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### Kişisel Bilgiler

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### Eğitim Bilgileri

Doktora, Gaziantep Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü,  
Türkiye 2003 - 2008

Yüksek Lisans, Gaziantep Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği  
Bölümü, Türkiye 2000 - 2001

Lisans, Gaziantep Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü,  
Türkiye 1989 - 1994

### Yaptığı Tezler

Doktora, Exergetic and thermoeconomic performance analysis and optimization of diesel engine powered cogeneration systems, Gaziantep Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2008

Yüksek Lisans, Waste heat recovery from hot dyed wastewater of acrylic fiber dyeing plants, Gaziantep Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2001

### Araştırma Alanları

Makina Mühendisliği, Enerji, Diğer Yenilenebilir Enerji Sistemleri, Termodinamik, Isıl Sistemler, Mühendislik ve Teknoloji

### Akademik Unvanlar / Görevler

Prof.Dr., İstanbul Teknik Üniversitesi, Makina, Makina Mühendisliği, 2020 - Devam Ediyor

Doç.Dr., Gaziantep Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2014 - 2020

Yrd.Doç.Dr., Gaziantep Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2010 - 2014

Araştırma Görevlisi, Gaziantep Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2002 - 2010

### Yönetilen Tezler

Abuşoğlu A., Energy and exergy analysis of a hospital trigeneration system a case study: Kartal Dr. Lütfi Kırdar training and research hospital, Yüksek Lisans, M.BURAK(Öğrenci), 2019

Abuşoğlu A., Genetic algorithm based optimization of renewable power production process, Yüksek Lisans, Ö.FARUK(Öğrenci), 2019

Abuşoğlu A., Cost optimization of biogas based power production:comprehensive thermoeconomic analysis and evaluation methods, Doktora, D.HAYDARGİL(Öğrenci), 2019

Abuşoğlu A., Energy recovery using organic rankine cycle (ORC) from municipal sewage sludge as sustainable energy resource, Yüksek Lisans, N.SUAT(Öğrenci), 2019

Abuşoğlu A., An analysis and assessment of energy production potential from municipal wastes in Erbil city, Iraq, Yüksek Lisans, K.TAMOO(Öğrenci), 2015

Abuşoğlu A., Life cycle assessment and analysis of heat and power production alternatives from digested sewage sludge, Yüksek Lisans, H.ALİ(Öğrenci), 2014

Abuşoğlu A., Thermoelastic analysis of thick pressurized cylinders, Yüksek Lisans, B.KANLIKAMA(Öğrenci), 2013

Abuşoğlu A., Energy and life cycle analysis of HVAC applications in historical and modern buildings, Yüksek Lisans, M.SAEED(Öğrenci), 2013

Abuşoğlu A., Thermodynamic and thermoeconomic analysis and optimization of biogas usage in electricity and hydrogen productions from wastewater treatment systems, Yüksek Lisans, S.DEMİR(Öğrenci), 2012

### **SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler**

- I. **Advanced Exergy Analysis of Waste-Based District Heating Options through Case Studies**  
Ozcan H. G., HEPBAŞLI A., Abuşoğlu A., Anvari-Moghaddam A.  
ENERGIES, cilt.14, sa.16, 2021 (SCI-Expanded)
- II. **Municipal solid waste-based district heating and electricity production: A case study**  
Tozlu A., Abuşoğlu A., Ozahi E., Anvari-Moghaddam A.  
Journal of Cleaner Production, cilt.297, 2021 (SCI-Expanded)
- III. **District heating and electricity production based on biogas produced from municipal WWTPs in Turkey: A comprehensive case study**  
Abuşoğlu A., Tozlu A., Anvari-Moghaddam A.  
ENERGY, cilt.223, 2021 (SCI-Expanded)
- IV. **A comparative thermoeconomic analysis and optimization of two different combined cycles by utilizing waste heat source of an MSWPP**  
ÖZAHİ E., Abuşoğlu A., TOZLU A.  
ENERGY CONVERSION AND MANAGEMENT, cilt.228, 2021 (SCI-Expanded)
- V. **A comparative thermoeconomic cost accounting analysis and evaluation of biogas engine-powered cogeneration**  
Haydargil D., Abusoglu A.  
ENERGY, cilt.159, ss.97-114, 2018 (SCI-Expanded)
- VI. **Thermoeconomic multi-objective optimization of an organic Rankine cycle (ORC) adapted to an existing solid waste power plant**  
Ozahi E., Tozlu A., Abusoglu A.  
ENERGY CONVERSION AND MANAGEMENT, cilt.168, ss.308-319, 2018 (SCI-Expanded)
- VII. **Thermoeconomic analysis and optimization of a Re-compression supercritical CO<sub>2</sub> cycle using waste heat of Gaziantep Municipal Solid Waste Power Plant**  
Tozlu A., Abusoglu A., Ozahi E.  
ENERGY, cilt.143, ss.168-180, 2018 (SCI-Expanded)
- VIII. **Thermodynamic and thermoeconomic analyses of an organic Rankine cycle adapted gas turbine cycle using S-CO<sub>2</sub>**  
Tozlu A., Ozahi E., Abusoglu A.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, cilt.33, sa.3, ss.917-928,

