

## Res. Asst. PhD Fevzi Şahin

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: L-8303-2018

ScopusID: 57215829500

Yoksis Researcher ID: 105435

### Education Information

Doctorate, Ondokuz Mayıs University, Lisansüstü Eğitim Enstitüsü, Makine Mühendisliği (Dr), Turkey 2016 - 2022

Postgraduate, Ondokuz Mayıs University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (YI) (Tezli), Turkey 2014 - 2016

Undergraduate, Zonguldak Bülent Ecevit University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Turkey 2006 - 2011

### Dissertations

Doctorate, Manyetik nanoakışkan akımında ısı transfer karakteristiklerinin deneysel incelenmesi, Ondokuz Mayıs University, Lisansüstü Eğitim Enstitüsü, Makine Mühendisliği (Dr), 2022

Postgraduate, Farklı nanoakışkanların ısı değiştiricilerindeki ısı performanslarının deneysel incelenmesi, Ondokuz Mayıs University, Fen Bilimleri Enstitüsü, Makine Mühendisliği (YI) (Tezli), 2016

### Research Areas

Mechanical Engineering, Thermodynamics, Heat and Mass Transfer, Heating, Refrigerating and Air Conditioning, Computational fluid dynamics, Thermal Systems, Thermal machines, Nanomaterials

### Academic Titles / Tasks

Research Assistant PhD, Ondokuz Mayıs University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2014 - Continues

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

- Monitoring Intrarenal temperature changes during Ho: YAG laser lithotripsy in patients undergoing retrograde intrarenal surgery: a novel pilot study**  
Kose E., Bostancı Y., Gulsen M., Şahin F., Kalaycı O., Özden E., Yakupoğlu Y. K., Sarıkaya Ş.  
UROLITHIASIS, vol.52, no.1, 2024 (SCI-Expanded)
- Experimental determination of NiFe<sub>2</sub>O<sub>4</sub>-water nanofluid thermophysical properties and evaluation**

**of its potential as a coolant in polymer electrolyte membrane fuel cells**

Şahin F., Acar M. C., Genc O.

International Journal of Hydrogen Energy, vol.50, pp.1572-1583, 2024 (SCI-Expanded)

- III. **From experimental data to predictions: Artificial intelligence supported new mathematical approaches for estimating thermal conductivity, viscosity and zeta potential in Fe<sub>3</sub>O<sub>4</sub>-water magnetic nanofluids**  
Şahin F., Genc O., Gökcek M., Çolak A. B.  
Powder Technology, vol.430, 2023 (SCI-Expanded)
- IV. **Experimentally determining the thermal properties of NiFe<sub>2</sub>O<sub>4</sub> magnetic nanofluid under suitable stability conditions: Proposal the new correlation for thermophysical properties**  
Şahin F., Genc O.  
Powder Technology, vol.427, 2023 (SCI-Expanded)
- V. **Experimental investigation of heat transfer characteristics of magnetic nanofluids (MNFs) under a specially designed revolving magnetic field effect**  
Şahin F., Namlı L.  
Journal of Magnetism and Magnetic Materials, vol.580, 2023 (SCI-Expanded)
- VI. **An experimental and new study on thermal conductivity and zeta potential of Fe<sub>3</sub>O<sub>4</sub>/water nanofluid: Machine learning modeling and proposing a new correlation**  
Şahin F., Genc O., GÖKÇEK M., Colak A. B.  
POWDER TECHNOLOGY, vol.420, 2023 (SCI-Expanded)
- VII. **Thermal performances and stabilities of nanofluids in an electrical oil heater**  
Şahin F., Namlı L.  
JOURNAL OF THERMAL ANALYSIS AND CALORIMETRY, vol.145, no.6, pp.3195-3206, 2021 (SCI-Expanded)
- VIII. **Determination of the Optimum Stability Conditions in Al<sub>2</sub>O<sub>3</sub> Nanofluids with Artificial Neural Networks**  
Şahin F., Kapusuz M., Namlı L., ÖZCAN H.  
INTERNATIONAL JOURNAL OF THERMOPHYSICS, vol.41, no.5, 2020 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Artificial intelligence-assisted nanofluid modeling: Developing stability-based correlation for thermal conductivity and viscosity**  
SAHİN F.  
Niğde Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.13, no.3, pp.932-938, 2024 (Peer-Reviewed Journal)
- II. **Prediction of forming limit diagrams for steel sheets with an artificial neural network and comparison with empirical and theoretical models**  
Dengiz C. G., Şahin F.  
Research on Engineering Structures and Materials, vol.1, no.xx, pp.1-2, 2024 (Scopus)
- III. **Prediction of forming limit diagrams for steel sheets with an artificial neural network and comparison with empirical and theoretical models**  
Dengiz C. G., Şahin F.  
Research on Engineering Structures and Materials, vol.10, no.2, pp.651-677, 2023 (ESCI)
- IV. **Numerical and Experimental Investigation of Nano-Particle-Added Waste Oils on Lubrication Performance**  
TAŞKIN A., ŞAHİN F., DENGİZ C. G., DEMİRBAŞ T. C.  
OMU Journal of Engineering Sciences and Technology, vol.3, no.1, pp.29-45, 2023 (Peer-Reviewed Journal)
- V. **Improvement of Stability and Thermal Conductivities of Oil-Based Nanofluids in Optimum Acid-Base Admixture Values**  
ŞAHİN F., NAMLI L.

