

## Assoc. Prof. ÖZGE YETİK

### Personal Information

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### International Researcher IDs

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### Education Information

Post Doctorate, Universidad Politécnic de Madrid, Havacılık ve Uzay Bilimleri, Spain 2022 - 2022

Post Doctorate, Eskişehir Technical University, Faculty Of Aeronautical And Space Sciences, Turkey 2019 - 2019

Doctorate, Eskişehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (Dr), Turkey 2013 - 2018

Postgraduate, Eskişehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (YI) (Tezli), Turkey 2011 - 2013

Undergraduate, Eskişehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, Makine Mühendisliği Bölümü, Turkey 2004 - 2007

Undergraduate, Eskişehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, Endüstri Mühendisliği Bölümü, Turkey 2003 - 2007

### Dissertations

Doctorate, Serbest yüzey yakınına yerleştirilmiş silindirler etrafında akış ve ısı geçişinin incelenmesi, Eskişehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (Dr), 2018

Postgraduate, Kare kesitli iki silindir etrafında akış ve ısı geçişi, Eskişehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (YI) (Tezli), 2013

### Research Areas

Mechanical Engineering, Engineering and Technology

### Academic Titles / Tasks

Research Assistant PhD, Eskişehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, MAKİNE MÜHENDİSLİĞİ BÖLÜMÜ, 2018 - Continues

Research Assistant, Eskişehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, MAKİNE MÜHENDİSLİĞİ BÖLÜMÜ, 2011 - 2018

Research Assistant, Dumlupınar Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2009 - 2011

### Courses

Enerji Ekonomisi, Undergraduate, 2024 - 2025  
MAKİNE MÜHENDİSLİĞİNDE TASARIM I(X), Undergraduate, 2024 - 2025  
INTRODUCTION TO ECONOMICS(A), Undergraduate, 2024 - 2025  
BUSINESS MANAGEMENT AND ENTREPRENEURSHIP, Undergraduate, 2024 - 2025  
FLUID MECHANICS, Undergraduate, 2024 - 2025  
MEKANİK TESİSAT TASARIMI ARAŞTIRMALARI(A), Undergraduate, 2020 - 2021, 2019 - 2020  
AKIŞKANLAR MEKANİĞİ, Undergraduate, 2020 - 2021  
MEKANİK TESİSAT TASARIMI ARAŞTIRMALARI(A), Undergraduate, 2020 - 2021, 2019 - 2020  
AKIŞKANLAR MEKANİĞİ, Undergraduate, 2018 - 2019

## Jury Memberships

Post Graduate, Post Graduate, Eskişehir Teknik Üniversitesi, June, 2022

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

- I. **Innovative-serpentine cooling method of batteries: Both thermal and statistical method approach**  
Yetik Ö.  
INTERNATIONAL JOURNAL OF THERMAL SCIENCES, vol.208, 2025 (SCI-Expanded)
- II. **CFD investigation of pouchtype lithium-ion battery**  
Mayıl A. S., Yetik Ö.  
Aircraft Engineering and Aerospace Technology, vol.96, no.7, pp.964-971, 2024 (SCI-Expanded)
- III. **Thermal analysis of batteries and prediction with artificial neural networks**  
YETİK Ö.  
Aircraft Engineering and Aerospace Technology, vol.96, no.7, pp.888-899, 2024 (SCI-Expanded)
- IV. **Nanofluid-based cooling of prismatic lithium-ion battery packs: an integrated numerical and statistical approach**  
MORALI U., YETİK Ö., Karakoc T. H.  
Journal of Thermal Analysis and Calorimetry, vol.149, no.2, pp.799-811, 2024 (SCI-Expanded)
- V. **Guest editorial: The significance of clean and energy-efficient operations in sustainable aviation**  
Karakoç T. H., ÇOLPAN C. Ö., YETİK Ö., DALKIRAN A.  
Aircraft Engineering and Aerospace Technology, vol.95, no.3, pp.365, 2023 (SCI-Expanded)
- VI. **Thermal and electrical analysis of batteries in electric aircraft using nanofluids**  
Yetik Ö., Karakoç T. H.  
JOURNAL OF ENERGY STORAGE, vol.52, no.104853, pp.1-12, 2022 (SCI-Expanded)
- VII. **A study on lithium-ion battery thermal management system with Al<sub>2</sub>O<sub>3</sub> nanofluids**  
YETİK Ö., Karakoc T. H.  
International Journal of Energy Research, vol.46, no.8, pp.10930-10941, 2022 (SCI-Expanded)
- VIII. **Promising fuels and green energy technologies for aviation**  
Karakoc T. H., ÇOLPAN C. Ö., Ekici S., YETİK Ö.  
INTERNATIONAL JOURNAL OF GREEN ENERGY, 2022 (SCI-Expanded)
- IX. **Hybrid battery management system design for electric aircraft**  
Tarhan B., Yetik Ö., Karakoç T. H.  
ENERGY, vol.234, 2021 (SCI-Expanded)
- X. **Computational modeling of a lithium-ion battery thermal management system with Al<sub>2</sub>O<sub>3</sub>-based nanofluids**  
YETİK Ö., Yılmaz N., Karakoc T. H.  
International Journal of Energy Research, vol.45, pp.13851-13864, 2021 (SCI-Expanded)
- XI. **Estimation of thermal effect of different busbars materials on prismatic Li-ion batteries based on**

