

PROFESSOR

E-Mail Address : barisgurel@sdu.edu.tr

Phone (Work) : 0246211

Phone (Mobile) : 5054826941

Address : SDÜ BATI KAMPÜSÜ MÜHENDİSLİK FAKÜLTESİ MAKİNE MÜHENDİSLİĞİ BÖLÜMÜ
(SDU West Campus, Faculty of Engineering, Department of Mechanical Engineering)

Education

Doctoral 2012-7/March/2018

SULEYMAN DEMIREL UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING (PhD)

Thesis name: Design of the water and ash circulation system in a circulating fluidized bed boiler (CFBB) system for the combustion of lowquality lignites and investigation of combustion characteristics (2018)

Thesis Advisor: (OSMAN İPEK)

Master (Thesis) 2011- 4/July/2012

SULEYMAN DEMIREL UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING (MASTER)
(WITH THESIS)

Thesis name: Mathematical modeling of the flow in the nozzle region in plastic injection (2012)

Thesis Advisor: (OSMAN İPEK)

Master (Thesis) 2009

DUMLUPINAR UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING (MASTER) (WITH THESIS)

Thesis name: Mathematical modeling of the flow in the nozzle region in plastic injection (2012)

Thesis Advisor: (OSMAN İPEK)

Bachelor's Degree 2003-24/October/2008

BALIKESİR UNIVERSITY > FACULTY OF ENGINEERINGARCHITECTURE > DEPARTMENT OF MECHANICAL ENGINEERING > MECHANICAL ENGINEERING PR.

Academic Title

ASSOCIATE PROFESSOR 2021-Current

SULEYMAN DEMIREL UNIVERSITY / FACULTY OF ENGINEERING / DEPARTMENT OF MECHANICAL ENGINEERING / ENERGY DIVISION

ASSISTANT PROFESSOR 2019-2021

SULEYMAN DEMIREL UNIVERSITY / FACULTY OF ENGINEERING / DEPARTMENT OF MECHANICAL ENGINEERING / ENERGY DIVISION

RESEARCH ASSISTANT 2018-2019

SÜLEYMAN DEMİREL UNIVERSITY / FACULTY OF ENGINEERING / DEPARTMENT OF MECHANICAL ENGINEERING / ENERGY DIVISION

RESEARCH ASSISTANT 2010-2018

SÜLEYMAN DEMİREL UNIVERSITY / INSTITUTE OF SCIENCE / MECHANICAL ENGINEERING (M.S.)
(WITH THESIS)

Supervised Theses

2026

1. KIRLI AHMET ÖZKAN, (2026). Numerical and experimental investigation of a Savonius wind turbine with different blade gap spacings, SÜLEYMAN DEMİREL UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING DIVISION (Ongoing)

2025

2. KUÇUK BARAN BURAK, (2025). Experimental and numerical investigation of the aerodynamics of a model bus with different designs, SÜLEYMAN DEMİREL UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING DIVISION (Completed)

3. TOKGÖZ AYŞE, (2025). Design manufacturing automation and experimental investigation of a bubbling fluidized bed capable of burning domestic lignite and biomass, SÜLEYMAN DEMİREL UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING DIVISION (Completed)

4. ÇELİK İBRAHİM, (2025). Design, manufacturing, and numerical and experimental investigation of the performance of a flue gas condenser for carbon dioxide fertilization purposes, SÜLEYMAN DEMİREL UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING DIVISION (Completed)

2024

5. KANYILMAZ METEHAN, (2024). Hydrothermal carbonization and torrefaction of rose pulp and chicken manure, SÜLEYMAN DEMİREL UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING DIVISION (Completed)

6. ORUÇ HASİP TURAN, (2024). Emissions occurring during the combustion of chicken manure and lignite mixtures in a fluidized bed boiler, SÜLEYMAN DEMİREL UNIVERSITY > INSTITUTE OF SCIENCE > ENVIRONMENTAL ENGINEERING DIVISION (Completed)

7. DERELİ BERKAY, (2023). Design and analysis of a combustion chamber for the disposal of liquid and gas wastes with zero waste principle, SÜLEYMAN DEMİREL UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING DIVISION (Completed)

8. GUMUŞBAŞ SERDAR MUSTAFA, (2023). Feasibility study of green campus energy applications for Süleyman Demirel University, SÜLEYMAN DEMİREL UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING DIVISION (Completed)

9. ALTINDAL SÜLEYMAN, (2023). Numerical investigation of a planar solid oxide fuel cell for different interconnect designs and operating temperatures, SÜLEYMAN DEMİREL UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING DIVISION (Completed)

10. EROL EREN GURKAN, (2023). Investigation of flow and heat transfer of graphenebased nanofluids in compact plate heat exchangers using computational fluid dynamics, SÜLEYMAN DEMİREL UNIVERSITY > INSTITUTE OF SCIENCE > MECHANICAL ENGINEERING DIVISION (Completed)

Positions in Projects:

1. Development of SDU Green Livable and Sustainable Campus Model, Scientific Research Project Supported by Higher Education Institutions, Researcher: ŞEHRİBAN ŞAHAN ERASLAN, Researcher: MUHAMMET YUNUS PAMUKOĞLU, Researcher: İSMAİL TOSUN, Researcher: SEMA YURDAKUL, Researcher: ŞEHNAZ ŞULE KAPLAN BEKAROĞLU, Researcher: SİMGE VAROL, Researcher: SELEN İŞİK MADEN, Researcher: ERHAN ŞENER, Researcher: CENGİZ GAZELOĞLU, 1st Researcher: SEDA EFE, Researcher: EKİNHAN ERIŞKIN, Researcher: ADNAN KARAİBRAHİMOĞLU, Project Coordinator: ŞEHNAZ ŞENER, Researcher: KARANI KURTULUŞ, Researcher: BİLGEHAN İLKER HARMAN, Researcher: SERDAL TERZİ, Researcher: FÜSUN KILÇIK, Researcher: ÇAĞLAYAN BALKAYA, Researcher: ŞULE SULTAN UĞUR, Researcher: BÜLENT KIRKAN, Researcher: OLCAY ÇAKMAK, Researcher: MELTEM SAPLIOĞLU, Researcher: BARIŞ GÜREL, Researcher: MURAT AKTEN, Researcher: GÜLCAN SARP, Researcher: MEHMET SALTAN, Researcher: MERT AKOĞLU, 08/10/2020

2. New Generation Sustainable ThreeStage Continuous Feed Biogas Dry Fermenter System, TUBITAK Project (1501), Assistant Personnel: BARIŞ GÜREL, Advisor: SEMA YURDAKUL, Advisor: HABİB GÜRBÜZ, Assistant Personnel: KARANI KURTULUŞ, Executive: NECATİ BERK BITRAK, Advisor: KAMİL EKİNCİ, Assistant Personnel: BARBAROS KUMBUL, 01/04/2025 (In Progress) (NATIONAL)

