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Publons / Web Of Science ResearcherID: P-9774-2019

ScopusID: 56998587200

Yoksis Researcher ID: 199223

Education Information

Doctorate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Termodinamik (Dr), Turkey 2014 - 2021

Postgraduate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Termodinamik (YI) (Tezli), Turkey 2011 - 2014

Undergraduate, Izmir Institute Of Technology, Faculty Of Engineering, Department Of Mechanical Engineering (English), Turkey 2006 - 2011

Dissertations

Doctorate, Numerical investigation of solar assisted thermal energy storage systems, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Termodinamik (Dr), 2021

Postgraduate, Analysis of the air flow in a refrigerated truck, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Termodinamik (YI) (Tezli), 2014

Research Areas

Energy storage technologies, Computational fluid dynamics, Thermal Systems

Academic Titles / Tasks

Research Assistant PhD, Dokuz Eylul University, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, 2021 - Continues

Research Assistant, Dokuz Eylul University, Mühendislik Fakültesi, Makina Mühendisliği Bölümü, 2014 - 2021

Courses

Technical Drawing, Undergraduate, 2022 - 2023

Makina Mühendisliğinde Ölçüm ve Analiz Laboratuvarı, Undergraduate, 2023 - 2024

Fluid Mechanics, Undergraduate, 2022 - 2023

Temel Bilgi Teknolojileri, Undergraduate, 2023 - 2024

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Development of an integrated underfloor heating system model in TRNSYS and performance assessments**
Gök O., Çam N. Y., Alptekin E., Ezan M. A., Erek A.
JOURNAL OF ENERGY STORAGE, vol.84, pp.1-27, 2024 (SCI-Expanded)
- II. **Thermal behavior of a solar-assisted latent heat thermal energy storage unit on the heating season under variable weather conditions**
Cam N. Y., Alptekin E., Bilir L., Ezan M. A.
JOURNAL OF ENERGY STORAGE, vol.52, 2022 (SCI-Expanded)
- III. **A systematic assessment on a solar collector integrated packed-bed single/multi-layered latent heat thermal energy storage system**
Alptekin E., Ezan M. A.
JOURNAL OF ENERGY STORAGE, vol.37, 2021 (SCI-Expanded)
- IV. **Performance investigations on a sensible heat thermal energy storage tank with a solar collector under variable climatic conditions**
Alptekin E., Ezan M. A.
APPLIED THERMAL ENGINEERING, vol.164, 2020 (SCI-Expanded)
- V. **The effect of phase change material incorporated building wall on the CO₂ mitigation: a case study of Izmir, Turkey**
Asker M., ALPTEKİN E., TOKUÇ A., EZAN M. A., Ganjehsarabi H.
INTERNATIONAL JOURNAL OF GLOBAL WARMING, vol.19, pp.54-75, 2019 (SCI-Expanded)
- VI. **Importance of natural convection on numerical modelling of the building integrated PVP/PCM systems**
EZAN M. A., Yuksel C., ALPTEKİN E., YILANCI A.
SOLAR ENERGY, vol.159, pp.616-627, 2018 (SCI-Expanded)
- VII. **Entropy generation analysis of multilayer PCM slabs integrated with fins**
Asker M., Alptekin E., Ezan M. A., Ganjehsarabi H.
INTERNATIONAL JOURNAL OF EXERGY, vol.26, pp.154-169, 2018 (SCI-Expanded)
- VIII. **Thermal analysis of airflow inside a refrigerated container**
Kayansayan N., ALPTEKİN E., EZAN M. A.
INTERNATIONAL JOURNAL OF REFRIGERATION-REVUE INTERNATIONALE DU FROID, vol.84, pp.76-91, 2017 (SCI-Expanded)

