BAHRİ ŞAHİN
PROF.

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Biography

Prof. Dr. Bahri Sahin received his undergraduate degree from the Department of Mechanical Engineering at Gazi University in 1977, his graduate education from the Department of Mechanical Engineering at Yıldız Technical University's (YTU) Institute of Science and Technology in 1979 with a TÜBİTAK scholarship, and completed his Ph.D. in the Nuclear Energy Institute Nuclear Technology Program at Istanbul Technical University ITU) in 1985 wıth a TÜBİTAK Honorary Scholarship.

He worked as a research assistant between 1979 and 1983 and as a lecturer between 1983 and 1986 in the Department of Energy Engineering at ITU's Mechanical Engineering Department and served as Assistant Professor in Naval Architecture and Marine Engineering between 1986 and 1989 and as an Associate Professor between 1989 and 1995. He has been a Professor since 1995.

Prof. Dr. Bahri Sahin served as Deputy Head of his Department between 1988 and 1999 at Yildiz Technical University, Division Head between 1992 and 2007, Head of the Department between 1999 and 2009, and Founding Dean of Faculty of YTU Naval Architecture and Maritime Department since 2009. He was also elected to the Board of Directors of the United Nations Industrial Development Organization's (UNIDO) International Center for Hydrogen Technology (ICHET) in 2010.

Prof. Dr. Bahri Sahin has conducted many international studies in the fields of thermodynamics, energy production systems, energy technologies, design and optimization of thermal systems, and energy economy. He was elected to the Turkish Academy of Science (TÜBA) as a principal member by the Scientific Board of TUBİTAK through Decision No. 212 on October 6, 2012. Prof. Dr. Bahri Sahin also served as the rector of Yildiz Technical University from 2016 to 2020 and is the current Rector of Istanbul Gelişim University.

Learning Knowledge

Doctorate 1979 - 1985	Istanbul Technical University, Nükleer Enerji (Dr), Turkey
Postgraduate 1977 - 1979	Yildiz Technical University, Faculty Of Mechanical Engineering, Deparment Of Mechanical Engineering, Turkey

Undergraduate 1972 - 1977	Gazi University, Mühendislik Fakültesi, Makina Mühendisliği, Turkey

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Nükleer ve fosil yakıtlı birleşik ısı-güç santralali ile Ankara şehrinin bir merkezden ısıtılmasının teknik ve ekonomik etüdü, Istanbul Technical University, Nükleer Enerji (Dr), 1985
Postgraduate, Buhar Türbinli Güç Tesislerinde Optimum Ön Isıtıcı Sayısının Tesbiti İçin Teorik Bir Yöntem, Yildiz Technical University, Faculty Of Mechanical Engineering, Deparment Of Mechanical Engineering, 1979

Academic Titles / Tasks

Professor 2022 - Continues	Istanbul Gelisim University, FACULTY OF ENGINEERING AND ARCHITECTURE, AERONAUTICAL ENGINEERING
Professor 1995 - 2022	Yildiz Technical University, Naval Architecture And Maritime Faculty, Gemi İnşaatı Ve Gemi Makineleri Mühendisliği Bölümü
Associate Professor 1989 - 1995	Yildiz Technical University, Makine Fakültesi, Makine Mühendisliği Bölümü
Assistant Professor 1986 - 1989	Yildiz Technical University, Gemi İnşaatı Ve Denizcilik Fakültesi, Gemi İnşaatı Ve Gemi Makineleri Mühendisliği Bölümü
Lecturer 1983 - 1986	Yildiz Technical University, Makine Fakültesi, Makine Mühendisliği Bölümü
Research Assistant 1979 - 1983	Yildiz Technical University, Makine Fakültesi, Makine Mühendisliği Bölümü

Published journal articles indexed by SCI, SSCI, and AHCI

1. **The Effects of Equivalence Ratio and Temperature of Different Fuel Mixtures on the Performance and NO Emission Characteristics of a Spark Ignition Engine**
   GONCA G., ŞAHİN B., Hocaoglu M. F.
   Arabian Journal for Science and Engineering, vol.49, no.8, pp.10431-10452, 2024 (SCI-Expanded)
2. **Work density analysis and thermoeconomic optimisation of modified Carnot cycle engine**
   KARAKURT A. S., GONCA G., ŞAHİN B.
   International Journal of Exergy, vol.41, no.2, pp.167-181, 2023 (SCI-Expanded)

