

# DİDEM TEKGÜN

## ASST. PROF.

Email : didem.tekgun@agu.edu.tr

### Supported Projects

1. Tekgün D., Company, Elektrik Güç Santralleri için Öngörülü Arıza Teşhis ve Tespit Yöntemi Geliştirilmesi, 2023 - 2025
2. Tekgün D., TUBITAK Project, Dalgıç Pompa Uygulamaları İçin Doğrudan Yol Vermeli Senkron Relüktans Motorunun Tasarım Optimizasyonu ve Gerçekleşmesi, 2021 - 2024

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

1. **A multi-functional quasi-single stage bi-directional charger topology for electric vehicles**  
Tekgun B., Tekgun D., Alan I.  
Ain Shams Engineering Journal, vol.15, no.3, 2024 (SCI-Expanded)
2. **Modified Induction Machine Equivalent Circuit Including Solid Shaft Eddy Currents**  
Tekgun D.  
Machines, vol.11, no.12, 2023 (SCI-Expanded)
3. **Investigating the Tradeoff Between the MMF Distortion and End Turn Length of a 2-Pole Line Start SynRM Performance**  
Tekgun D., Cosdu M. M., Tekgün B., Alan İ.  
Iranian Journal of Science and Technology - Transactions of Electrical Engineering, vol.47, no.4, pp.1447-1457, 2023 (SCI-Expanded)
4. **Investigating the Role of Stator Slot Indents in Minimizing Flooded Motor Fluid Damping Loss**  
Tekgun D., Tekgun B.  
Machines, vol.11, no.12, 2023 (SCI-Expanded)
5. **FEA based fast topology optimization method for switched reluctance machines**  
Tekgun D., TEKGÜN B., ALAN İ.  
ELECTRICAL ENGINEERING, vol.104, no.4, pp.1985-1995, 2022 (SCI-Expanded)
6. **A new oval shaft, high performance, 2 pole line start synchronous reluctance machine for submersible pump applications**  
Tekgun D., ALAN İ.  
INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS, vol.70, no.1, pp.73-93, 2022 (SCI-Expanded)
7. **Real-Time High-Frequency Impedance Monitoring of Human Skin Through Magnetic Coupling**  
Tekgun D., Uddin W., Lee K., Sozer Y.  
IEEE Sensors Journal, vol.17, no.19, pp.6167-6174, 2017 (SCI-Expanded)

### Refereed Congress / Symposium Publications in Proceedings

1. **Design and Optimization of an Outer Rotor Spoke Type PMSM with Improved Saliency for a Lightweight Racing Vehicle**  
Karatepe H. C., Tekgün B., Tekgün D.  
2024 7th International Conference on Electric Power and Energy Conversion Systems (EPECS), Sharjah, United Arab Emirates, 12 - 14 November 2024, pp.1-6
2. **Structural Integrity Analysis of a Two-Pole Synchronous Reluctance Machine with Non-circular Shaft**

Tekgun D., TEKGÜN B., ALAN İ.

5th IEEE Global Power, Energy and Communication Conference, GPECOM 2023, Cappadocia, Turkey, 14 - 16 June 2023, pp.187-191

**3. Effect of the Stator Slot Indents on Fluid Damping Loss in Submersible Pump Applications**

Tekgun D., Cosdu M. M., TEKGÜN B., ALAN İ.

4th IEEE Global Power, Energy and Communication Conference (IEEE GPECOM), Cappadocia, Turkey, 14 - 17 June 2022, pp.184-189

**4. Investigation of the Effects of Multi-Layer Winding Structures in Two Pole Synchronous Reluctance Machines**

Tekgun D., Muhsin Cosdu M., Tekgun B., Alan I.

3rd IEEE Global Power, Energy and Communication Conference, GPECOM 2021, Virtual, Online, Turkey, 5 - 08 October 2021, pp.120-125

**5. A Modular Three-Phase Buck-Boost Motor Drive Topology**

Tekgun D., TEKGÜN B., ALAN İ.

6th International Conference on Electric Power and Energy Conversion Systems (EPECS), ELECTR NETWORK, 5 - 06 October 2020, pp.130-135

**6. Design and Control of a Single Phase DC/Rectified AC/AC Inverter for low THD Applications**

Tekgun B., Tekgun D., Alan I., Badawy M.

7th International IEEE Conference on Renewable Energy Research and Applications, ICRERA 2018, Paris, France, 14 - 17 October 2018, pp.424-430

**7. Effect of distributed airgap in the stator for acoustic noise reduction in switched reluctance motors**

Yaşa Y., Tekgun D., Sozer Y., Kutz J., Tylenda J.

32nd Annual IEEE Applied Power Electronics Conference and Exposition, APEC 2017, Florida, United States Of America, 26 - 30 March 2017, pp.633-639

## Metrics

Publication: 14

Citation (WoS): 30

Citation (Scopus): 31

H-Index (WoS): 4

H-Index (Scopus): 4

## Research Areas

Engineering and Technology