

## Assoc. Prof. Cenk ONAN

### Personal Information

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### International Researcher IDs

ORCID: 0000-0001-8640-7220

ScopusID: 36451261600

Yoksis Researcher ID: 189748

### Education Information

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Turkey 2007 - 2013

Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Turkey 2005 - 2007

Undergraduate, Yildiz Technical University, Faculty Of Mechanical Engineering, Makine Mühendisliği, Turkey 2001 - 2005

### Research Areas

Mechanical Engineering, Thermodynamics, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2018 - Continues

Research Assistant PhD, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2013 - 2018

Research Assistant, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2005 - 2013

### Academic and Administrative Experience

Deputy Head of Department, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2024 - Continues

Deputy Head of Department, Yildiz Technical University, Faculty Of Mechanical Engineering, Department Of Mechanical Engineering, 2018 - 2020

Yıldız Teknik Üniversitesi, Makine Mühendisliği, 2015 - 2018

### Courses

Soğutma Tekniği, Undergraduate, 2023 - 2024

Thermodynamics I, Undergraduate, 2019 - 2020

Seminer, Postgraduate, 2018 - 2019

Termodinamik II, Undergraduate, 2018 - 2019

İklimlendirme Sistem Elemanları, Undergraduate, 2018 - 2019, 2017 - 2018

Yangın Dinamiği ve Güvenliği, Undergraduate, 2017 - 2018

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

- I. **Analysis of optimum insulation thickness for external walls at different orientations based on real-time measurements**  
Onan C., Erdem S., Özkan D. B., Baykal C.  
Thermal Science, vol.24, no.3, pp.2035-2046, 2020 (SCI-Expanded)
- II. **EXPERIMENTAL DETERMINATION OF THE WETTED AREA OF A FALLING FILM ON THE OUTSIDE OF HORIZONTAL TUBES USING IMAGE PROCESSING AND HEAT TRANSFER ANALYSIS**  
Onan C., Özkan D. B.  
HEAT TRANSFER RESEARCH, vol.48, pp.529-548, 2017 (SCI-Expanded)
- III. **THEORETICAL AND EXPERIMENTAL HEAT AND MASS TRANSFER ANALYSIS FOR A FALLING FILM OUTSIDE A GROOVED TUBE**  
Onan C., Özkan D. B.  
EXPERIMENTAL HEAT TRANSFER, vol.29, pp.244-265, 2016 (SCI-Expanded)
- IV. **Determination of the Thermal Insulation for the Model Building Approach and the Global Effects in Turkey**  
Onan C.  
ADVANCES IN MECHANICAL ENGINEERING, 2014 (SCI-Expanded)
- V. **CFD and Experimental Analysis of a Falling Film outside Smooth and Helically Grooved Tubes**  
ONAN C., OZKAN D. B., ERDEM S.  
ADVANCES IN MECHANICAL ENGINEERING, 2014 (SCI-Expanded)
- VI. **Optimization of insulation thickness for different glazing areas in buildings for various climatic regions in Turkey**  
ÖZKAN D. B., ONAN C.  
APPLIED ENERGY, vol.88, no.4, pp.1331-1342, 2011 (SCI-Expanded)
- VII. **Exergy analysis of a solar assisted absorption cooling system on an hourly basis in villa applications**  
ONAN C., ÖZKAN D. B., ERDEM S.  
ENERGY, vol.35, no.12, pp.5277-5285, 2010 (SCI-Expanded)

## Articles Published in Other Journals

- I. **R1234yf and R744 as alternatives to R134a at mobile air conditioners**  
ONAN C., ERDEM S.  
Journal of Energy Systems, vol.5, no.4, pp.284-295, 2021 (Scopus)
- II. **Effects of Using Air Curtains on Energy Consumption During Cooling Season Under Different Climate Conditions**  
Erdem S., Onan C.  
International Journal of Air-Conditioning and Refrigeration, vol.29, no.4, pp.1-9, 2021 (ESCI)
- III. **TMY (Tipik Meteorolojik Yıl) Metodu Kullanılarak 4 Farklı İklim Bölgesinin Analizi**  
Onan C., Erdem S., Sevindir M. K.  
Tesisat Mühendisliği, vol.2021, no.183, pp.20-27, 2021 (Peer-Reviewed Journal)
- IV. **Investigation of the Effect on Performance of Using Direct Evaporative Cooler Operating with Different Water Temperature for All Provinces of Turkey**  
Onan C., Erdem S.  
Tesisat Mühendisliği, no.180, pp.30-40, 2020 (Peer-Reviewed Journal)