3. Design, Prototype Manufacturing of a Bladeless Vortex Wind Turbine to be Developed by BioInspired Method and Electricity Generation Application through Conversion of 3rd Magnetic Energy to Electrical Energy, TUBITAK Project, Advisor: BARIŞ GÜREL, 01/09/2020 01/09/2021 (NATIONAL)

4. Determination of Combustion Kinetics of Biomass Wastes and Development of the Design of a Multi Chamber Combustion Boiler that Dries and Burns Biomass with Computational Fluid Dynamics, TUBITAK Project, Advisor: BARIŞ GÜREL, 15/09/2020 31/12/2021 (NATIONAL)

5. Compact Production of a Heat Exchanger by Laser Metal Sintering Method, Experimental Investigation of Thermal Analyses and Performance Tests, TUBITAK Project, Executive: OSMAN İPEK, Scholar: BARIŞ GÜREL, Scholar: MEHMET KAN, 15/04/2015 15/04/2017

6. New Generation Innovative Smart Chemical Preparation Unit (MerMix), TUBITAK Project, Advisor: BARIŞ GÜREL, 01/04/2025 (In Progress) (NATIONAL)

7. Development of the Process of Capturing CO₂ in Flue Gas in an Activated Carbon Tank and Fertilizing Greenhouses, TUBITAK Project, Advisor: BARIŞ GÜREL, Advisor: NECATİ BERK BITRAK, 15/01/2025 (In Progress) (NATIONAL)

8. Development of a New Generation Smart Seed Throwing Machine for Sustainable Agriculture, TUBITAK Project, Advisor: NECATİ BERK BITRAK, Advisor: BARIŞ GÜREL, 15/01/2025 (In Progress) (NATIONAL)

9. Development of SDU Green Livable and Sustainable Campus Model, Research Project, Researcher: BARIŞ GÜREL, 08/10/2020 (In Progress) (NATIONAL)

10. Investigation of the Thermochemical Behavior of Biochars Produced in Hydrothermal Carbonization, Pyrolysis and Torrefaction Processes by Thermogravimetry in Oxidative Atmosphere, Research Project, Executive: BARIŞ GÜREL, 26/01/2021 (In Progress) (NATIONAL)

11. Optimization of Heat Transfer, Pressure Drop and Exergy Loss in a Plate Heat Exchanger by Improving Plate Surface Geometry with BioInspired Method at Different Surface Roughnesses and Experimental Investigation of Erosion Formation on Plate Surfaces for Different Heat Exchanger Materials, TUBITAK Project (1001), Researcher: GÜREL BARIŞ, Scholar: Şen Çağla Nur, Scholar: GÜLER ONUR VAHİP, Scholar: Göltaş Merve, Executive: KECEBAS ALİ, Researcher: AKKAYA VOLKAN RAMAZAN, 01/04/2019 03/02/2023 (NATIONAL)

12. Experimental and Theoretical Investigation of the Effect of Combustion Chamber Geometry and Boundary Conditions on Combustion Parameters and Flue Gas Emissions in a Circulating Fluidized Bed Boiler (CFBB) System Using Domestic Lignite CoalBiomass Mixture, TUBITAK Project (1001), Executive: BARIŞ GÜREL, Researcher: SEMA YURDAKUL, Researcher: HABİB GÜRBÜZ, Researcher: MURAT VAROL, Scholar: Remzi Akman, Scholar: Enes Onur, Researcher: KARANI KURTULUŞ, 01/04/2019 01/04/2022 (NATIONAL)

13. Optimization of Heat Transfer, Pressure Drop and Exergy Loss in a Plate Heat Exchanger by Improving Plate Surface Geometry with BioInspired Method at Different Surface Roughnesses and Experimental Investigation of Erosion Formation on Plate Surfaces for Different Heat Exchanger Materials, TUBITAK Project (1001), Researcher: AKKAYA VOLKAN RAMAZAN, Executive: KECEBAS ALİ, Researcher: GÜREL BARIŞ, Scholar: Göltaş Merve, Scholar: Şen Çağla Nur, 01/04/2019 (In Progress) (NATIONAL)

14. Development of Original Triboelectric Wind Turbine Generators Using Biomaterials and Experimental Investigation of Their Performance, TUBITAK Project (1001), Executive: MEHMET ALPER DEMİRAY, Researcher: SEMA YURDAKUL, Researcher: KARANI KURTULUŞ, Scholar: ABDURRAHMAN ÖZEN, Researcher: BARIŞ GÜREL, Researcher: HASBİ KIZILHAN, Researcher: OSMAN İPEK, Researcher: ALİ AĞÇAL, 13/03/2025 (In Progress) (NATIONAL)

15. Investigation of Retention of SO₂ and CO₂ Emissions Resulting from CoCombustion of Raw and Torrefied Biomass with Lignite Using Raw and Calcined Eggshell, TUBITAK Project (1001), Researcher: BARIŞ GÜREL, Executive: SEMA YURDAKUL, Researcher: KARANI KURTULUŞ, Researcher: KAMİL EKİNCİ, 01/07/2024 (In Progress) (NATIONAL)

16. Investigation of Combustion of Raw and Carbonized Pellets Prepared Using Domestic Wastewater Treatment Sludge, Chicken Manure and Kale Lignite in a Bubbling Fluidized Bed Boiler, TUBITAK Project (1002), Executive: SEMA YURDAKUL, Researcher: KARANI KURTULUŞ, Researcher: BARIŞ GÜREL, 20/02/2025 20/08/2025 (NATIONAL)

17. FirstTime Production in Our Country of an Original Flue Gas Condenser for Carbon Dioxide Fertilization Purposes, Other Public Organisations (except for Higher Education Institutions), Advisor: BARIŞ GÜREL, Advisor: KARANI KURTULUŞ, 12/08/2022 23/06/2023 (NATIONAL)

Administrative Position

Cohead of Department 2020

Awards

1. TENOFEST 10th International Invention Fair (ISIF'25) Silver Medal, MINISTRY OF SCIENCE INDUSTRY AND TECHNOLOGY, 2025
2. TENOFEST 9th International Invention Fair (ISIF'24) Silver Medal, MINISTRY OF SCIENCE INDUSTRY AND TECHNOLOGY, 2024

