

## Assoc. Prof. Dođan ERDEMİR

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: Z-1767-2018

ScopusID: 56007380800

### Research Areas

Fluid Mechanics, Pressure Vessels and Piping, Renewable Energy Systems, Alternative Energy Resources, Energy storage technologies, Solar energy, Hydrogen Technologies and Fuel Cells, Advanced Energy Technologies, Geothermal energy, Thermodynamics, Heat and Mass Transfer, Fuels and Combustion, Heating, Refrigerating and Air Conditioning

### Academic Titles / Tasks

Associate Professor, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2023 - Continues

Assistant Professor, Erciyes University, Mühendislik Fakültesi, Makina Mühendisliđi, 2018 - 2023

Research Assistant, Erciyes University, Mühendislik Fakültesi, Makina Mühendisliđi, 2011 - 2018

### Jury Memberships

Doctorate, Doctorate, Erciyes Üniversitesi, August, 2024

### Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Unlocking the potential of lauric acid: A promising solution for battery thermal management**  
Altuntop E. S., ERDEMİR D., Kaplan Y., ÖZCEYHAN V.  
International Journal of Thermal Sciences, vol.213, 2025 (SCI-Expanded)
- II. **A comprehensive performance evaluation of phase change materials for cold energy storage systems**  
Altuntas M., ERDEMİR D., ÜNALAN S.  
Energy and Buildings, vol.330, 2025 (SCI-Expanded)
- III. **The role of effective catalysts for hydrogen production: A performance evaluation**  
Goren A. Y., Temiz M., ERDEMİR D., Dincer I.  
Energy, vol.315, 2025 (SCI-Expanded)
- IV. **Critical experimental evaluation of hydrogen blends with conventional fuels for enhanced power generator performance**  
ERDEMİR D., Dincer I., Patel D.  
Fuel, vol.380, 2025 (SCI-Expanded)

- V. **Enhancing Li-ion battery efficiency: An experimental study on hybrid cooling approach with paraffin and forced air convection**  
Altuntop E. S., ERDEMİR D., Kaplan Y., ÖZCEYHAN V.  
Thermal Science and Engineering Progress, vol.56, 2024 (SCI-Expanded)
- VI. **More efficient way of clean hydrogen production: The synergetic roles of magnetic effects and effective catalysts**  
Temiz M., Kara A. Y. G., ERDEMİR D., Dincer İ.  
Fuel, vol.376, 2024 (SCI-Expanded)
- VII. **Experimental study on effect of use of oxyhydrogen blends with traditional fuels in spark engines for better performance**  
ERDEMİR D., Dincer İ., Patel D.  
Process Safety and Environmental Protection, vol.191, pp.2701-2711, 2024 (SCI-Expanded)
- VIII. **A unique solar pond system integrated with chlor-alkali electrolyser for heat storage and hydrogen production**  
ERDEMİR D., Dincer İ.  
Thermal Science and Engineering Progress, vol.55, 2024 (SCI-Expanded)
- IX. **Novel energy management options for charging stations of electric vehicles in buildings without increasing peak demand for sustainable cities**  
ERDEMİR D., Dincer İ.  
Sustainable Cities and Society, vol.111, 2024 (SCI-Expanded)
- X. **A quicker route to hydrogen economy with ammonia**  
ERDEMİR D., Dincer İ.  
International Journal of Hydrogen Energy, vol.82, pp.1230-1237, 2024 (SCI-Expanded)
- XI. **Development of renewable energy based green hydrogen and oxygen production and electricity generation systems for sustainable aquaculture**  
Erdemir D., Dincer İ.  
Journal of Cleaner Production, vol.434, 2024 (SCI-Expanded)
- XII. **Comprehensive review and assessment of carbon capturing methods and technologies: An environmental research**  
Yagmur Goren A., Erdemir D., Dincer İ.  
Environmental Research, vol.240, 2024 (SCI-Expanded)
- XIII. **Development and assessment of a solar-driven charging station integrated with liquid CO<sub>2</sub> as an energy storage option**  
Erdemir D., DİNCER İ.  
Journal of Energy Storage, vol.73, 2023 (SCI-Expanded)
- XIV. **An experimental investigation of the effects of the number of capsules and operating conditions on the performance of encapsulated ice storage system**  
Turgut B., ERDEMİR D., ALTUNTOP N.  
Journal of Energy Storage, vol.64, 2023 (SCI-Expanded)
- XV. **Development and assessment of a novel hydrogen storage unit combined with compressed air energy storage**  
Erdemir D., Dincer I.  
APPLIED THERMAL ENGINEERING, vol.219, 2023 (SCI-Expanded)
- XVI. **Sustainable and cleaner stone wool production with double density layered manufacturing**  
Altuntop E. S., ERDEMİR D.  
International Journal of Global Warming, vol.30, no.4, pp.386-400, 2023 (SCI-Expanded)
- XVII. **An investigation on potential use of ice thermal energy storage system as energy source for heat pumps**  
Altuntas M., ERDEMİR D.  
Journal of Energy Storage, vol.55, 2022 (SCI-Expanded)
- XVIII. **How to Cover Additional Cooling Load Needs During COVID-19 Pandemic?**