3. **Performance investigation and simulation of a diesel engine operating on seven-process cycle based on energy and exergy criteria**
   GONCA G., GENÇ İ., ŞAHİN B.
   International Journal of Exergy, vol.41, no.4, pp.391-402, 2023 (SCI-Expanded)
4. **Influences of hydrogen and various gas fuel addition to different liquid fuels on the performance characteristics of a spark ignition engine**
   GONCA G., ŞAHİN B., Hocaoglu M. F.
   International Journal of Hydrogen Energy, vol.47, no.24, pp.12421-12431, 2022 (SCI-Expanded)
5. **Performance investigation and evaluation of an engine operating on a modified dual cycle**
   GONCA G., ŞAHİN B.
   International Journal of Energy Research, vol.46, no.3, pp.2454-2466, 2022 (SCI-Expanded)
6. **Investigation of maximum performance characteristics of seven-process cycle engine**
   GONCA G., ŞAHİN B., GENÇ İ.
   International Journal of Exergy, vol.37, no.3, pp.302-312, 2022 (SCI-Expanded)
7. **University Rankings: Quality, Size and Permanence**
   Bejan A., GÜNEŞ Ü., ŞAHİN B.
   European Review, vol.28, no.4, pp.537-558, 2020 (SSCI)
8. **Performance assessment of a modified power generating cycle based on effective ecological power density and performance coefficient**
   GONCA G., ŞAHİN B., ÇAKIR M.
   International Journal of Exergy, vol.33, no.2, pp.153-164, 2020 (SCI-Expanded)
9. **Performance analysis of a novel eco-friendly internal combustion engine cycle**
   GONCA G., ŞAHİN B.
   International Journal of Energy Research, vol.43, no.11, pp.5897-5911, 2019 (SCI-Expanded)
10. **The evolution of air and maritime transport**
    Bejan A., GÜNEŞ Ü., ŞAHİN B.
    Applied Physics Reviews, vol.6, no.2, 2019 (SCI-Expanded)
11. **Performance evaluation of a mercury-steam combined–energy-generation system (MES)**
    GONCA G., ŞAHİN B.
    International Journal of Energy Research, vol.43, no.6, pp.2281-2295, 2019 (SCI-Expanded)
12. **The fastest animals and vehicles are neither the biggest nor the fastest over lifetime**
    Bejan A., GÜNEŞ Ü., Charles J., ŞAHİN B.
    Scientific Reports, vol.8, no.1, 2018 (SCI-Expanded)
13. **Social organization: The thermodynamic basis**
    Bejan A., GÜNEŞ Ü., Errera M., ŞAHİN B.
    International Journal of Energy Research, vol.42, no.12, pp.3770-3779, 2018 (SCI-Expanded)
14. **Performance Characteristics and Emission Formations of a Spark Ignition (SI) Engine Fueled with Different Gaseous Fuels**
    GONCA G., ÇAKIR M., ŞAHİN B.
    Arabian Journal for Science and Engineering, vol.43, no.9, pp.4487-4499, 2018 (SCI-Expanded)
15. **Performance analyses and optimisation of the Joule-Brayton cycle via the mean cycle pressure criterion**
    KARAKURT A. S., ŞAHİN B.
    International Journal of Exergy, vol.25, no.4, pp.339-349, 2018 (SCI-Expanded)
16. **Investigation of the effects of the steam injection method (SIM) on the performance and emission formation of a turbocharged and Miller cycle diesel engine (MCDE)**
    GONCA G., ŞAHİN B., Parlak A., Ayhan V., Cesur I., Koksal S.
    Energy, vol.119, pp.926-937, 2017 (SCI-Expanded)
17. **Thermo-ecological performance analysis of a Joule-Brayton cycle (JBC) turbine with considerations of heat transfer losses and temperature-dependent specific heats**
    GONCA G., ŞAHİN B.