OMU Journal of Engineering Sciences and Technology, vol.3, no.1, pp.9-28, 2023 (Peer-Reviewed Journal)

- VI. **Hidroforbik Kaplamanın Kanat Profillerinin Aerodinamik Parametrelerine Etkisinin Deneysel İncelenmesi**  
ŞAHİN F., İSMAİLOV İ., ÖZCAN H.  
Uluslararası Mühendislik Araştırma ve Geliştirme Dergisi, vol.15, no.1, 2023 (Peer-Reviewed Journal)
- VII. **The effect of nanoparticle-added solid lubricant on the formability of sheet metal**  
Şahin F., Dengiz C. G., Yıldızlı K., Namlı L.  
SN APPLIED SCIENCES, vol.1, no.5, 2019 (ESCI)
- VIII. **THE IMPORTANCE OF NANOFUIDS STABILITY IN TERNS OF HEAT TRANSFER ENHANCEMENT**  
ŞAHİN F., NAMLI L.  
Niğde Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.7, no.2, pp.880-898, 2018 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **EFFECTS OF USAGE OF CANNABIS SATIVA L. AS FIBER REINFORCEMENT IN EPOXY COMPOSITES TO TENSILE AND IMPACT STRENGTHS**  
KARA G., ŞAHİN F., DENGİZ C. G., GÜRBÜZ M.  
in: Cooperation for Climate and Green Deal Book, Ardali Yüksel, Editor, OMÜ YAYINLARI, Samsun, pp.429-433, 2023
- II. **INVESTIGATION OF LUBRICATION PERFORMANCE OF NANO-PARTICLE ADDED WASTE OILS**  
TAŞKIN A., ŞAHİN F., DENGİZ C. G.  
in: Cooperation for Climate and Green Deal Book, Ardali Yüksel, Editor, OMÜ YAYINLARI, Samsun, pp.923-928, 2023