Courses

Language of Instruction Course Hour Semester

20252026

Bachelor's Degree Programme
Energy Technologies 1

Master Programme

Patents

1. A Mini and Compact Heat Exchanger Providing High Heat Transfer, Body, Fins and Baffles Therein and Their Production Method (2021), Patent No: 2017 00594
Applicants: OSMAN İPEK, MEHMET KAN, BARIŞ GÜREL,
Patentees: OSMAN İPEK, BARIŞ GÜREL, MEHMET KAN
2. Compact combustion chamber mold for a circulating fluidized bed boiler and a method of obtaining a combustion (2025), Patent No: US12397470B2
Applicants: sema yurdakul, Barış Gürel, Karani KURTULUŞ, Murat VAROL, Habib GÜRBÜZ, Remzi AKMAN, Muhammed Enes ÖNÜR,
Patentees: Sema YURDAKUL, Barış GÜREL, Karani KURTULUŞ, Murat VAROL, Habib GÜRBÜZ, Remzi AKMAN, Muhammed Enes
3. Method for converting carbon dioxide (CO₂) in flue gas to calcium carbonate (CaCO₃) with calcined eggshell (2024), Patent No: 2022/021642
Applicants: Barış Gürel, Karani Kurtuluş, Sema Yurdakul, Murat Varol, Kamil Ekinci,
Patentees: Barış Gürel, Karani Kurtuluş, Sema Yurdakul, Murat Varol, Kamil Ekinci

PUBLICATIONS

A.Articles published in international refereed journals:

1. ÖZEN ABDURRAHMAN, İPEK OSMAN, Castellanos Humberto Garcia, YURDAKUL SEMA, DEMİRAY MEHMET ALPER, GÜREL BARIŞ, ÖZEL FARUK, KURTULUŞ KARANI, KIZILHAN HASBI, KEÇEBAŞ ALİ, Alcaraz Jorge Luis Garcia, Aryanfar Yashar (2026). Enhanced Triboelectric Nanogenerator Performance Using Torrefied Biowaste Dielectrics. ADVANCED ENGINEERING MATERIALS, Doi: 10.1002/adem.202502668 Digital (Publication No: 10146179)
2. GÜLER ONUR VAHİP, G. Georgiev Aleksandar, GÖLTAŞ Merve, GÜRBÜZ EMİNE YAĞIZ, KEÇEBAŞ ALİ, Abul Hasan Mohammad, İSLAM SAİFUL, Aryanfar Yashar, GÜREL BARIŞ (2025). Thermalhydraulic performance optimization of plastic plate heat exchanger with lung flow channel using additive manufacturing. Thermal Science and Engineering Progress, 66, Doi: 10.1016/j.tsep.2025.104013 (Publication No: 10023754)
3. GÜREL BARIŞ, KARACA DOLGUN GÜLŞAH, İPEK OSMAN, KEÇEBAŞ ALİ (2024). Combustion characteristics of lowquality lignite for different bed material sphericities in a circulating fluidized bed boiler: A numerical study. Particuology, 90, 364382., Doi: 10.1016/j.partic.2023.12.011 (Publication No: 9257915)
4. DERELİ BERKAY, GÜREL BARIŞ, KARACA DOLGUN GÜLŞAH, KEÇEBAŞ ALİ (2024). Comprehensive study on incinerationbased disposal of hazardous gas and liquid wastes from used lubricating oil refineries. Process Safety and Environmental Protection, 184, 7995., Doi: 10.1016/j.psep.2024.01.077 (Publication No: 8978440)
5. KEÇEBAŞ ALİ, İPEK OSMAN, GÜREL BARIŞ, KARACA DOLGUN GÜLŞAH (2024). Combustion characteristics of lowquality lignite for different bed material sphericities in a circulating fluidized bed boiler: A numerical study. Particuology, Doi: 10.1016/j.partic.2023.12.011 (Publication No: 8826164)
6. GÜLER ONUR VAHİP, GÜREL BARIŞ, KURTULUŞ KARANI, ARYANFAR YASHAR, CASTELLANOS Humberto Garcia, GÖLTAŞ MERVE, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN (2024). Thermohydraulic efficiency of lunginspired compact plate heat exchangers made using additive manufacturing techniques with steel, aluminum and titanium powders. Chemical Engineering Science, 283, 119378, Doi: 10.1016/j.ces.2023.119378 (Publication No: 8978413)
7. GÜREL BARIŞ, KURTULUŞ KARANI, YURDAKUL SEMA, KARACA DOLGUN GÜLŞAH, AKMAN REMZİ, ÖNÜR MUHAMMET ENEZ, VAROL MURAT, KEÇEBAŞ ALİ, GÜRBÜZ HABİB (2024). Combustion of chicken manure and Turkish lignite mixtures in a circulating fluidized bed. Renewable and Sustainable Energy Reviews, 189, 113960, Doi: 10.1016/j.rser.2023.113960 (Publication No: 8978416)
8. ALTINDAL SÜLEYMAN, Gürkan E Gürkan, GÜREL BARIŞ (2024). Numerical analysis of the effects of interconnector design and operating parameters on solid oxide fuel cell performance. International Journal of Hydrogen Energy, 52, Doi: 10.1016/j.ijhydene.2023.08.015 (Publication No: 9315134)
9. GÜREL BARIŞ, KURTULUŞ KARANI, YURDAKUL SEMA, VAROL MURAT, KEÇEBAŞ ALİ, GÜRBÜZ HABİB (2023). Numerical and experimental investigation of cocombustion of chicken manure and lignite blends in a CFBB with novel compact combustion chamber. ENERGY, 285, 129482, Doi: 10.1016/j.energy.2023.129482 (Publication No: 8724845)
10. VAROL MURAT, GÜREL BARIŞ, YURDAKUL SEMA, KURTULUŞ KARANI, GÜRBÜZ HABİB (2023). PCDD/Fs, PAHs and HCl emissions from cocombustion of lignite and chicken manure in a circulating fluidized bed boiler with compact refractory casting. Waste Management, 168, Doi: 10.1016/j.wasman.2023.06.029 (Publication No: 8389046)