## **artificial neural networks**

YETİK Ö., Karakoc T. H.

Journal of Energy Storage, vol.38, 2021 (SCI-Expanded)

- XII. **Thermal management system with nanofluids for hybrid electric aircraft battery**  
Yetik O., Karakoc T. H.  
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.45, no.6, pp.8919-8931, 2021 (SCI-Expanded)
- XIII. **Flow structure around two tandem square cylinders close to a free surface**  
YETİK Ö., MAHİR N.  
OCEAN ENGINEERING, vol.214, 2020 (SCI-Expanded)
- XIV. **Thermal and electrical effects of busbars on Li-Ion batteries**  
YETİK Ö.  
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.44, no.11, pp.8480-8491, 2020 (SCI-Expanded)
- XV. **A numerical study on the thermal performance of prismatic li-ion batteries for hybrid electric aircraft**  
YETİK Ö., Karakoc T. H.  
ENERGY, vol.195, 2020 (SCI-Expanded)
- XVI. **FLOW AND FORCED HEAT TRANSFER FROM TANDEM SQUARE CYLINDERS NEAR A WALL**  
YETİK Ö., MAHİR N.  
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, vol.40, no.1, pp.99-112, 2020 (SCI-Expanded)
- XVII. **ANN Modeling of an ORC-Binary Geothermal Power Plant: Simav Case Study**  
Arslan O., Yetik Ö.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, vol.36, no.4, pp.418-428, 2014 (SCI-Expanded)
- XVIII. **ANN based optimization of supercritical ORC-Binary geothermal power plant: Simav case study**  
Arslan O., Yetik Ö.  
APPLIED THERMAL ENGINEERING, vol.31, pp.3922-3928, 2011 (SCI-Expanded)

## **Articles Published in Other Journals**

- I. **A numerical study of thermal management of lithium-ion battery with nanofluid**  
Yetik Ö., Morah U., Karakoç T. H.  
ENERGY, vol.284, pp.129295, 2023 (Peer-Reviewed Journal)
- II. **Modeling of Heat Transfer Around a Square and a Circle: A Novel ANN-Based Approach**  
Yetik Ö.  
Niğde Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.11, no.2, pp.1-14, 2021 (Peer-Reviewed Journal)
- III. **Three-Dimensional Thermal Study on Lithium-Ion Batteries in a Hybrid Aircraft: Numerical and Experimental Investigations**  
Yetik Ö., Karakoç T. H.  
SAE INTERNATIONAL JOURNAL OF AEROSPACE, vol.13, no.2, pp.213-223, 2020 (ESCI)
- IV. **An Investigation on the Electrical Energy Capacity of Cylindrical Lithium-Ion and Lithium Iron Phosphate Battery Cells for Hybrid Aircraft**  
Yetik Ö., Tarhan B., Karakoç T. H.  
SAE INTERNATIONAL JOURNAL OF AEROSPACE, vol.13, no.2, pp.115-128, 2020 (ESCI)
- V. **Numerical Investigation of Heat Transfer of Nanofluid Flow Past Two Cylinder in Tandem Arrangements**  
YETİK Ö.  
International Journal of Advancements in Mechanical and Aeronautical Engineering, vol.3, no.1, pp.51-55, 2016 (Peer-Reviewed Journal)

- VI. **Duvar yakınlardaki kare kesitli iki silindir etrafındaki akisin incelenmesi ve isi gecisinnin ANN ile tahmini**  
YETİK Ö., MAHİR N.  
Social GAU Journal Applied Sciences, vol.6, no.10, pp.22-34, 2014 (Peer-Reviewed Journal)
- VII. **Türkiyedeki Termik Santrallerin Etkinlik Analizi:Parametrik Ve Parametrik Olmayan Yaklaşımlar**  
KÖSE R., YETİK Ö., ÖZGÜR M. A., ARSLAN O.  
Dumlupınar Üniversitesi Fen Bilimleri Enstitüsü Dergisi, 2011 (Peer-Reviewed Journal)