- ERDEMİR D., DİNCER İ.  
Journal of Energy Resources Technology, Transactions of the ASME, vol.144, no.10, 2022 (SCI-Expanded)
- XIX. A new solar energy-based system integrated with hydrogen storage and heat recovery for sustainable community**  
Erdemir D., Dincer I.  
SUSTAINABLE ENERGY TECHNOLOGIES AND ASSESSMENTS, vol.52, 2022 (SCI-Expanded)
- XX. Experimental investigation on the effect of the ratio of tank volume to total capsulized paraffin volume on hot water output for a mantled hot water tank**  
ERDEMİR D., Ozbekler A., ALTUNTOP N.  
Solar Energy, vol.239, pp.294-306, 2022 (SCI-Expanded)
- XXI. Development of solar-driven charging station integrated with hydrogen as an energy storage option**  
ERDEMİR D., DİNCER İ.  
Energy Conversion and Management, vol.257, 2022 (SCI-Expanded)
- XXII. Experimental investigation on the effect of ice storage system on electricity consumption cost for a hypermarket**  
ERDEMİR D., ALTUNTOP N., Çengel Y. A.  
Energy and Buildings, vol.251, 2021 (SCI-Expanded)
- XXIII. Experimental investigation of heat conduction characteristics of density-layered stone wool materials**  
Altuntop E. S., ERDEMİR D., Karamis M. B.  
International Communications in Heat and Mass Transfer, vol.126, 2021 (SCI-Expanded)
- XXIV. A perspective on the use of ammonia as a clean fuel: Challenges and solutions**  
ERDEMİR D., DİNCER İ.  
International Journal of Energy Research, vol.45, no.4, pp.4827-4834, 2021 (SCI-Expanded)
- XXV. Development and assessment of geothermal-based underground pumped hydroenergy storage system integrated with organic Rankine cycle and district heating**  
ERDEMİR D.  
International Journal of Energy Research, vol.44, no.13, pp.10894-10907, 2020 (SCI-Expanded)
- XXVI. Assessment of Renewable Energy-Driven and Flywheel Integrated Fast-Charging Station for Electric Buses: A Case Study**  
ERDEMİR D., DİNCER İ.  
Journal of Energy Storage, vol.30, 2020 (SCI-Expanded)
- XXVII. Potential use of thermal energy storage for shifting cooling and heating load to off-peak load: A case study for residential building in Canada**  
Erdemir D., Dincer İ.  
ENERGY STORAGE, vol.2, no.2, pp.1-12, 2020 (SCI-Expanded)
- XXVIII. Experimental investigation of phase change material utilisation inside the horizontal mantled hot water tank**  
ERDEMİR D., ALTUNTOP N.  
International Journal of Exergy, vol.31, no.1, pp.1-13, 2020 (SCI-Expanded)
- XXIX. Experimental investigation on enhancement of thermal performance with obstacle placing in the horizontal hot water tank used in solar domestic hot water system**  
ERDEMİR D., Atesoglu H., ALTUNTOP N.  
Renewable Energy, vol.138, pp.187-197, 2019 (SCI-Expanded)
- XXX. Numerical investigation of thermal performance of geometrically modified spherical ice capsules during the discharging period**  
ERDEMİR D.  
International Journal of Energy Research, vol.43, no.9, pp.4554-4568, 2019 (SCI-Expanded)
- XXXI. Effect of thermal stratification on energy and exergy in vertical mantled heat exchanger**  
ERDEMİR D., ALTUNTOP N.  
International Journal of Exergy, vol.20, no.1, pp.105-121, 2016 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Hydrogen production with a novel coaxial cylindrical electrolyser: A CFD study**  