Energy Conversion and Management, vol.138, pp.97-105, 2017 (SCI-Expanded)

18. **Effect of turbo charging and steam injection methods on the performance of a Miller cycle diesel engine (MCDE)**
GONCA G., ŞAHİN B.
Applied Thermal Engineering, vol.118, pp.138-146, 2017 (SCI-Expanded)
19. **Thermo-ecological performance analyses and optimizations of irreversible gas cycle engines**
GONCA G., ŞAHİN B.
Applied Thermal Engineering, vol.105, pp.566-576, 2016 (SCI-Expanded)
20. **The influences of the engine design and operating parameters on the performance of a turbocharged and steam injected diesel engine running with the Miller cycle**
GONCA G., ŞAHİN B.
Applied Mathematical Modelling, vol.40, no.5-6, pp.3764-3782, 2016 (SCI-Expanded)
21. **Ecological coefficient of performance analysis and optimisation of gas turbines by using exergy analysis approach**
ÜST Y., ŞAHİN B., ÇAKIR M.
International Journal of Exergy, vol.21, no.1, pp.39-69, 2016 (SCI-Expanded)
22. **Application of the Miller cycle and turbo charging into a diesel engine to improve performance and decrease NO emissions**
GONCA G., ŞAHİN B., Parlak A., Ayhan V., Cesur I., Koksal S.
Energy, vol.93, pp.795-800, 2015 (SCI-Expanded)
23. **Comprehensive performance analyses and optimization of the irreversible thermodynamic cycle engines (TCE) under maximum power (MP) and maximum power density (MPD) conditions**
GONCA G., ŞAHİN B., ÜST Y., Parlak A.
Applied Thermal Engineering, vol.85, pp.9-20, 2015 (SCI-Expanded)
24. **Renovating thermal power plant to trigeneration system for district heating/cooling: Evaluation of performance variation**
ERDEM H. H., AKKAYA A. V., Dagdas A., Sevilgen S. H., ÇETİN B., ŞAHİN B., TEKE İ., Gungor C., Atas S., Basak M. Z.
Applied Thermal Engineering, vol.86, pp.35-42, 2015 (SCI-Expanded)
25. **Comparison of steam injected diesel engine and Miller cycled diesel engine by using two zone combustion model**
GONCA G., ŞAHİN B., ÜST Y., Parlak A., SAFA A.
Journal of the Energy Institute, vol.88, no.1, pp.43-52, 2015 (SCI-Expanded)
26. **Theoretical and experimental investigation of the Miller cycle diesel engine in terms of performance and emission parameters**
GONCA G., ŞAHİN B., Parlak A., ÜST Y., Ayhan V., Cesur I., Boru B.
Applied Energy, vol.138, pp.11-20, 2015 (SCI-Expanded)
27. **Investigation of heat transfer influences on performance of air-standard irreversible dual-miller cycle**
GONCA G., ŞAHİN B., ÜST Y.
Journal of Thermophysics and Heat Transfer, vol.29, no.4, pp.678-683, 2015 (SCI-Expanded)
28. **Simulation of performance and nitrogen oxide formation of a hydrogen-enriched diesel engine with the steam injection method**
GONCA G., ŞAHİN B.
Thermal Science, vol.19, no.6, pp.1985-1994, 2015 (SCI-Expanded)
29. **The effects of steam injection on the performance and emission parameters of a Miller cycle diesel engine**
GONCA G., ŞAHİN B., Parlak A., ÜST Y., Ayhan V., Cesur I., Boru B.
Energy, vol.78, pp.266-275, 2014 (SCI-Expanded)
30. **Performance maps for an air-standard irreversible Dual-Miller cycle (DMC) with late inlet valve closing (LIVC) version**
GONCA G., ŞAHİN B., ÜST Y.

