



SÜLEYMAN AYKUT KORKMAZ

RES. ASST. PHD

Email : aykut.korkmaz@deu.edu.tr

International Researcher IDs

ScholarID: bmt1adEAAAAJ

ORCID: 0000-0001-5972-6971

Publons / Web Of Science ResearcherID: P-3300-2019

ScopusID: 55884145000

Yoksis Researcher ID: 187679



Learning Knowledge

Doctorate 2017 - 2023	Dokuz Eylul University, Fen Bilimleri Enstitüsü, Deniz Ulaştırma Sistemleri Mühendisliği (Dr), Turkey
Associate Degree 2018 - 2019	Anadolu University, Open Education Faculty, Department Of Computer Technologies, Turkey
Undergraduate 2014 - 2018	Dokuz Eylul University, Hukuk Fakültesi, Hukuk Pr., Turkey
Postgraduate 2014 - 2017	Dokuz Eylul University, Fen Bilimleri Enstitüsü, Deniz Ulaştırma Sistemleri Mühendisliği (Yl) (Tezli), Turkey
Associate Degree 2011 - 2014	Anadolu University, Open Education Faculty, Department Of Law, Turkey
Undergraduate 2004 - 2009	Istanbul Technical University, Gemi İnşaatı Ve Deniz Bilimleri Fakültesi, Gemi İnşaatı Ve Gemi Makineleri Mühendisliği Bölümü, Turkey

Foreign Languages

English, C1 Advanced

Certificates, Courses and Trainings

Quality Management, ISO 991:2015 Kalite Yönetim Sistemi Bilgilendirme Eğitimi, RINA ACADEMY, 2019

Vocational Course, Simülatör Eğiticilerinin Eğitimi (IMO Model Kurs 6.10), Dokuz Eylül Üniversitesi, 2017

Vocational Course, Denizci Eğiticileri Eğitimi (IMO Model Kurs 6.09), Dokuz Eylül Üniversitesi, 2017

Vocational Training, STCW Denizde Güvenlik Eğitici Eğitimi, Dokuz Eylül Üniversitesi Denizcilik Fakültesi, 2017
Entrepreneurship, Uygulamalı Girişimcilik Eğitimi, KOSGEB - İŞKUR, 2016
Entrepreneurship, Dokuz Eylül Girişimcilik Akademisi Sertifika Programı, Dokuz Eylül Üniversitesi, 2014
Vocational Training, Bilgisayar Destekli Gemi Tasarımı ve Maxsurf, The Chamber of Turkish Naval Architects & Marine Engineers, 2008

Dissertations

Doctorate, PERFORMANCE ANALYSIS AND OPTIMIZATION OF INTEGRATED FUEL CELL-BATTERY SYSTEMS FOR MARINE APPLICATIONS, Dokuz Eylul University, Denizcilik Fakültesi, Gemi Makinaları İşletme Mühendisliği Bölümü(İng), 2023
Postgraduate, Gemilerde yakıt pili teknolojileri: sistem dinamikleri yaklaşımı, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Deniz Ulaştırma Sistemleri Mühendisliği (YI) (Tezli), 2017

Academic Titles / Tasks

Research Assistant 2014 - Continues	Dokuz Eylul University, Denizcilik Fakültesi, Gemi Makinaları İşletme Mühendisliği Bölümü(İng)
--	--

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
- ÇOLPAN C. Ö., Tural K., YÜKSEL ALPAYDIN C., Çetinkaya S. A., Alpaslan E., KORKMAZ S. A., KEMALOĞLU (Yüksek Lisans Bursiyeri) Z., KONUR O., GÖREN A., KARAOĞLAN M. U., et al, Project Supported by Higher Education Institutions, Yakıt Pili Seri-Hibrit Kara ve Deniz Araçlarının Enerji Depolama ve Üretim Sistem Parametrelerinin Optimizasyonu ve Prototip Araçların Geliştirilmesi, 2020 - 2024

