Dr.Öğr.Üyesi Tayfun Gündoğdu

Kişisel Bilgiler

E-posta: tgundogdu@itu.edu.tr
Web: https://avesis.itu.edu.tr/tgundogdu

Uluslararası Araştırmacı ID'leri
ScholarID: y223KHAAAAAJ
ORCID: 0000-0002-7150-1860
Publons / Web Of Science ResearcherID: H-2377-2012
ScopusID: 36975641500
Yoksis Araştırmacı ID: 26279

Eğitim Bilgileri

Doktora, University of Sheffield, Elektrik-Elektronik Mühendisliği, İngiltere 2014 - 2018
Yüksek Lisans, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Türkiye 2010 - 2012

Yabancı Diller

İngilizce, C2 Ustalık

Araştırma Alanları

Dönüştürücüler ve Algılama Aygıtları, Yenilenebilir Enerji, Güç Elektroniği, Elektrik Makineleri Kuramı ve Tasarımı, Elektrik Motoru Sürücüleri, Güç Aygıtları (trafolar, reaktörler, şalt teçhizatı v.b.), Güç Çevirgeçleri, Güç Kalitesi

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

I. **Design and Analysis of Limited-Angle Wound Rotor Resolvers**
Gundogdu T., Ozdincer B.
IEEE Sensors Journal, cilt.22, sa.10, ss.9351-9360, 2022 (SCI-Expanded)

II. **Optimization and Improvement of Advanced Nonoverlapping Induction Machines for EVs/HEVs**
Gundogdu T., Zhu Z., Mipo J.
IEEE Access, cilt.10, ss.13329-13353, 2022 (SCI-Expanded)

III. **Design and analysis of advanced nonoverlapping winding induction machines for ev/hev applications**
Gundogdu T., Zhu Z., Mipo J.
Energies, cilt.14, sa.20, 2021 (SCI-Expanded)

IV. **A systematic design optimization approach for interior permanent magnet machines equipped with novel semi-overlapping windings**
Gundogdu T., Kömürgöz Kırış G.
STRUCTURAL AND MULTIDISCIPLINARY OPTIMIZATION, cilt.63, sa.3, ss.1491-1512, 2021 (SCI-Expanded)

V. **Analysis of coil pitch in induction machines for electric vehicle applications**
Gundogdu T., Zhu Z., Mipo J.

IET Electric Power Applications, cilt.14, sa.12, ss.2525-2536, 2020 (SCI-Expanded)

VI. **Influence of design parameters on flux-weakening performance of interior permanent magnet machines with novel semi-overlapping windings**
Gundogdu T., Kömürgöz Kırış G.
IET ELECTRIC POWER APPLICATIONS, cilt.14, sa.13, ss.2547-2563, 2020 (SCI-Expanded)

VII. **Design and analysis of interior permanent magnet machines equipped with novel semi-overlapping windings**
Gundogdu T., Kömürgöz Kırış G.
IET ELECTRIC POWER APPLICATIONS, cilt.14, sa.8, ss.1446-1457, 2020 (SCI-Expanded)

VIII. **Comparative study on performance characteristics of PM and reluctance machines equipped with overlapping, semi-overlapping, and non-overlapping windings**
Gundogdu T., Kömürgöz Kırış G.
IET ELECTRIC POWER APPLICATIONS, cilt.14, sa.6, ss.991-1001, 2020 (SCI-Expanded)

IX. **Investigation of winding MMF harmonic reduction methods in IPM machines equipped with FSCWs**
GÜNDOĞDU T., KÖMÜRGÖZ KIRIŞ G.
International Transactions on Electrical Energy Systems, ss.1-27, 2018 (SCI-Expanded)

Diğer Dergilerde Yayınlanan Makaleler

I. **Design of Limited-Angle Wound Rotor Resolvers for High Accuracy and Easy Manufacturability**
Gundogdu T.
IEEE Transactions on Transportation Electrification, cilt.9, sa.2, ss.2544-2556, 2023 (Scopus)

II. **Torque Capability Comparison of Induction and Interior Permanent Magnet Machines for Traction Applications**
Gündoğdu T.
GAZI UNIVERSITY JOURNAL OF SCIENCE, cilt.36, sa.2, ss.675-691, 2023 (Scopus)

III. **Numerical Investigations on Operation Modes and Transients of IPM Machines with Dual Windings**
Gundogdu T.
Journal of Materials and Mechatronics:A (Online), cilt.3, sa.2, ss.257-274, 2022 (Hakemli Dergi)