- V. **Theoretical study of R32 to replace R410A in variable refrigerant flow systems**  
Yildirim C., ÖZKAN D. B., ONAN C.  
INTERNATIONAL JOURNAL OF AMBIENT ENERGY, vol.39, no.1, pp.87-92, 2018 (ESCI)
- VI. **Exergy assessments by using real-time measurements in a factory**  
Onan C., Ozkan D. B., Erdem S.  
International Journal of Mechanical Engineering and Robotics Research, vol.6, no.2, pp.147-153, 2017 (Scopus)
- VII. **Theoretical study of R32 to replace R410A in Variable Refrigerant Flow VRF systems**  
YILDIRIM C., ÖZKAN D. B., ONAN C.  
International Journal of Ambient Energy, 2016 (Scopus)
- VIII. **Isı Pompalarının Isıtma ve Soğutma Kapasitelerinin Belirlenmesine Yönelik Bir Modelleme Çalışması**  
ERDEM S., ONAN C., ÖZKAN D. B., HEPERKAN H. A.  
Tesisat Mühendisliği, 2016 (Peer-Reviewed Journal)
- IX. **Isıtma ve Soğutma Sistemlerinde Yenilenebilir Enerji Uygulamaları**  
ERDEM S., ONAN C., ÖZKAN D. B.  
Tesisat Mühendisliği, 2016 (Peer-Reviewed Journal)
- X. **Düşen Film Tipi Akışta Farklı Yiv Geometrilik Borularda Islak Alan Oranının ve Buharlaşan Su Miktarının Deneysel İncelenmesi**  
Onan C.  
Tesisat Mühendisliği, no.133, pp.28-34, 2013 (Peer-Reviewed Journal)
- XI. **Effect of Insulation Material Thickness on Thermal Insulation**  
Özkan D. B., Onan C., Erdem S.  
Sigma Journal of Engineering and Natural Sciences, vol.27, no.3, pp.190-196, 2009 (ESCI)
- XII. **Güneş Enerjisi Destekli Soğutma Sistemleri ve Örnek Projenin Diğer Uygulamalarla Karşılaştırılması**  
ONAN C., Özkan D. B.  
Tesisat Mühendisliği Dergisi, no.113, pp.11-19, 2009 (Peer-Reviewed Journal)
- XIII. **TS 825 Binalarda Isı Yalıtımı Kuralları Standardındaki Değişikliklerin Analizi**  
ONAN C., Erdem S.  
Tesisat Mühendisliği Dergisi, no.109, pp.49-52, 2009 (Peer-Reviewed Journal)
- XIV. **Yapılarda Yalıtım Uygulamasının Ekonomik Analizi**  
Özkan D. B., Onan C., Erdem S., Tural M.  
İzolasyon Dünyası, vol.1, no.66, pp.55-59, 2007 (Peer-Reviewed Journal)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **ECONOMIC ANALYSIS OF AIR CURTAIN USE IN A FACTORY BUILDING**  
Onan C., Erdem S.  
ISPEC2021, Siirt, Turkey, 16 - 18 May 2021, pp.271-278
- II. **Energy Efficiency Improvement for the Mobile Air Conditioning Systems**  
Onan C., Erdem S.  
ECRES2021, İstanbul, Turkey, 21 - 23 April 2021, pp.391-395
- III. **ECONOMIC ANALYSIS OF THE HEAT RECOVERY EQUIPMENT IN THE AIR CONDITIONING SYSTEM OF A HOTEL BUILDING DURING WINTER AND SUMMER SEASON**  
ÖZKAN D. B., ONAN C., ERDEM S.  
3rd CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING ISTANBUL 2017 – ICAME2017, 19 - 21 December 2017
- IV. **INVESTIGATION OF THE PERFORMANCE OF ALTERNATIVE REFRIGERANTS COMPARED TO THE R134A REFRIGERANT**  
ONAN C., ERDEM S., ÖZKAN D. B., FİLİZ T.  
3rd CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING ISTANBUL 2017 – ICAME2017, 19 - 21 December 2017