- 2018 (SCI-Expanded)
- IX. **Thermodynamic Performance Assessment of Different Fluids in a Typical Organic Rankine Cycle for Usage in Municipal Solid Waste Power Plant**  
 Ozahi E., Tozlu A., Abusoglu A.  
*ACTA PHYSICA POLONICA A*, cilt.132, sa.3, ss.807-812, 2017 (SCI-Expanded)
- X. **Thermoeconomic Analysis and Assessment of Gaziantep Municipal Solid Waste Power Plant**  
 Tozlu A., Abusoglu A., Ozahi E.  
*ACTA PHYSICA POLONICA A*, cilt.132, sa.3, ss.513-517, 2017 (SCI-Expanded)
- XI. **Exergy analyses of green hydrogen production methods from biogas-based electricity and sewage sludge**  
 Abusoglu A., Ozahi E., Kutlar A. I., Demir S.  
*INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*, cilt.42, sa.16, ss.10986-10996, 2017 (SCI-Expanded)
- XII. **A comparative thermodynamic and economic analysis and assessment of a conventional HVAC and a VRF system in a social and cultural center building**  
 Ozahi E., Abusoglu A., Kutlar A. I., Dagci O.  
*ENERGY AND BUILDINGS*, cilt.140, ss.196-209, 2017 (SCI-Expanded)
- XIII. **Life cycle assessment (LCA) of digested sewage sludge incineration for heat and power production**  
 Abusoglu A., Ozahi E., Kutlar A. I., Al-jaf H.  
*JOURNAL OF CLEANER PRODUCTION*, cilt.142, ss.1684-1692, 2017 (SCI-Expanded)
- XIV. **Energy and economic analyses of models developed for sustainable hydrogen production from biogas-based electricity and sewage sludge**  
 Abusoglu A., Demir S., Ozahi E.  
*INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*, cilt.41, sa.31, ss.13426-13435, 2016 (SCI-Expanded)
- XV. **Geothermal energy use in absorption precooling for Claude hydrogen liquefaction cycle**  
 Kanoglu M., Yilmaz C., Abusoglu A.  
*INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*, cilt.41, sa.26, ss.11185-11200, 2016 (SCI-Expanded)
- XVI. **Waste to energy technologies for municipal solid waste management in Gaziantep**  
 Tozlu A., Ozahi E., Abusoglu A.  
*RENEWABLE & SUSTAINABLE ENERGY REVIEWS*, cilt.54, ss.809-815, 2016 (SCI-Expanded)
- XVII. **Exergetic cost evaluation of hydrogen production powered by combined flash-binary geothermal power plant**  
 Yilmaz C., Kanoglu M., Abusoglu A.  
*INTERNATIONAL JOURNAL OF HYDROGEN ENERGY*, cilt.40, sa.40, ss.14021-14030, 2015 (SCI-Expanded)
- XVIII. **Thermoconomic cost evaluation of hydrogen production driven by binary geothermal power plant**  
 Yilmaz C., Kanoglu M., Abusoglu A.  
*GEOTHERMICS*, cilt.57, ss.18-25, 2015 (SCI-Expanded)
- XIX. **Thermodynamic analysis and life cycle assessment of the heating strategies in historical buildings: a case study**  
 Abusoglu A., Sedeeq M. S.  
*INTERNATIONAL JOURNAL OF EXERGY*, cilt.14, sa.1, ss.60-82, 2014 (SCI-Expanded)
- XX. **Comparative exergoenvironmental analysis and assessment of various residential heating systems**  
 Abusoglu A., Sedeeq M. S.  
*ENERGY AND BUILDINGS*, cilt.62, ss.268-277, 2013 (SCI-Expanded)
- XXI. **Thermoconomic assessment of a sustainable municipal wastewater treatment system**  
 Abusoglu A., Demir S., Kanoglu M.  
*RENEWABLE ENERGY*, cilt.48, ss.424-435, 2012 (SCI-Expanded)
- XXII. **Exergoeconomic assessment of a geothermal assisted high temperature steam electrolysis system**  
 Kanoglu M., Ayanoglu A., Abusoglu A.  
*ENERGY*, cilt.36, sa.7, ss.4422-4433, 2011 (SCI-Expanded)
- XXIII. **Exergy-based industrial ecology assessment of integrated and separated power and heat production systems**