Ismail M. M., ERDEMİR D., Dincer İ.  
International Journal of Thermofluids, vol.24, 2024 (Scopus)
- II. **A comprehensive review on battery thermal management system for better guidance and operation**  
Altıntop E. S., ERDEMİR D., Kaplan Y., ÖZCEYHAN V.  
Energy Storage, vol.5, no.8, 2023 (ESCI)
- III. **Development and comparative evaluation of integrated solar-driven off-grid energy systems with hydrogen production and storage options for sustainable buildings**  
Erdemir D., Dincer I.  
Energy Storage, vol.5, no.6, 2023 (ESCI)
- IV. **Kapsüllenmiş Faz Değiştiren Malzemelerin Sıcak Su Tankları İçerisindeki Konumlarının Isıl Enerji Depolama Performansı Üzerindeki Etkisi**  
ERDEMİR D.  
Erciyes Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.35, no.3, pp.24-33, 2020 (Peer-Reviewed Journal)
- V. **Determination of Effect of Bottle Arrangement in the Sensible Thermal Energy Storage System Consisting of Water-Filled PET Bottles on Thermal Performance**  
ERDEMİR D.  
Hittite Journal of Science and Engineering, vol.6, no.4, pp.235-242, 2019 (Peer-Reviewed Journal)
- VI. **Buzda Soğukluk Depolama: Klima Enerji Maliyetinde 50'ye Varan Tasarruf Potansiyeli**  
ERDEMİR D., ALTUNTOP N., Duman Ş., Gündüz Ş., ÇENGEL Y. A.  
TTMD Isıtma, Soğutma, Havalandırma, Klima, Yangın ve Sıhhi Tesisat Dergisi, no.123, pp.42-49, 2019 (Peer-Reviewed Journal)
- VII. **Düşey Mantolu Sıcak Su Tanklarının Isıl Performanslarının Enerji Yükleme ve Boşaltma Periyotlarında Deneysel Olarak İncelenmesi**  
ERDEMİR D.  
Uluslararası Mühendislik Araştırma ve Geliştirme Dergisi, vol.12, no.1, pp.73-82, 2019 (Peer-Reviewed Journal)
- VIII. **Investigation of the effect of using graded porosity on the thermal performance of the encapsulated ice thermal energy storage tank**  
ERDEMİR D., ALTUNTOP N.  
ENERGY STORAGE, no.1, pp.1-12, 2019 (Peer-Reviewed Journal)
- IX. **Yatay Sıcak Su Tanklarında Tank İçerisine Eğik Konumlandırılmış Engel Yerleştirmenin Etkisinin Sayısal Olarak İncelenmesi**  
ERDEMİR D., TURGUT B., ALTUNTOP N.  
Uluslararası Mühendislik Araştırma ve Geliştirme Dergisi, vol.10, no.3, pp.40-51, 2018 (Peer-Reviewed Journal)
- X. **Güneş Enerjisinden Sıcak Su Elde Etme Yöntemleri ve Türkiye'deki Gelişimi**  
ERDEMİR D., ALTUNTOP N.  
Mühendis ve Makina, vol.54, no.707, pp.35-42, 2018 (Peer-Reviewed Journal)
- XI. **YATAY MANTOLU SICAK SU TANKLARINDA TANK TASARIMININTANKIN ISIL PERFORMANSI ÜZERİNDEKİ ETKİSİNİN MANTO İLEİÇ TANK ARASINDAKİ ISI TRANSFERİ YÜZEY ALANI SABİTOLACAK ŞEKİLDE İNCELENMESİ**  
TURGUT B., ERDEMİR D., GÜNEŞ S., ALTUNTOP N.  
mesleki bilimler dergisi, vol.6, no.3, pp.294-302, 2017 (Peer-Reviewed Journal)
- XII. **Yatay Mantolu Sıcak Su Tanklarında Tank Tasarımının Tankın Isıl Performansı Üzerindeki Etkisinin Manto ile İç Tank Arasındaki Isı Transferi Yüzey Alanı Sabit Olacak Şekilde İncelenmesi**  
TURGUT B., ERDEMİR D., GÜNEŞ S., ALTUNTOP N.  
Mesleki Bilimler Dergisi (MBD), vol.6, no.3, pp.294-302, 2017 (Peer-Reviewed Journal)
- XIII. **Dünyada ve Türkiye'de Güneş Enerjisi ile İlgili Gelişmeler**  
ALTUNTOP N., ERDEMİR D.  
Mühendis ve Makina, vol.54, no.639, pp.69-77, 2013 (Peer-Reviewed Journal)