- V. **MODELING OF AIR CONDITIONING SYSTEM USING R407C REFRIGERANT IN RAILWAY VEHICLES**  
ERDEM S., ÖZKAN D. B., ONAN C.  
3rd CONFERENCE ON ADVANCES IN MECHANICAL ENGINEERING ISTANBUL 2017 – ICAME2017, 19 - 21  
December 2017
- VI. **CFD Analysis of a Falling Film Outside Smooth Tubes**  
SEZER E., ÖZKAN D. B., ONAN C.  
International conference on energy systems Istanbul 2016, 21 - 23 December 2016
- VII. **The Effects of Fin Spacing and Tube Outer Diameter of Evaporator on System Performance in Heat Pump Tumble Dryers**  
ONAN C., Erdem S., Özkan D. B., Heperkan H. A.  
01 July 2014
- VIII. **The Effects of Gas Cooler Inlet Pressure on System Performance in Heat Pump Tumble Dryers**  
ONAN C., Heperkan H. A., Özkan D. B.  
01 July 2014
- IX. **Investigation of the Falling Film Evaporation on Horizontal Tubes**  
ONAN C., Özkan D. B.  
Humboldt-Kolleg, 01 December 2013
- X. **The effect of insulation on energy savings and costs for the current building inventory in Turkey**  
ERDEM S., ONAN C., ÖZKAN D. B., Bedirli S. E.  
ASME 2012 International Mechanical Engineering Congress and Exposition, IMECE 2012, Houston, TX, United States Of America, 9 - 15 November 2012, vol.7, pp.745-753
- XI. **The Effect of Insulation on Energy Savings and Costs for the Current Building Inventory in Turkey**  
Onan C., ÖZKAN D. B., Bedirli Ş. E.  
01 November 2012
- XII. **Economic Analysis of Solar Assisted Ground Source Heat Pump System in Heating and Cooling a Villa in Mardin**  
Özkan D. B., ONAN C.  
Humboldt Kolleg Istanbul, Turkey, 01 October 2010
- XIII. **Coefficient of Performance Study on R600a, R134a, R290, R407c, R410a, R32 as an Alternative Refrigerant to R22**  
ONAN C., Ağra Ö.  
CLIMA2010, 01 May 2010
- XIV. **Daily Exergy Assesment of LiBr-Water Absorption Chiller Used for Solar Cooling**  
ONAN C., Özkan D. B.  
01 May 2010, vol.1, pp.869-878
- XV. **Economic Analysis of Solar Assisted Ground Source Heat Pump System by Comparing Conventional System in Heating and Cooling a Villa**  
Özkan D. B., ONAN C.  
01 March 2008, vol.1, pp.319-333
- XVI. **Economic Analysis of Solar Assisted Absorption Cooling Systems in Climatization of the Villas**  
ONAN C., Özkan D. B., Erdem S.  
01 March 2008, vol.1, pp.335-350

## Metrics

Publication: 41

Citation (WoS): 162

Citation (Scopus): 204

H-Index (WoS): 3

H-Index (Scopus): 4

## **Non Academic Experience**

EPA Ticaret Makine Sanayi ve Turizm İşletmeleri A. Ş.

Other Public Institution, Hv.K.K. 2. Hava İkmal Bakım Merkez Komutanlığı

Hv.K.K. 2. HİBM / Kayseri

Alexander von Humboldt Vakfı

MMO İstanbul

İstanbul Uygulamalı Gaz ve Enerji Teknolojileri Araştırma Mühendislik Sanayi Ticaret A.Ş.