

Res. Asst. BORA ÇAVDAR

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International Researcher IDs

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Publons / Web Of Science ResearcherID: ADE-9469-2022

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Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, -, Turkey 2021 - Continues

Postgraduate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Elektrik Elektronik Anabilim Dalı, Turkey 2018 - 2021

Undergraduate, Karadeniz Technical University, Mühendislik Fakültesi, Elektrik Elektronik Mühendisliği Bölümü, Turkey 2014 - 2018

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Postgraduate, Fotovoltaik Santraller ve Batarya Enerji Depolama Sistemleri için Güç Sistemi Kararlılık Analizleri, Karadeniz Technical University, Mühendislik Fakültesi, Elektrik-Elektronik, 2021

Research Areas

Controllers, Simulation and Modelling, Direct Energy Conversion and Energy Storage, Power System Analysis, Generating Stations and Plants, Electric Power Transmission, Distribution and Protection, Renewable energy, High Voltage Technique

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Real-time application of a demand-side management strategy using optimization algorithms**
Tüysüz M., Okumuş H. I., Aymaz Ş., Çavdar B.
APPLIED ENERGY, vol.368, 2024 (SCI-Expanded)
- II. **Effect of PV Plant on Frequency Stability in IEEE12 Bus System for Different Penetration Levels and Depth of Frequency Support**
Çavdar B., Akyazı Ö., Şahin E., Nuroğlu F. M.

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, 2024 (SCI-Expanded)

- III. **An adaptive fractional controller design for automatic voltage regulator system: sigmoid-based fractional-order PID controller**
Sahin A. K., ÇAVDAR B., AYAS M. Ş.
Neural Computing and Applications, 2024 (SCI-Expanded)
- IV. **On the assessment of meta-heuristic algorithms for automatic voltage regulator system controller design: a standardization process**
ÇAVDAR B., ŞAHİN E., SESLİ E.
Electrical Engineering, 2024 (SCI-Expanded)
- V. **Cascaded fractional order automatic generation control of a PV-reheat thermal power system under a comprehensive nonlinearity effect and cyber-attack**
Çavdar B., Şahin E., Sesli E., Akyazi Ö., Nuroğlu F. M.
Electrical Engineering, vol.105, no.6, pp.4339-4360, 2023 (SCI-Expanded)
- VI. **A novel objective function design and detailed analysis for the AVR-LFC system**
Bora Ç., Kerim D., Şeymanur B., Erdinç Ş., Mehmet N. F.
SADHANA-ACADEMY PROCEEDINGS IN ENGINEERING SCIENCES, vol.48, no.4, 2023 (SCI-Expanded)
- VII. **A novel optimal $PI\lambda I\lambda 2D\mu 1D\mu 2$ controller using mayfly optimization algorithm for automatic voltage regulator system**
Çavdar B., Şahin E., Akyazi Ö., Nuroğlu F. M.
Neural Computing and Applications, vol.35, no.27, pp.19899-19918, 2023 (SCI-Expanded)

Articles Published in Other Journals

- I. **SSA-based Fractional Order PI-PD Cascade Controller Design for DC Motor Speed Control**
ÇAVDAR B., ŞAHİN E., NUROĞLU F. M.
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, vol.27, no.1, pp.283-296, 2024 (ESCI)
- II. **Comparison of grey wolf optimizer (gwo) and incremental conductance (inc) method for maximum power point tracking (mppt) in photovoltaic systems**
Öztürk Ö., Akyazi Ö., Çavdar B.
Gümüşhane Üniversitesi Fen Bilimleri Dergisi, vol.13, no.4, pp.962-978, 2023 (Peer-Reviewed Journal)
- III. **Frequency Stability Analysis of Active Power Control Methods in LargeScale Photovoltaic Plants**
Çavdar B., Akyazi Ö., Şahin E., Nuroğlu F. M.
EMO Bilimsel Dergi, vol.11, no.21, pp.17-27, 2021 (Peer-Reviewed Journal)
- IV. **Voltage Stability Analysis of Large Scale PV Plant Reactive Power Control Methods**
ÇAVDAR B., AKYAZI Ö., ŞAHİN E., NUROĞLU F. M.
SAKARYA UNIVERSITY JOURNAL OF SCIENCE, vol.25, no.4, pp.914-925, 2021 (Peer-Reviewed Journal)
- V. **The effect of ramp rates of PV power plants on power system stability**
Çavdar B., Akyazi Ö., Nuroğlu F. M.
Journal of Investigations on Engineering and Technology, vol.4, no.1, pp.28-35, 2021 (Peer-Reviewed Journal)