Scholarships

DAAD Green Hydrogen Research Tour 2023, Official Institutions of Foreign Countries, 2023 - 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- Life cycle cost assessment of geothermal energy assisted hydrogen liquefaction for sustainable and renewable energy applications: Case study and adaptation for Afyon geothermal power plant**
Yilmaz C., KORKMAZ S. A.
International Journal of Hydrogen Energy, vol.72, pp.772-788, 2024 (SCI-Expanded)
- Comparison of various metaheuristic algorithms to extract the optimal PEMFC modeling parameters**
Korkmaz S. A., Çetinkaya S. A., Yuksel O., Konur O., Erginer K. E., Çolpan C. Ö.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.51, no.D, pp.1402-1420, 2024 (SCI-Expanded)
- Comparative Economic Assessment of On-Grid Solar Power System Applications Having Limited Areas: A Case Study on a Shore Facility**
Gülmez Y., Konur O., Yüksel O., Korkmaz S. A.
ENVIRONMENTAL MODELING AND ASSESSMENT, vol.29, no.2024, pp.667-681, 2023 (SCI-Expanded)

4. **Environmental and economic analyses of fuel cell and battery-based hybrid systems utilized as auxiliary power units on a chemical tanker vessel**
Korkmaz S. A., Erginer K. E., Yuksel O., Konur O., Çolpan C. Ö.
International Journal of Hydrogen Energy, vol.48, no.60, pp.23279-23295, 2023 (SCI-Expanded)
5. **Operation-dependent exergetic sustainability assessment and environmental analysis on a large tanker ship utilizing Organic Rankine cycle system**
Konur O., Yuksel O., Aykut Korkmaz S. A., Ozgur Colpan C. Ö., Saatçioğlu Ö. Y., Koseoglu B.
ENERGY, vol.262, 2023 (SCI-Expanded)
6. **Thermal design and analysis of an organic rankine cycle system utilizing the main engine and cargo oil pump turbine based waste heats in a large tanker ship**
Konur O., Yüksel O., Korkmaz S. A., Çolpan C. Ö., Saatçioğlu Ö. Y., Muslu I.
JOURNAL OF CLEANER PRODUCTION, vol.368, 2022 (SCI-Expanded)
7. **A review on fuel cell electric vehicle powertrain modeling and simulation**
Alpaslan E., Cetinkaya S. A., Alpaydin C. Y., Korkmaz S. A., Karaoğlu M. U., Çolpan C. Ö., Erginer K. E., Gören A.
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, 2021 (SCI-Expanded)
8. **Heat exchanger network design of an organic Rankine cycle integrated waste heat recovery system of a marine vessel using pinch point analysis**
Konur O., Saatçioğlu Ö. Y., Korkmaz S. A., Erdogan A., Çolpan C. Ö.
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.44, no.15, pp.12312-12328, 2020 (SCI-Expanded)
9. **Performance assessment of a marine freshwater generator through exergetic optimization**
Yüksel O., Gulmez Y., Konur O., Korkmaz S. A., Erdogan A., Çolpan C. Ö.
JOURNAL OF CLEANER PRODUCTION, vol.219, pp.326-335, 2019 (SCI-Expanded)
10. **Influence of Surface Treatment on Strength Distribution of Vita VMK 68 Dental Porcelains**
Nohut S., Tasdemir A., KORKMAZ S. A.
ADVANCES IN MATERIALS SCIENCE AND ENGINEERING, vol.2013, 2013 (SCI-Expanded)

Articles Published in Other Journals

1. **Environmental Impacts of Organic Rankine Cycle System Utilization on Cruise and Ro-Ro Ships in Port Areas**
Konur O., Yüksel O., Korkmaz S. A.
Deniz Taşımacılığı ve Lojistiği Dergisi, vol.3, no.2, pp.90-97, 2022 (Peer-Reviewed Journal)
2. **Örnek Bir Marina Sahasında Yatlardan Kaynaklı Ortalama Salım Miktarlarının Hesaplanması**
Yüksel O., Korkmaz S. A., Konur O.
Deniz Taşımacılığı ve Lojistiği Dergisi, vol.3, no.1, pp.1-7, 2022 (Peer-Reviewed Journal)