## Refereed Congress / Symposium Publications in Proceedings

- I. **A novel correlation proposal for the thermal conductivity of graphene-water nanofluids**  
Şahin F., Genç Ö.  
V. INTERNATIONAL TURKIC WORLD CONGRESS ON SCIENCE AND ENGINEERING (TURK-COSE 2023) PROGRAMME, Bishkek, Kyrgyzstan, 15 - 17 September 2023, pp.235
- II. **EFFECTS OF USAGE OF CANNABIS SATIVA L. AS FIBER REINFORCEMENT IN EPOXY COMPOSITES TO TENSILE AND IMPACT STRENGTHS**  
KARA G., ŞAHİN F., GÜRBÜZ M., DENGİZ C. G.  
COOPERATION FOR CLIMATE AND GREEN DEAL SYPOSIUM, Samsun, Turkey, 24 - 26 October 2022
- III. **Investigation of Lubrication Performance of Nano-Particle Added Waste Oils**  
TAŞKIN A., ŞAHİN F., DENGİZ C. G.  
Cooperation of Climate Change and Green Deal Symposium, Turkey, 24 - 26 October 2022
- IV. **Epoksi kaplanmış çark malzemesinin santrifüj pompaların üzerindeki performans değerlendirmesi**  
GÜNDOĞDU F. E., ŞAHİN F., NAMLI L.  
6. ULUSLARARASI AKADEMİK ÖĞRENCİ ÇALIŞMALAR KONGRESİ, İstanbul, Turkey, 23 April 2022
- V. **KATI ROKET YAKIT ÜRETİMİ**  
PUGUR A., ŞAHİN F., NAMLI L.  
ULUSLARARASI 19 MAYIS MULTİDİSİPLİNER ÇALIŞMALAR KONGRESİ, Samsun, Turkey, 17 - 19 May 2019, vol.1, pp.832-839
- VI. **ÜÇ BOYUTLU YAZICILAR İÇİN FİLAMENT EKSTRUDER ÜRETİMİ**  
TEMİZ H., YAZICI M. E., ŞAHİN F., DENGİZ C. G., YILDIZLI K., NAMLI L.  
Uluslararası 19 Mayıs Multidisipliner Çalışmalar Kongresi, Samsun, Turkey, 17 - 19 May 2019, vol.1, pp.482-496
- VII. **Blok-Disk Aşınma Test Cihazı Tasarımı**

ŞİRİN E., ŞAHİN F., NAMLI L.

ULUSLARARASI 19 MAYIS MULTİDİSİPLİNER ÇALIŞMALAR KONGRESİ, Samsun, Turkey, 17 - 19 May 2019, vol.1, pp.535-545

- VIII. **NANOPARTİKÜL KATKILANDIRILMIŞ MADENİ YAĞLARIN DERİNÇEKME İŞLEMİNDEKİ PERFORMANSININ İNCELENMESİ**  
ERTAN M., ŞAHİN F., DENGİZ C. G., YILDIZLI K., NAMLI L.  
Uluslararası 19 Mayıs Multidisipliner Çalışmalar Kongresi, Samsun, Turkey, 17 - 19 May 2019, vol.1, pp.503-513
- IX. **Improvement of Formability of Epoxy Polymer Matrix Used In Bonding Processes**  
DENGİZ C. G., ŞAHİN F., BAYORUL C., YILDIZLI K.  
international congress on engineering and life science, Kastamonu, Turkey, 26 - 29 April 2018, pp.287
- X. **Improving the Formability of Al Reinforced Epoxy Polymer Matrix Based Composites**  
ŞAHİN F., DENGİZ C. G., timur m. f., YILDIZLI K.  
İnternational Congress on Engineering and life science, Kastamonu, Turkey, 26 - 29 April 2018, vol.1, pp.285
- XI. **Modeling The Stability of Nanofluids With Artificial Neural Networks**  
ŞAHİN F., TURHAN A. C., NAMLI L.  
International Congress on Engineering and Life Science (ICELIS2018), Kastamonu, Turkey, 26 - 29 April 2018, vol.1
- XII. **The Effect of Nano-Lubricants on Deep Drawing**  
ŞAHİN F., DENGİZ C. G., KAKIRDAKLIOĞLU A., NAMLI L., YILDIZLI K.  
International Congress on Engineering and Life Science (ICELIS2018), Kastamonu, Turkey, 26 - 29 April 2018, vol.1
- XIII. **Isı Transfer Yağı Tabanlı Nanoakışkanların Optimum Asit Baz Değerinde Stabilite ve Isıl Özelliklerinin İyileştirilmesi**  
ŞAHİN F., NAMLI L., ÖZBEY M., TOPALOĞLU B.  
1. International Conference on Engineering Technology and Applied Sciences, Afyonkarahisar, Turkey, 21 - 22 April 2016
- XIV. **Yağ Tabanlı Alümina İçeren Nanoakışkanlarda Yüzey Aktif Maddelerin Kararlılık ve Isıl Özelliklere Etkisi**  
ŞAHİN F., NAMLI L., ÖZBEY M., TOPALOĞLU B.  
1. International Conference on Engineering Technology and Applied Sciences, Afyonkarahisar, Turkey, 21 - 22 April 2016
- XV. **YAĞ TABANLI ALÜMİNA İÇEREN NANOAKIŞKANLARDA YÜZEYAKTİF MADDELERİN KARARLILIK VE ISIL ÖZELLİKLERE ETKİSİ**  
ŞAHİN F., NAMLI L., ÖZBEY M., TOPALOĞLU B.  
1 st International Conference on Engeneering Technology and Applied Sciences Afyon Kocatepe University, Turkey 21-22 April 2016, Afyon, Turkey, 21 - 22 April 2016
- XVI. **ISI TRANSFER YAĞI TABANLI NANOAKIŞKANLARIN OPTİMUMASİT BAZ DEĞERİNDE STABİLİTE ve ISIL ÖZELLİKLERİNİ İYİLEŞTİRİLMESİ**  
ŞAHİN F., NAMLI L., ÖZBEY M., TOPALOĞLU B.  
1 st International Conference on Engineering Technology and Applied Sciences, Afyon, Turkey, 21 - 22 April 2016
- XVII. **Isı Transferi Yağı Tabanlı Nanoakışkanların Optimum Asit Baz Değerinde Stabilite ve Isıl Özelliklerinin İyileştirilmesi**  
ŞAHİN F., NAMLI L., ÖZBEY M., TOPALOĞLU B.  
1st International Conference on Engeneering Technology and Applied Sciences, AFYON, Turkey, 21 - 22 April 2016, vol.1, pp.262