## Books

- I. **Introduction to Energy Systems**  
Dincer İ., Erdemir D.  
John Wiley & Sons, West Sussex, UK , London, 2023
- II. **Solar Ponds Systems and Applications**  
ERDEMİR D., DİNCER İ.  
Springer, Cham, 2023
- III. **Ammonia Energy Technologies**  
DİNCER İ., ERDEMİR D., AYDIN M. İ., Karasu H., Vezina G.  
Springer Nature, Oshawa, 2023
- IV. **Energy Storage Techniques for Renewables**  
ERDEMİR D., ALTUNTOP E. S., TURGUT B., ALTUNTOP N.  
in: Renewable Energy Based Solutions, Uyar Tanay Sitki, Javani Nader, Editor, Springer, pp.425-450, 2022
- V. **Heat Storage Systems for Buildings**  
DİNCER İ., ERDEMİR D.  
Elsevier, Amsterdam, 2021

## Papers Published in Refereed Scientific Meetings

- I. **A Synchronized Energy Storage System For Sustainable Greenhouses**  
ERDEMİR D., DİNCER İ., Biçer Y.  
The World Energy Storage Conference - 2024, Doha, Qatar, 3 - 05 December 2024
- II. **Incorporation of Battery Storage To Better Manage Hydrogen Production Costs**  
ERDEMİR D., DİNCER İ.  
The World Energy Storage Conference - 2024, Qatar, 3 - 05 December 2024
- III. **COMPARISON STUDY BETWEEN PCM-BASED AND AIR-COOLED THERMAL MANAGEMENT SYSTEMS FOR LITHUM ION BATTERY PACK**  
ALTUNTOP E. S., ERDEMİR D., ÖZCEYHAN V., KAPLAN Y.  
The World Energy Storage Conference-2023, Pittsburgh, United States Of America, 05 November 2023
- IV. **A SOLAR POND INTEGRATED WITH BIFACIAL SOLAR PANELS FOR POWER AND HYDROGEN GENERATION**  
ERDEMİR D., DİNCER İ.  
14th International Conference on Hydrogen Production (ICH2P-2023), Doha, Qatar, 19 December 2023, pp.1-4
- V. **A UNIQUE SOLAR POND SYSTEM INTEGRATED WITH CHLOR-ALKALI ELECTROLYZER FOR HEAT STORAGE AND HYDROGEN PRODUCTION**  
ERDEMİR D., DİNCER İ.  
The World Energy Storage Conference-2023, Bradford, England, 05 November 2023, pp.1-5
- VI. **A Review of Phase Change Materials Used in Li-Ion Battery Thermal Management Systems**  
ALTUNTOP E. S., ERDEMİR D., ÖZCEYHAN V., KAPLAN Y.  
The 2nd World Energy Storage Conference, İstanbul, Turkey, 28 December 2022
- VII. **Experimental Investigation on the Effect of Porosity in the Storage Tank on the Thermodynamic Performance of an Encapsulated Ice Thermal Energy Storage Tank**  
TURGUT B., ERDEMİR D., ALTUNTOP N.  
The 2nd World Energy Storage Conference, İstanbul, Turkey, 28 December 2022
- VIII. **A Solar-Driven Charging Station Integrated with Liquid CO<sub>2</sub> as an Energy Storage Option**  
ERDEMİR D., DİNCER İ.  
The 2nd World Energy Storage Conference, İstanbul, Turkey, 28 December 2022
- IX. **A practical approach to determine the off-grid conditions for energy storage integrated solar-driven power systems**

ERDEMİR D., DİNCER İ.