## **Books & Book Chapters**

- I. **A Numerical Study on Thermal and Electrical Performance of Prismatic Li-Ion Batteries and Estimation on Artificial Neural Networks**  
Yetik Ö.  
in: New Frontiers in Sustainable Aviation, T. Hikmet Karakoc,Can Ozgur Colpan,Alper Dalkiran, Editor, Springer, London/Berlin , Berlin, pp.1-17, 2022

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

- I. **Experimental Thermal Analysis of Cylindrical LFP Batteries**  
Demir F. N., Abdurakhmonzoda K., Yetik Ö., Karakoç T. H.  
ISSA24, Belgrade, Serbia, 30 October - 01 November 2024, pp.1-12
- II. **Thermal Behavior and Performance Analysis of Lfp Batteries Under Different Current Rates**  
Demir F. N., Yalçın H., Abdurakhmonzoda K., Yetik Ö., Karakoç T. H.  
ISATECH24, Thanh-Pho-Ho-Chi-Minh, Vietnam, 27 - 29 August 2024, pp.1-12
- III. **A study on battery management systems in the application of aviation engines**  
Sarana G., Yetik Ö., Karakoç T. H.  
ISUDEF24, Baku, Azerbaijan, 22 - 24 May 2024, pp.1-12
- IV. **A study on the contributions of phase change material in battery cooling processes in thermal management**  
Akpmar C., Yetik Ö., Karakoç T. H.  
ISUDEF24, Baku, Azerbaijan, 22 - 24 May 2024, pp.1-12
- V. **CFD Analysis of Aircraft Wheel Washing Machine**  
Akdağ I., Gözüylmaz G., Yetik Ö., Pekacar M., Ayar M., Kaplan B., Çalısır D., Dalkıran A., Ekici S., Özkan O., et al.  
ISATECH'23, Ha-Noi, Vietnam, 24 - 26 August 2023, pp.1-5
- VI. **Uzay Uydularında Kullanılan Li-Ion Batarya Gereksinimleri**  
Guliyeva Z., YETİK Ö., KARAKOÇ T. H.  
ISSRIS23, 15 March 2023
- VII. **Evaluation of Nanostructured Materials: PEM Fuel Cell Applications**  
AYAR M., YETİK Ö., KARAKOÇ T. H.  
ISSA 2021, Bangkok, Thailand, 25 November 2021
- VIII. **Experimental Air-Cooled Battery Thermal Management Approach**  
TARHAN B., YETİK Ö., KARAKOÇ T. H.  
TUBA WCEST-2021, İstanbul, Turkey, 8 - 12 August 2021
- IX. **Designing Of Battery Management System For Lithium Based Battery Packs Using At Electric Aircraft**  
TARHAN B., YETİK Ö., KARAKOÇ T. H.  
ISSA 2020, 9 - 12 November 2020
- X. **Cooling Performance of Nanofluids for Battery Thermal Management**  
YETİK Ö., KARAKOÇ T. H.  
ISEAS, 21 - 22 September 2020

- XI. **Thermal Analysis of Parallel Connected Li-Ion Batteries for Hybrid Aircraft**  
YETİK Ö., KARAKOÇ T. H., YILMAZ N.  
WCX SAE World Congress Experience, 21 - 23 April 2020
- XII. **Examination of Lithium Ion and Lithium Iron Phosphate Thermal Management**  
TARHAN B., YETİK Ö., KARAKOÇ T. H.  
WESCE 2019, 26 - 28 August 2019
- XIII. **Thermal Analysis of Li-Ion Batteries With Cathode LIMN2O4 For Hibrit Aircraft**  
YETİK Ö., KARAKOÇ T. H.  
ISSA 2019, 26 - 29 May 2019
- XIV. **The Numerical and Experimental Analysis of Thermal Modeling Of Li-Ion Batteries Used In Hybrid Aircraft**  
YETİK Ö., TARHAN B., KARAKOÇ T. H.  
ISSA2019, 26 - 29 May 2019
- XV. **Study on The Electrical Energy of Cylindrical Battery Cells For Hibrit Aircraft**  
TARHAN B., APAYDIN K. K., YETİK Ö., KARAKOÇ T. H.  
ISSA2019, 26 - 29 May 2019
- XVI. **Flow and Heat Transfer From Two Tandem Square Cylinders In A Uniform Flow Field**  
YETİK Ö., MAHİR N.  
ISMS 2019, 13 - 15 June 2019
- XVII. **Düz bir plaka yakınındaki kare kesitli silindir etrafında akış**  
MAHİR N., YETİK Ö.  
ULIBTK'15 20. Ulusal Isı Bilimi ve Tekniği Kongresi, Turkey, 02 September 2015
- XVIII. **Numerical Investigation of Heat Transfer of Nanofluid Flow Past Two Cylinder in Tandem Arrangement**  
YETİK Ö.  
AMRE 2015, 10 - 12 October 2015
- XIX. **ANN Based Prediction of Flow and Heat Transfer Between Two Tandem Square Cylinders Near The Wall**  
YETİK Ö., MAHİR N.  
ISEAIA 2014, 5 - 07 November 2014
- XX. **Duvar yakınındaki kare kesitli iki silindir etrafında akışın incelenmesi ve ısı geçişinin Ann ile tahmini, International Symposium on Engineering, Artificial Intelligence and Applications, Girne American University, North Cyprus, 6-8 November, 2013**  
Yetik Ö., Mahir N.  
International Symposium on Engineering, Artificial Intelligence and Applications, Girne, Cyprus (Kktc), 6 - 08 November 2013
- XXI. **Ann based optimization of a solar assisted hybrid cooling system in Turkey**  
ÖZGÜR M. A., YETİK Ö., ARSLAN O.  
IGEC VI, 5 - 07 June 2011

