Res. Asst. PhD MACİT TOZAK

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International Researcher IDs
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Education

Doctorate, Manisa Celal Bayar University, Turkey 2020 - 2026
Postgraduate, Manisa Celal Bayar University, Turkey 2017 - 2020
Undergraduate, Hacettepe University, Mühendislik Fakültesi, Turkey 2008 - 2013

Dissertations

Doctorate, Şebeke kodu ile uyumlu eviriciler için kontrol yöntemi geliştirilmesi, Manisa Celal Bayar University, Lisansüstü Eğitim Enstitüsü, Lisansüstü Eğitim Enstitüsü, 2026
Postgraduate, Bir Akıllı Şebeke Sisteminin Modellenmesi, Simülasyonu ve Deneysel OlarakDoğrulanması, Manisa Celal Bayar University, 2020

Research Areas

Avesis Research Areas: Control and System Engineering, Power System Analysis, Power Converters
WoS Research Areas: Engineering Electrical & Electronic, Automation & Control Systems
Scopus Research Areas: Signal Processing, Control and Systems Engineering

Academic Positions

Research Assistant, 2017 - Present

Articles

I. **LQI-based control of grid-forming converters with a variable operating frequency droop mechanism: DMAT-based assessment**
Cakiroglu A., TOZAK M., TAŞKIN S., Sengor I., Kasnakoglu C.
Electric Power Systems Research, vol.261, 2026 (SCI-Expanded, Scopus)
II. **Longitudinal wheel traction control system for in-wheel motor electric vehicles using fuzzy logic adaptive control**

Abo-Alkibash T., TÜRKCAN A., AYAZ M., TOZAK M., BAKBAK A.
Physica Scripta, vol.101, no.14, 2026 (SCI-Expanded, Scopus)

III. **Modeling and Control of Grid Forming Converters: A Systematic Review**
TOZAK M., TAŞKIN S., Sengor I., Hayes B. P.
IEEE Access, vol.12, pp.107818-107843, 2024 (SCI-Expanded, Scopus)

IV. **Analyzing Peak Clipping for Load Factor Improvement: Real Case Studies of a Solar Power Plant in a University Campus**
DEMIRCI O., TUTUS E. K., TASKIN S., ÇETİN G., Tozak M.
Turkish journal of electrical power and energy systems (Online), vol.3, no.3, pp.104-114, 2023 (TRDizin)

V. **Development of a control algorithm and conditioning monitoring for peak load balancing in smart grids with battery energy storage system**
Atici T., Taşkın S., Sengor I., Tozak M., Demirci O.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.30, no.4, pp.1369-1387, 2022 (SCI-Expanded, Scopus, TRDizin)

VI. **Modeling, simulation, and experimental verification of a smart grid system**
TOZAK M., TAŞKIN S., Sengor I.
Energy Sources, Part A: Recovery, Utilization and Environmental Effects, vol.44, no.3, pp.6985-7000, 2022 (SCI-Expanded, Scopus)

VII. **Smart Grids and Smart Cities - A Systematic Mapping Study**
TOZAK M., YILDIRIM İ., TAŞKIN S.
Celal Bayar Üniversitesi Fen Bilimleri Dergisi, vol.15, no.2, pp.227-233, 2019 (TRDizin)

Papers Presented at Peer-Reviewed Scientific Conferences

I. **Şebeke Takip Eden Dönüştürücüler için LQI Tabanlı Kontrolcü Tasarımı (LQI Based Control Design for Grid Following Converters)**
TOZAK M., TAŞKIN S., ŞENGÖR İ.
27.Otomatik Kontrol Ulusal Konferansı (TOK 2026), Ankara, Turkey, 8 - 10 October 2026, (Full Text)

II. **Mitigating Active Power Limit Violations in Grid-Forming Converters Using a Variable Operating Frequency Mechanism**
TOZAK M., Çakıroğlu A., TAŞKIN S., ŞENGÖR İ., Kasnakoğlu C.
Workshop on Energy Systems: Control and Machine Learning in Action, Germany, 14 September 2026, (Summary Text)

III. **Stability Analysis of Virtual Power Plant with Grid Forming Converters**
TOZAK M., TAŞKIN S., Sengor I., Hayes B. P.
2024 International Conference on Smart Energy Systems and Technologies, SEST 2024, Torino, Italy, 10 - 12 September 2024, (Full Text)

IV. **Elektrikli Araç Şarj İstasyonları Kaynaklı Gerilim Harmoniklerinin Dağıtım Şebekesine Etkisi: Manisa CBÜ Merkez Yerleşkesi Durum Analizi**
TAŞKESER S., TAŞKIN S., TOZAK M., PARTAL E., NİL M.
ETUK 2023 - VII. Elektrik Tesisleri Ulusal Kongre ve Sergisi, İzmir, Turkey, 01 November 2023, (Full Text)

V. **Performance Analysis of Grid Forming Converters for a Didactic Smart Grid System**
TOZAK M., TAŞKIN S., Sengor I.
57th International Universities Power Engineering Conference: Big Data and Smart Grids, UPEC 2022, İstanbul, Turkey, 30 August - 02 September 2022, (Full Text)

Funded Projects

TAŞKIN S., TUTUŞ E. K., TOZAK M., DEMİRCİ O., ATEŞ Y., Project Supported by Higher Education Institutions, BAP

Infrastructure, Sanal Güç Santrali Dinamik Performansının Analizi, 2023 - 2025
YAŞA A. C., TOZAK M., ERDEM M. G., KOÇYİĞİT Y., MAMUR H., KARACA H. M., Project Supported by Higher Education Institutions, Gömülü Sistem Program Yazımında Öğrenci Tepkilerinin Araştırılması, 2019 - 2020
MAMUR H., KOÇYİĞİT Y., TOZAK M., KARACA H. M., Project Supported by Higher Education Institutions, Investigation of Student Reactions during Development of Embedded System Programs, 2019 - 2020

Metrics

Publication: 12
Citation (WoS): 83
Citation (Scopus): 142
H-Index (WoS): 3
H-Index (Scopus): 4