13th International Conference on Hydrogen Production (ICH2P-2022), Abbottabad, Pakistan, 11 December 2022

- X. **A New Generator Combined with Water Electrolysis and Fuel Cell Power Generation for More Sustainable Aquaculture**

ERDEMİR D., DİNCER İ.

10th Global Conference on Global Warming (GCGW-2022), Sharjah, United Arab Emirates, 07 November 2022

- XI. **PHOTONIC REACTORS FOR HYDROGEN PRODUCTION AND WASTEWATER TREATMENT IN UNDERGROUND AND UNDERWATER APPLICATIONS**

Erdemir D., Dincer İ.

Proceedings of WHEC 2022 - 23rd World Hydrogen Energy Conference: Bridging Continents by H<sub>2</sub>, İstanbul, Turkey, 26 - 30 June 2022, pp.102-103

- XII. **Development of a Novel Hydrogen Storage Unit Combined with Compressed-Air Energy Storage**  
ERDEMİR D., DİNCER İ.

The 6th International Hydrogen Technologies Congress, Çanakkale, Turkey, 23 January 2022

- XIII. **Development of solar-driven and hydrogen integrated charging station for electric vehicles**  
ERDEMİR D., DİNCER İ.

TUBA World Conference on Energy Science and Technology (TUBA WCEST-2021), Ankara, Turkey, 08 August 2021, vol.1, pp.234-235

- XIV. **Düşey Mantolu Sıcak Su Tanklarında Faz Değiştiren Malzeme Kullanımının Etkisinin İncelenmesi: İlk Bulgular**

ERDEMİR D., TURGUT B., ALTUNTOP N.

22. Uluslararası Isı Bilimi ve Tekniği Kongresi, Kocaeli, Turkey, 11 - 14 September 2019, pp.143-151

- XV. **Kademelendirilmiş Yalıtım Malzemelerinin Isıl İletim Özelliklerinin İncelenmesi**

Altuntop E. S., KARAMIŞ M. B., ERDEMİR D., ALTUNTOP N.

5. Enerji Verimliliği Kongresi, Kocaeli, Turkey, 18 - 19 October 2019, pp.107-113

- XVI. **Buzda Enerji Depolama Sistemlerinin Ekonomik Açıdan Değerlendirilmesi**

ERDEMİR D., TURGUT B., Bulut M., ALTUNTOP N.

5. Enerji Verimliliği Kongresi, Kocaeli, Turkey, 18 - 19 October 2019, pp.120-128

- XVII. **Bir Okul Binasında Buzda Enerji Depolama Sisteminin Soğutma Maliyeti Üzerindeki Etkisinin Araştırılması**

ERDEMİR D., Bulut M.

3. International Scientific and Vocational Studies Congress, Nevşehir, Turkey, 27 - 29 June 2019, pp.123-130

- XVIII. **Düşey Mantolu Sıcak Su Tankında Tank İçerisine Silindirik Kapsüller İçerisinde Parafin Yerleştirmenin Etkisinin Deneysel Olarak Araştırılması**

ERDEMİR D., TURGUT B., ALTUNTOP N.

3. International Scientific and Vocational Studies Congress, Nevşehir, Turkey, 27 - 29 June 2019, pp.131-137

- XIX. **Yatay mantolu sıcak tanklarında tank içerisine eğik konumlandırılmış engel yerleştirmenin etkisinin sayısal olarak incelenmesi**

ERDEMİR D., TURGUT B., ALTUNTOP N.

2. Uluslararası Bilimsel ve Mesleki Çalışmalar Kongresi, Nevşehir, Turkey, 5 - 08 July 2018

- XX. **YATAY MANTOLU SICAK SU TANKLARINDA TANK İÇERİSİNDE AKIM YÖNÜNE DİK ENGEL YERLEŞTİRMENİN TANKIN ISIL PERFORMANSI ÜZERİNDEKİ ETKİSİNİN DENEYSEL OLARAK İNCELENMESİ**

ERDEMİR D., ALTUNTOP N.

4. Uluslararası Katılımlı Anadolu Enerji Sempozyumu, Edirne, Turkey, 18 - 20 April 2018, pp.1993-2002

- XXI. **BUZDA ENERJİ DEPOLAMA SİSTEMLERİNDE DEPOLAMA TANKI İÇERİSİNDE KADEMELİ PORÖZİTENİN SİSTEM PERFORMANSI ÜZERİNDEKİ ETKİSİNİN ANALİTİK OLARAK İNCELENMESİ**

ERDEMİR D., ALTUNTOP N.