11. GÜREL BARIŞ, KURTULUŞ KARANI, KEÇEBAŞ ALİ, GÜLER ONUR VAHİP, Göltaş Merve, AKKAYA VOLKAN RAMAZAN, GÜRBÜZ EMİNE YAGIZ (2023). INVESTIGATION OF REDUCING PRESSURE DROP BY PATTERNING DERMAL DENTICLES (SHARK SKIN) ON THE PLATE SURFACE OF COMPACT PLATE HEAT EXCHANGER. HEAT TRANSFER RESEARCH, 54(17), Doi: 10.1615/HeatTransRes.2023047979 (Publication No: 8773264)
12. Göltaş Merve, GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÜLER ONUR VAHİP, KURTULUŞ KARANI, GÜRBÜZ EMİNE YAGIZ (2022). Thermohydraulic performance improvement with nanofluids of a fishgillinspired plate heat exchanger. Energy, 253, Doi: 10.1016/j.energy.2022.124207 (Publication No: 8016146)
13. Göltaş Merve, GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÜLER ONUR VAHİP, KURTULUŞ KARANI, GÜRBÜZ EMİNE YAGIZ (2022). Thermohydraulic performance improvement with nanofluids of a fishgillinspired plate heat exchanger. ENERGY, 253, Doi: 10.1016/j.energy.2022.124207 (Publication No: 8180806)
14. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÜLER ONUR VAHİP, KURTULUŞ KARANI (2022). Modeling and Assessment of the ThermoHydraulic Performance for a Fish Gill Patterned Plate Heat Exchanger in Biomimetic Approach. Heat Transfer Engineering, 44, 9871001., Doi: 10.1080/01457632.2022.2113454 (Publication No: 8016180)
15. Göltaş Merve, GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÜLER ONUR VAHİP (2022). Improvement of thermohydraulic performance with plate surface geometry for a compact plate heat exchanger manufactured by additive manufacturing. International Journal of Heat and Mass Transfer, 188, Doi: 10.1016/j.ijheatmasstransfer.2022.122637 (Publication No: 8180863)
16. GÖLTAŞ MERVE, GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÜLER ONUR VAHİP (2022). Improvement of thermohydraulic performance with plate surface geometry for a compact plate heat exchanger manufactured by additive manufacturing. International Journal of Heat and Mass Transfer, 188, 122637, Doi: 10.1016/j.ijheatmasstransfer.2022.122637 (Publication No: 7904890)
17. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÖLTAŞ Merve, GÜLER ONUR VAHİP, KURTULUŞ KARANI (2022). Modeling and Assessment of the ThermoHydraulic Performance for a Fish Gill Patterned Plate Heat Exchanger in Biomimetic Approach. HEAT TRANSFER ENGINEERING, 15, Doi: 10.1080/01457632.2022.2113454 (Publication No: 8148472)
18. GÖLTAŞ Merve, GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÜLER ONUR VAHİP (2022). Improvement of thermohydraulic performance with plate surface geometry for a compact plate heat exchanger manufactured by additive manufacturing. INTERNATIONAL JOURNAL OF HEAT AND MASS TRANSFER, 188, 19, Doi: 10.1016/j.ijheatmasstransfer.2022.122637 (Publication No: 8148112)
19. GÖLTAŞ Merve, GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÜLER ONUR VAHİP, KURTULUŞ KARANI, GÜRBÜZ EMİNE YAGIZ (2022). Thermohydraulic performance improvement with nanofluids of a fishgillinspired plate heat exchanger. ENERGY, 253, 18, Doi: 10.1016/j.energy.2022.124207 (Publication No: 8147799)
20. KURTULUŞ KARANI, BOLATTÜRK ALI, COŞKUN AHMET, GÜREL BARIŞ (2021). An experimental investigation of the cooling and heating performance of a gravity die casting mold with conformal cooling channels. Applied Thermal Engineering, 194, Doi: 10.1016/j.applthermaleng.2021.117105 (Publication No: 7189413)

21. İPEK OSMAN, MOHAMMED SALIH Mohammed Morfoa, GÜREL BARIŞ, KILIÇ BAYRAM (2021). Experimental investigation of lowtemperature organic Rankine cycle using waste heat from gas turbine bearings for different conditions. INTERNATIONAL JOURNAL OF ENVIRONMENTAL SCIENCE AND TECHNOLOGY, 19(3)1530., Doi: 10.1007/s1376202103172x (Publication No: 8147179)
22. YURDAKUL SEMA, GÜREL BARIŞ, VAROL MURAT, GÜRBÜZ HABİB, KURTULUŞ KARANI (2021). Investigation on thermal degradation kinetics and mechanisms of chicken manure, lignite, and their blends by TGA. Environmental Science and Pollution Research, Doi: 10.1007/s11356021127320 (Publication No: 7189404)
23. YURDAKUL SEMA, GÜREL BARIŞ, VAROL MURAT, GÜRBÜZ HABİB, KURTULUŞ KARANI (2021). Investigation on thermal degradation kinetics and mechanisms of chicken manure, lignite, and their blends by TGA. Environmental Science and Pollution Research, 28, Doi: 10.1007/s11356021127320 (Publication No: 7477268)
24. GÜREL BARIŞ, AKKAYA VOLKAN RAMAZAN, Göltaş Merve, ŞEN ÇAĞLA NUR, GÜLER ONUR VAHİP, KOŞAR MEHMET İLKAY, KEÇEBAŞ ALİ (2020). Investigation on flow and heat transfer of compact brazed plate heat exchanger with lung pattern. Applied Thermal Engineering, 175, 115309, Doi: 10.1016/j.applthermaleng.2020.115309 (Publication No: 6213050)
25. GÜREL BARIŞ, AKKAYA VOLKAN RAMAZAN, Göltaş Merve, Şen Çağla Nur, GÜLER ONUR VAHİP, KOŞAR MEHMET İLKAY, KEÇEBAŞ ALİ (2020). Investigation on flow and heat transfer of compact brazed plate heat exchanger with lung pattern. Applied Thermal Engineering, 175, 115309, Doi: 10.1016/j.applthermaleng.2020.115309 (Publication No: 6213050) (Note: This appears to be a duplicate entry in the original document)
26. GÜREL BARIŞ (2020). Thermal performance evaluation for solidification process of latent heat thermal energy storage in a corrugated plate heat exchanger. APPLIED THERMAL ENGINEERING, Doi: 10.1016/j.applthermaleng.2020.115312 (Publication No: 6876818)
27. GÜREL BARIŞ (2020). A numerical investigation of the melting heat transfer characteristics of phase change materials in different plate heat exchanger (latent heat thermal energy storage) systems. International Journal of Heat and Mass Transfer, Doi: 10.1016/j.ijheatmasstransfer.2019.119117 (Publication No: 6876911)
28. İPEK OSMAN, ALKHALIDI Mohammed, KAN MEHMET, GÜREL BARIŞ, ALOMARI Sedeeq (2018). Heating System Application with Ground Source Heat Pump for Isparta Climate Conditions. International Journal of Multidisciplinary Studies and Innovative Technologies, 2(1), 1416. (Publication No: 4727999)
29. İPEK OSMAN, ALOMARI Sedeeq, GÜREL BARIŞ, KAN MEHMET, ALKHALIDI Mohammed (2018). Design, Analysis and Prototyping of the Combined Heating and Cooling System with Solar Energy. International Journal of Multidisciplinary Studies and Innovative Technologies, 2(1), 57. (Publication No: 4727935)
30. İPEK OSMAN, KAN MEHMET, GÜREL BARIŞ (2017). Examination of Different Heat Exchangers and the Thermal Activities of Different Designs. Acta Physica Polonica A, 132(3), 580584., Doi: 10.12693/APhysPolA.132.580 (Publication No: 3815240)

