

# AYKUT SAFA

## ASSOC. PROF.

Email : safa@yildiz.edu.tr

Other Email : safa/aykut@gmail.com

Office Phone : [+90 212 383 2855](tel:+902123832855)

Fax Phone : [+90 212 383 3021](tel:+902123833021)

Address : Yıldız Mah, Yıldız Teknik Üniversitesi yolu, No:25, T-432, 34349, Beşiktaş, İstanbul

### International Researcher IDs

ScholarID: jDYjvS0AAAAJ

ORCID: 0000-0002-9650-3651

Publons / Web Of Science ResearcherID: AAZ-8935-2020

ScopusID: 22836514000

Yoksis Researcher ID: 11009



### Learning Knowledge

---

Doctorate	Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Gemi İnşaatı Ve Gemi Makineleri Mühendisliği, Turkey
2000 - 2006	

---

Postgraduate	Yıldız Technical University, Graduate School Of Natural And Applied Sciences, Gemi İnşaatı Mühendisliği, Turkey
1998 - 2000	

---

Undergraduate	Yıldız Technical University, Faculty Of Mechanical Engineering, Gemi İnşaatı Ve Gemi Makineleri Mühendisliği, Turkey
1994 - 1998	

---

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, İçten Yanmalı Motorlarda Proses ve Emisyon Modellemesi, Yıldız Teknik Üniversitesi, Graduate School of Natural and Applied Sciences, Gemi İnşaatı Ve Gemi Makineleri Mühendisliği, 2006

Postgraduate, Gaz Türbinli Tahrik Sistemlerinde Optimal Rejeneratör Boyutlarının Alternatif Performans Kriterlerine göre Belirlenmesi, Yıldız Teknik Üniversitesi, Graduate School of Natural and Applied Sciences, Gemi İnşaatı Mühendisliği, 2000

### Supported Projects

1. KÖKKÜLÜNK G., ERGENÇ A. T., ELÇİÇEK H., AYDIN Z., SERT O., OKUMUŞ F., KAYA A., SAFA A., Kaya C., Project Supported by Higher Education Institutions, Uluslararası emisyon standartlarına uyum için gezinti ve balıkçı teknelerde emülsife yakıt kullanımının deneysel olarak araştırılması, 2018 - 2020
2. GONCA G., ŞAHİN B., ARSLAN F., SAFA A., Project Supported by Higher Education Institutions, İçten Yanmalı Motorlar İçin Teorik ve Deneysel Çalışmalara Dayalı Yeni Bir Termo-Ekolojik Performans Analiz Kriterinin

Published journal articles indexed by SCI, SSCI, and AHCI

1. **Renewable energy resources: Combustion and environmental impact of diesel with pyrolytic and biodiesel blends**  
Sönmez H. İ., Okumuş F., Safa A., Aydin Z., Kaya C., Kökkülüñk G.  
Energy and Environment, vol.34, no.4, pp.855-872, 2023 (SSCI)
2. **Exergetic and exergoeconomic analyzes of compressed natural gas as an alternative fuel for a diesel engine**  
Kaya C., AYDIN Z., KÖKKÜLÜNK G., SAFA A.  
Energy Sources, Part A: Recovery, Utilization and Environmental Effects, vol.45, no.2, pp.3722-3741, 2023 (SCI-Expanded)
3. **Waste to energy conversion: Pyrolytic oil and biodiesel as a renewable fuel blends on diesel engine combustion, performance, and emissions**  
Sönmez H. İ., Okumuş F., Kaya C., Aydin Z., Safa A., Kökkülüñk G.  
INTERNATIONAL JOURNAL OF GREEN ENERGY, vol.19, no.12, pp.1333-1344, 2022 (SCI-Expanded)
4. **Performance and emission characteristics of waste frying oil biodiesel blends as pilot fuel on a dual fuel compression ignition engine**  
Aydin Z., Safa A.  
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, vol.0, no.0, pp.1-17, 2020 (SCI-Expanded)
5. **Thermodynamic Analysis and Multi-Objective Optimization of Solar Heat Engines**  
ÜST Y., ÖZSARI İ., ARSLAN F., SAFA A.  
Arabian Journal for Science and Engineering, vol.45, no.11, pp.9669-9684, 2020 (SCI-Expanded)
6. **Combined influence of supercharging, EGR, biodiesel and ethanol on emissions of a diesel engine: Proposal of an optimization strategy**  
Ayhan V., Cangal C., Cesur I., SAFA A.  
ENERGY, vol.207, 2020 (SCI-Expanded)
7. **Comparison of steam injected diesel engine and Miller cycled diesel engine by using two zone combustion model**  
GONCA G., ŞAHİN B., ÜST Y., Parlak A., SAFA A.  
JOURNAL OF THE ENERGY INSTITUTE, vol.88, no.1, pp.43-52, 2015 (SCI-Expanded)
8. **The Effects of Cycle Temperature and Cycle Pressure Ratios on the Performance of an Irreversible Otto Cycle**  
ÜST Y., ŞAHİN B., Safa A.  
ACTA PHYSICA POLONICA A, vol.120, no.3, pp.412-416, 2011 (SCI-Expanded)
9. **Analysis of a vapour compression refrigeration system via exergetic performance coefficient criterion**  
ÜST Y., AKKAYA A. V., SAFA A.  
JOURNAL OF THE ENERGY INSTITUTE, vol.84, no.2, pp.66-72, 2011 (SCI-Expanded)
10. **Ecological performance analysis of an endoreversible regenerative Brayton heat-engine**  
Ust Y., Safa A., Sahin B.  
APPLIED ENERGY, vol.80, pp.247-260, 2005 (SCI-Expanded)

