAKLI Ö., SAKA K., KAYNAKLI F.

Patent

Saka K., BİR BORU AĞZI GENİŞLETME APARATI, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Recourse Number: 2018/04225 , Standard Registration, 2018

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Non Academic Experience

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