

Asst. Prof. Ali
AJDER



Personal Information

Office Phone: [+90 212 383 5828](tel:+902123835828)

Fax Phone: [+90 212 383 5858](tel:+902123835858)

Email: aliajder@yildiz.edu.tr

Web:

<http://avesis.yildiz.edu.tr/aliajder/>

Address: Yıldız Teknik Üniversitesi,
Elektrik Elektronik Fakültesi Elektrik
Mühendisliği Bölümü C Blok
Davutpaşa Mah., Davutpaşa Caddesi
34220 Esenler- İstanbul



International Researcher IDs

ScholarID: qBnLPf0AAAAJ

ORCID: 0000-0001-9411-4452

ScopusID: 56367301100

Yoksis Researcher ID: 190071

Education Information

Doctorate, Yıldız Technical University,
Graduate School Of Natural And
Applied Sciences, Elektrik
Mühendisliği Bölümü, Turkey 2011 -
2017

Postgraduate, Yıldız Technical
University, Graduate School Of
Natural And Applied Sciences, Elektrik
Mühendisliği Bölümü, Turkey 2008 -
2011

Undergraduate Double Major, Yıldız
Technical University, Faculty Of
Economic And Administrative
Sciences, Department Of
Administration, Turkey 2002 - 2009
Undergraduate, Yıldız Technical
University, Elektrik Elektronik
Fakültesi, Elektrik Mühendisliği,
Turkey 2002 - 2008

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Yenilenebilir Enerji Kaynaklarına Dayalı Üretim Tesislerini İçeren Güç Sistemlerinde Optimum Yedek Rezerv Miktarının Belirlenmesi, Yıldız Teknik Üniversitesi, Elektrik Mühendisliği, Elektrik Tesisleri, 2017
Postgraduate, Fotovoltaik güneş enerjisi sistemleri için optimum eğim açısının hesaplanması, Yıldız Teknik Üniversitesi, Fen Bilimleri, Elektrik Mühendisliği Anabilim Dalı/ Elektrik Tesisleri Yüksek Lisans Programı, 2011

Research Areas

Electrical and Electronics Engineering, Energy, Power System Analysis, Renewable energy, Engineering and Technology

Academic Titles / Tasks

Research Assistant PhD, Yildiz Technical University, Faculty Of Electrical & Electronics, Electrical Engineering Department, 2018 - Continues

Research Assistant, Yildiz Technical University, Faculty Of Electrical & Electronics, Electrical Engineering Department, 2009 - 2018

Academic and Administrative Experience

Bölüm Kalite Komisyonu Üyesi, Yildiz Technical University, Faculty Of Electrical & Electronics, Electrical Engineering Department, 2022 - Continues

Exam Program Preparation Commission Member, Yildiz Technical University, Faculty Of Electrical & Electronics, Electrical Engineering Department, 2022 - Continues

Courses

Probability and Biostatistics, Undergraduate, 2019 - 2020, 2018 - 2019

Probability and Statistics, Undergraduate, 2019 - 2020, 2018 - 2019

Örneklem ve Veri Analizi, Undergraduate, 2017 - 2018

Engineering Mathematics, Undergraduate, 2018 - 2019

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Development of an Industrial Partial Discharge Calibrator and its Performance Tests**
Karaman I., AJDER A., NAKİR İ.
IEEE Access, vol.12, pp.42096-42104, 2024 (SCI-Expanded)
- II. **Performance investigation of different headlights used in vehicles under foggy conditions**
Sefer T., AYAZ R., AJDER A., NAKİR İ.
Scientific Reports, vol.13, no.1, 2023 (SCI-Expanded)
- III. **Analysis of Non-Uniform Accreted Ice in Overhead Power Lines using SAP2000**
Ajder A.
IEEE ACCESS, vol.10, pp.128951-128958, 2022 (SCI-Expanded)
- IV. **Analytical voltage drop calculations during direct on line motor starting: Solutions for industrial plants**
Kucuk S., AJDER A.
Ain Shams Engineering Journal, vol.13, no.4, 2022 (SCI-Expanded)
- V. **A New MPPT Algorithm for Vehicle Integrated Solar Energy System**
Nakir İ., Durusu A., Akca H., Ajder A., Ayaz R., Ugur E., Tanrioven M.
JOURNAL OF ENERGY RESOURCES TECHNOLOGY-TRANSACTIONS OF THE ASME, vol.138, 2016 (SCI-Expanded)
- VI. **Performance Comparison of Widely-Used Maximum Power Point Tracker Algorithms under Real Environmental Conditions**
Durusu A., Nakir İ., Ajder A., Ayaz R., Akca H., Tanrioven M.