Energy, vol.54, pp.285-290, 2013 (SCI-Expanded)

31. **Determination of the optimum temperatures and mass ratios of steam injected into turbocharged internal combustion engines**
GONCA G., ŞAHİN B., ÜST Y., Parlak A.
Journal of Renewable and Sustainable Energy, vol.5, no.2, 2013 (SCI-Expanded)
32. **A study on late intake valve closing miller cycled diesel engine**
GONCA G., ŞAHİN B., ÜST Y., Parlak A.
Arabian Journal for Science and Engineering, vol.38, no.2, pp.383-393, 2013 (SCI-Expanded)
33. **Heat transfer effects on the performance of an air-standard irreversible dual cycle**
ÜST Y., ŞAHİN B., KAYADELEN H. K., GONCA G.
International Journal of Vehicle Design, vol.63, no.1, pp.102-116, 2013 (SCI-Expanded)
34. **The effects of cycle temperature and cycle pressure ratios on the performance of an irreversible Otto cycle**
ÜST Y., ŞAHİN B., SAFA A.
Acta Physica Polonica A, vol.120, no.3, pp.412-416, 2011 (SCI-Expanded)
35. **Performance analysis and optimization of heat exchangers: a new thermoeconomic approach**
ŞAHİN B., ÜST Y., TEKE İ., ERDEM H. H.
Applied Thermal Engineering, vol.30, no.2-3, pp.104-109, 2010 (SCI-Expanded)
36. **Thermodynamic analysis of an existing coal-fired power plant for district heating/cooling application**
ERDEM H. H., Dagdas A., Sevilgen S. H., ÇETİN B., AKKAYA A. V., ŞAHİN B., TEKE İ., Gungor C., Atas S.
Applied Thermal Engineering, vol.30, no.2-3, pp.181-187, 2010 (SCI-Expanded)
37. **Comparative energetic and exergetic performance analyses for coal-fired thermal power plants in Turkey**
ERDEM H. H., AKKAYA A. V., ÇETİN B., Dagdas A., Sevilgen S. H., ŞAHİN B., TEKE İ., Gungor C., Atas S.
International Journal of Thermal Sciences, vol.48, no.11, pp.2179-2186, 2009 (SCI-Expanded)
38. **Thermodynamic model for exergetic performance of a tubular SOFC module**
AKKAYA A. V., ŞAHİN B., ERDEM H. H.
Renewable Energy, vol.34, no.7, pp.1863-1870, 2009 (SCI-Expanded)
39. **A study on performance of solid oxide fuel cell-organic Rankine cycle combined system**
AKKAYA A. V., ŞAHİN B.
International Journal of Energy Research, vol.33, no.6, pp.553-564, 2009 (SCI-Expanded)
40. **An approach for analysing transportation costs and a case study**
ŞAHİN B., YILMAZ H., ÜST Y., GÜNERİ A. F., GÜLSÜN B.
European Journal of Operational Research, vol.193, no.1, pp.1-11, 2009 (SCI-Expanded)
41. **An analysis of SOFC/GT CHP system based on exergetic performance criteria**
AKKAYA A. V., ŞAHİN B., Huseyin Erdem H.
International Journal of Hydrogen Energy, vol.33, no.10, pp.2566-2577, 2008 (SCI-Expanded)
42. **Exergetic performance coefficient analysis of a simple fuel cell system**
AKKAYA A. V., ŞAHİN B., Huseyin Erdem H.
International Journal of Hydrogen Energy, vol.32, no.17, pp.4600-4609, 2007 (SCI-Expanded)
43. **Optimization of a regenerative gas-turbine cogeneration system based on a new exergetic performance criterion: Exergetic performance coefficient**
ÜST Y., ŞAHİN B., YILMAZ T.
Proceedings of the Institution of Mechanical Engineers, Part A: Journal of Power and Energy, vol.221, no.4, pp.447-457, 2007 (SCI-Expanded)
44. **Performance optimization of irreversible refrigerators based on a new thermo-ecological criterion**
ÜST Y., ŞAHİN B.
International Journal of Refrigeration, vol.30, no.3, pp.527-534, 2007 (SCI-Expanded)
45. **Optimization of a dual cycle cogeneration system based on a new exergetic performance criterion**
ÜST Y., ŞAHİN B., Kodal A.