Books & Book Chapters

- I. **SİSTEM MODELLEME**
Akyazi Ö., Çavdar B.
in: OTOMATİK KONTROL SİSTEMLERİ, MENGİ ONUR ÖZDAL, Editor, NOBEL, Ankara, pp.109-165, 2022
- II. **FREKANS CEVABI**
Şahin E., Çavdar B.
in: OTOMATİK KONTROL SİSTEMLERİ, MENGİ ONUR ÖZDAL, Editor, NOBEL, Ankara, pp.401-503, 2022

Refereed Congress / Symposium Publications in Proceedings

- I. **Hidroelektrik Santral Modeli için PSO, GWO ve MA Optimizasyon Algoritmalarıyla Kesir Dereceli PID Denetleyici Tasarımı**
Köse İ. H., Danayıye Y., Çavdar B.
Akıllı Sistemlerde Yenilikler ve Uygulamaları Konferansı (ASYU), Sivas, Turkey, 11 - 13 October 2023
- II. **A Hybrid CNN-LSTM Framework for Unsupervised Anomaly Detection in Water Distribution Plant**
Şahin A. K., Çavdar B., Doğan R. Ö., Ayas S., Özgenç B., Ayas M. Ş.
Akıllı Sistemlerde Yenilikler ve Uygulamaları Konferansı (ASYU), Sivas, Turkey, 11 - 13 October 2023
- III. **AVR Sistemi için ARO Tabanlı PID ve FOPID Denetleyici Tasarımı**
Başlık Ş., Çavdar B., Öztürk Ö., Aslanov T., Akyazı Ö.
24. Otomatik Kontrol Ulusal Toplantısı, İstanbul, Turkey, 14 September 2023, pp.158-165
- IV. **İki Alanlı Termal Güç Sisteminde AHA Tabanlı PID, FOPID ve FOPI-FOPD Denetleyicilerin Siber Saldırı Analizi**
Aslanov T., Çavdar B., Öztürk Ö., Başlık Ş., Akyazı Ö.
24. Otomatik Kontrol Ulusal Toplantısı, İstanbul, Turkey, 14 - 16 September 2023, pp.166-173
- V. **Anomaly Detection in Predicted Water Treatment Data Using Hybrid CNN-LSTM Network Model**
Özgenç B., Ayas S., Doğan R. Ö., Çavdar B., Şahin A. K., Ayas M. Ş.
31. IEEE Sinyal İşleme ve İletişim Uygulamaları Kurultayı, İstanbul, Turkey, 5 - 08 July 2023
- VI. **Farklı Penetrasyon Seviyelerine Sahip PV Santralinde LVRT'ye Göre Frekansa Etkisi**
Çavdar B., Dincer K., Şahin A. K., Nuroğlu F. M.
Uluslararası GAP Yenilenebilir Enerji Ve Enerji Verimliliği Kongresi, Şanlıurfa, Turkey, 5 - 06 November 2020, pp.134

Supported Projects

Ayas M. Ş., Ayas S., Özgenç B., Doğan R. Ö., Altaş İ. H., TUBITAK Project, Su Arıtma Ve Dağıtma Sistemlerindeki Aykırılık Tespit Modellerine Yönelik Optimum Kara Kutu Çekişmeli Saldırılarının Tasarlanması Ve Savunma Mekanizmasının Geliştirilmesi, 2022 - 2024

Scientific Refereeing

NEURAL COMPUTING AND APPLICATIONS, Journal Indexed in SCI-E, June 2024

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, Journal Indexed in SCI-E, April 2024

ISA TRANSACTIONS, Journal Indexed in SCI-E, March 2023

Metrics

Publication: 20

Citation (WoS): 2

Citation (Scopus): 3

H-Index (WoS): 1

H-Index (Scopus): 1

Scholarships