Articles Published in Other Journals

- I. **Investigation of the Parameters of Non-Cylindrical Ice Load on Power Transmission Lines**
AJDER A.
International Journal of Computational and Experimental Science and Engineering, vol.9, no.1, pp.29-35, 2023 (Peer-Reviewed Journal)
- II. **Pandeminin Elektrik Enerji Sistemlerinin İşletilmesi Üzerindeki Etkilerinin İncelenmesi**
AJDER A.
Avrupa Bilim ve Teknoloji Dergisi, no.43, pp.121-125, 2022 (Peer-Reviewed Journal)
- III. **İklim Koşullarının PV Panel Optimum Eğim Açısına Etkisi**
AJDER A., DURUSU A., NAKİR İ.
Avrupa Bilim ve Teknoloji Dergisi, no.13, pp.84-90, 2018 (Peer-Reviewed Journal)
- IV. **Comparison of Road Lighting Luminaires for M2 Road Lighting Class Considering Energy Efficiency**
AYAZ R., Kaymaz A., AKÇA H., AJDER A., ÜNAL A., TANRIÖVEN M.
International Journal of Advances in Electronics Engineering- IJAEE, vol.6, no.1, pp.103-107, 2016 (Peer-Reviewed Journal)
- V. **Sizing of PV Based LED Lighting System Considering Minimum Solar Radiation Level**
AJDER A., AKÇA H., AKDEMİR H., AYAZ R., NAKİR İ., TANRIÖVEN M.
International Journal of Advancements in Mechanical and Aeronautical Engineering, vol.3, no.1, pp.27-31, 2016 (Peer-Reviewed Journal)
- VI. **The Effect of LED Chip Connection Type on Lighting and Thermal Performance of A Luminaire**
AKÇA H., AKDEMİR H., AYAZ R., AJDER A., NAKİR İ., TANRIÖVEN M.
International Journal of Advances in Electronics Engineering- IJAEE, vol.6, no.1, pp.98-102, 2016 (Peer-Reviewed Journal)
- VII. **Online Load Shifting of Electricity Production Consumption for Reducing Environmental Hazard**
Toros H., Ayaz R., Ajder A., Durusu A., Yıldırım H.
European Journal of Science and Technology, vol.1, pp.39-42, 2014 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **Geleneksel Yaklaşımlar: Parçacık Sürü Optimizasyonu Algoritması**
AJDER A.
in: Teknobilim-2023 Yapay Zeka ve Mühendislik, Andiç Cenk, Editor, Efe Akademi Yayınları, İstanbul, pp.21-34, 2023
- II. **Yenilenebilir Enerjinin Küresel Enerji Dönüşümündeki Rolü**
AJDER A.
in: Teknobilim-2022 Enerji Krizi ve Yenilenebilir Enerji-II, KARAMAN CEREN, Editor, Efe Yayınevi, İstanbul, pp.29-46, 2022

Refereed Congress / Symposium Publications in Proceedings

- I. **Calculation of the Weighted Average Cost of Capital for Renewable Energy Power Plants**
AJDER A., AY S.
Ege 10th International Conference on Applied Sciences, İzmir, Turkey, 22 - 24 December 2023, pp.1325-1337
- II. **Application of Inflation Adjustment to the Depreciation Records of the Electrical Substation Components**
AJDER A., AY S.
Ege 10th International Conference on Applied Sciences, İzmir, Turkey, 22 - 24 December 2023, pp.1317-1324
- III. **Inventory-Based Fuel Cost of Imported Coal-Fired Thermal Power Plants**
AJDER A., AY S.
Avrasya 9th International Conference on Applied Sciences, Tiflis, Georgia, 24 - 26 November 2023, pp.480-488
- IV. **Assessment of Turkey's Electricity Installed Power Capacity Based on Renewable Energy using Index Numbers**
AJDER A., AY S.