- Abusoglu A., Kanoglu M.  
INTERNATIONAL JOURNAL OF EXERGY, cilt.9, sa.1, ss.99-111, 2011 (SCI-Expanded)
- XXIV. **Exergoeconomic analysis and optimization of combined heat and power production: A review**  
Abusoglu A., Kanoglu M.  
RENEWABLE & SUSTAINABLE ENERGY REVIEWS, cilt.13, sa.9, ss.2295-2308, 2009 (SCI-Expanded)
- XXV. **Allocation of Emissions for Power and Steam Production Based on Energy and Exergy in Diesel Engine Powered Cogeneration**  
Abusoglu A., Kanoglu M.  
ENERGY & FUELS, cilt.23, ss.1526-1533, 2009 (SCI-Expanded)
- XXVI. **Exergetic and thermoeconomic analyses of diesel engine powered cogeneration: Part 1-Formulations**  
Abusoglu A., Kanoglu M.  
APPLIED THERMAL ENGINEERING, cilt.29, ss.234-241, 2009 (SCI-Expanded)
- XXVII. **Exergetic and thermoeconomic analyses of diesel engine powered cogeneration: Part 2-Application**  
Abusoglu A., Kanoglu M.  
APPLIED THERMAL ENGINEERING, cilt.29, ss.242-249, 2009 (SCI-Expanded)
- XXVIII. **First and second law analysis of diesel engine powered cogeneration systems**  
Abusoglu A., Kanoglu M.  
ENERGY CONVERSION AND MANAGEMENT, cilt.49, sa.8, ss.2026-2031, 2008 (SCI-Expanded)
- XXIX. **Performance characteristics of a Diesel engine power plant**  
Kanoglu M., Isik S., Abusoglu A.  
ENERGY CONVERSION AND MANAGEMENT, cilt.46, ss.1692-1702, 2005 (SCI-Expanded)

### Düger Dergilerde Yayınlanan Makaleler

- I. **GEOTHERMAL ENERGY USE IN HYDROGEN PRODUCTION**  
YILMAZ C., KANOĞLU M., ABUŞOĞLU A.  
Journal of Thermal Engineering, cilt.2, sa.2, ss.699-708, 2015 (Scopus)

### Kitap & Kitap Bölümleri

- I. **Thermoeconomic Optimization of Hydrogen Production and Liquefaction by Geothermal Power**  
YILMAZ C., KANOĞLU M., ABUŞOĞLU A.  
Exergy for A Better Environment and Improved Sustainability 2, Fethi Aloui Ibrahim Dincer, Editör, Springer, Cham, ss.951-966, 2018

### Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Energy and Exergy Analysis of a Fluidized Bed Sewage Sludge Incineration Plant**  
ABUŞOĞLU A., ATAY N. S., TOZLU A.  
The International Conference of Materials and Engineering Technology (TICMET 2020), Gaziantep, Türkiye, 5 - 07 Kasım 2020
- II. **Producing Bio-electricity and Bio-heat from Urban Sewage Sludge in Turkey Using a Two-Stage Process**  
ABUŞOĞLU A., MOGHADDAM A. A., GUERRERO J.  
Proc. of the 5th International Conference on Power Generation Systems and Renewable Energy Technologies (PGSRET), 26 - 27 Ağustos 2019
- III. **An Updated Portrait of Numerical Analyses on Spout-Fluidized Bed Incineration Systems**