4. Uluslararası Katılımlı Anadolu Enerji Sempozyumu, Edirne, Turkey, 18 - 20 April 2018, pp.1618-1628

- XXII. **Experimental investigation of phase change material utilization inside the horizontal mantled hot water tank**

- ERDEMİR D., ALTUNTOP N.  
10th Exergy, Energy and Environment Symposium, IEEEES-10, Katowice, Poland, 1 - 04 July 2018
- XXIII. **Heat transfer and thermodynamics analyses of some modified spherical capsules during discharging period**  
ERDEMİR D.  
10th Exergy, Energy and Environment Symposium, IEEEES-10, Katowice, Poland, 1 - 04 July 2018
- XXIV. **YATAY MANTOLU SICAK SU TANKLARINDA TANK TASARIMININ TANKIN ISIL PERFORMANSI ÜZERİNDEKİ ETKİSİNİN MANTO İLE İÇ TANK ARASINDAKİ ISI TRANSFERİ YÜZEY ALANI SABİT OLACAK ŞEKİLDE İNCELENMESİ**  
TURGUT B., ERDEMİR D., GÜNEŞ S., ALTUNTOP N.  
International Vocational Science Symposium, Antalya, Turkey, 18 - 20 October 2017, pp.189-190
- XXV. **Yatay Mantolu Sıcak Su Tanklarında Tank İçerisine Engel Yerleştirmenin Enerji ve Ekserji Yönünden Değerlendirilmesi**  
ERDEMİR D., ALTUNTOP N., Demirbaş G.  
IV. Enerji Verimliliği Kongresi, Kocaeli, Turkey, 13 October - 14 November 2017, pp.521-529
- XXVI. **Güneş Enerjili Sıcak Su Sistemlerinde Kullanılan Sıcak Su Tanklarının Isıl Performansını İyileştirme Yöntemlerinin İncelenmesi**  
ERDEMİR D., ALTUNTOP N., TURGUT B.  
7. Güneş Enerjisi Sistemleri Sempozyumu ve Sergisi, Mersin, Turkey, 22 August - 23 May 2017, pp.122-127
- XXVII. **An Experimental Investigation on Augmented Thermal Stratification with Obstacles**  
ALTUNTOP N., ERDEMİR D.  
3. International Conference on Engineering and Natural Sciences, Budapest, Hungary, 3 - 07 May 2017, pp.51
- XXVIII. **Numerical Investigation on Determining the Effect of D/L Ratio on Thermal Performance of the Horizontal Mantled Hot Water Tank**  
ERDEMİR D., ALTUNTOP N.  
3. International Conference on Engineering and Natural Sciences, 3 - 07 May 2017, pp.1028-1035
- XXIX. **Prediction of Temperature Decreasing on a Green Roof by Using ANN: Budapest Example**  
ERDEMİR D., ALTUNTOP N.  
3. International Conference on Engineering and Natural Sciences, 3 - 07 May 2017, pp.1064-1069
- XXX. **A CFD Based Thermo-Hydraulic Performance Analyses of Different Spherical Capsules Using in Ice Thermal Storage System**  
ERDEMİR D., ALTUNTOP N., Al Bayati A. J.  
3. International Conference on Engineering and Natural Sciences, 3 - 07 May 2017, pp.1036-1042
- XXXI. **Thermodynamic Analysis of Sensible Thermal Energy Storage into PET Bottles Filled with Water**  
ERDEMİR D., ALTUNTOP N.  
9. International Exergy, Energy and Environment Symposium, Split, Croatia, 14 - 17 May 2017, pp.634-639
- XXXII. **Effect of Encapsulated Ice Thermal Storage System on the Cooling Cost for a Hypermarket**  
ERDEMİR D., ALTUNTOP N.  
9. International Exergy, Energy and Environment Symposium, Split, Croatia, 14 - 17 May 2017, pp.1073-1079
- XXXIII. **Development of Solar Energy Market, Industry and Utilization in Turkey**  
ALTUNTOP N., ERDEMİR D.  
7. International 100 Renewable Energy Conference (IRENEC2017), İstanbul, Turkey, 18 - 20 May 2017, pp.156-163
- XXXIV. **A Review on The Economic Impact of Ice Thermal Energy Storage System**  
ERDEMİR D., ALTUNTOP N.  
7. International 100 Renewable Energy Conference (IRENEC2017), İstanbul, Turkey, 18 - 20 May 2017, pp.86-93
- XXXV. **Thermodynamic Heat Transfer and Fluid Flow Analyses of Encapsulated Ice Thermal Storage System Used in A Shopping Center**  
ERDEMİR D., ALTUNTOP N.  
2nd International Conference on Engineering and Natural Sciences (ICENS 2016), Saray Bosna, Bosnia And Herzegovina, 24 - 28 May 2016, pp.2915-2922

