

Assoc. Prof. METİN AYDIN

Personal Information

Office Phone: [+90 262 303 3231](tel:+902623033231)

Email: metin.aydin@kocaeli.edu.tr

Other Email: maydin@ieee.org

Web: <https://avesis.kocaeli.edu.tr/metin.aydin>

International Researcher IDs

ORCID: 0000-0003-0632-6143

Publons / Web Of Science ResearcherID: W-3373-2017

Yoksis Researcher ID: 153169

Education Information

Doctorate, University of Wisconsin-Madison, Elektrik Mühendisliği, United States Of America 1997 - 2004

Postgraduate, University of Wisconsin-Madison, Elektrik Mühendisliği, United States Of America 1995 - 1997

Undergraduate, Istanbul Technical University, Elektrik-Elektronik Fakültesi, Elektrik Mühendisliği Bölümü, Turkey 1989 - 1993

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Axial Flux Surface Mounted Permanent Magnet Disc Motors for Smooth Torque Traction Drive Applications, University Of Wisconsin-Madison, Elektrik Mühendisliği, 2004

Postgraduate, Analysis and Design of A Passively Clamped Quasi Resonant Voltage Source Inverter, University Of Wisconsin-Madison, Elektrik Mühendisliği, 1997

Research Areas

Electrical and Electronics Engineering, Power Electronics, Electrical Machine Theory and Design, Electric Motor Drivers, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Kocaeli University, Mühendislik Fakültesi, Mekatronik Mühendisliği, 2018 - Continues

Assistant Professor, Kocaeli University, Mühendislik Fakültesi, Mekatronik Mühendisliği, 2006 - 2018

Research Assistant, University of Wisconsin-Madison, Elektrik Mühendisliği, 1997 - 2003

Courses

ELECTRİC CİRCUİT THEORY, Undergraduate, 2017 - 2018
GÜÇ ELEKTRONİĞİ İLE TAHRİK, Undergraduate, 2017 - 2018
TAHRİK SİSTEMLERİ, Undergraduate, 2016 - 2017
HİBRİT ELEKTRİK MOTORLARI, Undergraduate, 2016 - 2017

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Detection of Structural Magnet Defects for Permanent Magnet Synchronous Motors**
Kucukyildiz G., YOLAÇAN E., OCAK H., AYDIN M.
IEEE TRANSACTIONS ON ENERGY CONVERSION, vol.37, no.1, pp.665-674, 2022 (SCI-Expanded)
- II. **Investigation of Asymmetric and Unbalanced Winding Structures for 3-Phase Permanent Magnet Synchronous Machines**
Demir Y., El-Refaie A. M. , AYDIN M.
IEEE TRANSACTIONS ON ENERGY CONVERSION, vol.36, no.3, pp.1722-1732, 2021 (SCI-Expanded)
- III. **Magneto-Thermal Analysis of an Axial-Flux Permanent-Magnet-Assisted Eddy-Current Brake at High-Temperature Working Conditions**
GÜLEÇ M., AYDIN M., NERG J., LINDH P., PYRHONEN J. J.
IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.68, no.6, pp.5112-5121, 2021 (SCI-Expanded)
- IV. **Design and Validation of an Unconventional 39-Slot PM Synchronous Motor with Asymmetric and Unbalanced AC Windings**
Aydın M., Demir Y., Yolaçan E., Güleç M., El-Refaie A.
IEEE JOURNAL OF EMERGING AND SELECTED TOPICS IN POWER ELECTRONICS, vol.1, pp.1-2, 2021 (SCI-Expanded)
- V. **A Novel Track Structure of Double-Sided Linear PM Synchronous Motor for Low Cost and High Force Density Applications**
Boduroglu A., Demir Y., Cumhuri B., Aydın M.
IEEE TRANSACTIONS ON MAGNETICS, vol.57, no.2, 2021 (Journal Indexed in SCI)
- VI. **Cost Minimization of a Permanent Magnet Eddy Current Brake by Multiobjective Particle Swarm Optimization Based on Nonlinear Reluctance Network Modeling**
GÜLEÇ M., Lindh P., AYDIN M., Pyrhonen J.
IEEE ACCESS, vol.9, pp.157361-157370, 2021 (SCI-Expanded)
- VII. **Modeling and Experimental Verification of an Unconventional 9-Phase Asymmetric Winding PM Motor Dedicated to Electric Traction Applications**
Yolaçan E., Guven M. K. , Aydın M., El Refaie A.
IEEE Access, vol.8, pp.70182-70192, 2020 (SCI-Expanded)
- VIII. **An Innovative Semi-FEA Based, Variable Magnet-Step-Skew to Minimize Cogging Torque and Torque Pulsations in Permanent Magnet Synchronous Motors**
Ocak O., AYDIN M.
IEEE ACCESS, vol.8, pp.210775-210783, 2020 (SCI-Expanded)
- IX. **Nonlinear Multidisciplinary Design Approach for Axial-Flux Eddy Current Brakes**
Güleç M., Aydın M., Nerg J., Lindh P., Pyrhonen J. J.
IEEE TRANSACTIONS ON ENERGY CONVERSION, vol.34, pp.1917-1927, 2019 (SCI-Expanded)
- X. **A New Asymmetric Planar V-Shaped Magnet Arrangement for A Linear PM Synchronous Motor**
Boduroglu A., GÜLEÇ M., Demir Y., YOLAÇAN E., AYDIN M.
IEEE Transactions on Magnetics, vol.55, no.7, 2019 (SCI-Expanded)
- XI. **Investigation of different winding configurations and displacements of a nine-phase permanent-magnet-synchronous motor with unbalanced AC winding structure**
Demir Y., YOLAÇAN E., El-Refaie A. M. , AYDIN M.
IEEE Transactions on Industry Applications, vol.55, no.4, pp.3660-3670, 2019 (SCI-Expanded)
- XII. **Rotor design optimization of a new flux-assisted consequent pole spoke-type permanent magnet**