- ÖZAHİ E., TOZLU A., ABUŞOĞLU A., ÇUTAY A.  
Proceedings of the 2nd International Conference on Design, Simulation, Manufacturing: The Innovation Exchange,  
DSMIE-2019, 11 - 14 Haziran 2019
- IV. **Türkiye'de Hayvansal Atıktan Elde Edilen Biyogaza Bağlı Bölgesel Elektrik Ve Isı Üretiminin Bir Portresi**  
MAVİGÖK B., ABUŞOĞLU A., MOGHADDAM A. A., GUERRERO J.  
6th International Multidisciplinary Studies Congress, 26 - 27 Nisan 2019
- V. **Bir Akışkan Yataklı Atık Su Çamuru Yakma Tesisinin Termodinamik Analizi ve Değerlendirmesi**  
ATAY N. S., ABUŞOĞLU A.  
6th International Multidisciplinary Studies Congress, 26 - 27 Nisan 2019
- VI. **Thermodynamic Optimization of a Biogas Engine Powered Cogeneration System with Using Genetic Algorithm**  
KURT Ö. F., ABUŞOĞLU A.  
Uluslararası GAP Yenilenebilir Enerji Ve Enerji Verimliliği Kongresi - 2018, Şanlıurfa, Türkiye, 10 - 12 Mayıs 2018, ss.218
- VII. **A Portrait of Municipal Wastewater Treatment Systems in Turkey as Self-sustaining Renewable Energy Producers**  
ABUŞOĞLU A.  
8th International 100 Renewable Energy Conference, İstanbul, Türkiye, 7 - 09 Mayıs 2018, ss.30-34
- VIII. **Application and Comparison of Exergetic Cost Theory and Wonergy Methods to a Biogas Engine Powered Cogeneration**  
HAYDARGİL D., ABUŞOĞLU A.  
8th International 100 Renewable Energy Conference, İstanbul, Türkiye, 7 - 09 Mayıs 2018, ss.100-106
- IX. **Energy and Exergy Analysis of a Hospital Trigeneration System**  
ÖZGÖZTAŞI M. B., ABUŞOĞLU A.  
8th International 100 Renewable Energy Conference, İstanbul, Türkiye, 7 - 09 Mayıs 2018, ss.84-89
- X. **A Thermodynamic Comparison of Gas Turbine, Kalina and Organic Rankine Cycles in frame of Waste Heat Recovery**  
TOZLU A., ÖZAHİ E., ABUŞOĞLU A.  
4th INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND ENGINEERING (ICCESEN-2017), 4 - 08 Ekim 2017
- XI. **Thermoeconomic Analyses and Assessment of Combined Systems: GT-ORC and GT-KAL cycle**  
TOZLU A., ÖZAHİ E., ABUŞOĞLU A.  
4th INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND ENGINEERING (ICCESEN-2017), 4 - 08 Ekim 2017
- XII. **Auxiliary Heat and Power Productions in a Sewage Treatment Facility**  
ABUŞOĞLU A., ÖZAHİ E., TOZLU A.  
3rd INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, Budapest, Macaristan, 3 - 07 Mayıs 2017
- XIII. **Environmental Impact Assessment of Sewage Sludge Use in Energy Recovery**  
ABUŞOĞLU A., ÖZAHİ E., TOZLU A.  
3rd INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, Budapest, Macaristan, 3 - 07 Mayıs 2017
- XIV. **Energy and Exergy Analyses of a Gas Turbine Developed for Heat Recovery in a MSW Power Plant**  
TOZLU A., ÖZAHİ E., ABUŞOĞLU A.  
3rd INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, Budapest, Macaristan, 3 - 07 Mayıs 2017
- XV. **A Developed Closed-Cycle GT Using Transcritical CO<sub>2</sub> for WHR in a Typical MSW Power Plant**  
TOZLU A., ÖZAHİ E., ABUŞOĞLU A.  
3rd INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, Budapest, Macaristan, 3 - 07 Mayıs 2017