Applied Energy, vol.84, no.11, pp.1079-1091, 2007 (SCI-Expanded)

46. **The effects of intercooling and regeneration on the thermo-ecological performance analysis of an irreversible-closed Brayton heat engine with variable-temperature thermal reservoirs**
Söğüt O. S., ÜST Y., ŞAHİN B.
Journal of Physics D: Applied Physics, vol.39, no.21, pp.4713-4721, 2006 (SCI-Expanded)
47. **Thermoeconomic analysis of a solar driven heat engine**
ŞAHİN B., ÜST Y., YILMAZ T., AKÇAY İ. H.
Renewable Energy, vol.31, no.7, pp.1033-1042, 2006 (SCI-Expanded)
48. **Performance analysis of an irreversible Brayton heat engine based on ecological coefficient of performance criterion**
ÜST Y., ŞAHİN B., Kodal A.
International Journal of Thermal Sciences, vol.45, no.1, pp.94-101, 2006 (SCI-Expanded)
49. **Ecological coefficient of performance analysis and optimization of an irreversible regenerative-Brayton heat engine**
ÜST Y., ŞAHİN B., Kodal A., AKÇAY İ. H.
Applied Energy, vol.83, no.6, pp.558-572, 2006 (SCI-Expanded)
50. **Ecological coefficient of performance (ECOP) optimization for generalized irreversible Carnot heat engines**
ÜST Y., ŞAHİN B., Kodal A.
Journal of the Energy Institute, vol.78, no.3, pp.145-151, 2005 (SCI-Expanded)
51. **Ecological performance analysis of an endoreversible regenerative Brayton heat-engine**
ÜST Y., SAFA A., ŞAHİN B.
Applied Energy, vol.80, no.3, pp.247-260, 2005 (SCI-Expanded)
52. **Performance analysis and optimization of an irreversible dual-cycle based on an ecological coefficient of performance criterion**
ÜST Y., ŞAHİN B., Söğüt O. S.
Applied Energy, vol.82, no.1, pp.23-39, 2005 (SCI-Expanded)
53. **Analysis of an unconventional cycle as a new comparison standard for practical heat engines: The circular/elliptical cycle in T-S diagram**
ŞAHİN B., ÜST Y., Kodal A., YILMAZ T.
International Journal of Energy Research, vol.28, no.13, pp.1159-1175, 2004 (SCI-Expanded)
54. **Performance optimisation of an irreversible dual cycle with respect to pressure ratio and temperature ratio - Experimental results of a ceramic coated IDI Diesel engine**
Parlak A., ŞAHİN B., Yasar H.
Energy Conversion and Management, vol.45, no.7-8, pp.1219-1232, 2004 (SCI-Expanded)
55. **Optimization of thermal systems based on finite-time thermodynamics and thermoeconomics**
Durmayaz A., Söğüt O. S., ŞAHİN B., Yavuz H.
Progress in Energy and Combustion Science, vol.30, no.2, pp.175-217, 2004 (SCI-Expanded)
56. **Finite size thermoeconomic optimization for irreversible heat engines**
Kodal A., Sahin B.
International Journal of Thermal Sciences, vol.42, no.8, pp.777-782, 2003 (SCI-Expanded)
57. **Thermoeconomic optimization for irreversible absorption refrigerators and heat pumps**
Kodal A., ŞAHİN B., Ekmekci I., YILMAZ T.
Energy Conversion and Management, vol.44, no.1, pp.109-123, 2003 (SCI-Expanded)
58. **Performance and exhaust emission characteristics of a lower compression ratio LHR Diesel engine**
Parlak A., Yasar H., ŞAHİN B.
Energy Conversion and Management, vol.44, no.1, pp.163-175, 2003 (SCI-Expanded)
59. **Thermoeconomic optimization of a two stage combined refrigeration system: A finite-time approach**
ŞAHİN B., Kodal A.
International Journal of Refrigeration, vol.25, no.7, pp.872-877, 2002 (SCI-Expanded)
60. **Performance optimization of a new combined power cycle based on power density analysis of the**

dual cycle
ŞAHİN B., Kesgin U., Kodal A., VARDAR N.
Energy Conversion and Management, vol.43, no.15, pp.2019-2031, 2002 (SCI-Expanded)