31. İPEK OSMAN, GÜREL BARIŞ, KAN MEHMET (2017). Numerical Investigation on Hydrodynamic Combustion and NO_x Emission Behavior in 8 MW Circulating Fluidized Bed. *Acta Physica Polonica A*, 132(3), 553557., Doi: 10.12693/APhysPolA.132.553 (Publication No: 3815166)
32. İPEK OSMAN, KILIC BAYRAM, GÜREL BARIŞ (2017). Experimental investigation of exergy loss analysis in newly designed compact heat exchangers. *Energy*, 124, 330335., Doi: 10.1016/j.energy.2017.02.061 (Publication No: 3452648)
33. ŞAHİN VOLKAN, İPEK OSMAN, BAŞOĞUL YUSUF, GÜREL BARIŞ, KEÇEBAŞ ALİ (2016). Remote control based energy management for energy savings in a central heating system. *Environmental Progress Sustainable Energy*, Doi: 10.1002/ep.12483 (Publication No: 3200485)
34. İPEK OSMAN, GÜREL BARIŞ, KAN MEHMET (2016). Numerical Analysis of Oxy Coal Combustion System Burning Pulverized Coal Mixed with Different Flue Gas Mass Flow Rates. *Journal of Energy Engineering*, 4016053, Doi: 10.1061/(ASCE)EY.19437897.0000409 (Publication No: 3200436)
35. GÜREL BARIŞ, İPEK OSMAN, KAN MEHMET (2015). Numerical Analysis of Pulverised Coal Fired Boiler with Different Burner Geometries. *ACTA PHYSICA POLONICA A*, Doi: 10.12693/APhysPolA.128.B43 (Publication No: 1846619)
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B. Papers presented at international scientific meetings and published in proceedings:

1. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÖLTAŞ MERVE, GÜLER ONUR VAHİP, ŞEN CAĞLA NUR (2021). Assessment of flow and heat transfer in a fish gill patterned plate heat exchanger. The Fifth International Scientific and Technical Conference Modern Power Systems and Units (MPSU'21) (Full Text Publication/Oral Presentation) (Publication No: 7904927)
2. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÖLTAŞ MERVE, KURTULUŞ KARANİ, GÜLER ONUR VAHİP (2021). Comparative thermal and flow analyses of two different plate patterns for a compact plate heat exchanger. The Sixth International Seminar on ORC Power Systems (ORC2021), Doi: 10.14459/2021mp1633018 (Full Text Publication/Oral Presentation) (Publication No: 7904956)
3. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, ALGAN RAMAZAN, GÖLTAŞ MERVE, GÜLER ONUR VAHİP (2021). Investigation of the effects of plate patterns on effectiveness and entropy generation in plate heat exchangers. The Sixth International Seminar on ORC Power Systems (ORC2021), Doi: 10.14459/2021mp1632838 (Full Text Publication/Oral Presentation) (Publication No: 7904947)
4. GÜREL BARIŞ, YURDAKUL SEMA, KURTULUŞ KARANİ, Önur Enes, Akman Remzi, VAROL MURAT, GÜRBÜZ HABİB (2022). Preliminary Investigation of Some Emissions Occurring During the Combustion of Chicken Manure with Kale Lignite in a 500 kWh Circulating Fluidized Bed. 3rd International Congress on Engineering Sciences and Multidisciplinary Approaches (Full Text Publication/Oral Presentation) (Publication No: 8081780)

5. Erol Eren Gürkan, GÜREL BARIŞ, Altındal Süleyman, YURDAKUL SEMA (2022). Numerical Investigation of Thermal and Dynamic Parameters in the Flow of Graphene Nanoparticle Added Nanofluid in a Plate Heat Exchanger with Cylindrical Protrusion Profile. 3rd International Congress on Engineering Sciences and Multidisciplinary Approaches (Full Text Publication/Oral Presentation) (Publication No: ...) (Note: Full details cut off in original)
6. GÜREL BARIŞ, YURDAKUL SEMA, KURTULUŞ KARANI, ÖNÜR Enes, AKMAN Remzi, VAROL MURAT, GÜRBÜZ HABİB (2022). Preliminary Investigation of Some Emissions Occurring During the Combustion of Chicken Manure with Kale Lignite in a 500 kWth Circulating Fluidized Bed. 3rd. INTERNATIONAL CONGRESS ON ENGINEERING SCIENCES AND MULTIDISCIPLINARY APPROACHES, 679685. (Full Text Publication/Oral Presentation) (Publication No: 8280995)
7. GÜREL BARIŞ, KURTULUŞ KARANI, Erkent Sena, Oruç Hasip Turan, YURDAKUL SEMA, VAROL MURAT, KEÇEBAŞ ALI, GÜRBÜZ HABİB, Dolgun G (2022). Numerical and Experimental Investigation of CoCombustion of Chicken Manure Lignite Blends in 350 kWh Circulating Fluidized Bed Boiler. GCGW 2022 (Abstract/Oral Presentation) (Publication No: 8082709)
8. GÜLER ONUR VAHİP, GÖLTAŞ MERVE, GÜRBÜZ EMİNE YAGIZ, GÜREL BARIŞ, KEÇEBAŞ ALI (2023). Thermalhydraulic performance of plastic 3Dprinted plate heat exchanger with lung flow channel. The Sixth International Scientific and Technical Conference Modern Power Systems and Units (MPSU'23) (Abstract/Oral Presentation) (Publication No: 8725468)
9. GÜRBÜZ EMİNE YAGIZ, GÜLER ONUR VAHİP, GÖLTAŞ MERVE, GÜREL BARIŞ, KEÇEBAŞ ALI (2023). Numerical investigation of thermal flow characteristics in compact plate heat exchanger with various surface patterns. The Fourteenth International Conference on Thermal Engineering: Theory and Applications (ICTEA'14), 2023(1) (Full Text Publication/Oral Presentation) (Publication No: 8725572)
10. GÜREL BARIŞ, ÖZDEMİR KADİR, KIRLI Ahmet Özkan (2025). NUMERICAL INVESTIGATION OF A SAVONIUS WIND TURBINE WITH DIFFERENT BLADE OVERLAP DISTANCES. 5th. International Wind Energy Conference, 12301238. (Full Text Publication/Oral Presentation) (Publication No: 9872700)
11. erkent sena, Akbaş Celal Fatih, YILDIRIM FEYZA NUR, Ozdogru Emine, Erdogan Mehmet Kaan, KURTULUŞ KARANI, SAHİN ABDULMAJEED SELMİHAN, SAHİN OĞUZHAN, YURDAKUL SEMA, GÜREL BARIŞ (2025). INVESTIGATION OF CO2 CAPTURE POTENTIAL OF DEMOLITION WASTES. ISEMAS 2025 (Full Text Publication/Oral Presentation) (Publication No: 9827274)
12. Erkent sena, Cınar Mehmet, GÜREL BARIŞ, KURTULUŞ KARANI, VAROL MURAT, ÖZÜN SAVAŞ, EKİNCİ KAMİL, YURDAKUL SEMA (2024). Investigation of Combustion Kinetics of Raw and Torrefied Rose Pulp, and Chicken Manure Mixtures With Local Lignite. ICEESEN 2024 (Full Text Publication/Oral Presentation) (Publication No: 9095045)
13. ÖZEN ABDURRAHMAN, GÜREL BARIŞ, YURDAKUL SEMA, KURTULUŞ KARANI, İPEK OSMAN (2024). Highly Efficient Teng System Decorated With Biomass Material Into The Silicone. ICEESEN 2024 (Full Text Publication/Oral Presentation) (Publication No: 9095025)
14. Armakan Samet İsmail, GÜREL BARIŞ, KURTULUŞ KARANI, VAROL MURAT, GÜRBÜZ HABİB, KARACA DOLGUN GÜLŞAH, KEÇEBAŞ ALİ, YURDAKUL SEMA (2024). Morphological investigation of ashes formed by cocombustion of chicken manure and lignite mixtures in a fluidized bed boiler. 17th International Istanbul Scientific Research Congress on Life, Engineering, Architecture, and Mathematical Sciences, 554555. (Abstract/Oral Presentation) (Publication No: 9341912)