- XXXVI. **EXAMINATION OF MECHANICAL AND THERMAL VARIATIONS CAUSED BY THE IMPLANTOLOGY IN THE JAWBONE**  
TURGUT B., ERDEMİR D., ALTUNTOP N.  
2th International Conference on Advanced in Mechanical Engineering, İstanbul, Turkey, 10 - 13 May 2016, pp.788-795
- XXXVII. **Thermodynamic and Economic Analysis of Ice Thermal Energy Storage System in a Shopping Center**  
ERDEMİR D., ALTUNTOP N.  
8th International Ege Energy Symposium (IEESE), Afyon, Turkey, 11 - 13 May 2016, pp.269-276
- XXXVIII. **Effect of Ice Thermal Energy Storage System on Cooling Cost in a Shopping Center**  
ERDEMİR D., ALTUNTOP N.  
12th International HVACR Sanitary Technology Symposium, İstanbul, Turkey, 31 March - 02 April 2016, pp.334-340
- XXXIX. **Artificial Neural Networks Versus Genetic Programming for Estimating Temperature Decrease in Green Roof**  
AYATA T., ERDEMİR D., Ömer Tayfun Ö.  
International Conference on Natural Science and Engineering (ICNASE'16), Kilis, Turkey, 19 - 20 March 2016, pp.2196-2202
- XL. **Investigation of Temperature Decreasing on Roof in Green Roof Systems with Artificial Neural Network Comparison of Athens and İzmir**  
AYATA T., ERDEMİR D.  
Global Conference on Global Warming, Atina, Greece, 24 - 27 May 2015
- XLI. **NUMERICAL INVESTIGATION ON EFFECT OF INLET AND OUTLET POSITIONS ON THERMAL STRATIFICATION IN VERTICAL HOT WATER TANK**  
ERDEMİR D., ALTUNTOP N.  
CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING, İstanbul, Turkey, 13 - 15 May 2015
- XLII. **Yeşil Çati Sistemlerinin Çatılardaki Sıcaklık Düşümüne Etkisinin Yapay Sinir Ağları ile İncelenmesi – Şanlıurfa Örneği**  
AYATA T., ERDEMİR D.  
2. International Symposium on Environment and Morality, 24 - 26 October 2014, pp.879-889
- XLIII. **Düşey Mantolu Sıcak Su Tanklarında Sıcaklık Tabakalaşmasının Engeller Aracılığı ile İyileştirilmesinin Sayısal Olarak İncelenmesi**  
ERDEMİR D., ALTUNTOP N., Pekdemir İ. Z.  
2. Anadolu Enerji Sempozyumu, Diyarbakır, Turkey, 2 - 04 May 2013, pp.356-368
- XLIV. **Düzlemsel Güneş Kolektörlerinin Panel Yapılarının Sıcak Su Üretimine Etkisinin İncelenmesi**  
ERDEMİR D., ALTUNTOP N.  
2. Anadolu Enerji Sempozyumu, Diyarbakır, Turkey, 2 - 04 May 2013, pp.183-190
- XLV. **Numerical investigation of heat transfer enhancement and pressure drop in heat exchanger tube fitted with dual twisted tape elements**  
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World Scientific and Engineering Academy and Society (WSEAS, Roma, Italy, 1 January - 01 February 2013, pp.167-172
- XLVI. **NUMERICAL INVESTIGATION OF THERMAL PERFORMANCE OF A TUBE FITTED WITH REGULARLY SPACED TWISTED TAPE ELEMENTS**  
GÜNEŞ S., ERDEMİR D., ÖZCEYHAN V., ALTUNTOP N.  
ASME 2012 Summer Heat Transfer Conference - HT2012, PORTO RICO, United States Of America, 8 - 12 July 2012, pp.61-69
- XLVII. **Developments of Solar Energy Industry and Utilization in Turkey**  
ALTUNTOP N., ERDEMİR D.  
2. International 100 Renewable Energy Conference and Exhibition, İstanbul, Turkey, 28 - 30 June 2012, pp.211-216
- XLVIII. **Türkiye’de Isıl ve Elektrik Enerjisi Açısından Güneş Enerjisi Sektörünün Gelişimi ve Bugünkü Durumu**