Books & Book Chapters

1. **SHIP WIND RESISTANCE PREDICTION: A CASE-BASED APPROACH**
GÖKSU B., KORKMAZ S. A., ERGİNER K. E.
in: ENGINEERING AND ARCHITECTURAL SCIENCES Theory, Current Researches and New Trends/2021, Assoc. Prof. Dr. Meruyert KAYGUSUZ, Editor, First Edition •© May 2021 /Cetinje-Montenegro, Montero, pp.1-22, 2021
2. **Thermodynamic Modeling of a Seawater-Cooled Foldable PV Panel System**
KONUR O., KORKMAZ S. A., YÜKSEL O., GÜLMEZ Y., ERDOĞAN A., ERGİNER K. E., ÇOLPAN C. Ö.
in: Environmentally-Benign Energy Solutions, , Editor, Springer Nature Switzerland AG 2020, pp.259-272, 2019

Refereed Congress / Symposium Publications in Proceedings

1. **COMPARATIVE ANALYSIS OF LUMPED MODEL AND NTGK MODEL APPROACHES FOR LI-ION BATTERIES**
Tekin V., Karakor A., Korkmaz S. A., Çolpan C. Ö., Ezan M. A., Karaođlan M. U., Erek A., Çetkin E.
12th Global Conference on Global Warming (GCGW-2024), Şanlıurfa, Turkey, 16 - 19 May 2024, pp.507-510
2. **INVESTIGATION OF COLD PLATE-BASED THERMAL MANAGEMENT SYSTEM FOR LI-ION BATTERIES**
Karakor A., Tekin V., Korkmaz S. A., Çolpan C. Ö., Ezan M. A., Karaođlan M. U., Erek A., Yurddaş A.
12th Global Conference on Global Warming (GCGW-2024), Şanlıurfa, Turkey, 16 - 19 May 2024, pp.514-517
3. **Parametric Investigation of Immersion Type Thermal Management System of Li Ion Pouch Battery Module**
KARAKOR A., Tekin V., KORKMAZ S. A., ÇOLPAN C. Ö., EZAN M. A., KARAOĐLAN M. U., YURDDAŞ A.
37th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems (ECOS2024), Rodos, Greece, 30 June - 05 July 2024
4. **Thermodynamic Performance Assessment of PEMFC Powered Air to Water Heat Pump**
ERDOĐAN A., Özcan Bilgiliođlu Ö., Yıldırım O., KORKMAZ S. A., İnci Ö. C., ÇOLPAN C. Ö.
8th International Hydrogen Technologies Congress, Diyarbakır, Turkey, 12 May 2024
5. **Enhancing Electric Vehicle Performance: Optimizing Battery Thermal Management With Cold Plate Technology**
Tekin V., KARAKOR A., KORKMAZ S. A., ÇOLPAN C. Ö., EZAN M. A., KARAOĐLAN M. U., ÇETKİN E., YURDDAŞ A.
37th International Conference on Efficiency, Cost, Optimization, Simulation and Environmental Impact of Energy Systems (ECOS2024), Rodos, Greece, 30 June 2024
6. **Design, Data Analysis and Prototype Manufacturing of Off-Grid Domestic Refrigerator Systems**