Articles Published in Other Journals

- I. **Performance Analysis of Fin Usage in Cylindrical PCM Annulus**
Koparan M. F., Yılmaz Ö. F., Cumhuri A., Aktan B., İnan O., Alptekin E.
Tesisat Mühendisliği, no.196, pp.49-57, 2023 (Peer-Reviewed Journal)
- II. **2D Numerical Investigation of the Flow Modul of a Latent Heat Thermal Energy Storage Tank**
YILDIRIM N. H., KAHRAMAN Y. E., YILMAZ A. B., Alptekin E., TOKUÇ A., Ezan M. A., Erek A.
Tesisat Mühendisliği, vol.2019, no.169, pp.7-14, 2019 (Peer-Reviewed Journal)
- III. **Implementation of enhanced thermal conductivity approach to an LHTES system with in-line spherical capsules**
Metin C., Hacıpasaoglu S. G., ALPTEKİN E., EZAN M. A.
ENERGY STORAGE, vol.1, no.1, 2019 (ESCI)
- IV. **Numerical investigation of thermal regulation inside firefighter protective clothing**
ALPTEKİN E., EZAN M. A., Gül B. M., Kurt H., EZAN A. C.
Tekstil ve Muhendis, vol.24, no.106, pp.94-100, 2017 (Scopus)
- V. **Frigorifik Konteyner İçi Akış Dağılımının İncelenmesi**

Books & Book Chapters

- 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., Ganjehsarabi H.
in: The Role of Exergy in Energy and the Environment, Nizetic, Sandro; Papadopoulos, Agis, Editor, Springer Nature, Berlin, pp.757-768, 2018
- II. **A Numerical Study on Phase Change Inside a Spherical Capsule**
Alptekin E., Özer M., Top M., Yavuz F. E., Ezan M. A.
in: Exergetic, Energetic and Environmental Dimensions, Dincer Ibrahim, Colpan Ozgur, Kizilkan Onder, Editor, Academic Press, New York, pp.613-625, 2018
- III. **Determination of Flow Characteristics of Multiple Slot Jet Impingement Cooling**
KAYANSAYAN N., ALPTEKİN E.
in: Exergetic, Energetic and Environmental Dimensions, Dincer Ibrahim, Colpan Ozgur, Kizilkan Onder, Editor, Elsevier, San Diego, pp.597-611, 2018
- IV. **Flow and Heat Transfer Characteristics of an Empty Refrigerated Container**
Alptekin E., Ezan M. A., Kayansayan N.
in: Progress in Exergy, Energy, and the Environment, Dincer Ibrahim, Midilli Adnan, Küçük Haydar, Editor, Springer Nature, Zürich, pp.641-652, 2014

Refereed Congress / Symposium Publications in Proceedings

- I. **Experimental Studies on Energy and Exergy-based Assessments of a Freezer**
Vardar B., Bovatekin F. B., Becermen Y. M., Gök O., Alptekin E., Ezan M. A., Ereğ A.
14th International Exergy, Energy, and Environment Symposium (IEEES-14), İstanbul, Turkey, 24 - 27 December 2023, pp.173-176
- II. **Preliminary Study on a Transient Freezer Model with Phase Change Material (PCM)**
Koparan M. F., Gök O., Alptekin E., Ezan M. A., Ereğ A.
14th International Exergy, Energy and Environment Symposium (IEEES-14), İstanbul, Turkey, 24 - 27 December 2023, pp.10-13
- III. **3D Steady-State and Transient Numerical Studies of a Static Freezer**
Bilgiç S., Cankılıç E., Gülmez A., Gök O., Alptekin E., Ezan M. A., Ereğ A.
14th International Exergy, Energy, and Environment Symposium (IEEES-14), İstanbul, Turkey, 24 - 27 December 2023, pp.177-181
- IV. **ENERGETIC AND EXERGETIC ANALYSIS OF SOLAR-BASED SENSIBLE THERMAL ENERGY STORAGE SYSTEM IN CHARGING PROCESS USING TRNSYS**
Gök O., Alptekin E., Ezan M. A., Ereğ A.
2nd WORLD ENERGY STORAGE CONFERENCE: WESC-2022, 18 December 2022, pp.225-229
- V. **ANNUAL CHARGING PERFORMANCE SIMULATION OF A SENSIBLE THERMAL ENERGY STORAGE UNIT IN İZMİR**
Çam N. Y., Gök O., Alptekin E., Ezan M. A., Ereğ A.
2nd INTERNATIONAL CONFERENCE ON ENERGY, ENVIRONMENT AND STORAGE OF ENERGY, Kayseri, Turkey, 1 - 03 September 2022, pp.416-420
- VI. **NATURAL CONVECTION-DRIVEN PHASE CHANGE INSIDE CYLINDRICAL ANNULUS**
Okan G., Alptekin E., Ezan M. A., Ereğ A.
5th International Symposium on Convective Heat and Mass Transfer (CONV-22), İzmir, Turkey, 05 June 2022,

pp.303-310

VII. Transient behavior of a solar-aided shell-and-tube type latent heat TES unit

Çam N. Y., Alptekin E., Bilir L., Ezan M. A.