torque motor for low-speed applications

Onsal M., Cumhur B., Demir Y., YOLAÇAN E., AYDIN M.

IEEE Transactions on Magnetics, vol.54, no.11, 2018 (SCI-Expanded)

- XIII. **An Innovative Dual-Rotor Axial-Gap Flux-Switching Permanent-Magnet Machine Topology With Hybrid Excitation**
Yildiriz E., GÜLEÇ M., AYDIN M.
IEEE TRANSACTIONS ON MAGNETICS, vol.54, no.11, 2018 (SCI-Expanded)
- XIV. **Investigation of Losses for a Concentrated Winding High-Speed Permanent Magnet-Assisted Synchronous Reluctance Motor for Washing Machine Application**
Payza O., Demir Y., Aydin M.
IEEE TRANSACTIONS ON MAGNETICS, vol.54, no.11, 2018 (SCI-Expanded)
- XV. **Implementation of different 2D finite element modelling approaches in axial flux permanent magnet disc machines**
GÜLEÇ M., AYDIN M.
IET ELECTRIC POWER APPLICATIONS, vol.12, no.2, pp.195-202, 2018 (SCI-Expanded)
- XVI. **A New Hybrid Permanent Magnet Synchronous Motor With Two Different Rotor Sections**
Ocak O., AYDIN M.
IEEE TRANSACTIONS ON MAGNETICS, vol.53, no.11, 2017 (SCI-Expanded)
- XVII. **A Novel Torque Quality Improvement of an Asymmetric Windings Permanent-Magnet Synchronous Motor**
YOLAÇAN E., Guven M., AYDIN M.
IEEE Transactions on Magnetics, vol.53, no.11, 2017 (SCI-Expanded)
- XVIII. **Design, analysis and real time dynamic torque control of single-rotor-single-stator axial flux eddy current brake**
GÜLEÇ M., YOLAÇAN E., AYDIN M.
IET ELECTRIC POWER APPLICATIONS, vol.10, no.9, pp.869-876, 2016 (SCI-Expanded)
- XIX. **A New Coreless Axial Flux Interior Permanent Magnet Synchronous Motor With Sinusoidal Rotor Segments**
AYDIN M., GÜLEÇ M.
IEEE TRANSACTIONS ON MAGNETICS, vol.52, no.7, 2016 (SCI-Expanded)
- XX. **Modeling based on 3D finite element analysis and experimental study of a 24-slot 8-pole axial-flux permanent-magnet synchronous motor for no cogging torque and sinusoidal back-EMF**
GÜLEÇ M., YOLAÇAN E., DEMİR Y., Ocak O., AYDIN M.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.24, no.1, pp.262-275, 2016 (SCI-Expanded)
- XXI. **Reduction of Cogging Torque in Double-Rotor Axial-Flux Permanent-Magnet Disk Motors: A Review of Cost-Effective Magnet-Skewing Techniques With Experimental Verification**
AYDIN M., GÜLEÇ M.
IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.61, no.9, pp.5025-5034, 2014 (SCI-Expanded)
- XXII. **Magnet asymmetry in reduction of cogging torque for integer slot axial flux permanent magnet motors**
GÜLEÇ M., AYDIN M.
IET ELECTRIC POWER APPLICATIONS, vol.8, no.5, pp.189-198, 2014 (SCI-Expanded)
- XXIII. **Comparing Various PM Synchronous Generators**
Aydin M., Gueven M. K.
IEEE VEHICULAR TECHNOLOGY MAGAZINE, vol.9, no.1, pp.36-45, 2014 (SCI-Expanded)
- XXIV. **Design, Analysis, and Control of a Hybrid Field-Controlled Axial-Flux Permanent-Magnet Motor**
AYDIN M., Huang S., Lipo T. A.
IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.57, no.1, pp.78-87, 2010 (SCI-Expanded)

