

## Doç. Dr. Hadi GENCELİ

### Kişisel Bilgiler

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### Uluslararası Araştırmacı ID'leri

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### Eğitim Bilgileri

Doktora, Ege Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye 2010 - 2014

Yüksek Lisans, Ege Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Türkiye 2006 - 2009

### Yabancı Diller

İngilizce, C1 İleri

### Araştırma Alanları

Makina Mühendisliği, Enerji, Termodinamik, Isı ve Madde Transferi, Hesaplamalı akışkanlar dinamiği, Isıl Sistemler

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

- Biomass-Fueled Organic Rankine Cycles: State of the Art and Future Trends**  
Heidarnejad P., GENCELİ H., Hashemian N., Asker M., Al-Rawi M.  
Energies, cilt.17, sa.15, 2024 (SCI-Expanded)
- Thermodynamic assessment of an innovative biomass-driven system for generating power, heat, and hydrogen**  
Sabbaghi M. A., Baniasadi E., GENCELİ H.  
International Journal of Hydrogen Energy, cilt.75, ss.529-539, 2024 (SCI-Expanded)
- Optimal design of a solar-driven Kalina system for combined power and desalination purposes**  
Khanmohammadi S., GENCELİ H., Pakseresht A., Bellotti D.  
Solar Energy, cilt.268, 2024 (SCI-Expanded)
- The pandemic's sustainability windfall: a case study of COVID-19 restrictions on electricity demand patterns and sustainable development goals**  
Heidarnejad P., GENCELİ H., Asker M., YUMURTACI Z.  
International Journal of Global Warming, cilt.32, sa.4, ss.440-463, 2024 (SCI-Expanded)
- Comprehensive evaluation of a new integrated ORC-VCR system with a thermoelectric generator unit combining sustainable energies for hydrogen production**  
Sabbaghi M. A., GENCELİ H., Heidarnejad P., Asker M., Khanmohammadi S.  
International Journal of Hydrogen Energy, 2024 (SCI-Expanded)
- Exploring the performance of an innovative integrated solar tower power plant with hydrogen**

## **generation and storage**

Mirbagheri M. H., Baniasadi E., GENCELİ H.

International Journal of Hydrogen Energy, cilt.48, sa.99, ss.39271-39285, 2023 (SCI-Expanded)