Güneş B. H., Sevinçli B., Acar U., Özden T. A., Konur O., Korkmaz S. A., Erdođan A., Aşık R.
8th International Hydrogen Technologies Congress, Diyarbakır, Turkey, 12 - 15 May 2024
7. **Thermodynamic Analysis of a Waste Heat Recovery System Design for an Off-Shore Platform Supply Vessel**
Konur O., Korkmaz S. A.
I. International Maritime and Logistics Congress, Zonguldak, Turkey, 22 - 23 September 2023, pp.356-360
8. **Assessing Economic Viability of Fuel Cell and Battery Hybrid Propulsion in Recreational Boats: Incorporating Degradation Rate in Batteries**
Korkmaz S. A., Konur O., Çolpan C. Ö., Erginer K. E.
14th International Conference on Thermal Engineering: Theory and Applications, Yalova, Turkey, 25 - 27 May 2023, no.2023, pp.1-4
9. **Economic Analysis of Fuel Cell and Battery Hybrid Configurations for a Recreational Boat**
Konur O., Korkmaz S. A., Çetinkaya S. A., Çolpan C. Ö., Erginer K. E.
7th International Hydrogen Technologies Congress, Elazığ, Turkey, 10 - 12 May 2023, pp.116-119
10. **Thermodynamic Performance Assessment of PEMFC Powered Mini-Refrigerator**
Erdođan A., Korkmaz S. A., Aşık R., Çolpan C. Ö., Arslan F.
Global Conference on Global Warming-2022 (GCGW-2022), Sharjah, United Arab Emirates, 7 - 10 November 2022
11. **Comparison of various metaheuristic algorithms to find the optimal PEMFC modeling parameters**
Çetinkaya S. A., ÇOLPAN C. Ö., KORKMAZ S. A., ERGİNER K. E.
6th International Hydrogen Technologies Congress, Çanakkale, Turkey, 23 January 2022, pp.210-213
12. **Parameter optimization of PEMFC by Elitist Continuous Genetic Algorithm**
KORKMAZ S. A., ERGİNER K. E., Çetinkaya S. A., ÇOLPAN C. Ö.
6th International Hydrogen Technologies Congress, Çanakkale, Turkey, 23 January 2022, pp.176-179
13. **Environmental Analysis of Fuel Cell-Battery Hybrid System for an Oil/Chemical Tanker Ship**
Korkmaz S. A., Erginer K. E., Yüksel O., Konur O., Çolpan C. Ö.
6th International Hydrogen Technologies Congress (IHTEC 2022), Çanakkale, Turkey, 23 - 26 June 2022, pp.371-375
14. **Economic Evaluation of a Marine Ammonia Engine-Based Propulsion System Using Ammonia Cracking Catalyst**
KONUR O., YÜKSEL O., KORKMAZ S. A., ÇOLPAN C. Ö.