61. **Optimal performance characteristics of a two-stage irreversible combined refrigeration system under maximum cooling load per unit total cost conditions**
ŞAHİN B., Kodal A., KOYUN A.
Energy Conversion and Management, vol.42, no.4, pp.451-465, 2001 (SCI-Expanded)
62. **Performance analysis of an endoreversible heat engine based on a new thermoeconomic optimization criterion**
Sahin B., Kodal A.
Energy Conversion and Management, vol.42, no.9, pp.1085-1093, 2001 (SCI-Expanded)
63. **Performance analysis of two stage combined heat pump system based on thermoeconomic optimization criterion**
Kodal A., Sahin B., Oktem A. S.
Energy Conversion and Management, vol.41, no.18, pp.1989-1998, 2000 (SCI-Expanded)
64. **Comparative performance analysis of irreversible carnot heat engines under maximum power density and maximum power conditions**
Kodal A., ŞAHİN B., YILMAZ T.
Energy Conversion and Management, vol.41, no.3, pp.235-248, 2000 (SCI-Expanded)
65. **Effects of internal irreversibility and heat leakage on the finite time thermoeconomic performance of refrigerators and heat pumps**
Kodal A., ŞAHİN B., YILMAZ T.
Energy Conversion and Management, vol.41, no.6, pp.607-619, 2000 (SCI-Expanded)
66. **Optimal performance analysis of irreversible regenerative MHD power cycles**
Sahin B., Kodal A., Oktem A. S.
Journal of Physics D: Applied Physics, vol.32, no.15, pp.1832-1841, 1999 (SCI-Expanded)
67. **Finite time thermoeconomic optimization for endoreversible refrigerators and heat pumps**
ŞAHİN B., Kodal A.
Energy Conversion and Management, vol.40, no.9, pp.951-960, 1999 (SCI-Expanded)
68. **A comparative performance analysis of irreversible regenerative reheating Joule-Brayton engines under maximum power density and maximum power conditions**
ŞAHİN B., Kodal A., Kaya S. S.
Journal of Physics D: Applied Physics, vol.31, no.17, pp.2125-2131, 1998 (SCI-Expanded)
69. **Exergy optimization for an endoreversible cogeneration cycle**
ŞAHİN B., Kodal A., Ekmekçi I., YILMAZ T.
Energy, vol.22, no.5, pp.551-557, 1997 (SCI-Expanded)

Articles Published in Other Journals

1. **Professor somchai wongwises on his 60th birthday**
Awad M. M., Mondal P. K., Mahian O., Ahn H. S., DALKILIÇ A. S., Pop I., Mewes D., Bejan A., ŞAHİN B.
Journal of Thermal Engineering, vol.6, no.4, pp.438-439, 2020 (ESCI)
2. **A NEW METHOD FOR THE SIZE AND PERFORMANCE ANALYSES AND OPTIMIZATION OF THERMAL SYSTEMS: THE EXERGY DENSITY**
KARAKURT A. S., ŞAHİN B.
Sigma Journal of Engineering and Natural Sciences, vol.37, no.2, pp.573-583, 2019 (Scopus)
3. **An Investigation for the Fuel Price Escalations on Optimum Speed in Maritime Transportation**
TURAN E., ŞAHİN B.
Journal of Earth Sciences and Geotechnical Engineering, vol.7, no.1, pp.305-318, 2017 (Peer-Reviewed Journal)
4. **Performance optimization of an air-standard irreversible Dual-Atkinson cycle engine based on the**

ecological coefficient of performance criterion
GONCA G., ŞAHİN B.
Scientific World Journal, vol.2014, 2014 (Scopus)

