

## Res. Asst. Fırat AKIN

### Personal Information

**Office Phone:** [+90 212 383 5805](tel:+902123835805)

**Email:** [fakin@yildiz.edu.tr](mailto:fakin@yildiz.edu.tr)

**Web:** <https://avesis.yildiz.edu.tr/fakin>

### International Researcher IDs

ScholarID: Ne8fapEAAAAJ

ORCID: 0000-0003-3523-2023

Publons / Web Of Science ResearcherID: AAZ-9148-2020

ScopusID: 57221921030

Yoksis Researcher ID: 328488

### Education Information

Doctorate, Yildiz Technical University, Faculty Of Electrical & Electronics, Electrical Engineering Department, Turkey 2021 - Continues

Postgraduate, Yildiz Technical University, Faculty Of Electrical & Electronics, Electrical Engineering Department, Turkey 2019 - 2021

Undergraduate, Yildiz Technical University, Faculty Of Electrical & Electronics, Electrical Engineering Department, Turkey 2015 - 2019

### Research Areas

Power System Analysis, Protection Systems, High Voltage Technique, Dielectric Materials and Devices

### Academic Titles / Tasks

Research Assistant, Yildiz Technical University, Faculty Of Electrical & Electronics, Electrical Engineering Department, 2020 - Continues

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

- I. **Exploring High Voltage Potential of 3D Printed Capacitors: A Filament-Based Comparison Through Dielectric Performance Analysis**  
Uyduur C. C., Akin F.  
APPLIED SCIENCES, vol.14, pp.1184-1202, 2024 (SCI-Expanded)
- II. **Multi-physics modelling and performance analysis of an air-core reactor in the framework of solid-state fault current limiters**  
AKIN F., ARIKAN O., Kucukaydin B.  
Electric Power Systems Research, vol.231, 2024 (SCI-Expanded)
- III. **Breakdown strength analysis of XLPE insulation types: A comparative study for multi-layer structure and voltage rise rate**  
Camalov M., Orucov A., Hashimov A., Arıkan O., Akin F.

Electric Power Systems Research, vol.223, 2023 (SCI-Expanded)

- IV. **The effect of thermal aging on solid insulating materials: A case study for dielectric loss and dissipation factor based evaluations under different voltage levels and frequencies**

Akın F., Arıkan O.

Engineering Failure Analysis, vol.148, 2023 (SCI-Expanded)

- V. **Analysis of breakdown mechanism based on contact area and field enhancement factor of different electrode-material combinations**

Akın F., Arıkan O.

International Journal of Energy Research, vol.46, no.9, pp.12674-12686, 2022 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Optimizing Distribution Network Reconfiguration for Power Loss and Fault Current Management**  
Akın F., Çıkan M., Arıkan O., Kekezoğlu B.  
Mühendislik bilimleri ve araştırmaları dergisi (Online), vol.6, no.2, pp.188-197, 2024 (Peer-Reviewed Journal)
- II. **The Degradation Analysis of XLPE Materials Under Thermal Aging: A Comprehensive Study Through Partial Discharge Measurements and Structural Characterization Techniques**  
Camalov M., AKIN F., Hashimov A., ARIKAN O., Orucov A., Guliyev M.  
Transactions on Electrical and Electronic Materials, vol.25, no.4, pp.494-506, 2024 (ESCI)
- III. **Analysis of Solid Insulating Materials Breakdown Voltages Under Different Voltage Types**  
AKIN F., ARIKAN O., UYDUR C. Ç.  
Turkish Journal of Electrical Power and Energy Systems, vol.2, 2022 (Peer-Reviewed Journal)

## Papers Published in Refereed Scientific Meetings

- I. **Load Forecasting for Trakya University**  
Uydur C. Ç., Akın F., Güçlü S., Dursun B.  
3rd International Conference on Innovative Academic Studies, 26 September - 28 October 2023, pp.246-254
- II. **FEM Based Air-Core Reactor Modelling for Series Inductor of SPRFCL**  
Akın F., Arıkan O., Kucukaydin B.  
9th International Conference on Engineering and Emerging Technology, ICEET 2023, İstanbul, Turkey, 27 - 28 October 2023
- III. **Thermal Performance Analysis Of Overhead Conductors**  
Dinç M., Arıkan O., Akın F.  
ISAS2022 - 5th International Symposium on Innovative Approaches in Smart Technologies, İstanbul, Turkey, 28 May 2022
- IV. **Investigation of AC and DC Breakdown Behavior on Different Solid Insulating Materials**  
Akın F., Arıkan O., Uydur C. Ç.  
International Conference on Electrical and Electronics Engineering, ELECO, Bursa, Turkey, 25 - 27 November 2021, pp.142-146
- V. **The Effect of Harmonic Components on Dielectric Performance of Solid Insulating Materials**  
Akın F., Arıkan O.  
Elektrik Elektronik ve Biyomedikal Mühendisliği Konferansı, ELECO 2020, Bursa, Turkey, 26 - 28 November 2020, pp.1-5

## Supported Projects

Arıkan O., Ağca Küçükaydın H. G., Akın F., Tırpancı Sivri G., Şengül A., Küçükaydın B., TUBITAK Project, Yüksek Frekanslı

Darbeli Elektrik Alan Uygulama Sisteminin Geliştirilmesi ve Sürekli sistemde Sıvı Gıda Üzerinde Yapılacak Uygulamalar ile Etkilerinin Analizi, 2024 - 2026

Uydur C. Ç., Arıkan O., Akın F., Güçlü S., Dursun B., Project Supported by Higher Education Institutions, Yapay Zeka Yöntemleri ile Trakya Üniversitesi Elektrik Enerjisi Talep Tahmini, 2022 - 2023

## **Metrics**

Publication: 13

Citation (Scopus): 14

H-Index (Scopus): 2