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Education Information

Doctorate, The University of Michigan, United States Of America 1991 - 1993

Postgraduate, The University of Michigan, United States Of America 1988 - 1991

Postgraduate, The University of Michigan, United States Of America 1987 - 1988

Undergraduate, Istanbul Technical University, Turkey 1981 - 1985

Research Areas

Engineering and Technology

Academic Titles / Tasks

Professor, Istanbul Gelisim University, FACULTY OF ENGINEERING AND ARCHITECTURE, AERONAUTICAL ENGINEERING (ENGLISH), 2023 - Continues

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Overall and component basis performance evaluations for turbojet engines under various optimal operating conditions**
Fawal S., KODAL A.
Aerospace Science and Technology, vol.117, 2021 (SCI-Expanded)
- II. **Comparative performance analysis of various optimization functions for an irreversible Brayton cycle applicable to turbojet engines**
Fawal S., KODAL A.
Energy Conversion and Management, vol.199, 2019 (SCI-Expanded)
- III. **A comparative study of turbulent velocity fields in an internal combustion engine with shrouded valve and flat/bowl piston configurations**
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Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, vol.221, no.12, pp.1597-1607, 2007 (SCI-Expanded)
- IV. **Optimization of a dual cycle cogeneration system based on a new exergetic performance criterion**

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- V. Ecological coefficient of performance analysis and optimization of an irreversible regenerative-Brayton heat engine
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- VI. Performance analysis of an irreversible Brayton heat engine based on ecological coefficient of performance criterion
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- VII. Turbulence Filter and POD Analysis for Velocity Fields in Lifted CH 4-Air Diffusion Flames
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- VIII. Finite size thermoeconomic optimization for irreversible heat engines
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- IX. Thermo-economic optimization for irreversible absorption refrigerators and heat pumps
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- X. Decomposition of turbulent velocity fields in an SI engine
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Flow, Turbulence and Combustion, vol.68, no.2, pp.91-110, 2002 (SCI-Expanded)
- XI. Performance optimization of a new combined power cycle based on power density analysis of the dual cycle
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- XII. Thermo-economic optimization of a two stage combined refrigeration system: a finite-time approach
Sahin B., Kodal A.
INTERNATIONAL JOURNAL OF REFRIGERATION, vol.25, pp.872-877, 2002 (SCI-Expanded)
- XIII. Optimal performance characteristics of a two-stage irreversible combined refrigeration system under maximum cooling load per unit total cost conditions
Sahin B., Kodal A., Koyun A.
ENERGY CONVERSION AND MANAGEMENT, vol.42, pp.451-465, 2001 (SCI-Expanded)
- XIV. Performance analysis of an endoreversible heat engine based on a new thermo-economic optimization criterion
Sahin B., Kodal A.
Energy Conversion and Management, vol.42, no.9, pp.1085-1093, 2001 (SCI-Expanded)
- XV. Performance analysis of two stage combined heat pump system based on thermo-economic optimization criterion
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- XVI. An analysis on coaxial jet flows using different decomposition techniques
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- XVII. An investigation of forced structures in turbulent jet flows
YILMAZ T., KODAL A.
Experiments in Fluids, vol.29, no.6-6, pp.564-572, 2000 (SCI-Expanded)
- XVIII. A comparative performance analysis of irreversible Carnot heat engines under maximum power density and maximum power conditions
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- XIX. **Effects of internal irreversibility and heat leakage on the finite time thermoeconomic performance of refrigerators and heat pumps**
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- XX. **Maximum power density analysis for irreversible combined Carnot cycles**
 KODAL A.
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- XXI. **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)
- XXII. **Finite time thermoeconomic optimization for endoreversible refrigerators and heat pumps**
 Sahin B., Kodal A.
 ENERGY CONVERSION AND MANAGEMENT, vol.40, pp.951-960, 1999 (SCI-Expanded)
- XXIII. **A comparative performance analysis of irreversible regenerative reheating Joule-Brayton engines under maximum power density and maximum power conditions**
 Sahin B., Kodal A., Kaya S. S.
 JOURNAL OF PHYSICS D - APPLIED PHYSICS, vol.31, pp.2125-2131, 1998 (SCI-Expanded)
- XXIV. **Exergy optimization for an endoreversible cogeneration cycle**
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- I. **Comparative performance evaluations of various optimization functions for irreversible Otto cycles**
 Kodal A. I., KODAL A.
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- II. **NUMERICAL ANALYSES IN SIMILAR CONDITIONS WITH COMBUSTION CHAMBERS OF RAMJET ENGINES.**
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- III. **Ecological coefficient of performance (ECOP) optimization for generalized irreversible Carnot heat engines**
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- IV. **Performance analysis of a two-stage irreversible heat pump under maximum heating load per unit total cost conditions**
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 INTERNATIONAL JOURNAL OF EXERGY, vol.2, pp.159-166, 2002 (Peer-Reviewed Journal)
- V. **Maximum power density for an endoreversible Carnot heat engine**
 Şahin B., Kodal A., Yavuz H.
 ENERGY, vol.21, pp.1219-1225, 1996 (Scopus)
- VI. **A performance analysis for MHD power cycles operating at maximum power density**
 Sahin B., Kodal A., Yavuz H.
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- VII. **Efficiency of a joule-brayton engine at maximum power density**
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- VIII. **Steady-state thermodynamic analysis of a combined Carnot cycle with internal irreversibility**
 Şahin B., Kodal A.

- ENERGY, vol.20, no.12, pp.1285-1289, 1995 (Scopus)
- IX. **An adaptive turbulence filter for decomposition of organized turbulent flows**
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- X. **A frequency-domain filtering technique for triple decomposition of unsteady turbulent flow**
Brereton G., KODAL A.
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