Articles Published in Other Journals

1. **A THEORETICAL PERFORMANCE INVESTIGATION OF IRREVERSIBLE INTERNAL COMBUSTION ENGINE NAMED AS DUAL-MILLER CYCLE**

Üst Y., Özsarı İ., Arslan F., Safa A.

SIGMA JOURNAL OF ENGINEERING AND NATURAL SCIENCES-SIGMA MUHENDISLIK VE FEN BİLİMLERİ DERGİSİ,  
vol.38, no.1, pp.459-473, 2020 (ESCI)

2. **Performance and Heat Release Rate of a Diesel Engine Using Sunflower Methyl Esters and Diesel Fuel Blends in Experimental Comparison**

Safa A.

Sakarya University Journal Of Science, vol.23, no.6, pp.1279-1288, 2019 (Peer-Reviewed Journal)

3. **Analysis of Exhaust and Stack Systems of a Warship**

Bayraktar S., Safa A., Çelebi U. B., Ekinci S.

Ovidius University Annals of Mechanical Engineering, vol.8, no.1, pp.1-6, 2006 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

1. **Experimental Investigation of using Emulsified Fuel in a Diesel Engine on Performance and NOx Emissions**

Okumuş F., Kökkünlük G., Kaya C., Safa A.

III. GLOBAL CONFERENCE ON INNOVATION IN MARINE TECHNOLOGY AND THE FUTURE OF MARITIME TRANSPORTATION, İzmir, Turkey, 18 - 19 April 2019, pp.15-23

2. **The Prediction of Ship Shaft Bearing Gap by Artificial Neural Networks and Dry Docking Maintenance Planning**

Safa A., Kalender S.

III. Global Conference on Innovation in Marine Technology and the Future of Maritime Transportation, İzmir, Turkey, 18 - 19 April 2019, vol.1, no.40, pp.617-626

3. **COMPARATIVE EXERGETIC PERFORMANCE EVALUATION OF GASEOUS ANDLIQUID FUELS**

GONCA G., SAFA A., KAYADELEN H. K., KALE F. M.

INTERNATIONAL CONFERENCE ON ADVANCES IN SCIENCE ICAS 2016, 31 August - 02 September 2016

4. **Performance Characteristics of a Spark Ignition SI Engine Fueled with Liquid Fuels and Alcohols**

GONCA G., SAFA A., KALE F. M., BAL E.

ICENS International Conference on Engineering and Natural Science, 24 - 28 May 2016

5. **The effect of hydrophobicity in bow flare and wet deck slamming**

KORKMAZ F. C., GÜZEL B., SAFA A.