5. **An approach for economic analysis of intermodal transportation**
ŞAHİN B., YILMAZ H., ÜST Y., GÜNERİ A. F., GÜLSÜN B., TURAN E.
Scientific World Journal, vol.2014, 2014 (Scopus)
6. **New method to reduce NOx emissions of diesel engines: Electronically controlled steam injection system**
Parlak A., Ayhan V., ÜST Y., ŞAHİN B., Cesur I., Boru B., KÖKKÜLÜNK G.
Journal of the Energy Institute, vol.85, no.3, pp.135-139, 2012 (Scopus)
7. **Performance optimisation of irreversible cogeneration systems based on a new exergetic performance criterion: Exergy density**
ÜST Y., ŞAHİN B., Kodal A.
Journal of the Energy Institute, vol.82, no.1, pp.48-52, 2009 (Scopus)
8. **Performance optimisation of reciprocating heat engine cycles with internal irreversibility**
Parlak A., ŞAHİN B.
Journal of the Energy Institute, vol.79, no.4, pp.241-245, 2006 (Scopus)
9. **Ecological coefficient of performance (ECOP) optimization for an irreversible brayton heat engine with variable-temperature thermal reservoirs**
ÜST Y., Söğüt O. S., ŞAHİN B., Durmayaz A.
Journal of the Energy Institute, vol.79, no.1, pp.47-52, 2006 (Scopus)
10. **A performance analysis for MHD power cycles operating at maximum power density**
ŞAHİN B., Kodal A., Yavuz H.
Journal of Physics D: Applied Physics, vol.29, no.6, pp.1473-1475, 1996 (Scopus)
11. **Maximum power density analysis of an irreversible Joule-Brayton engine**
ŞAHİN B., Kodal A., YILMAZ T., Yavuz H.
Journal of Physics D: Applied Physics, vol.29, no.5, pp.1162-1167, 1996 (Scopus)
12. **Maximum power density for an endoreversible carnot heat engine**
ŞAHİN B., Kodal A., Yavuz H.
Energy, vol.21, no.12, pp.1219-1225, 1996 (Scopus)
13. **Efficiency of a joule-brayton engine at maximum power density**
Sahin B., Kodal A., Yavuz H.
Journal of Physics D: Applied Physics, vol.28, no.7, pp.1309-1313, 1995 (Scopus)
14. **Steady-state thermodynamic analysis of a combined Carnot cycle with internal irreversibility**
ŞAHİN B., Kodal A.
Energy, vol.20, no.12, pp.1285-1289, 1995 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

1. **Constructal timeline**
GÜNEŞ Ü., ŞAHİN B.
Constructal law second law conference 2019, Porto-Alegre, Brazil, 11 - 13 March 2019, pp.151-154
2. **The effect of size on entropy generation for waste heat recovery boiler**
GÜNEŞ Ü., KARAKURT A. S., ŞAHİN B.
32nd International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems, ECOS 2019, Wroclaw, Poland, 23 - 28 June 2019, pp.797-806
3. **Performance Analysis and Optimization of Power Cycles via the Mean Cycle Pressure Criterion (MCP) and Entropy Generation (EG)**
KARAKURT A. S., ŞAHİN B.
ECOS 2018 - THE 31TH INTERNATIONAL CONFERENCE ON EFFICIENCY, COST, OPTIMIZATION, SIMULATION AND

ENVIRONMENTAL IMPACT OF ENERGY SYSTEMS, 17 - 22 June 2018

4. **Performance analysis and optimization of power cycles via the mean cycle pressure criterion and the entropy generation**
   KARAKURT A. S., ŞAHİN B.
   31st International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems, ECOS 2018, Guimaraes, Portugal, 17 - 21 June 2018
5. **Exergetic and Ecological Performance Analysis and Optimization of Brayton Cycle Via Mean Cycle Pressure Criterion (MCP)**
   KARAKURT A. S., ŞAHİN B.
   3rd CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING ISTANBUL 2017– ICAME2017, 19 - 21 December 2017

Academic and Administrative Experience

2022 - Continues	**Rector**	Istanbul Gelisim University
2016 - 2020	**Rector**	Yildiz Technical University
2009 - 2016	**Dean**	Yildiz Technical University
1999 - 2009	**Head of Department**	Yildiz Technical University
1992 - 2007	**Head of Department**	Yildiz Technical University
1988 - 1999	**Deputy Head of Department**	Yildiz Technical University

Advising Theses

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Research Areas

Energy, Thermodynamics