

Assoc. Prof. SİNEM UZUN

Personal Information

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International Researcher IDs

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Education Information

Post Doctorate, University of Glasgow, James Watt School of Engineering, Mechanical Engineering, England 2022 - 2023

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Enerji Sistemleri Mühendisliği, Turkey 2016 - 2021

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Enerji Sistemleri Mühendisliği, Turkey 2013 - 2015

Undergraduate, Anadolu University, Faculty Of Economics, İktisat, Turkey 2008 - 2014

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Nükleer Enerji Mühendisliği Bölümü, Turkey 2006 - 2012

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, NEUTRONIC AND THERMAL ANALYSIS OF DIFFERENT NANO COOLANTS OF THE THORIUM FUELED VVER 1000 REACTOR, Gazi University, Fen Bilimleri Enstitüsü, 2021

Research Areas

Energy, Engineering and Technology

Academic Titles / Tasks

Assistant Professor, Erzincan Binali Yıldırım University, Mühendislik-Mimarlık Fakültesi, Makine Mühendisliği Bölümü, 2022 - Continues

Research Assistant, Erzincan Binali Yıldırım University, Mühendislik-Mimarlık Fakültesi, Makine Mühendisliği Bölümü, 2015 - 2022

Courses

Alternatif Enerji Kaynakları, Undergraduate, 2021 - 2022

Bilgisayar Destekli Teknik Resim, Undergraduate, 2020 - 2021
Temel Bilgi Teknolojisi Kullanımı, Undergraduate, 2020 - 2021
Makine Laboratuvarı, Undergraduate, 2021 - 2022

Supervised Theses

Uzun S., Acir A., Hibrit nano soğutucu akışkan kullanılarak VVER-1000 nükleer reaktörünün termal hidrolik analizi, Postgraduate, T.SİNECAN(Student), 2023

Jury Memberships

Doctorate, Doctorate, Gazi Üniversitesi, January, 2024
Post Graduate, Post Graduate, Gazi Üniversitesi, January, 2023
Doctorate, Doctorate, Gazi Üniversitesi, January, 2023

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Investigation of the thermal effects of MgO and ZnO nanoparticles in a pressurized water reactor coolant with CFD model**
Uzun S.
NUCLEAR TECHNOLOGY, vol.211, no.4, pp.755-767, 2025 (SCI-Expanded)
- II. **Optimizing Neural Network Models for Predicting Nuclear Reactor Channel Temperature: A Study on Hyperparameter Tuning and Performance Analysis**
Uzun S., Yıldız E., Arslantaş H.
NUCLEAR ENGINEERING AND DESIGN, vol.429, no.113636, pp.1-10, 2024 (SCI-Expanded)
- III. **Exploring Thermal Flow Dynamics in Pressurized Water Reactors Using Hybrid Graphene Nanoplatelet Coolants**
Uzun S., Genç Y., Acir A.
Energy Science and Engineering, vol.12, no.11, pp.4894-4903, 2024 (SCI-Expanded)
- IV. **Comprehensive Analysis of Nuclear Clad Materials: Neutronics, Radiation Shielding, and Modal Assessment**
Uzun S.
NUCLEAR ENGINEERING AND DESIGN, vol.428, no. 113510, pp.1, 2024 (SCI-Expanded)
- V. **Investigation of Hybrid Nanofluids Effects on Heat Transfer Characteristics in VVER-1000 Nuclear Reactor**
Uzun S., Genç Y., Acir A.
PROGRESS IN NUCLEAR ENERGY, vol.154, no.104489, pp.1, 2022 (SCI-Expanded)
- VI. **Exergy Analysis and Determination of Irreversibility of a Thermal Power Plant**
Ata İ., Tanürün H. E., Uzun S., Bayrak S., Acir A.
Heat Transfer Research, vol.53, no.2, pp.1-12, 2022 (SCI-Expanded)
- VII. **Experimental Investigation of Thermal Energy Storage Efficiency Using Fin Application with Phase Change Material (PCM) Under Solar Radiation**
Acir A., Canlı M. E., Ata İ., Uzun S., Tanürün H. E.
HEAT TRANSFER RESEARCH, vol.52, no.6, pp.21-39, 2021 (SCI-Expanded)
- VIII. **Thermal Analysis of the VVER-1000 Reactor with Thorium Fuel and Coolant Containing Al₂O₃, CuO and TiO₂ Nanoparticles**
Acir A., Uzun S., Genç Y., Asal Ş.
HEAT TRANSFER RESEARCH, vol.52, no.4, pp.79-93, 2021 (SCI-Expanded)