Articles Published in Other Journals

- I. **Doğrusal Sürekli Mıknatıslı Senkron Motorun Doğrusal Olmayan Manyetik Eşdeğer Devre ve Sonlu Elemanlar Tabanlı Tasarımı**
BARIŞ A., GÜLEÇ M., DEMİR Y., AYDIN M.
EMO BİLİMSEL DERGİ, 2018 (Peer-Reviewed Journal)
- II. **Kalıcı Mıknatıslı Senkron Motorların Doğrudan Sürürlü Beyaz Eşya Uygulamalarında Kullanımı**
AYDIN M., Oğuzhan O., Günsu A.
EMO Bilimsel Dergi, 2011 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Comparison of Permanent Magnet Machines Equipped with Unbalanced Fractional-Slot Distributed Windings vs. Balanced Fractional-Slot Concentrated Windings**
Demir Y., El-Refaie A., AYDIN M.
IEEE International Electric Machines and Drives Conference (IEMDC), ELECTR NETWORK, 17 - 20 May 2021
- II. **Endüstriyel Sürekli Mıknatıslı Servomotorlar İçin Bir Çözücü Tasarımı, Üretimi ve Doğrulaması**
Onsal M., Demir Y., AYDIN M.
ELEKTRİK-ELEKTRONİK ve BİYOMEDİKAL MÜHENDİSLİĞİ KONFERANSI 2020 (ELECO 2020), Turkey, 26 - 28 November 2020
- III. **Taneleri Yönlendirilmiş Manyetik Çelik Malzemenin Kalıcı Mıknatıslı Senkron Motor Performansına Etkisi**
Özdinçer B., AYDIN M.
ELEKTRİK-ELEKTRONİK ve BİYOMEDİKAL MÜHENDİSLİĞİ KONFERANSI 2020 (ELECO 2020), Turkey, 26 - 28 November 2020
- IV. **Mıknatıs Destekli Eksenel Akıllı Sürekli Mıknatıslı Girdap Akım Freninin Tasarımı ve Optimizasyonu**
GÜLEÇ M., AYDIN M.
ELEKTRİK-ELEKTRONİK ve BİYOMEDİKAL MÜHENDİSLİĞİ KONFERANSI 2020 (ELECO 2020), Turkey, 26 - 28 November 2020
- V. **Elimination of Cogging Torque for Axial Flux Permanent Magnet Motors Based on Current Harmonic Injection**
Tetik Girgin M., AYDIN M.
24th International Conference on Electrical Machines (ICEM 2020), 23 - 26 August 2020
- VI. **Investigation of Flux Weakening Capability of an Unconventional 9-Phase PM Motor with Different Winding Configurations**
YOLAÇAN E., Demir Y., AYDIN M., ElRefaie A.
IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society, Lisbon, Portugal, 14 - 17 October 2019
- VII. **Investigation of Magnetic Equivalent Circuit Modeling Approaches for an Asymmetric and Unbalanced Winding Permanent Magnet Motor**
Güleç M., Aydın M.
IECON 2019 - 45th Annual Conference of the IEEE Industrial Electronics Society, Lisbon, Portugal, 14 - 17 October 2019, pp.1-6
- VIII. **Investigation of Asymmetric and Unbalanced Winding Structures for 3-Phase Permanent Magnet Synchronous Machines**
Demir Y., El-Refaie A., AYDIN M.
45th Annual Conference of the IEEE Industrial Electronics Society (IECON), Lisbon, Portugal, 14 - 17 October 2019, pp.1132-1137
- IX. **Development of a 7.5kW High Speed Interior Permanent Magnet Synchronous Spindle Motor for CNC Milling Machine**