IV. **Improving the Flux-Weakening Capability of Interior Permanent Magnet Machines by Number of Turns Changing Methodology**
Gündoğdu T.
Turkish Journal of Science & Technology, cilt.17, sa.2, ss.375-394, 2022 (Hakemli Dergi)

V. **Comparative Study of Permanent Magnet, Conventional, and Advanced Induction Machines for Traction Applications**
Gundogdu T., Zhu Z., Chan C. C.
World Electric Vehicle Journal, cilt.13, sa.8, 2022 (Scopus)

VI. **Influence of stator and rotor geometric parameters on rotor bar current waveform and performance of IMs**
Gündoğdu T.
JOURNAL OF ENGINEERING-JOE, cilt.2019, sa.2019, ss.3649-3654, 2019 (ESCI)

VII. **Influence of winding configuration on the performance of surface-mounted PM machines**
GUNDOGDU T., Komurgoz G.
International Journal of Mechanical Engineering and Robotics Research, cilt.6, sa.1, ss.46-49, 2017 (Scopus)

VIII. **Implementation of Fractional Slot Concentrated Winding Technique in Large Salient-Pole Synchronous Generators**
Gundogdu T., Komurgoz G.
2012 IEEE Power Electronics and Machines in Wind Applications (Pemwa), cilt.1, sa.1, ss.1-6, 2012 (Düzenli olarak gerçekleştirilen hakemli kongrenin bildiri kitabı)

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

I. **Design and Analysis of Double Fed Interior Permanent Magnet Machines for Traction Applications**
Gundogdu T.
1st IEEE IAS Global Conference on Emerging Technologies, GlobConET 2022, Virtual, Arad, Romanya, 20 - 22 Mayıs 2022, ss.1036-1042

II. **Performance Improvement for Interior Permanent Magnet Machines by Winding Reconfiguration**
Gundogdu T.
2022 IEEE Global Energy Conference, GEC 2022, Batman, Türkiye, 26 - 29 Ekim 2022, ss.185-190

III. **Influence of Cage Structure on Rotor Bar Current Waveform and Performance in Induction Machines**
Gundogdu T., Komurgoz G., Gundogdu B.
1st IEEE Global Power, Energy and Communication Conference, GPECOM 2019, Nevşehir, Türkiye, 12 - 15 Haziran 2019, ss.188-193

IV. **Design of Interior Permanent-Magnet Machines with Novel Semi-Overlapping Windings**
Gundogdu T., Komurgoz G.
1st IEEE Global Power, Energy and Communication Conference, GPECOM 2019, Nevşehir, Türkiye, 12 - 15 Haziran 2019, ss.180-187

V. **Influence of Rotor Skew on Rotor Bar Current Waveform and Performance in Induction Machines**
Gundogdu T., Zhu Z., Mipo J., Personnaz S.
21st International Conference on Electrical Machines and Systems, ICEMS 2018, Jeju, Güney Kore, 7 - 10 Ekim 2018, ss.525-530

VI. **Influence of rotor slot number on rotor bar current waveform and performance in induction machines**
Gundogdu T., Zhu Z., Mipo J.
20th International Conference on Electrical Machines and Systems, ICEMS 2017, Sydney, Avustralya, 11 - 14 Ağustos 2017

VII. **Influence of stator slot and pole number combination on rotor bar current waveform and performance of induction machines**
Gundogdu T., Zhu Z., Mipo J.
20th International Conference on Electrical Machines and Systems, ICEMS 2017, Sydney, Avustralya, 11 - 14 Ağustos 2017

VIII. **Influence of air-gap length on rotor bar current waveform of squirrel-cage induction motor**
Gundogdu T., Zhu Z., Mipo J., Farah P.
19th International Conference on Electrical Machines and Systems, ICEMS 2016, Chiba, Japonya, 13 - 16 Kasım 2016

IX. **Influence of magnetic saturation on rotor bar current waveform and performance in induction machines**
Gundogdu T., Zhu Z., Mipo J., Farah P.
22nd International Conference on Electrical Machines, ICEM 2016, Lausanne, İsviçre, 4 - 07 Eylül 2016, ss.391-397

X. **Investigation of non-sinusoidal rotor bar current phenomenon in induction machines - Influence of slip and electric loading**
Gundogdu T., Zhu Z., Mipo J., Farah P.
22nd International Conference on Electrical Machines, ICEM 2016, Lausanne, İsviçre, 4 - 07 Eylül 2016, ss.419-425

XI. **The design and comparison of salient pole and permanent magnet synchronous machines**
Gündoğdu T.
ELECO 2011 - 7th International Conference on Electrical and Electronics Engineering, Bursa, Türkiye, 1 - 03 Kasım 2011, ss.1-6