- IX. **EVALUATION OF THE Al/, Cu/, Si/, Ag/WATER NANOFLUID EFFECTS ON HEAT TRANSFER CHARACTERISTICS IN VVER-1200 LOADED WITH PLUTONIUM-THORIUM-BASED FUEL**
Genç Y., Uzun S., Acır A.
HEAT TRANSFER RESEARCH, vol.52, no.16, pp.1-12, 2021 (SCI-Expanded)

Articles Published in Other Journals

- I. **The Effect of Nanofluid Coolant and Thorium-added Fuel on Burnup Dependent Isotopic Compositions in VVER-1000 Reactor**
Genç Y., Uzun S., Acır A.
Afyon Kocatepe Üniversitesi Fen ve Mühendislik Bilimleri Dergisi, vol.24, no.4, pp.1, 2024 (Peer-Reviewed Journal)
- II. **Determination of Solar Radiation Value by Month Using Artificial Neural Network Model; Ankara, Sivas, Erzurum example**
Uzun S., Arslantaş H.
Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.12, no.1, pp.315-323, 2024 (Peer-Reviewed Journal)
- III. **Investigation of the use of calcium carbonate as nanoparticles in nuclear reactors**
Uzun S., Genç Y., Acır A.
Konya mühendislik bilimleri dergisi (Online), vol.11, no.1, pp.1-9, 2023 (Peer-Reviewed Journal)
- IV. **Investigation of shielding properties of nuclear reactor control rod material boron carbide**
Uzun S.
BOR DERGİSİ, vol.8, no.1, pp.25-30, 2023 (Peer-Reviewed Journal)
- V. **Blocking the Perception of Responsibility for Time Management: Self-Awareness, Communication, Pressure**
Akın M. Ş., Uzun S.
Innovation, vol.4, no.1, pp.1-7, 2023 (Peer-Reviewed Journal)
- VI. **Examination of flat plate collector solar hot water system for Ankara province in Türkiye with TRNSYS software**
Kurnuç Seyhan A., Uzun S., Coşkun S.
JOURNAL OF POLYTECHNIC-POLİTEKNİK DERGİSİ, vol.25, no.4, pp.1809-1816, 2022 (Peer-Reviewed Journal)
- VII. **Evaluation of Irreversibility Analysis for Different Coal Types of a Thermal Power Plant**
Uzun S.
Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.10, no.3, pp.577-587, 2022 (Peer-Reviewed Journal)
- VIII. **UGD ve MOX Yakıtı Kullanılarak VVER-1000 Nükleer Reaktöründe Nötronik Ve Termal Performansın İncelenmesi**
Uzun S., Genç Y., Acır A.
Politeknik Dergisi, vol.2021, 2021 (ESCI)
- IX. **VVER-1000 Reaktöründe Alüminyum Nanoparçacıklı Soğutucunun Termal Performansının İncelenmesi**
Uzun S., Genç Y., Acır A.
Politeknik Dergisi, vol.24, no.3, pp.1009-1015, 2021 (ESCI)
- X. **VVER-1000 Nükleer Güç Reaktöründe Kritiklik ve Bağlı Güç Yoğunluk Dağılımının İncelenmesi**
Genç Y., Uzun S., Acır A.
Politeknik Dergisi, vol.23, no.4, pp.1379-1385, 2020 (ESCI)

Books

- I. **ÜNİVERSİTE TOPLULUĞU ÇEVRE ALGISI, TASARRUF DAVRANIŞLARI VE ENERJİ BİLİNCİ**

ARAŞTIRMASI

ÇETİN M., UZUN S., KURNUÇ SEYHAN A., TANDIROĞLU A.