26th Annual International Ocean and Polar Engineering Conference, ISOPE 2016, Rhodes, Greece, 26 June - 01 July 2016, pp.469-472

6. **COMPARISON OF STEAM INJECTED DIESEL ENGINE AND MILLER CYCLED DIESEL ENGINE BY USING TWO ZONE COMBUSTION MODEL**

GONCA G., ŞAHİN B., ÜST Y., PARLAK A., SAFA A.

12. International Combustion Symposium, 24 - 26 May 2012

7. **Comparison of Diesel Engine and Miller Cycled Diesel Engine by Using Two Zone Combustion Model**

GONCA G., KAYADELEN H. K., SAFA A., ŞAHİN B., PARLAK A., ÜST Y.

INT-NAM 2011, İstanbul, Turkey, 24 - 25 October 2011

8. **Green Ship New Ideas for Environmentally Friendly Ships**

SAFA A., ÇELEBİ U. B.

MARTECH 2011, LİZBON, Portugal, 10 - 12 May 2011

9. **Static Analysis of Anti symmetric Angle Ply Shells Using a Higher Order Theory**

ÖKTEM A. S., SAFA A.

ICCE 15, HAYNAN, ÇİN HALK CUMHURİYETİ HONG KONG ÖZEL İDARI BÖLGESİ, 15 - 21 July 2007

10. **Cfd and analytical analysis of exhaust system of a gas turbine used in a ship**

Bayraktar S., SAFA A., YILMAZ T.

International Conference on Numerical Analysis and Applied Mathematics, Corfu, Greece, 16 - 20 September 2007, vol.936, pp.619-620

11. **Analysis of Exhaust Systems of a Gas Turbine Powered Vessel**  
Bayraktar S., Safa A., Celebi U. B., Ekinci S.  
An International Conference on Small Craft Related Sciences and Engineering (SMALLCRAFT 2006), 16-18 November, 2006, Antalya, Turkey, 16 - 18 November 2006, vol.1, no.1, pp.1-6
12. **Simulation of in cylinder processes and emission formation in internal combustion engines**  
KESGİN U., SAFA A.  
ECOS 2005, TRONDHEIM, Norway, 20 - 22 June 2005
13. **İçten yanmalı motorlarda silindir içindeki proseslerin ve emisyon oluşumunun hesaplanması için modeller**  
KESGİN U., SAFA A., DURMUŞOĞLU Y.  
8. Uluslararası Yanma Sempozyumu, Ankara, Turkey, 8 - 09 September 2004
14. **Gaz Türbinli tahrik sistemlerinde optimal rejeneratör boyutlarının alternatif performans kriterlerine göre belirlenmesi**  
SAFA A., ŞAHİN B.  
7. Uluslararası Yanma Sempozyumu, Ankara, Turkey, 17 - 18 July 2002

## Academic and Administrative Experience

2008 - 2010	<b>Deputy Head of Department</b>	Yildiz Technical University, Naval Architecture And Maritime Faculty, Department Of Marine Engineering Operations
-------------	----------------------------------	--

## Courses

Basic Computer Science, Undergraduate, 2019 - 2020

## Advising Theses

- Safa A., Gemi şaft yatağı boşluğunun yapay sinir ağları ile öngörüsü ve havuz bakım planlaması, Postgraduate, S.KALENDER(Student), 2019
- Safa A., MATHEMATICAL MODELLING OF FOUR STROKE DIESEL GENERATOR, Postgraduate, D.GÜLŞEN(Student), 2018
- SAFA A., İçten yanmalı motorlarda turbo aşırı doldurma grubunun termodinamik modellemesi, Postgraduate, E.YALÇIN(Student), 2016
- SAFA A., Güneş enerjisi ile çalışan absorbsiyonlu soğutma sistemlerinin termodinamik incelemesi sistem simülasyonu ve analizi, Postgraduate, N.KURTDERE(Student), 2016

## Scientific Research / Working Group Memberships

Eta Ship And Energy Research Group (Eser), Yildiz Technical University, Türkiye, <https://avesis.yildiz.edu.tr/arastirma-grubu/eser>, 2020 - Continues

## Metrics

Publication: 28

Citation (WoS): 151

Citation (Scopus): 199

H-Index (WoS): 5

H-Index (Scopus): 5

## Research Areas

Mechanical Engineering, Thermodynamics, Internal Combustion Engines, Naval Architecture and Marine Engineering, Ship Machines, Engineering and Technology