ALTUNTOP N., ERDEMİR D.

18. International Energy and Environment air and Conference, İstanbul, Turkey, 25 - 27 April 2012, pp.137-140

**XLIX. Türkiye’de güneş enerjisi sektörünün gelişimi ve bugünkü durumu**

ALTUNTOP N., ERDEMİR D.

VI. Yenilenebilir Enerji Kaynakları Sempozyumu, Kayseri, Turkey, 21 - 22 October 2011, pp.235-246

**L. Investigating The Development of solar Energy systems Market in Turkey**

ALTUNTOP N., ERDEMİR D.

International 100 Renewable Energy Conference and Exhibition, İstanbul, Turkey, 6 - 08 October 2011, pp.200-208

**LI. Türkiye’de güneş enerjisi ısı sistemlerinin mevcut pazarı ve gelişiminin incelenmesi**

ALTUNTOP N., ERDEMİR D.

5. Güneş Enerjisi Sistemleri Sempozyumu ve Sergisi, Mersin, Turkey, 5 - 07 October 2011, pp.15-22

## Supported Projects

Erdemir D., Project Supported by Public Organizations in Other Countries, Development, Modelling and Prototyping of a Novel Hydrogen Generation System, 2022 - 2024

Diñer İ., Aydın M. İ., Erdemir D., Karasu H., Other International Funding Programs, Sectoral Use of Ammonia as a Clean Solution, 2020 - 2022

Erdemir D., Dincer I., Other International Funding Programs, Development of a new mobile and effective oxygen generator for the Covid-19 coronavirus patients, 2020 - 2021

Erdemir D., TUBITAK Project, Düşey Mantolu Sıcak Su Tanklarında Enerji Depolama Kapasitesini Arttırmak İçin Faz Değiştiren Malzeme Kullanımının Etkilerini Ve Farklı Çalışma Koşullarında Performanslarının Sayısal Ve Deneysel Olarak İncelenmesi, 2018 - 2019

Erdemir D., Project Supported by Other Official Institutions, Development of a novel and high-tech oxygen generator, 2015 - 2016

## Peer Reviews in Scientific Publications

APPLIED THERMAL ENGINEERING, SCI Journal, March 2025

JOURNAL OF THERMAL SCIENCE AND ENGINEERING APPLICATIONS, SCI Journal, March 2025

ENERGY STORAGE, Journal Indexed in ESCI, February 2025

ENERGY AND BUILDINGS, SCI Journal, February 2025

JOURNAL OF NON-EQUILIBRIUM THERMODYNAMICS, SCI Journal, February 2025

ENERGY STORAGE, Journal Indexed in ESCI, November 2024

RENEWABLE ENERGY, SCI Journal, August 2024

## Scientific Project Refereeing

Project Supported by Higher Education Institutions, BAP Research Project, March 2025

Other International Funding Programs, March 2025

## Metrics

Publication: 101

Citation (WoS): 522

Citation (Scopus): 629

H-Index (WoS): 12

H-Index (Scopus): 12

## **Congress and Symposium Activities**

12th Global Conference on Global Warming (GCGW-2024), Session Moderator, Şanlıurfa, Turkey, 2024

8th International Hydrogen Technologies Congress (IHTEC 2024), Session Moderator, Diyarbakır, Turkey, 2024

## **Non Academic Experience**

Temas Mühendislik, Danışman

Zeytin Mühendislik, Kurucu, Proje Yöneticisi

ERD Teknoloji San. ve Tic. Ltd. Şti., Proje ARGE Mühendisi

Medisem Tıbbi Cihaz İmalat Sanayi, Proje ARGE Mühendisi