- VII. **Analysis of a novel concentrated solar power and magnetohydrodynamic liquid metal units integrated system with hydrogen production**  
Nezhad Q. A., Jafarmadar S., Genceli H.  
International Journal of Hydrogen Energy, cilt.48, sa.60, ss.22734-22751, 2023 (SCI-Expanded)
- VIII. **Novel Saturated Flow Boiling Correlations for R600a and R717 Refrigerants**  
Turgut O. E., Genceli H., Asker M., Çoban M. T.  
HEAT TRANSFER ENGINEERING, cilt.43, sa.18, ss.1579-1609, 2022 (SCI-Expanded)
- IX. **Air quality during COVID-19 pandemic forced partial confinement in Turkey**  
GENCELİ H.  
INTERNATIONAL JOURNAL OF GLOBAL WARMING, cilt.26, sa.3, ss.311-321, 2022 (SCI-Expanded)
- X. **Novel Saturated Flow Boiling Heat Transfer Correlation for R32 Refrigerant**  
Turgut O. E., Asker M., Genceli H., Çoban M. T.  
Journal Of Thermophysics And Heat Transfer, cilt.1, sa.1, ss.1-6, 2021 (SCI-Expanded)
- XI. **Exergetic evaluation and optimisation of a novel integrated energy conversion system including thermoelectric generators**  
Malik M. Z., Musharavati F., Saadat-Targhi M., Khanmohammadi S., GENCELİ H.  
INTERNATIONAL JOURNAL OF EXERGY, cilt.35, sa.2, ss.195-209, 2021 (SCI-Expanded)
- XII. **A comprehensive approach for optimizing a biomass assisted geothermal power plant with freshwater production: Techno-economic and environmental evaluation**  
HEIDARNEJAD P., GENCELİ H., Asker M., Khanmohammadi S.  
Energy Conversion and Management, cilt.226, 2020 (SCI-Expanded)
- XIII. **A comprehensive approach for optimizing a biomass assisted geothermal power plant with freshwater production: Techno-economic and environmental evaluation**  
Heidarmejad P., Genceli H., Asker M., Khanmohammadi S.  
Energy Conversion And Management, cilt.226, sa.1, ss.113514, 2020 (SCI-Expanded)
- XIV. **The effects of driving patterns and PEM fuel cell degradation on the lifecycle assessment of hydrogen fuel cell vehicles**  
Ahmadi P., Torabi S. H., Afsaneh H., Sadegheih Y., Genceli H., Ashjaee M.  
International Journal Of Hydrogen Energy, cilt.45, sa.5, ss.3595-3608, 2020 (SCI-Expanded)
- XV. **The effect of phase change material incorporated building wall on the CO2 mitigation: a case study of Izmir, Turkey**  
Asker M., Alptekin E., Tokuç A., Ezan M. A., Genceli H.  
International Journal of Global Warming, cilt.19, sa.1, ss.54-75, 2019 (SCI-Expanded)
- XVI. **Mixed refrigerant as working fluid in Organic Rankine Cycle for hydrogen production driven by geothermal energy**  
Genceli H.  
International Journal Of Hydrogen Energy, cilt.44, sa.34, ss.18703-18711, 2019 (SCI-Expanded)
- XVII. **Performance assessment of solar-powered high pressure proton exchange membrane electrolyzer: A case study for Erzincan**  
Genceli H.  
International Journal Of Hydrogen Energy, cilt.44, sa.20, ss.9701-9707, 2019 (SCI-Expanded)
- XVIII. **Numerical investigation of inward solidification inside spherical capsule by using temperature transforming method**  
Asker M., Genceli H., Çoban M. T.  
AIN SHAMS ENGINEERING JOURNAL, cilt.9, sa.4, ss.537-547, 2018 (SCI-Expanded)
- XIX. **Assessment of different bio-inspired flow fields for direct methanol fuel cells through 3D modeling and experimental studies**  
Ouellette D., Ozden A., Ercelik M., Çolpan C. Ö., Genceli H., Li X., Hamdullahpur F.

- International Journal Of Hydrogen Energy, cilt.43, sa.2, ss.1152-1170, 2018 (SCI-Expanded)
- XX. **Entropy generation analysis of multilayer PCM slabs integrated with fins**  
Asker M., Alptekin E., Ezan M. A., Genceli H.  
International Journal Of Exergy, cilt.25, sa.1, ss.154-169, 2018 (SCI-Expanded)
- XXI. **Thermoeconomic modeling and multi-objective evolutionary-based optimization of a modified transcritical CO2 refrigeration cycle**  
Khanmohammadi S., Goodarzi M., Khanmohammadi S., Genceli H.  
JOURNAL OF THERMAL SCIENCE AND ENGINEERING APPLICATIONS, cilt.5, ss.86-96, 2017 (SCI-Expanded)
- XXII. **Designing, modeling and performance investigation of bio-inspired flow field based DMFCs**  
Ozden A., Ercelik M., Ouellette D., Çolpan C. Ö., Genceli H., Hamdullahpur F.  
International Journal Of Hydrogen Energy, cilt.42, sa.33, ss.21546-21558, 2017 (SCI-Expanded)
- XXIII. **Exergoeconomic analysis and multi objective optimization of a solar based integrated energy system for hydrogen production**  
Khanmohammadi S., Heidarnejad P., Javani N., Genceli H.  
International Journal Of Hydrogen Energy, cilt.42, sa.33, ss.21443-21453, 2017 (SCI-Expanded)
- XXIV. **Analysis and optimisation of a cascade active magnetic regenerative refrigeration system**  
Genceli H., Dincer İ., Güngör A.  
International Journal Of Exergy, cilt.19, sa.2, ss.143-160, 2016 (SCI-Expanded)
- XXV. **Exergoeconomic evaluation of a geothermal power plant**  
Genceli H., Dincer İ., Güngör A.  
International Journal Of Exergy, cilt.14, sa.3, ss.303-319, 2014 (SCI-Expanded)
- XXVI. **Exergoeconomic Analysis of a Heat Pump Tumbler Dryer**  
Genceli H., Dincer İ., Güngör A.  
Drying Technology, cilt.32, sa.3, ss.352-360, 2014 (SCI-Expanded)
- XXVII. **Exergetic performance analysis of Dora II geothermal power plant in Turkey**  
Genceli H., Güngör A., Dincer İ.  
ENERGY, cilt.46, sa.1, ss.101-108, 2012 (SCI-Expanded)

