

# ÜMIT GÜNEŞ

## ASST. PROF.

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### Biography

Umit Gunes was born in 1987, Çarşamba/Samsun (Turkey). He graduated from the primary school in 1997 (Ayvacık/Samsun) and Çarşamba Anatolian High School in 2005 (Çarşamba/Samsun). In 2005, he enrolled in Kocaeli University's Department of Science Teaching for two years of undergraduate study, which he restarted at Yıldız Technical University's Department of Naval Architecture and Maritime Engineering in 2007, from which he graduated in 2011. During his undergraduate years, he attended classes in Fachhochschule (University of Applied Sciences) Dusseldorf's Department of Mechanical Engineering and Fachhochschule Kiel's Department of Mechanical Engineering as a guest student. He earned his master's degree in the same department in 2013. In August 2019 he completed his doctoral dissertation "Performance and Size in Moving Systems: Constructal Law," the same year he started it. Between January 2017 and April 2018, he was a guest researcher at Duke University's Mechanical Engineering and Materials Science (MEMS) department. After working in Metro Istanbul as an R & D engineer from 2011-2012, he began work as a research assistant at Yıldız Technical University's Department of Naval Architecture and Maritime Engineering. He has been working as an assistant professor in the same department since June 2020.

### Learning Knowledge

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|------------------------------|---|
| Doctorate<br>2013 - 2019     | Yıldız Technical University, Naval Architecture And Maritime Faculty, Department Of Naval Architecture And Marine Engineering, Turkey |
| Doctorate<br>2017 - 2018     | Duke University, Pratt School Of Engineering, Mechanical Engineering And Materials Science, United States Of America                  |
| Postgraduate<br>2011 - 2013  | Yıldız Teknik Üniversitesi, Naval Architecture and Maritime Faculty, Gemi İnşaatı Ve Gemi Makineleri Mühendisliği Bölümü , Turkey     |
| Undergraduate<br>2007 - 2011 | Yıldız Teknik Üniversitesi, Naval Architecture and Maritime Faculty, Gemi İnşaatı Ve Gemi Makineleri Mühendisliği Bölümü , Turkey     |
| Undergraduate<br>2010 - 2010 | Fachhochschule Kiel, Makine Mühendisliği, Makine Mühendisliği, Germany  |
| Undergraduate<br>2009 - 2010 | Fachhochschule Düsseldorf, Makine Mühendisliği, Makine Mühendisliği, Germany  |
| Undergraduate<br>2005 - 2007 | Kocaeli Üniversitesi, Eğitim Fakültesi, Fen Bilgisi Öğretmenliği (3. Sınıftan Terk), Turkey   |

## Foreign Languages

English, C1 Advanced

## Dissertations

Doctorate, Performance and size in Moving Systems: Constructal Law, Yildiz Technical University, Naval Architecture And Maritime Faculty, Department Of Naval Architecture And Marine Engineering, 2019

Postgraduate, Analysis of Waste Heat Recovery System on Ships in Terms of Technic and Economic, Yildiz Technical University, Naval Architecture And Maritime Faculty, Department Of Naval Architecture And Marine Engineering, 2013

## Academic Titles / Tasks

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Assistant Professor  
2020 - Continues

Yildiz Technical University, Naval Architecture And Maritime Faculty, Department  
Of Naval Architecture And Marine Engineering

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Research Assistant  
2012 - 2019

Yildiz Technical University, Naval Architecture And Maritime Faculty, Department  
Of Naval Architecture And Marine Engineering

## Scholarships

2214-A - International Research Fellowship Programme for PhD Students, TUBITAK, 2017 - 2018

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

1. **University Rankings: Quality, Size and Permanence**

Bejan A., Gunes Ü., ŞAHİN B.

European Review, vol.28, no.4, pp.537-558, 2020 (Journal Indexed in SSCI)

2. **Energy theory of periodic economic growth**

Bejan A., Errera M. R. , GÜNEŞ Ü.

International Journal of Energy Research, vol.44, no.7, pp.5231-5242, 2020 (Journal Indexed in SCI)

3. **The evolution of air and maritime transport**

Bejan A., Güneş Ü., Şahin B.

APPLIED PHYSICS REVIEWS, vol.6, no.2, 2019 (Journal Indexed in SCI)

4. **Social organization: The thermodynamic basis**

Bejan A., Gunes U., ERRERA M. R. , ŞAHİN B.

INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.42, no.12, pp.3770-3779, 2018 (Journal Indexed in SCI)

5. **The fastest animals and vehicles are neither the biggest nor the fastest over lifetime**

Bejan A., Gunes U., Charles J. D. , Şahin B.