15. ERKENT SENA, GÜREL BARIŞ, KURTULUŞ KARANI, ÖZÜN SAVAŞ, VAROL MURAT, EKİNCİ KAMİL, YURDAKUL SEMA (2023). CO₂ removal by calcined eggshell. 14th International Exergy, Energy, and Environment Symposium, 136138. (Full Text Publication/Oral Presentation) (Publication No: 9326844)
16. GÜREL BARIŞ, KURTULUŞ KARANI, ÖZÜN SAVAŞ, VAROL MURAT, EKİNCİ KAMİL, ERKENT SENA, YURDAKUL SEMA (2023). Numerical investigation of the effect of different boundary conditions and geometrical properties on CO₂ removal efficiency in the retention of CO₂ from flue gas in a CO₂ capture column with calcined eggshell by carbonation reaction. 14th International Exergy, Energy, and Environment Symposium, 139142. (Full Text Publication/Oral Presentation) (Publication No: 9327323)
17. GÜRBÜZ EMİNE YAGIZ, GÜLER ONUR VAHİP, GÖLTAŞ MERVE, GÜREL BARIŞ, KEÇEBAŞ ALİ (2023). Numerical investigation of thermal flow characteristics in compact plate heat exchanger with various surface patterns. Fourteen International Conference on Thermal Engineering: Theory and Applications, 2023(1) (Full Text Publication/Oral Presentation) (Publication No: 8426780)
18. ALTINDAL SÜLEYMAN, Erol Eren Gürkan, GÜREL BARIŞ, YURDAKUL SEMA (2022). Numerical Investigation Of The Effect Of Operating Temperatures On A Planar Solid Oxide Fuel Cell. 16th International Combustion Symposium (Full Text Publication/Oral Presentation) (Publication No: 8082451)
19. Erkent Sena, Koru Mehmet, GÜREL BARIŞ, YURDAKUL SEMA, KURTULUŞ KARANI, Akman Remzi (2022). Determining Combustion Characteristics and Kinetics of Domestic Sewage Sludge. GCGW 2022 (Abstract/Oral Presentation) (Publication No: 8082653)
20. Erkent Sena, YURDAKUL SEMA, GÜREL BARIŞ, KURTULUŞ KARANI, ÖZÜN SAVAŞ (2022). Combustion Characteristics And Kinetics Of Blends Of Lignite With Eggshell. 16th International Combustion Symposium, 202204. (Full Text Publication/Oral Presentation) (Publication No: 8082305)
21. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, ALGAN RAMAZAN, GÖLTAŞ MERVE, GÜLER ONUR VAHİP (2021). Investigation of the effects of plate patterns on effectiveness and entropy generation in plate heat exchangers. The Sixth International Seminar on ORC Power Systems, Technical University of Munich, 110., Doi: 10.14459/2021mp1632838 (Full Text Publication/Oral Presentation) (Publication No: 7436195)
22. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, Göltaş Merve, KURTULUŞ KARANI, GÜLER ONUR VAHİP (2021). COMPARATIVE THERMAL AND FLOW ANALYSES OF TWO DIFFERENT PLATE PATTERNS FOR A COMPACT PLATE HEAT EXCHANGER. 6th International Seminar on ORC Power Systems, Doi: 10.14459/2021mp1632838 (Full Text Publication/Oral Presentation) (Publication No: 7577047)
23. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, ALGAN Ramazan, GÖLTAŞ Merve, GÜLER ONUR VAHİP (2021). INVESTIGATION OF THE EFFECTS OF PLATE PATTERNS ON EFFECTIVENESS AND ENTROPY GENERATION IN PLATE HEAT EXCHANGERS. Paper ID: 9, Page 1 6th International Seminar on ORC Power Systems, October 11 13, 2021, Munich, Germany, Doi: 10.14459/2021mp1633018 (Full Text Publication/Oral Presentation) (Publication No: 7478438)
24. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÖLTAŞ Merve, KURTULUŞ KARANI, GÜLER ONUR VAHİP (2021). Comparative thermal and flow analyses of two different plate patterns for a compact plate heat exchanger. Paper ID: 9, Page 1 6th International Seminar on ORC Power

Systems, October 11–13, 2021, Munich, Germany, Doi: 10.14459/2021mp1632838 (Full Text Publication/Oral Presentation) (Publication No: 7478418)

25. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÖLTAŞ MERVE, KURTULUŞ KARANİ, GÜLER ONUR VAHİP (2021). Comparative thermal and flow analyses of two different plate patterns for a compact plate heat exchanger. The Sixth International Seminar on ORC Power Systems, Technical University of Munich, 19., Doi: 10.14459/2021mp1632838 (Full Text Publication/Oral Presentation) (Publication No: 7436339)

26. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, Göltaş Merve, GÜLER ONUR VAHİP, Şen Çağla Nur (2021). ASSESSMENT OF FLOW AND HEAT TRANSFER IN A FISH GILL PATTERNED PLATE HEAT EXCHANGER. 5th International Scientific and Technical Conference Modern Power Systems and Units (Full Text Publication/Oral Presentation) (Publication No: 7163751)

27. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÖLTAŞ MERVE, GÜLER ONUR VAHİP, ŞEN ÇAĞLA NUR (2021). Assessment of flow and heat transfer in a fish gill patterned plate heat exchanger. The Fifth International Scientific and Technical Conference Modern Power Systems and Units (MPSU'21), 112. (Full Text Publication/Oral Presentation) (Publication No: 7197342)