The 12th International Exergy, Energy and Environment Symposium, Ad-Dawhah, Qatar, 20 - 24 December 2020, pp.150

VIII. Aerodynamic analysis of an urban electric microcar body

TOPAÇ M. M., ÇOLAK O., ALPTEKİN E., BİLAL L., KARACA M.

MMT2019: 5th International Congress on Engineering, Architecture and Design, İstanbul, Turkey, 21 - 22 December 2019, pp.1503

IX. Cyclic Performance Evaluation of a Packed Bed Latent Heat Thermal Energy Storage System under Real Weather Conditions

Alptekin E., Ezan M. A.

World Energy Strategies Congress Exhibition, İstanbul, Turkey, 26 - 28 August 2019, pp.1-10

X. Energetic and exergetic assessments of a solar aided latent heat thermal energy storage system

ALPTEKİN E., EZAN M. A.

The 1st World Energy Storage Conference, 18 - 19 May 2019

XI. Inward melting of water inside annulus exposed to cross flow

EZAN M. A., YAVUZ F. E., GENÇER A. E., ALPTEKİN E.

The 1st World Energy Storage Conference, 18 - 19 May 2019

XII. Economic assessment of phase change materials in buildings

ASKER M., ALPTEKİN E., TOKUÇ A., EZAN M. A., GANJEHSARABI H.

7th Global Conference on Global Warming (GCGW2018), İzmir, Turkey, 24 - 28 June 2018

XIII. Küresel Kapsüllenmiş Faz Değişim Malzemesinin Depolama ve Geri Kullanım Performansının Deneysel İncelenmesi

HACIPAŞAĞLU S. G., EZAN M. A., BİLİR L., ALPTEKİN E., EREK A.

4. Uluslararası Katılımlı Anadolu Enerji Sempozyumu, Turkey, 18 - 20 April 2018

XIV. Numerical Simulation of Building Wall Integrated with Phase Change Material: A Case Study of a Mediterranean City Izmir, Turkey

Asker M., ALPTEKİN E., TOKUÇ A., EZAN M. A., GANJEHSARABI H.

9th International Exergy, Energy and Environment Symposium (IEEEES), Split, Croatia, 14 - 17 May 2017, pp.757-768

XV. PV/FDM Sistemindeki Doğal Taşınımın Sayısal Modellenmesi

YÜKSEL C., EZAN M. A., ALPTEKİN E., YILANCI A.

21. Ulusal Isı Bilimi ve Tekniği Kongresi (ULIBTK'17), Çorum, Turkey, 13 - 16 September 2017, pp.912-923

XVI. Küresel Kapsül İçerisindeki Doğal Taşınımın Sayısal İncelenmesi

YAVUZ F. E., EZAN M. A., EREK A., ALPTEKİN E.

21. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 13 - 16 September 2017

XVII. Silindirik Halkasal Boşluktaki Doğal Taşınımın Sayısal Modellenmesi

GENÇER A. E., EZAN M. A., ALPTEKİN E., EREK A.

21. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 13 - 16 September 2017

XVIII. Bir Gizli Isıl Enerji Depolama Tankının Akış Modülünün 2 Boyutlu Sayısal İncelenmesi

YILDIRIM N. H., KAHRAMAN E., YILMAZ A. B., ALPTEKİN E., TOKUÇ A., EZAN M. A., EREK A.

13. Ulusal Tesisat Mühendisliği Kongresi (TESKON 2017), İzmir, Turkey, 19 - 22 April 2017, vol.1, pp.771-780

XIX. Numerical simulation of building envelopes with phase change material

ASKER M., ALPTEKİN E., TOKUÇ A., EZAN M. A., GANJEHSARABI H.