SCIENTIFIC REPORTS, vol.8, 2018 (Journal Indexed in SCI)

6. **Performance analysis of Multipurpose Refrigeration System (MRS) on fishing vessel**

ÜST Y., Karakurt A. S. , Gunes Ü.

Polish Maritime Research, vol.23, no.2, pp.48-56, 2016 (Journal Indexed in SCI Expanded)

## Articles Published in Other Journals

1. **Sosyoekonomik Eşitsizlikler ve Tabakalaşma Araştırmalarının Gelişimi: Bibliyometrik Bir Analiz**  
SUNAR L., GÜNEŞ Ü.  
İnsan Toplum, vol.10, no.4, pp.505-555, 2020 (Journal Indexed in ESCI)
2. **Akış Sistemleri: Yapay Zekâ ve Kişiselleştirilmiş Eğitime Bir Bakış**  
GÜNEŞ Ü.  
Uluslararası Maarif Dergisi, vol.1, no.1, pp.44-47, 2020 (Non-Refreed Journal)
3. **A NEW APPROACH FOR EVALUATING THE RANKINE CYCLE THROUGH ENTROPY GENERATION**  
KARAKURT A. S. , GÜNEŞ Ü.  
JOURNAL OF THERMAL ENGINEERING, vol.5, no.6, pp.141-148, 2019 (Journal Indexed in ESCI)
4. **Hayvanlar ve araçlarda hız ve boyut ilişkisinin analizi için bir mühendislik yaklaşımı**  
Şahin B., Güneş Ü.  
Mimar ve Mühendis Dergisi, pp.66-68, 2018 (National Non-Refereed Journal)
5. **Tabiatın taklidi mi yoksa tabiatın prensipleri mi?**  
Güneş Ü.  
Hendese Bilim Teknoloji ve Düşünce Dergisi, pp.74-79, 2018 (National Non-Refereed Journal)
6. **Performance Analysis of a Steam Turbine Power Plant at Part Load Conditions**  
Karakurt A. S. , Güneş Ü.  
JOURNAL OF THERMAL ENGINEERING, vol.3, no.2, pp.1121-1128, 2017 (International Refereed University Journal)
7. **Exergy And Economic Analysis Of Dual Pressure Waste Heat Recovery Boiler**  
Güneş Ü., Karakurt A. S.  
International Journal of Advances in Mechanical and Civil Engineering, vol.2, no.5, pp.41-43, 2015 (Refereed Journals of Other Institutions)
8. **Buharın Gücü**  
GÜNEŞ Ü.  
Hendese Bilim Teknoloji ve Düşünce Dergisi, vol.1, no.4, pp.70-75, 2015 (National Non-Refereed Journal)

## Books & Book Chapters

1. **Proceeding of V. Turkey Graduate Studies Conference (TLCK)**  
Yavaş E. S. (Editor), Güneş Ü. (Editor)  
-, İstanbul, 2016
2. **Proceeding of IV. Turkey Graduate Studies Conference (TLCK)**  
Dinçer H. (Editor), Güneş Ü. (Editor)  
Dumlupınar Üniversitesi, İstanbul, 2015
3. **Proceeding of III. Turkey Graduate Studies Conference (TLCK)**  
Kayar N. (Editor), Güneş Ü. (Editor)  
Sakarya Üniversitesi Basımevi Müdürlüğü, Sakarya, 2014
4. **Proceeding of II. Turkey Graduate Studies Conference (TLCK)**  
Güneş Ü.  
Bursa Büyükşehir Belediyesi, Bursa, 2013
5. **Proceeding of I. Turkey Graduate Studies Conference (TLCK)**  
Yıldız F., Güneş Ü. (Editor)  
Konya Büyükşehir Belediyesi, Konya, 2012

## Refereed Congress / Symposium Publications in Proceedings

1. **Kuzey Kutup Hattında Çalışan Bir Gemiye Ait Soğutma Sisteminin Enerji ve Ekserji Analizleri**  
Karakurt A. S. , Güneş Ü.