28. GÜREL BARIŞ, KEÇEBAŞ ALİ, AKKAYA VOLKAN RAMAZAN, GÖLTAŞ Merve, GÜLER ONUR VAHİP, ŞEN ÇAĞLA NUR (2021). ASSESSMENT OF FLOW AND HEAT TRANSFER IN A FISH GILL PATTERNED PLATE HEAT EXCHANGER. The 5th International Scientific and Technical Conference Modern Power Systems and Units (Full Text Publication/Oral Presentation) (Publication No: 7198827)

29. GÜREL BARIŞ (2020). Investigation of the Change in Flue Gas Emissions during the Combustion of Eggshells with Domestic Lignite in a Bubbling Fluidized Bed Boiler. INCOS 2020, 299303. (Full Text Publication/Oral Presentation) (Publication No: 6551740)

30. Akman Remzi, Önür Enes, YURDAKUL SEMA, GÜREL BARIŞ, VAROL MURAT, GÜRBÜZ HABİB (2020). Investigation Thermal Degradation Kinetics and Mechanisms of Chicken Manure, Lignite and Their Blends by TGA. ICEEE'2020: International Conference on Economics Energy and Environment (Abstract/Oral Presentation) (Publication No: 8082563)

31. YURDAKUL SEMA, Akman Remzi, Onur Enes, GÜREL BARIŞ, VAROL MURAT, GÜRBÜZ HABİB (2020). Investigation thermal degradation kinetics and mechanisms of chicken manure, lignite and their blends by TGA. International Conference on Economics Energy and Environment, 9293. (Abstract/Oral Presentation) (Publication No: 6551745)

32. GÜREL BARIŞ (2020). Numerical Investigation of Solidification of Nanoparticle Added Phase Change Energy Storage Material in a Cylindrical Double Pipe. INSAC Natural and Health Sciences (ICNHS2020), 186198. (Full Text Publication/Oral Presentation) (Publication No: 6551741)

33. Akman Remzi, Armakan Selin, YURDAKUL SEMA, GÜREL BARIŞ, VAROL MURAT, GÜRBÜZ HABİB (2019). Effect of blending ratio during cocombustion of chicken manure and Turkish lignite with thermogravimetry. 2nd International Conference on Technology and Science, 1818. (Abstract/Oral Presentation) (Publication No: 6551751)

34. GÜREL BARIŞ, İPEK OSMAN, KAN MEHMET (2018). Modelling of the Hydrodynamic Flow and Erosion for the 4 Different Circulating Fluidised Bed Boiler Designs by Computational Particle Fluid Dynamics. INTERNATIONAL CONFERENCE ON INNOVATIVE ENGINEERING APPLICATIONS (Full Text Publication/Oral Presentation) (Publication No: 4748232)

35. GÜREL BARIŞ, İPEK OSMAN, KAN MEHMET (2018). Analytical Solving of Natural Water Circulation System and Numerical Modeling of Two Phase Flow in the Raisers. INTERNATIONAL CONFERENCE ON INNOVATIVE ENGINEERING APPLICATIONS (Full Text Publication/Oral Presentation) (Publication No: 4748360)
36. İPEK OSMAN, KAN MEHMET, GÜREL BARIŞ (2017). Numerical and Experimental Comparison of Thermal Behaviors and Performances of The Monoblock Heat Exchanger Produced By Laser Sintering Method and Brazed Plate Heat Exchanger. 1st International Conference on Energy Systems Engineering, 1010. (Abstract/Oral Presentation) (Publication No: 3911398)
37. İPEK OSMAN, GÜREL BARIŞ, KAN MEHMET (2017). INVESTIGATION OF THE EMISSIONS BEHAVIOR OF A 330 MWTH CIRCULATING FLUIDIZED BED RISER BURNING DIFFERENT LIGNITES. First International Conference on Energy Systems Engineering (ICESE'17) (Abstract/Oral Presentation) (Publication No: 3817788)
38. İPEK OSMAN, KAN MEHMET, GÜREL BARIŞ (2017). Numerical and Experimental Comparison of Thermal Behaviors and Performances of The Monoblock Heat Exchanger Produced By Laser Sintering Method and Brazed Plate Heat Exchanger. First International Conference on Energy Systems Engineering (ICESE'17) (Abstract/Oral Presentation) (Publication No: 3817805)
39. İPEK OSMAN, GÜREL BARIŞ, KAN MEHMET (2017). Investigation of the Emissions Behavior of a 330 MWh Circulating Fluidized Bed Riser Burning Different Lignites. 1st International Conference on Energy Systems Engineering, 1515. (Abstract/Oral Presentation) (Publication No: 3911324)
40. İPEK OSMAN, GÜREL BARIŞ, KAN MEHMET (2017). HYDRODYNAMICCOMBUSTION BEHAVIOR OF A 330 MWTH CIRCULATING FLUIDIZED BED RISER BURNING DIFFERENT LIGNITES. First International Conference on Energy Systems Engineering (ICESE'17) (Abstract/Oral Presentation) (Publication No: 3817761)
41. İPEK OSMAN, GÜREL BARIŞ, KAN MEHMET (2017). HydrodynamicCombustion Behavior of a 330 MWh Circulating Fluidized Bed Riser Burning Different Lignites. 1st International Conference on Energy Systems Engineering, 99. (Abstract/Oral Presentation) (Publication No: 3911480)
42. İPEK OSMAN, Mehdi ALKHALIDI, GÜREL BARIŞ (2017). Design and Application of Heating System by Using Ground Source Heat Pump for IspartaTurkey Climate Conditions. 6th International Conference on Engineering, Science, Technology and Industrial Applications (Full Text Publication/Oral Presentation) (Publication No: 3911598)
43. İPEK OSMAN, KAN MEHMET, GÜREL BARIŞ (2016). Investigation of Heat Transfer Performance for Different Mass Flow Rate in Compact Plate Heat Exchanger. II. INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES (Full Text Publication/Oral Presentation) (Publication No: 3223279)
44. İPEK OSMAN, GÜREL BARIŞ, KAN MEHMET (2016). Air Preheater Design And Optimization. II. INTERNATIONAL CONFERENCE ON ENGINEERING AND NATURAL SCIENCES (Full Text Publication/Oral Presentation) (Publication No: 3221498)
45. İPEK OSMAN, GÜREL BARIŞ, KAN MEHMET (2015). Numerical Analysis on Oxy Fuel Combustion for Different Mixture Rate. International Conference On Engineering And Natural Science (Full Text Publication/Oral Presentation) (Publication No: 1846952)

46. BAŞOĞUL YUSUF, GÜREL BARIŞ, SULTAN SÜLEYMAN AYLAK, ŞİMŞEK MİTHAT, KEÇEBAŞ ALİ (2013). Benchmark On Cost And Emission Reductions Of Pipe Insulation Optimization Using Exergy Analysis. The Organizing Committee of the 3rd International Exergy, Life Cycle Assessment and Sustainability Workshop Symposium (ELCAS3) (Full Text Publication/Oral Presentation) (Publication No: 132480)