- XVI. **Influence of Inner Geometry of Pipe Fittings on Pressure Drop in Steady Pipe Flow**  
 ÖZAHİ E., TOZLU A., ABUŞOĞLU A., KUTLAR A. İ.  
 3rd INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, Budapest, Macaristan, 3 - 07  
 Mayıs 2017
- XVII. **Thermodynamic Analyses of a Coal-Fired Power Plant in Izmir, Turkey**  
 ÖZAHİ E., TOZLU A., ABUŞOĞLU A., KUTLAR A. İ.  
 3rd INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES, Budapest, Macaristan, 3 - 07  
 Mayıs 2017
- XVIII. **Thermodynamic Performance Assessment of Different Fluids in a Typical Organic Rankine Cycle for Usage in Municipal Solid Waste Power Plant**  
 ÖZAHİ E., TOZLU A., ABUŞOĞLU A.  
 3rd INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND ENGINEERING (ICCESEN-2016), 19 - 24 Ekim 2016
- XIX. **Thermo-economic Analysis and Assessment of Gaziantep Municipal Solid Waste Power Plant**  
 TOZLU A., ÖZAHİ E., ABUŞOĞLU A.  
 3rd INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND ENGINEERING (ICCESEN-2016), 19 - 24 Ekim 2016
- XX. **Energetic and exergetic analyses of a solid waste power plant using Aspen Plus**  
 TOZLU A., ÖZAHİ E., ABUŞOĞLU A.  
 The 2016 International Conference on Energy, Environment, Ecosystems, and Development, EEED 2016, 28 - 30  
 Mayıs 2016
- XXI. **An adapted organic Rankine cycle ORC in Gaziantep Municipal Solid Waste Power Plant**  
 ÖZAHİ E., TOZLU A., ABUŞOĞLU A.  
 The 2016 International Conference on Energy, Environment, Ecosystems, and Development, EEED 2016, 28 - 30  
 Mayıs 2016
- XXII. **A portrait of sewage sludge use for sustainable energy recovery potential in Turkey in the frame of EU environmental legislations**  
 ABUŞOĞLU A., ÖZAHİ E., TOZLU A.  
 The 2016 International Conference on Energy, Environment, Ecosystems, and Development, EEED 2016, 28 - 30  
 Mayıs 2016
- XXIII. **A General View on Municipal Solid Waste Management in Gaziantep**  
 TOZLU A., ÖZAHİ E., ABUŞOĞLU A.  
 INTERNATIONAL CONFERENCE ON ENVIRONMENTAL SCIENCE AND TECHNOLOGY - ICOEST 2015, 9 - 13 Eylül  
 2015
- XXIV. **Thermo-economic Optimization of Hydrogen Production by A Flash Binary Geothermal Power Plant**  
 YILMAZ C., KANOĞLU M., ABUŞOĞLU A.  
 INTERNATIONAL CONFERENCE ON ADVANCED TECHNOLOGY AND SCIENCES - ICAT 2015, 4 - 07 Ağustos 2015
- XXV. **Thermo-economic Optimization of Hydrogen Production and Liquefaction by Geothermal Power**  
 YILMAZ C., KANOĞLU M., ABUŞOĞLU A.  
 7th INTERNATIONAL ENERGY, EXERGY AND ENVIRONMENT SYMPOSIUM, 27 - 30 Nisan 2015
- XXVI. **Jeotermal Destekli Hidrojen Sivilaştırma Çevriminin Termodinamik ve Thermoekonomik Analizi**  
 YILMAZ C., KANOĞLU M., ABUŞOĞLU A.  
 12. ULUSAL TESİSAT MÜHENDİSLİĞİ KONGRESİ, Türkiye, 8 - 11 Nisan 2015

## Düzenleme Yayınları

- I. **Comparison of five developed power cycles in the frame of waste heat recovery**  
 Tozlu A., Abuşoğlu A., Özahı E.  
 Diğer, ss.1-9, 2021

## **Desteklenen Projeler**

Abuşoğlu A., Diğer Ülkelerdeki Kamu Kurumları Tarafından Desteklenmiş Proje, Türkiye'de Çevre Dostu ve Sürdürülebilir Isıtma/Soğutma ve Güç Üretimi, 2019 - 2022

Abuşoğlu A., Özahi E., TÜBİTAK Projesi, BİYOBOZUNUR KATI ATIK TESİSLERİNİN TERMODİNAMİK, TERMOEKONOMİK ANALİZ VE OPTİMİZASYONLARI ÇERÇEVESİNDE YENİLENEBİLİR ENERJİ POTANSİYELLERİNİN ARAŞTIRILMASI VE SIFIR ATIK YAKLAŞIMIYLA SÜRDÜRÜLEBİLİR MODELLERİN GELİŞTİRİLEBİLMESİ, 2014 - 2017

Abuşoğlu A., Kanoğlu M., TÜBİTAK Projesi, Jeotermal Enerjinin Hidrojen Üretimi ve Sıvılaştırılmasında Kullanımının Termoeconomik Analizi Optimizasyonu ve Yaşam Döngü Maliyet Analizi, 2013 - 2015

Abuşoğlu A., Kanoğlu M., TÜBİTAK Projesi, ATIK SU ARITMA TESİSLERİNDEN ELDE EDİLEN BİYOGAZIN ELEKTRİK VE HİDROJEN ÜRETİMİNDE KULLANIMININ TERMODİNAMİK TERMOEKONOMİK ANALİZ VE OPTİMİZASYONU, 2010 - 2012

## **Metrikler**

Yayın: 59

Atıf (WoS): 976

Atıf (Scopus): 1285

H-İndeks (WoS): 16

H-İndeks (Scopus): 18