Ocak O., AYDIN M.

2018 XIII International Conference on Electrical Machines (ICEM), Alexandroupoli, Greece, 3 - 06 September 2018

- X. **Investigation of Different Winding Configurations and Displacements of a 9- Phase Permanent Magnet Synchronous Motor with Unbalanced AC Winding Structure**
Demir Y., YOLAÇAN E., Ei-Refaie A., AYDIN M.
23rd International Conference on Electrical Machines, ICEM 2018, Alexandroupoli, Greece, 3 - 06 September 2018, pp.2490-2496
- XI. **Design, FEA and Dynamic Simulation of a New Unconventional 9-Phase PMSM with Asymmetric Winding**
YOLAÇAN E., Demir Y., AYDIN M.
23rd International Conference on Electrical Machines, ICEM 2018, Alexandroupoli, Greece, 3 - 06 September 2018, pp.2123-2129
- XII. **Design and Comparison of Radial Flux Magnetic Levitation Systems Based on Conventional and Buried Permanent Magnet Types Rotors**
GÜLEÇ M., YOLAÇAN E., AYDIN M.
23rd International Conference on Electrical Machines, ICEM 2018, Alexandroupoli, Greece, 3 - 06 September 2018, pp.642-648
- XIII. **Investigation of Braking Torque Characteristic for a Double-Stator Single-Rotor Axial-Flux Permanent-Magnet Eddy-Current Brake**
GÜLEÇ M., AYDIN M., Lindh P., Pyrhönen J.
IEEE International Conference on Electrical Machines, 3 - 06 September 2018
- XIV. **Influence of Auxiliary Teeth on Performance of a Permanent Magnet Linear Motor**
Bariş A., Demir Y., Lyra R., AYDIN M.
2018 XIII International Conference on Electrical Machines (ICEM), Alexandroupoli, Greece, 3 - 06 September 2018
- XV. **Uzay Vektör DGM Tekniği ile Sürekli Miknatıs Doğrusal Senkron Motor Modellenmesi ve Hareket Kontrolü**
Ulu Y., AYDIN M.
1. Ulusal Elektrik Enerjisi Dönüşümü Kongresi 2017, Turkey, 21 - 22 September 2017
- XVI. **Bir Doğrusal Sürekli Miknatıslı Senkron Motorun Manyetik Eşdeğer Devre ve Sonlu Eleman Analizi Tabanlı Tasarımı**
BARIŞ A., GÜLEÇ M., DEMİR Y., AYDIN M.
1. Ulusal Elektrik Enerjisi Dönüşümü Kongresi, Turkey, 21 - 22 September 2017
- XVII. **A Novel Torque Quality Improvement of an Asymmetric Windings Permanent Magnet Synchronous Motor**
YOLAÇAN E., GUVEN M. K. , AYDIN M.
2017 IEEE International Magnetics Conference (INTERMAG), Dublin, Ireland, 24 - 28 April 2017
- XVIII. **Comparison of Non-linear Magnetic Modelling Techniques for an Open Slotted Axial Flux Eddy Current Brake**
GÜLEÇ M., AYDIN M.
National Conference on Electrical, Electronics and Biomedical Engineering (ELECO), Bursa, Turkey, 1 - 03 December 2016, pp.313-317
- XIX. **Modelling and Analysis of a New Axial Flux Permanent Magnet Biased Eddy Current Brake**
GÜLEÇ M., AYDIN M.
22nd International Conference on Electrical Machines (ICEM), Lausanne, Switzerland, 4 - 07 September 2016, pp.459-465
- XX. **Design and Validation of a 24-Pole Coreless Axial Flux Permanent Magnet Motor for A Solar Powered Vehicle**
AYDIN M., GÜLEÇ M., DEMİR Y., AKYÜZ B., YOLAÇAN E.
22nd International Conference on Electrical Machines (ICEM), Lausanne, Switzerland, 4 - 07 September 2016, pp.1493-1498
- XXI. **Tek Rotor Tek Stator Yapısına Sahip Eksenel Akıllı Elektromanyetik Bir Frenin Modellenmesi Analizi**