6th International Hydrogen Technologies Congress (IHTEC 2022), Çanakkale, Turkey, 23 - 26 January 2022, pp.172-175

15. **A SYSTEM MODEL FOR SIMULATING A FUEL CELL RECREATIONAL BOAT**
KORKMAZ S. A., Çetinkaya S. A., Göksu B., KONUR O., ERGİNER K. E., ÇOLPAN C. Ö.
23rd World Hydrogen Energy Conference: Bridging Continents by H₂, WHEC 2022, İstanbul, Turkey, 26 - 30 June 2022, pp.1087-1090
16. **ÖRNEK GEMİ VERİLERİ KULLANILARAK LİMANLARDAN YAKIT PİLLİ SİSTEMİ İLE GEMİLERE ENERJİ TEMİNİNİN DEĞERLENDİRİLMESİ**
YÜKSEL O., KORKMAZ S. A.
1. Filyos Kongresi, Zonguldak, Turkey, 15 October 2021
17. **Ship Wind Resistance Prediction: A Case-Based Approach**
GÖKSU B., KORKMAZ S. A., ERGİNER K. E.
2nd INTERNATIONAL CONGRESS ON SHIP AND MARINE TECHNOLOGY, İstanbul, Turkey, 16 September 2021
18. **Thermodynamic Modeling of a Seawater-Cooled Foldable PV Panel System**
Konur O., Korkmaz S. A., Yüksel O., Gulmez Y., Erdogan A., Erginer K. E., Çolpan C. Ö.
7th Global Conference on Global Warming (GCGW), İzmir, Turkey, 24 - 28 June 2018, pp.259-272
19. **Heat Exchanger Network Design of an Organic Rankine Cycle System Utilizing Waste Heat of a Marine Vessel Using Pinch Point Analysis**
KONUR O., KORKMAZ S. A., ERDOĞAN A., ÇOLPAN C. Ö., SAATÇIOĞLU Ö. Y.
8th Global Conference on Global Warming (GCGW-2019), 22 - 25 April 2019
20. **THERMODYNAMIC MODELLING OF A SEAWATER COOLED FOLDABLE PV PANEL SYSTEM**
Konur O., Korkmaz S. A., Yüksel O., Gülmez Y., Erdoğan A., Erginer K. E., Çolpan C. Ö.
7th Global Conference On Global Warming, İzmir, Turkey, 24 - 28 June 2018, pp.643-648
21. **AN IMPROVED SYSTEM DESIGN FOR SOLAR BOATS**
Erginer K. E., Gülmez Y., Konur O., Fikir E., Göksu B., Kaya K. D., Pamık M., Yüksel O., Korkmaz S. A.
7th Global Conference on Global Warming, İzmir, Turkey, 24 - 28 June 2018
22. **Energy Analysis of a Vacuum Fresh Water Generator on a Commercial Vessel**
Yüksel O., Gülmez Y., Konur O., Korkmaz S. A., Erdogan A., Çolpan C. Ö.
7th Global Conference on Global Warming, İzmir, Turkey, 24 - 28 June 2018, pp.602-607
23. **Thermodynamic Modelling of an ORC System Utilizing Waste Heat of a Marine Vessel**
ERDOĞAN A., KONUR O., KORKMAZ S. A., ÇOLPAN C. Ö., SAATÇIOĞLU Ö. Y.
7th Global Conference on Global Warming, İzmir, Turkey, 24 - 28 June 2018, pp.950-955
24. **TECHNICAL ASSESSMENT OF A FUEL CELL-BATTERY HYBRID DRIVE POWER SYSTEM: A SYSTEM DYNAMICS APPROACH**
KORKMAZ S. A., ÇOLPAN C. Ö., CERİT A. G.
7th GLOBAL CONFERENCE ON GLOBAL WARMING, 24 - 28 June 2018
25. **IC Çeşme Marina'da Güneş Enerjisi Kullanım Potansiyelinin Değerlendirilmesi**
GÜLMEZ Y., KONUR O., YÜKSEL O., KORKMAZ S. A., AKALTAN C.
VII. ULUSAL III. ULUSLARARASI DOĞU AKDENİZ TURİZM SEMPOZYUMU, Hatay, Turkey, 20 - 21 April 2018, pp.1532-1543
26. **IC Çeşme Marina'da Yatlardan Kaynaklı Ortalama Karbon Salım Miktarlarının Hesaplanması**
YÜKSEL O., KONUR O., GÜLMEZ Y., KORKMAZ S. A., AKALTAN C.
VII. ULUSAL III. ULUSLARARASI DOĞU AKDENİZ TURİZM SEMPOZYUMU BİLDİRİLER KİTABI, Hatay, Turkey, 20 - 21 April 2018, pp.1655-1670
27. **Kruvaziyer Ve Ro-Ro Gemilerinde Organik Rankine Çevrimi Sistemi Kullanımının Liman Sahaları Üzerindeki Çevresel Etkileri**
KONUR O., YÜKSEL O., KORKMAZ S. A., GÜLMEZ Y., TOZMAN N.
VII. ULUSAL III. ULUSLARARASI DOĞU AKDENİZ TURİZM SEMPOZYUMU BİLDİRİLER KİTABI, İskenderun, Turkey, 20 - 21 April 2018, pp.1543-1550
28. **Applications of Fuel Cell Technologies in Ships and Analysis with System Dynamics Approach**
Korkmaz S. A., Cerit A. G.