## Supported Projects

Şahin F., Kara G., ÖZCAN H., Project Supported by Higher Education Institutions, FOTOVOLTAİK (PV) PANEL PERFORMANSLARININ FOTOKATALİTİK, ANTİBAKTERİYEL VE YANSIMA ÖNLEYİCİ YÜZEY KAPLAMALARI İLE

İYİLEŞTİRİLMESİ, 2022 - Continues

Dengiz C. G., Gürbüz M., Şahin F., Project Supported by Higher Education Institutions, Koku Geçirmez Mazgal Tasarımı, İmalatı ve Performans Analizi, 2022 - 2024

Şahin F., Project Supported by Higher Education Institutions, Döner Manyetik Kuvvet Etkisi Altında Isı Transferini Artıran Sistem, 2022 - 2023

Şahin F., Kara G., Dengiz C. G., Project Supported by Higher Education Institutions, Kampüs içi atık yağlardan üniversitenin ağır iş vasıtalarında kullanılmak üzere biyodizel üretilmesi, 2022 - 2023

Üstün Odabaşı S., Şahin F., Dengiz C. G., Project Supported by Higher Education Institutions, Atık Plastiklerin Geri Dönüştürülerek 3B Yazıcı Filamenti Üretimi, 2022 - 2023

Özdoğan M., Şahin F., Project Supported by Higher Education Institutions, Orta İrtifa Roket Tasarımı, 2022 - 2022

Dengiz C. G., Şahin F., Kara G., Project Supported by Higher Education Institutions, Kenevir Lifinden Roket Burun Konisi Üretimi, 2022 - 2022

Namlı L., Şahin F., Project Supported by Higher Education Institutions, Manyetik Nanoakışkanların Akış ve Isı Transfer Karakteristiklerinin Deneysel İncelenmesi, 2020 - 2022

## **Patent**

Namlı L., Şahin F., System that increases the efficiency of heat transfer under the influence of rotating magnetic force, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Registration Number: 2022/021223 , Standard Registration, 2024