ve Gerçek Zamanda Moment Denetimi

GÜLEÇ M., AYDIN M.

Otomatik Kontrol Türk Milli Komitesi (TOK), Turkey, 10 - 12 September 2015

- XXII. **2D finite element modelling approach for axial flux permanent magnet synchronous motors**
GÜLEÇ M., AYDIN M.
2015 IEEE International Magnetics Conference, INTERMAG 2015, Beijing, China, 11 - 15 May 2015
- XXIII. **Fırçasız Dış Rotorlu Elektrikli Bisiklet Motoru Tasarımı Üretimi Ve Deneysel Doğrulaması**
Demir Y., Barış T E., Eyüp S., Turhan A., Yılmaz S., AYDIN M.
Elektrik Elektronik Bilgisayar Müh. Sempozyumu ve Sergisi (ELECO2014) konferansı, Turkey, 05 November 2014
- XXIV. **Mıknatıs Korozyonunun 36 Oluk 12 Kutuplu Sürekli Mıknatıslı Senkron Motorun Performansına Etkisi**
Demir Y., Barış T E., Eyüp S., Turhan A., Yılmaz S., AYDIN M.
Elektrik Elektronik Bilgisayar Müh. Sempozyumu ve Sergisi (ELECO2014) konferansı, Turkey, 05 November 2014
- XXV. **Design and Simulation of an Axial Gap Electromagnetic Brake with Flux 3D FEA Package**
GÜLEÇ M., AYDIN M.
Cedrat FLUX 2014 Conference, 15 - 16 October 2014
- XXVI. **Design and Comparison of 33 Slot Permanent Magnet Synchronous Motor with Symmetric and Asymmetric AC Windings**
Demir Y., AYDIN M.
IEEE International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM), Italy, 18 - 20 June 2014, pp.385-390
- XXVII. **Design and Control of an 8-Slot Radial Flux Magnetic Bearing**
GÜLEÇ M., YOLAÇAN E., AYDIN M.
IEEE International Symposium on Power Electronics, Electrical Drives, Automation and Motion (SPEEDAM), Italy, 18 - 20 June 2014, pp.1231-1236
- XXVIII. **Radyal Bir Aktif Manyetik Yatak Tasarımı Modellenmesi ve Bulanık Mantık ile Konum Denetimi**
GÜLEÇ M., YOLAÇAN E., AYDIN M.
Otomatik Kontrol Ulusal Toplantısı, Turkey, 26 - 28 September 2013, pp.214-219
- XXIX. **Modelling and Design of Active Magnetic Bearings Based on Magnetic Circuit and 2D Finite Element Analysis**
GÜLEÇ M., AYDIN M.
14th International Workshop on Research and Education in Mechatronics, 6 - 07 June 2013, pp.161-167
- XXX. **Design of Various Permanent Magnet Synchronous Generators for High Power Traction Applications**
AYDIN M., Güven M.
IEEE Proceedings of the 2013 IEEE International Electric Machines and Drives Conference (IEMDC), United States Of America, 15 May 2013
- XXXI. **Vector based speed control of permanent magnet AC servomotor with FEA and experimental verification**
YOLAÇAN E., AYDIN M.
Joint 2012 9th France-Japan and 7th Europe-Asia Congress on Mechatronics, MECATRONICS 2012 and 13th International Workshop on Research and Education in Mechatronics, REM 2012, Paris, France, 21 - 23 November 2012, pp.324-328
- XXXII. **Sürekli Mıknatıslı AC Servomotor Tasarımında Radyel ve Paralel Mıknatıslamanın Motor Performansına Etkisi**
Demir Y., Barış T E., Eyüp S., Turhan A., Yılmaz S., AYDIN M.
7. Elektrik Elektronik Bilgisayar Müh. Sempozyumu ve Sergisi (ELECO2012) konferansı, Turkey, 08 November 2012
- XXXIII. **Fırçasız DC ve AC Sürekli Mıknatıslı Motor Tasarımı ve Kullanılan Yazılımlar**
Demir Y., Barış T E., Eyüp S., Turhan A., Yılmaz S., AYDIN M.
7. Elektrik Elektronik Bilgisayar Müh. Sempozyumu ve Sergisi (ELECO2012) konferansı, Turkey, 08 November 2012