9th International Exergy, Energy and Environment Symposium, 14 - 17 March 2017

XX. Thermal performance assessment of thermal energy storage systems using composite phase change materials

ASKER M., ALPTEKİN E., EZAN M. A., GANJEHSARABI H.

9th International Exergy, Energy and Environment Symposium, 14 - 17 March 2017

XXI. Phase Change Materials in Textile Fabrics: A Numerical Survey

- EZAN M. A., GÜL B. M., KURT H., EZAN A. C., ALPTEKİN E.
8th International Exergy, Energy and Environment Symposium (IEEEES-8), Antalya, Turkey, 1 - 04 May 2016
- XXII. **A Numerical Study on Phase Change inside a Spherical Capsule**
ALPTEKİN E., ÖZER M., TOP M., BOZKURT N., ZENGİNOĞLU M., YAVUZ F. E., EZAN M. A.
8th International Exergy, Energy and Environment Symposium (IEEEES-8), Antalya, Turkey, 1 - 05 May 2016
- XXIII. **Heat transfer correlations for refrigerated containers**
Kayansayan N., ALPTEKİN E., EZAN M. A.
Proceedings of the 2nd World Congress on Mechanical, Chemical, and Material Engineering, MCM 2016, Budapest, Hungary, 22 - 23 August 2016
- XXIV. **Experimental Analysis of Refrigerated Truck Thermal Behaviour**
KAYANSAYAN N., EZAN M. A., ALPTEKİN E., YILDIZ A., GÜNEŞ T.
10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, United States Of America, 14 - 16 July 2014
- XXV. **Flow and Thermal Characteristics of Airflow Inside a Refrigerated Containers**
KAYANSAYAN N., ALPTEKİN E., EZAN M. A.
10th International Conference on Heat Transfer, Fluid Mechanics and Thermodynamics (HEFAT2014), Orlando, United States Of America, 14 - 16 July 2014
- XXVI. **Frigorifik Konteyner içi Akış ve Sıcaklık Dağılımının Modellenmesi**
ALPTEKİN E., EZAN M. A., KAYANSAYAN N.
19. Ulusal Isı Bilimi ve Tekniği Kongresi (ULIBTK 2013), Samsun, Turkey, 9 - 12 September 2013, pp.981-986
- XXVII. **Flow and Heat Transfer Characteristics of an Empty Refrigerated Container**
ALPTEKİN E., EZAN M. A., KAYANSAYAN N.
The 6th International Exergy, Energy and Environment Symposium (IEEEES6), Rize, Turkey, 1 - 04 July 2013
- XXVIII. **Frigorifik Konteyner içi Akış Dağılımının İncelemesi**
ALPTEKİN E., VARLIKLIKLAR M., EZAN M. A., YALDIRAK H., KAYANSAYAN N.
11. Ulusal Tesisat Mühendisliği Kongresi (TESKON 2013), İzmir, Turkey, 17 - 20 April 2013, pp.737-759

Supported Projects

ÇOLPAN C. Ö., ÇETİNKAYA S. A., ALPTEKİN E., KARAKOR A., KARAOĞLAN M. U., EREK A., EZAN M. A., Ünüştü K. O., ÇETKİN E., KORKMAZ S. A., et al, Project Supported by Higher Education Institutions, Elektrikli ve Yakıt Hücreli Araçlardaki Batarya ve Metal Hidrit Tank için Termal Yönetim Sistemlerinin İncelenmesi, 2023 - Continues

EZAN M. A., Aydın E., GÖK O., ALPTEKİN E., EREK A., TURGUT A., TOKUÇ A., BİLİR L., SEKİ Y., Project Supported by Higher Education Institutions, Güneş Enerjisi Destekli Hibrit Isıl Enerji Depolama Sistemi Tasarımı ve Performansının İncelenmesi, 2021 - Continues

Ezan M. A., Erek A., Alptekin E., Gülmez A., TUBITAK Project, Derin Dondurucularda Gıda Güvenliğinin İyileştirilmesine Yönelik Faz Değişim Malzemesi Kullanımının Deneysel ve Sayısal İncelenmesi, 2023 - 2025

Metrics

Publication: 45
Citation (WoS): 118
Citation (Scopus): 130
H-Index (WoS): 6
H-Index (Scopus): 5