THE SECOND INTERNATIONAL CONFERENCE ON GLOBALINTERNATIONAL ON INNOVATION IN MARINE TECHNOLOGY AND THE FUTURE OF MARITIMETRANSPORTATION, Muğla, Turkey, 24 - 25 October 2016, pp.42-56

29. **Global Denizcilik ve Gemi İnşa SektöründeYaşanan Gelişmeler ve Ülkemize Yansımalar**
TAŞDEMİR A., KORKMAZ S. A.

Gemi İnşaatı ve Deniz Teknolojisi Teknik Kongresi 2012, İstanbul, Turkey, 13 - 14 December 2012

Academic and Administrative Experience

2022 - Continues	Bölüm Stratejik Plan Komisyonu Üyesi	Dokuz Eylul University, Denizcilik Fakültesi, Gemi Makinaları İşletme Mühendisliği Bölümü(İng)
2019 - Continues	Internship Committee Member	Dokuz Eylul University, Denizcilik Fakültesi, Gemi Makinaları İşletme Mühendisliği Bölümü(İng)
2015 - Continues	Curriculum Preparation Committee Member	Dokuz Eylul University, Denizcilik Fakültesi, Gemi Makinaları İşletme Mühendisliği Bölümü(İng)
2014 - Continues	Exam Program Preparation Commission Member	Dokuz Eylul University, Denizcilik Fakültesi, Gemi Makinaları İşletme Mühendisliği Bölümü(İng)

Activities in Scientific Journals

Gemi ve Deniz Teknolojisi, Technical Redactor, 2021 - Continues

Scientific Refereeing

APPLIED ENERGY, Journal Indexed in SCI-E, January 2024

Necmettin Erbakan Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, National Scientific Refreed Journal, December 2023

International Advanced Researches and Engineering Journal, Other Indexed Journal, November 2023

ENERGY REPORTS, Journal Indexed in SCI-E, August 2023

OCEAN ENGINEERING, Journal Indexed in SCI-E, July 2023

Tasks In Event Organizations

Konur O., Korkmaz S. A., Nuran M., Gemi Makineleri Teknolojileri Semineri-8, Scientific Congress, Turkey, Mayıs 2023

Korkmaz S. A., Konur O., Nuran M., Gemi Makineleri Teknolojileri Semineri-7 , Scientific Congress, Turkey, Mayıs 2022

Çolpan C. Ö., Ezan M. A., Korkmaz S. A., 7th Global Conference on Global Warming-2018 (GCGW-2018), Scientific Congress, İzmir, Turkey, Haziran 2018

Mobility Activity

Post Doc, Post Doc, University of Southampton, England, 2023 - Continues

Metrics

Publication: 43

Citation (WoS): 59

Citation (Scopus): 50

H-Index (WoS): 4

H-Index (Scopus): 4

Congress and Symposium Activities

14th International Conference on Thermal Engineering: Theory and Applications, Attendee, Yalova, Turkey, 2023

The Seventh International Hydrogen Technologies Congress (IHTEC-2023), Attendee, Elazığ, Turkey, 2023

World Hydrogen Energy Conference - 2022, Attendee, İstanbul, Turkey, 2022

International Hydrogen Technologies Congress-IHTEC 2022, Attendee, Çanakkale, Turkey, 2022

Research Areas

Simulation and Modelling, Evolutionary Computing, Neural Networks, Renewable energy, Mechanical Engineering, Energy, Fluid Mechanics, Renewable Energy Systems, Alternative Energy Resources, Energy storage technologies, Hydrogen Technologies and Fuel Cells, Advanced Energy Technologies, Geothermal energy, Wind power, Heat and Mass Transfer, Internal Combustion Engines, Naval Architecture and Marine Engineering, Ship Hydromechanics, Ship Construction, Ship Machines, Engineering and Technology