- XXXIV. **Manyetik Yatakların Manyetik Devre ve 2B Sonlu Elemanlar Yöntemi ile Modellenmesi ve Tasarımı**
GÜLEÇ M., AYDIN M.
Elektrik - Elektronik ve Bilgisayar Mühendisliği Sempozyumu, Turkey, 29 November - 01 December 2012, pp.35-40
- XXXV. **Sürekli Mıknatıslı Disk Motorların Tasarımı ve Üretimi**
GÜLEÇ M., AYDIN M., YOLAÇAN E., OĞUZHAN O.
Otomatik Kontrol Ulusal Toplantısı, Turkey, 11 - 13 October 2012, pp.481-485
- XXXVI. **Influence of magnet grouping in reduction of cogging torque for a slotted double-rotor axial-flux PM motor**
GÜLEÇ M., AYDIN M.
21st International Symposium on Power Electronics, Electrical Drives, Automation and Motion, SPEEDAM 2012, Sorrento, Italy, 20 - 22 June 2012, pp.812-817
- XXXVII. **Sürekli Mıknatıslı Senkron Motorun Vektör Temelli Bulanık Mantık ile Hız Denetimi**
GÜLEÇ M., YOLAÇAN E., AYDIN M.
Otomatik Kontrol Türk Milli Komitesi Ulusal Konferansı TOK 2012, Turkey, 05 September 2012
- XXXVIII. **Mobil Robot Uygulamaları için Sürekli Mıknatıslı AC Servomotor Tasarımı Analizi ve Deneysel Doğrulaması**
Demir Y., Oğuzhan O., Barış T E., Eyüp S., AYDIN M.
Otomatik Kontrol Türk Milli Komitesi Ulusal Konferansı TOK 2012, Turkey, 05 September 2012
- XXXIX. **No load analysis of permanent magnet AC servomotors A comparative study**
Oğuzhan O., AYDIN M.
12th International Workshop on Research and Education in Mechatronics – REM 2011, Turkey, 09 September 2011
- XL. **Rotor segmentation for spoke type interior permanent magnet servomotors**
Oğuzhan O., AYDIN M.
12th International Workshop on Research and Education in Mechatronics – REM 2011, Turkey, 09 September 2011
- XLI. **Magnet shape optimization of a slotted surface-mounted axial gap PM motor for reducing cogging torque**
YOLAÇAN E., Ozyurt E., AYDIN M.
19th International Conference on Electrical Machines, ICEM 2010, Rome, Italy, 6 - 08 September 2010
- XLII. **Cogging Torque Minimization and Torque Quality of Radial and Axial Flux Permanent Magnet Servomotors**
YOLAÇAN E., özyurt e., oğuzhan o., AYDIN M.
11th International Workshop on Research and Education in Mechatronics - REM 2010, Czech Republic, 18 August 2010
- XLIII. **3D Finite Element Analysis and Experimental Verification of A Magnetic Levitation System**
Aydın M., Bingül Z.
11th International Workshop on Research and Education in Mechatronics, Ostrava, Czech Republic, 16 June 2010, pp.191-194
- XLIV. **Özel Uygulamalar İçin DC ve AC Sürekli Mıknatıslı Motorların Optimum Elektromanyetik Tasarımı**
AYDIN M.
Elektrik Elektronik Bilgisayar Müh. Sempozyumu ve Sergisi 2008, Turkey, 20 November 2008
- XLV. **Sabit Mıknatıslı Disk Motorlarda Mıknatıs Kaykısı Etkisi**
AYDIN M.
Elektrik Elektronik Bilgisayar Müh. Sempozyumu ve Sergisi 2008, Turkey, 20 November 2008
- XLVI. **Effects of Magnet Skew in Cogging Torque Minimization of Axial Gap Permanent Magnet Motors**
AYDIN M.
18th International Conference on Electrical Machines, ICEM 2008, Portugal, 13 August 2008
- XLVII. **Eksenel Akımlı Sürekli Mıknatıslı Elektrik Motorlarında Vuruntu Moment Minimizasyonu**
AYDIN M.
12. Elektrik, Elektronik, Bilgisayar ve Biyomedikal Mühendisliği Ulusal Kongresi ve Fuarı 2007, Turkey, 08