in: MAKİNE MÜHENDİSLİĞİ ALANINDA ULUSLARARASI ARAŞTIRMALAR I, SOYGÜDER SERVET, Editor, EĞİTİM YAYINEVİ, İstanbul, pp.87-99, 2024

II. IMPORTANT ELEMENTS IN NUCLEAR TECHNOLOGY

Uzun S.

in: THEORY AND RESEARCH IN ENGINEERING, Prof. Dr. Coşkun ÖZALP, Assoc. Prof. Dr. Nurettin Akçakale, Editor, Serüven Yayınevi, İzmir, pp.1-16, 2022

Refereed Congress / Symposium Publications in Proceedings

- I. **Performance Comparison of Flat Plate and Vacuum Tube Solar Collectors Under Erzincan's Climatic Conditions**
Uzun S., Kurnuç Seyhan A.
IX. Uluslararası Sağlık, Mühendislik ve Fen Bilimleri Kongresi, Ankara, Turkey, 27 - 29 September 2024, pp.1
- II. **Development of nuclear energy in the world and 4th generation reactors**
Uzun S.
RENEWABLEENG 2023, Barcelona, Spain, 25 - 27 September 2023, pp.1
- III. **Determination of Cladding Material for Nuclear Power Reactors**
Uzun S., Genç Y.
10. ULUSLARARASI MÜHENDİSLİK MİMARLIK VE TASARIM KONGRESİ, İstanbul, Turkey, 24 - 26 December 2022, pp.12
- IV. **INVESTIGATION OF THE SPENT FUEL PROBLEM WHEN TURKEY MEETS ITS ENERGY NEEDS FROM NUCLEAR PLANTS**
Uzun S.
INTERNATIONAL SCIENTIFIC RESEARCH CONGRESS DEDICATED TO THE 30TH ANNIVERSARY OF BAKU EURASIA UNIVERSITY, Baku, Azerbaijan, 27 - 28 April 2022, pp.1757-1761
- V. **ENERJİ ETKİN BİNALAR ÜZERİNE BİR İNCELEME**
Uzun S.
6. ULUSLARARASI MİMARLIK VE TASARIM KONGRESİ, İstanbul, Turkey, 25 - 26 December 2021, pp.265-270
- VI. **Comparing Nuclear and Solar Energy Options for Turkey**
Uzun S.
International Conference on Engineering Technologies (ICENTE 2021), Konya, Turkey, 18 - 20 November 2021, pp.330-334
- VII. **Thermal Analysis in VVER-1000 Reactor Using Nanofluid Coolant Mixed Alumina**
UZUN S., ACIR A.
International Conference on Innovative Engineering Applications (CIEA 2018), Sivas, Turkey, 20 - 22 September 2018, pp.195-201
- VIII. **Extended Burnup using Reactor Grade Plutonium in Candu Reactor with Various Triso Packing Fractions**
ACIR A., UZUN S.
8th International Advanced Technologies Symposium, Elazığ, Turkey, 19 - 22 October 2017, pp.2230-2235
- IX. **Effect of the Condenser Pressure of Thermal Power Plant Efficiency**
ACIR A., UZUN S.
8th International Advanced Technologies Symposium, Elazığ, Turkey, 19 - 22 October 2017, pp.2236-2241
- X. **Investigation of Neutronic Performance in Fixed Bed Nuclear Reactor**
ACIR A., UZUN S.
II. International Conference on Advanced Engineering Sciences, Bayburt, Turkey, 21 - 23 September 2017, vol.19, pp.796-799
- XI. **Investigation of Neutronic Performance Using Triso Coated Spent Fuels in a Thorium Based Fusion-**

Fission Reactor

ACIR A., UZUN S.

II. International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017, vol.19, pp.685-690

Supported Projects

UZUN S., KURNUÇ SEYHAN A., Project Supported by Higher Education Institutions, Farklı iklim bölgeleri için farklı güneş kolektörü performanslarının TRNSYS yazılımı ile incelenmesi, 2024 - Continues

Activities in Scientific Journals

Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, Committee Member, 2025 - Continues

Metrics

Publication: 32

Citation (WoS): 37

Citation (Scopus): 33

H-Index (WoS): 3

H-Index (Scopus): 4