## **Diğer Dergilerde Yayınlanan Makaleler**

- I. **Numerical analysis of phase change material filled with metal foam inside a cylindrical capsule**  
Genceli H., Al-Rawi M., Asker M.  
ENERGY STORAGE, cilt.1, sa.1, ss.1-10, 2023 (ESCI)
- II. **Numerical Simulation of Thermal Energy Storage System Inside a Spherical Capsule Under Periodic Boundary Conditions**  
Asker M., Genceli H., Ezan M. A.  
ENERGY STORAGE, cilt.1, sa.1, ss.1-10, 2022 (ESCI)
- III. **Simulation and Performance Analysis of a Cooling Energy Storage System Based on Encapsulated Nano-Enhanced Phase Change Materials**  
Ghojavand, F., Baniasadi E., Afshari E., Genceli H.  
ENERGY STORAGE, cilt.1, sa.1, ss.1-11, 2022 (ESCI)
- IV. **Comparative techno-economic-environmental assessment of biomass fueled integrated energy systems**  
Heidarnejad P., Genceli H., Yumurtacı Z.  
Turkish Journal of Electromechanics & Energy, cilt.6, sa.2, ss.39-45, 2021 (Hakemli Dergi)
- V. **Comparative techno-economic-environmental assessment of biomass fueled integrated energy systems**  
HEIDARNEJAD P., GENCELİ H., YUMURTACI Z.  
Turkish Journal of Electromechanics & Energy, 2021 (Hakemli Dergi)
- VI. **Thermodynamic analysis and performance assessment of a cascade active magnetic regenerative**

## refrigeration system

Genceli H., Dincer İ., Güngör A.

INTERNATIONAL JOURNAL OF AIR-CONDITIONING AND REFRIGERATION, cilt.21, sa.3, ss.1350016, 2013 (ESCI)

## Kitap & Kitap Bölümleri

- I. **Numerical Simulation of Building Wall Integrated with Phase Change Material: A Case Study of a Mediterranean City Izmir, Turkey**  
Asker M., Alptekin E., Tokuç A., Ezan M. A., Genceli H.  
The Role of Exergy in Energy and the Environment, Sandro Nižetić, Agis Papadopoulos, Editör, Springer, London/Berlin , New York, ss.757-768, 2018
- II. **Energy and exergy analyses of an active magnetic refrigerator**  
Genceli H., Güngör A., Dincer İ.  
Progress in Sustainable Energy Technologies Vol II: Creating Sustainable Development, Ibrahim Dincer, Adnan Midilli, Haydar Kucuk, Editör, Springer, London/Berlin , New York, ss.1-10, 2014
- III. **Exergy Analysis and Environmental Impact Assessment of a Geothermal Power Plant**  
Genceli H., Dinçer İ., Güngör A.  
Causes, Impacts and Solutions to Global Warming, Ibrahim Dinçer, Can Özgür Çolpan, Fethi Kadioglu, Editör, Springer, London/Berlin , New York, ss.825-837, 2013

## Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Feasibility Study of Designing A Zero Energy Building in Hot and Dry Climate**  
Karami M., Saeidi A., Heidarnajad P., Genceli H.  
12th Global Conference on Global Warming (GCGW-2024) , Şanlıurfa, Türkiye, 16 - 19 Mayıs 2024, ss.10-14
- II. **Integration of an SOFC with Closed Brayton and Rankine Cycles for Hydrogen Production: Thermodynamic Analysis and Heat Recovery Considerations**  
Genceli H., Sabbaghi M. A., Baniasadi .  
8th International Hydrogen Technologies Congress (IHTEC 2024), Diyarbakır, Türkiye, 12 - 15 Mayıs 2024, ss.130-134
- III. **Thermodynamic Assessment of an Improved Solar Powered Multi-Generation System Using a Thermoelectric Generator**  
Sabbaghi M. A., Genceli H., Baniasadi E.  
8th International Hydrogen Technologies Congress (IHTEC 2024), Diyarbakır, Türkiye, 12 - 15 Mayıs 2024, ss.294-298
- IV. **A Comparative Study Based on the Efficiency of Metaheuristic Algorithms for Performing Gibbs Free Energy Minimization Problems**  
Çoban T., Turgut O. E., Genceli H., Asker M.  
24th Congress on Thermal Science and Technology with International Participation (Ulibtk'23), Ankara, Türkiye, 6 - 08 Eylül 2023, ss.1-4
- V. **Thermodynamic Performance Evaluation of Direct Dimethyl Ether Fuel Cells Using Exergy Analysis**  
Genceli H., Alpaydın G. U., Çolpan C. Ö., Devrim Y.  
7th International Hydrogen Energy Congress, Elazığ, Türkiye, 10 - 12 Mayıs 2023, ss.10-14
- VI. **A NUMERICAL STUDY ON A PHASE-CHANGE PROCESS IN A CYLINDRICAL CAPSULE**  
Genceli H., Asker M., Al-Rawi M.  
The 2nd World Energy Storage Conference, İstanbul, Türkiye, 18 - 21 Aralık 2022, ss.1-4
- VII. **Performance assessment of a solar driven Kalina cycle with the purpose of power and fresh water generation**  
Genceli H., Khanmohammadi S.

- International Conference on Sustainable Energy and Technologie, İstanbul, Türkiye, 16 - 18 Ağustos 2022, ss.2-7
- VIII. **Performance Analysis of a Solar Tower Power Plant Integrated with Hydrogen Energy Storage System**  
Mirbagheri M. H., Baniyadi E., Genceli H.  
23rd World Hydrogen Energy Conference, İstanbul, Türkiye, 26 - 30 Haziran 2022, ss.2-6
- IX. **Simulation of a three-dimensional single-phase direct ethanol fuel cell**  
Genceli H., Çolpan C. Ö., Erüenal E.  
6 th International Hydrogen Technologies Congress (IHTEC-2022), Çanakkale, Türkiye, 23 - 26 Ocak 2022, ss.1-4
- X. **Parametric Analysis of Photovoltaic Module**  
Asker M., Turgut O. E., Genceli H.  
International Conference on Advances in Engineering, Architecture, Science and Technology (ICA-EAST 2021), Erzurum, Türkiye, 15 - 17 Aralık 2021, ss.1-4
- XI. **DYNAMIC SIMULATION OF A FLAT PLATE SOLAR COLLECTOR SYSTEM UNDER HOT AND HUMID CLIMATIC CONDITIONS**  
Genceli H., Özdoğan A., Asker M.  
5 International Anatolian Energy Symposium, 24 - 25 Mart 2021, ss.436-442

## **Desteklenen Projeler**

Genceli H., Çolpan C. Ö., TÜBİTAK Projesi, Yüksek Performanslı Doğrudan Etanol Yakıt Pili (DEYP) Yığını Üç Boyutlu Modelinin Gelişmesi, Tasarımı, Üretimi Ve Deneysel Karakterizasyonu, 2021 - 2022

## **Metrikler**

Yayın: 49

Atıf (WoS): 772

Atıf (Scopus): 862

H-İndeks (WoS): 13

H-İndeks (Scopus): 13

## **Akademi Dışı Deneyim**

Vestel beyaz eşya