## Supported Projects

YETİK Ö., KARAKOÇ T. H., ENGÜN S., KÖK B., Project Supported by Higher Education Institutions, Elektrikli araçlarda TPMS-PCM kompozit malzemesinin kullanılmasıyla lityum iyon bataryaların ısı yönetim sisteminin değerlendirilmesi, 2024 - Continues

Yetik Ö., Karakoç T. H., TUBITAK Project, Otomatik yüklemeli, kurutma sistemli, tandem tanklı ve tasarruflu uçak janti yıkama makinesi tasarımı, prototip üretimi ve testleri, 2022 - 2024

Yetik Ö., Karakoç T. H., Project Supported by Higher Education Institutions, Havaaracı Platformlarında Yakıt Pili Sisteminin Performansının İncelenmesi, 2019 - 2020

Yetik Ö., Karakoç T. H., Project Supported by Higher Education Institutions, Elektrikli Uçaklar için Batarya Sistemi

## Scientific Refereeing

Chemmotological Aspects of Sustainable Development of Transport, Chapter Scientific / Professional Book Published by Renowned Publishing Houses, October 2021

Chemmotological Aspects of Sustainable Development of Transport, Chapter Scientific / Professional Book Published by Renowned Publishing Houses, October 2021

Chemmotological Aspects of Sustainable Development of Transport, Chapter Scientific / Professional Book Published by Renowned Publishing Houses, October 2021

Chemmotological Aspects of Sustainable Development of Transport, Chapter Scientific / Professional Book Published by Renowned Publishing Houses, October 2021

INTERNATIONAL JOURNAL OF GREEN ENERGY, SCI Journal, August 2021

ENERGY, National Scientific Refreed Journal, August 2021

ENERGY, National Scientific Refreed Journal, July 2021

ENERGY, SCI Journal, June 2021

ENERGY, SCI Journal, April 2021

INTERNATIONAL JOURNAL OF GREEN ENERGY, SCI Journal, April 2021

ENERGY, SCI Journal, April 2021

ENERGY, SCI Journal, March 2021

International Journal of sustainable aviation, Journal Indexed in ESCI, March 2021

ENERGY, SCI Journal, March 2021

ENERGY, SCI Journal, February 2021

International Journal of Sustainable Aviation, Journal Indexed in ESCI, February 2021

SAE Internatonal Journal of Aerospace, Journal Indexed in ESCI, December 2020

INTERNATIONAL JOURNAL OF ENERGY RESEARCH, Journal Indexed in SSCI, November 2020

SAE Internatonal Journal of Aerospace, Journal Indexed in ESCI, November 2020

International Journal of Sustainable Aviation, Journal Indexed in ESCI, October 2020

SAE Internatonal Journal of Aerospace, Journal Indexed in ESCI, October 2020

International Journal of Sustainable Aviation, Journal Indexed in ESCI, September 2020

SAE Internatonal Journal of Aerospace, Journal Indexed in ESCI, September 2020

International Journal of Sustainable Aviation, Journal Indexed in ESCI, September 2020

International Journal of Sustaniable Aviation, Journal Indexed in ESCI, August 2020

ENERGY, SCI Journal, August 2020

ENERGY, SCI Journal, August 2020

## Metrics

Publication: 47

Citation (WoS): 237

Citation (Scopus): 342

H-Index (WoS): 8

H-Index (Scopus): 11

## Awards

Yetik Ö., Yayın Teşvik Ödülü, Tübitak, December 2020

Yetik Ö., 2020 Eşik üstü ödülü, Tübitak, June 2020

## **Non Academic Experience**

SARAR A.Ş.