Avrasya 9th International Conference on Applied Sciences, Tiflis, Georgia, 24 - 26 November 2023, pp.489-494

- V. **Economic Analysis of Increasing Seismic Acceleration in Energy Transmission System Technical Requirements**
AJDER A., AY S.
6th International Hasankeyf Scientific Studies and Innovation Congress, Batman, Turkey, 18 - 19 November 2023, pp.220-226
- VI. **Scientific Machine Learning and its Impact on Power Systems**
AJDER A., AY S.
6th International Hasankeyf Scientific Studies and Innovation Congress, Batman, Turkey, 18 - 19 November 2023, pp.213-219
- VII. **Investigation of Energy Storage Systems in terms of Power System Reliability and Spinning Reserve**
AJDER A., AY S.
Cumhuriyet 10th International Conference on Applied Sciences, Ankara, Turkey, 29 October 2023, pp.33-43
- VIII. **Analysis of Earthquake Damage Cost in Power Transmission Lines with the Help of Index Numbers**
AJDER A., AY S.
Cumhuriyet 10th International Conference on Applied Sciences, Ankara, Turkey, 29 October 2023, pp.24-32
- IX. **Investigation of Electric Power Systems Flexibility Improvements**
AJDER A.
1st International Conference on Scientific and Academic Research, ICSAR 2022, Konya, Turkey, 10 December 2022, pp.1043-1050
- X. **Investigation of the Impact of the Pandemic on the Power System Operations**
AJDER A.
4th International Conference on Applied Engineering and Natural Sciences, Konya, Turkey, 10 November 2022
- XI. **Network Reduction Methods on DG Planning Studies**
DOĞANŞAHİN K., KEKEZOĞLU B., AJDER A., YUMURTACI R.
International Conference on Engineering Technologies, Konya, Turkey, 07 December 2017, pp.501-505
- XII. **Review of Reduction and Simplification Methods for Transmission Systems Studies**
AJDER A., DOĞANŞAHİN K., AY S.
International Conference on Advance Technology Science, 9 - 12 May 2017
- XIII. **A Comparative Study Of Isotropic And Anisotropic Sky Models To Determine Of Optimum Orientation Angles For PV Arrays**
AKDEMİR H., AJDER A., AKÇA H., TANRIÖVEN M.
2nd International Conference on Engineering and Natural Sciences(ICENS2016), Saraybosna, Bosnia And Herzegovina, 24 May 2016, vol.10, pp.2550-2557
- XIV. **Impact of Renewable Energy Systems on Spinning Reserves**
AJDER A., Akdemir H., Tanrıöven M.
The 2nd International Conference on Engineering and Natural Sciences (ICENS 2016), 01 May 2016
- XV. **Sizing of PV Based LED Lighting System Considering Minimum Solar Radiation Level**
AJDER A., AKÇA H., AKDEMİR H., AYAZ R., NAKİR İ., TANRIÖVEN M.
Advances in Mechanical and Automation Engineering (MAE), Roma, Italy, 10 - 11 December 2015, pp.6-10
- XVI. **Comparison of Road Lighting Luminaires for M2 Road Lighting Class Considering Energy Efficiency**
AYAZ R., KAYMAZ A., AKÇA H., AJDER A., ÜNAL A., TANRIÖVEN M.
3rd International Conference on Advances in Computing, Electronics and Communication (ACEC), 10 - 11 October 2015
- XVII. **The Effect of LED Chip Connection Type on Lighting and Thermal Performance of A Luminaire**
AKÇA H., AKDEMİR H., AYAZ R., AJDER A., NAKİR İ., TANRIÖVEN M.
3rd International Conference on Advances in Computing, Electronics and Communication (ACEC), Zürich, Switzerland, 10 - 11 October 2015
- XVIII. **A new approach for relationship between daylight and indoor illumination level**
AYAZ R., NAKİR İ., AKÇA H., AJDER A., TANRIÖVEN M.
2014 International Conference on Renewable Energy Research and Application (ICRERA), Milwaukee, WI, USA, 19 - 22 October 2014, pp.833-836
- XIX. **Thermal management of power LED system**
Akca H., Yasa Y., Ayaz R., Durusu A., Ajder A., Nakir İ., Tanrioven M.
3rd International Conference on Renewable Energy Research and Applications, ICRERA 2014, Wisconsin, United States Of

Supported Projects

Turan A., Ajder A., K ro lu  ., TUBITAK Project, Yakıt H creli Hibrit Ara lar  in Uzun  m rl  Ve Y ksek Verimli Talep Odaklı Enerji Y netim Sistemi Algoritması Geliştirilmesi, 2024 - 2025

Meri  M. Y., Ajder A., TUBITAK Project, İHA'ar  in Model Tabanlı Adaptif Kontrol İmk nı Sunan Yerli Otopilot Kartı Geliştirilmesi, 2023 - 2024

Bakırdemir E. H., Kayık ı  . S., Ya basan S., Ajder A., TUBITAK Project, Dalga Enerjisi ve Hidrojen  retimi: Entegre Yenilenebilir Enerji Sistemleri  in İnovatif Yakla ımlar, 2023 - 2024