47. KEÇEBAŞ ALİ, GÜREL BARIŞ, BAŞOĞUL YUSUF, SULTAN SÜLEYMAN AYLAK, ŞİMŞEK MİTHAT (2013). Exergetic Performance Prediction Of Geothermal District Heating System By Using Ann Method. 3rd International Exergy, Life Cycle Assessment And Sustainability Workshop Symposium (Elcas3), (Full Text Publication/Oral Presentation) (Publication No: 2078523)

C. Authored national/international books or chapters in books:

C1. Authored national/international books:

1. Isparta Local Economic Development Vision 2018 Isparta Province MetalMachine Sector Analysis (2018), KAYACAN MEHMET CENGİZ, KOSEKAYAOĞLU LEVENT, OZDEMİR GULTEKİN, USTUNDAG MUSTAFA, GUREL BARIŞ, KARADEDE YUSUF, GUNER UMIT, Süleyman Demirel Üniversitesi, Editor: Prof.Dr. M. Cengiz KAYACAN, Edition No: 1, ISBN: 9786059454261, Turkish (Scientific Book) (Publication No: 4771068)

D. Articles published in national refereed journals:

1. ERKENT Sena, CINAR Mehmet, GUREL BARIŞ, KURTULUŞ KARANI, VAROL MURAT, OZUN SAVAŞ, EKINCI KAMIL, KEÇEBAŞ ALİ, YURDAKUL SEMA (2025). Combustion and kinetic synergy of raw/torrefied chicken manure and rose pulp blended with lowgrade lignite. PETROLEUM SCIENCE AND TECHNOLOGY, Doi: 10.1080/10916466.2025.2594724 (Control No: 10146173)

2. ERKENT Sena, YAMAN Mehmet Eren, KURTULUŞ KARANI, YURDAKUL SEMA, GUREL BARIŞ (2025). Thermogravimetric investigation of combustion characteristics, kinetics and combustion indices of fuel mixtures containing biomass, treatment sludge and lignite. Pamukkale Üniversitesi Muhendislik Bilimleri Dergisi, Doi: 10.65206/pajes.00694 (Control No: 10146183)

3. Gümüşbaş Serdar Mustafa, GÜREL BARIŞ (2024). GREEN CAMPUS ENERGY FEASIBILITY STUDY: THE CASE OF SÜLEYMAN DEMİREL UNIVERSITY. Journal of Engineering Sciences and Design, 12, Doi: 10.21923/jesd.1456126 (Control No: 9365301)

4. KEÇEBAŞ ALİ, GÜREL BARIŞ, DEVLET BAYRAM (2021). COMPARATIVE INVESTIGATION OF THE USE OF OPTIMIZED PHOTOVOLTAIC SOLAR PANELS IN FIXED AND MOBILE APPLICATIONS. Journal of Engineering Sciences and Design, 9(3), 983991., Doi: 10.21923/jesd.822528 (Control No: 7435888)

5. KEÇEBAŞ ALİ, GÜREL BARIŞ, DEVLET Bayram (2021). COMPARATIVE INVESTIGATION OF THE USE OF OPTIMIZED PHOTOVOLTAIC SOLAR PANELS IN FIXED AND MOBILE APPLICATIONS. Journal of Engineering Sciences and Design, 9, Doi: 10.21923/jesd.822528 (Control No: 7478361)

6. GÜREL BARIŞ (2020). DETERMINATION OF THE CURRENT BIOMASS POTENTIAL IN TURKEY AND CALCULATION OF SECTORAL AND TOTAL COMBUSTION ENERGY VALUES FOR BIOMASS WASTES, WHICH ARE A GOOD ALTERNATIVE FOR ENERGY PRODUCTION BY COMBUSTION. Journal of

Engineering Sciences and Design, 8(2), 407416., Doi: 10.1016/j.ijheatmasstransfer.2019.119117 (Control No: 6563897) (Note: DOI appears to be a mismatch/copy-paste error in the original)

7. GÜREL BARIŞ, İPEK OSMAN, BAŞOĞUL YUSUF, KEÇEBAŞ ALİ (2019). Optimization of Nozzle Section in Plastic Injection Moulding Process. Hittite Journal of Science & Engineering, 6(2), 123130., Doi: 10.17350/HJSE19030000137 (Control No: 5758610)

8. GÜREL BARIŞ, İPEK OSMAN (2019). Numerical Analysis of the 330 MWh Çan Circulating Fluidized Bed Thermal Power Plant Boiler with Computational Particle Fluid Dynamics Method. Journal of Engineering Sciences and Design, 7(2), 441451., Doi: 10.21923/jesd.471097 (Control No: 5868630)

E. Papers presented at national scientific meetings and published in proceedings:

1. KANYILMAZ METEHAN, YURDAKUL SEMA, GÜREL BARIŞ (2023). INVESTIGATION OF TOREFACTION PARAMETERS OF ROSE PULP AND CHICKEN MANURE. International World Energy ConferenceIII (Abstract/Oral Presentation) (Publication No: 10146219)

2. ERKENT Sena, GÜREL BARIŞ, KURTULUŞ KARANI, VAROL MURAT, ÖZÜN SAVAŞ, EKİNCİ KAMİL, YURDAKUL SEMA (2024). Investigation of CO₂ and SO₂ Adsorption Capacity and Morphology of Calcined Eggshell. 5th International Conference on Recycling and Reuse (R&R 2024), Istanbul. (Abstract/Oral Presentation) (Publication No: 10146480)

3. ERKENT Sena, GÜREL BARIŞ, KURTULUŞ KARANI, VAROL MURAT, ÖZÜN SAVAŞ, EKİNCİ KAMİL, YURDAKUL SEMA (2024). Investigation of Combustion Characteristics of Raw and Torrefied Rose Pulp, and Chicken Manure Mixtures with Local Lignite. 5th International Conference on Recycling and Reuse (R&R 2024), Istanbul. 5th International Conference on Recycling and Reuse (R&R 2024) (2024). (Abstract/Oral Presentation) (Publication No: 10146474)

Other Publications

1. YURDAKUL SEMA, Erkent sena, GÜREL BARIŞ (2023). Evaluation of Rose Oil Distillation Solid Waste. Batı Akdeniz Kalkınma ve İşbirliği Dergisi (Western Mediterranean Development and Cooperation Journal), 2123. (National) (Nonrefereed) (ARTICLE Article) (Publication No: 8389076)

Editor Position

1. Journal of Engineering Sciences and Design (TR DIZIN), Journal, Editor, Journal of Engineering Sciences and Design, 20.06.2020
2. Journal of Engineering Sciences and Design (TR DIZIN), Journal, Editor, Süleyman Demirel University, 01.06.2020