- 22nd Congress on Thermal Science and Technology (CTST 2019), Kocaeli, Turkey, 11 - 14 September 2019, pp.1-6
2. **The effect of size on entropy generation for waste heat recovery boiler**  
Güneş Ü., Karakurt A. S. , Şahin B.  
The 32nd International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems (ECOS 2019), Wroclaw, Poland, 23 - 28 June 2019, pp.809-818
  3. **World constructal network of scientific publications, coauthorship and citations**  
RAZERA A. L. , SANTOS E. d. , ISOLDÍ L. A. , ERRERA M. R. , GÜNEŞ Ü., ROCHA L. A. O.  
Constructal Law Second Law Conference 2019, Porto-Alegre, Brazil, 11 - 13 March 2019, pp.155-159
  4. **Constructal Timeline**  
GÜNEŞ Ü., ŞAHİN B.  
Constructal Law Second Law Conference 2019, Porto-Alegre, Brazil, 11 - 13 March 2019, pp.151-154
  5. **Exergetic Performance Analysis of Fishing Vessel Refrigeration System**  
Karakurt A. S. , Güneş Ü.  
2nd International Congress on Energy Systems (ICES-2016), İstanbul, Turkey, 22 December 2016, pp.1-10
  6. **Balıkçı Gemisi Soğutma Sisteminin Birinci Yasa Analizleri**  
Karakurt A. S. , Güneş Ü.  
1. Uluslararası Gemi ve Deniz Teknolojisi Kongresi (GMO-SHIPMAR), İstanbul, Turkey, 8 - 09 December 2016
  7. **Balıkçı Teknesi Soğutma Sisteminin Ekserji Analizleri**  
KARAKURT A. S. , GÜNEŞ Ü.  
1st International Congress on Ship and Marine Technology, İstanbul, Turkey, 8 - 09 December 2016, vol.1
  8. **Exergetic and economic analysis of subcooling & superheating effect on vapor compression refrigeration system**  
Karakurt A. S. , Güneş Ü., Üst Y.  
Proceedings of ASME 2016 Power and Energy Conference, North-Carolina, United States Of America, 26 June 2016, pp.1-10
  9. **Performance Analysis of a Steam Power Plant with District Heating**  
Koroğlu T., Karakurt A. S. , Güneş Ü.  
29th International Conference on Efficiency, Cost, Optimisation, Simulation and Environmental Impact of Energy Systems (ECOS 2016)., Postojna, Slovenia, 19 - 23 June 2016
  10. **Exergetic and economic analysis of subcooling & superheating effect on vapor compression refrigeration system**  
KARAKURT A. S. , GÜNEŞ Ü., ÜST Y.  
ASME 2016 Power Conference, POWER 2016, collocated with the ASME 2016 10th International Conference on Energy Sustainability and the ASME 2016 14th International Conference on Fuel Cell Science, Engineering and Technology, North-Carolina, United States Of America, 26 - 30 June 2016
  11. **Performance Analysis of Turbocharged 2-Stroke Diesel Engine**  
Güneş Ü., Üst Y., Karakurt A. S.  
1st International Conference on Engineering and Natural Sciences, Skopje, Macedonia, 15 - 19 May 2015, vol.1, pp.656-664
  12. **Exergetic Performance Analyses of Natural Gas Liquefaction Processes**  
KARAKURT A. S. , GÜNEŞ Ü., ÜST Y.  
INT-NAM 2014 2st International Symposium on Naval Architecture and Maritime, İstanbul, Turkey, 23 - 24 October 2014, vol.1, pp.235-247
  13. **Organik Rankin Çevrimi Teknolojisi ve Gemilerde Uygulanma Alanı**  
GÜNEŞ Ü.  
Gemi İnşaatı ve Deniz Teknolojisi Teknik Kongresi 2012, 01 December 2012, pp.487-493
  14. **Cooling System Design for a Fuel Cell Powered Pleasure Boat 1st International Symposium on Naval Architecture and Maritime**  
ARIKAN ÖZDEN Y., ÇELİK F., GÜNEŞ Ü.  
1st International Symposium on Naval Architecture and Maritime, İstanbul, Turkey, 24 - 25 October 2011, vol.1, pp.119-124

## Other Publications

1. **Gemilerde Atık Isı Geri Kazanım Yöntemlerinin Teknik ve Ekonomik Yönden İncelenmesi**  
GÜNEŞ Ü.  
Other, 2013

## Activities in Scientific Journals

İnsan ve Toplum Dergisi, Assistant Editor, 2017 - Continues  
Nazariyat İslam Felsefe ve Bilim Tarihi Araştırmaları Dergisi, Assistant Editor, 2013 - Continues  
Hendese Bilim, Teknoloji ve Düşünce Dergisi, Assistant Editor, 2013 - Continues

## Memberships / Tasks in Scientific Organizations

The Royal Institution of Naval Architects (RINA), Member, 2016 - Continues  
American Society of Mechanical Engineers (ASME), Member, 2016 - Continues  
İlmi Etüdler Derneği, Board Member, 2012 - Continues  
Gemi Mühendisleri Odası, Member, 2011 - Continues

## Edit Congress and Symposium Activities

2018 NSF Workshop on Constructal Theory, Attendee, Pennsylvania, United States Of America, 2018

## Citations

Total Citations (WOS):19  
h-index (WOS):3

## Research Areas

Thermodynamics, Thermal Systems, Naval Architecture and Marine Engineering, Ship Machines, Engineering and Technology

## Non Academic Experience

Other Public Institution, İstanbul Ulaşım Aş.