November 2007

- XLVIII. **Design and Experimental Verification of a 50 kW Interior Permanent Magnet Synchronous Machine**
Thomas J., Han S., Ayman E., Jeyhoon B., AYDIN M., Mustafa G., Wen S.
IEEE Industry Applications Conference IAS Annual Meeting 2006, United States Of America, 08 September 2006
- XLIX. **Integrated Design Process and Experimental Verification of a 50 kW Interior Permanent Magnet Synchronous Machine**
AYDIN M., Mustafa G., Han S., Thomas J., Wen S.
17th International Conference on Electrical Machines (ICEM 06), Greece, 08 September 2006
- L. **Impact of Maximum Back-EMF Limits on the Performance Characteristics of Interior Permanent Magnet Synchronous Machines**
Han S., Jahns T. M., Guven M. K., AYDIN M., Soong W. L.
41st Annual Meeting of the IEEE Industry-Applications-Society (IAS), Tama, Japan, 8 - 12 October 2006, pp.1962-1969
- LI. **Field Weakening of Permanent Magnet Machines Design Approaches**
Thomas L., AYDIN M.
EPE Power Electronics and Motion Control Conference, 17 September 2004
- LII. **Design Considerations and Experimental Results of an Axial Flux PM Motor with Field Control**
AYDIN M., Yao J., Ekrem K., Surong H., Thomas L.
16th International Conference on Electrical Machines (ICEM 04), 09 September 2004
- LIII. **Axial Flux Permanent Magnet Disc Machines A Review**
AYDIN M., Lipo T.
Symposium on Power Electronics, Electrical Drives, Automation Motion - SPEEDAM 2004 Conference, 16 June 2004
- LIV. **Cogging Torque Minimization Technique for Multiple Rotor Axial Flux Surface Magnet PM Motors Alternating Magnet Pole Arcs in Facing Rotors**
AYDIN M., Ronghai Q., Thomas L.
IEEE Conference Record of 2003 Industry Applications Conference, United States Of America, 15 October 2003
- LV. **Performance Evaluation of An Axial Flux Consequent Pole PM Motor Using Finite Element Analysis**
AYDIN M., Surong H., Thomas L.
IEEE International Conference on Electrical Machines and Drives (IEMDC 2003), United States Of America, 04 June 2003
- LVI. **Sizing Equation Analysis for Field Controlled PM Machines A Unified Approach**
AYDIN M., Surong H., Thomas L.
IEEE International Conference on Electrical Machines and Drives (IEMDC 2003), United States Of America, 04 June 2003
- LVII. **Performance Comparison of Dual Rotor Radial Flux and Axial Flux Permanent Magnet BLDC Machines**
AYDIN M., Surong H., Thomas L.
IEEE International Conference on Electrical Machines and Drives (IEMDC 2003), United States Of America, 04 June 2003
- LVIII. **A New Axial Flux Surface Mounted Permanent Magnet Machine Capable of Field Control**
AYDIN M., Surong H., Thomas L.
IEEE Industry Applications Society Annual Meeting 2002, United States Of America, 19 September 2002
- LIX. **A Direct Approach to Electrical Machine Performance Evaluation Torque Density Assessment and Sizing Optimization**
Surong H., AYDIN M., Thomas L.
15th International Conference on Electrical Machines, ICEM 2002, Belgium, 05 September 2002
- LX. **Torque Quality and Comparison of Internal and External Rotor Axial Flux Surface Magnet Disc Machines**
AYDIN M., Surong H., Thomas L.
The 27th Annual Conference of the IEEE Industrial Electronics Society 2001, 01 December 2001