Ajder A., Ay S., Project Supported by Higher Education Institutions, Marmara B lgesindeki 154-400 kV'luk Enerji İletim Hava Hatlarının Co rafi Bilgi Sistemi Yardımıyla Sismik Risk Endekslerinin Belirlenmesi, 2023 - 2024

AJDER A., Project Supported by Higher Education Institutions, COVID-19 Salgınının G n  ncesi Piyasası Elektrik Talep Tahminine Etkisinin İncelenmesi, 2021 - 2022

Memberships / Tasks in Scientific Organizations

IEEE- The Institute of Electrical and Electronics Engineers, Member, 2013 - Continues

IAEE- International Association for Energy Economics, Member, 2013 - Continues

EED- Enerji Ekonomisi Derne i, Member, 2013 - Continues

Scientific Refereeing

ELECTRIC POWER SYSTEMS RESEARCH, Journal Indexed in SCI-E, November 2022

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCI-E, October 2022

ELECTRIC POWER SYSTEMS RESEARCH, Journal Indexed in SCI-E, September 2021

ELECTRIC POWER SYSTEMS RESEARCH, Journal Indexed in SCI-E, June 2021

ELECTRIC POWER SYSTEMS RESEARCH, Journal Indexed in SCI-E, June 2021

RENEWABLE ENERGY, Journal Indexed in SCI-E, June 2021

ELECTRIC POWER SYSTEMS RESEARCH, Journal Indexed in SCI-E, May 2021

RENEWABLE ENERGY, Journal Indexed in SCI-E, November 2020

ELECTRIC POWER SYSTEMS RESEARCH, Journal Indexed in SCI-E, October 2020

ELECTRIC POWER SYSTEMS RESEARCH, Journal Indexed in SCI-E, July 2020

APPLIED ENERGY, Journal Indexed in SCI-E, March 2020

RENEWABLE ENERGY, Journal Indexed in SCI-E, February 2020

ELECTRIC POWER SYSTEMS RESEARCH, Journal Indexed in SCI-E, January 2020

VSI:PSCC 2020, Conference Paper (Full Text), November 2019

RENEWABLE ENERGY, Journal Indexed in SCI-E, November 2019

RENEWABLE ENERGY, Journal Indexed in SCI-E, April 2019

VSI:PVCon2018, Conference Paper (Full Text), December 2018

APPLIED ENERGY, Journal Indexed in SCI-E, November 2018

RENEWABLE ENERGY, Journal Indexed in SCI-E, August 2018

RENEWABLE ENERGY, Journal Indexed in SCI-E, July 2018

RENEWABLE ENERGY, Journal Indexed in SCI-E, July 2018

IEEE JOURNAL OF PHOTOVOLTAICS, Journal Indexed in SCI-E, June 2018

RENEWABLE ENERGY, Journal Indexed in SCI-E, May 2018

VSI:DEM 2018, Conference Paper (Full Text), April 2018

VSI:DEM 2018, Conference Paper (Full Text), April 2018

IEEE JOURNAL OF PHOTOVOLTAICS, Journal Indexed in SCI-E, February 2018

APPLIED ENERGY, Journal Indexed in SCI-E, January 2018

APPLIED ENERGY, Journal Indexed in SCI-E, January 2018

IEEE JOURNAL OF PHOTOVOLTAICS, Journal Indexed in SCI-E, August 2017

APPLIED ENERGY, Journal Indexed in SCI-E, May 2017
APPLIED ENERGY, Journal Indexed in SCI-E, May 2017
SI:ICAE2016, Conference Paper (Full Text), May 2017
APPLIED ENERGY, Journal Indexed in SCI-E, April 2017
JOURNAL OF CLEANER PRODUCTION, Journal Indexed in SCI-E, April 2017
APPLIED ENERGY, Journal Indexed in SCI-E, April 2017
JOURNAL OF CLEANER PRODUCTION, Journal Indexed in SCI-E, March 2017
APPLIED ENERGY, Journal Indexed in SCI-E, March 2017
APPLIED ENERGY, Journal Indexed in SCI-E, March 2017
JOURNAL OF CLEANER PRODUCTION, Journal Indexed in SCI-E, February 2017
APPLIED ENERGY, Journal Indexed in SCI-E, February 2017
APPLIED ENERGY, Journal Indexed in SCI-E, January 2017
SI:ICAE2016, Conference Paper (Full Text), January 2017

Metrics

Publication: 34
Citation (WoS): 21
Citation (Scopus): 35
H-Index (WoS): 3
H-Index (Scopus): 4

Invited Talks

Turkey Academic Forum, Seminar, The Mathworks, Turkey, October 2021