- LXI. **Torque Quality Assessment and Sizing Optimization for Surface Mounted PM Machines**
Surong H., AYDIN M., Thomas L.
IEEE Industry Applications Society Annual Meeting 2001, United States Of America, 30 September 2001
- LXII. **TORUS Concept Machines Pre prototyping Design Assessment for Two Major Topologies**
Surong H., AYDIN M., Thomas L.
IEEE Industry Applications Society Annual Meeting 2001, United States Of America, 30 September 2001
- LXIII. **Low Noise and Smooth Torque Permanent Magnet Propulsion Motors Comparison of Non slotted and Slotted Radial and Axial Flux Topologies**
Huang S., AYDIN M., Thomas L.
IEEE International Aegean Electrical Machine and Power Electronic Conference, 23 August 2001
- LXIV. **Optimum Design and 3D Finite Element Analysis of Non slotted and Slotted Internal Rotor Type Axial Flux PM Disc Machines**
AYDIN M., surong h., thomas l.
IEEE Power Engineering Society Summer Meeting 2001, United States Of America, 19 July 2001
- LXV. **Electromagnetic Noise and Vibration Assessment for Surface Mounted PM Machines**
Surong H., AYDIN M., Thomas L.
IEEE Power Engineering Society Summer Meeting 2001, 19 July 2001
- LXVI. **Design and Electromagnetic Field Analysis of Non slotted and Slotted TORUS Type Axial Flux Surface Mounted Disc Machines**
AYDIN M., Surong H., Thomas L.
IEEE International Conference on Electrical Machines and Drives (IEMDC), United States Of America, 13 June 2001
- LXVII. **Comparison of Non slotted and Slotted Surface Mounted PM Motors and Axial Flux Motors for Submarine Ship Drives**
AYDIN M., Surong H., Thomas L.
3rd Naval Symposium on Electrical Machines, United States Of America, 27 July 2000

Supported Projects

AYDIN M., Project Supported by Higher Education Institutions, YENİ BİR EKSENEL AKILI SÜREKLİ MIKNATISLI GİRDAP AKIM FRENİ GELİŞTİRİLMESİ, 2018 - 2019

AYDIN M., Project Supported by Higher Education Institutions, KONSANTRE SARGILI MIKNATIS DESTEKLİ SENKRON RELÜKTANS MOTOR TASARIMI, ÜRETİMİ VE DOĞRULAMASI, 2018 - 2018

AYDIN M., Project Supported by Higher Education Institutions, YENİ BİR GÖMÜLÜ MIKNATISLI DÜŞÜK HIZLI SENKRON TORK MOTORUN PROTOTİP ÜRETİMİ VE KONTROLÜ, 2017 - 2018

AYDIN M., Project Supported by Higher Education Institutions, YÜKSEK HIZLI SÜREKLİ MIKNATISLI HİBRİT SPİNDLE MOTOR PROTOTİP ÜRETİMİ VE TESTLERİ, 2017 - 2018

AYDIN M., Project Supported by Higher Education Institutions, ÖZEL BİR DOKUZ FAZLI YÜZEY MIKNATISLI MOTORUN PROTOTİP ÜRETİMİ VE KONTROLÜ, 2017 - 2018

AYDIN M., Project Supported by Higher Education Institutions, YENİ BİR 9-FAZLI ASİMETRİK AC SARGILI SÜREKLİ MIKNATISLI SENKRON MOTORUN MODELLENMESİ VE GERÇEK ZAMANLI KONTROLÜ, 2016 - 2018

AYDIN M., Project Supported by Higher Education Institutions, ELEKTROMANYETİK FREN SİSTEMİ, 2016 - 2017

AYDIN M., Project Supported by Higher Education Institutions, Eksenel Akıllı Mıknatışlı Oluklu Motorlarda Sıfır Vuruntu Momentinin Elde Edilmesi ve Gerilim Harmoniklerinin Belirlenmesi, 2011 - 2012

Metrics

Publication: 93

Citation (WoS): 411

Citation (Scopus): 504

H-Index (WoS): 10

H-Index (Scopus): 11