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Biography

Yusuf Yasa received the B.Sc. degree in electrical engineering, and the M.S. and Ph.D. degrees in electric machinery and power electronics from the Department of Electrical Engineering, Yildiz Technical University, Istanbul, Turkey, in 2010, 2013, and 2018, respectively. He is an Assistant Professor with Istanbul Technical University, Turkey. His research interests include design, modeling and control of electrical machines and power electronics, variable speed wind generators, and electric vehicles.

Education Information

Doctorate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Turkey 2013 - 2018
Postgraduate, Yildiz Technical University, Graduate School Of Natural And Applied Sciences, Turkey 2010 - 2013
Undergraduate, Yildiz Technical University, Faculty Of Electrical & Electronics, Turkey 2006 - 2010

Research Areas

Electrical Machine Theory and Design, Electric Motor Drivers, Power Converters

Academic Titles / Tasks

Assistant Professor, Istanbul Technical University, Elektrik-Elektronik, Elektrik Mühendisliği, 2022 - Continues

Academic and Administrative Experience

Manager of Research and Application Center, Bursa Technical University, Rectorate, 2021 - 2022

Advising Theses

Yaşa Y., BATARYA SOĞUTMA PERFORMANSINI İYİLEŞTİRMEK İÇİN ALÜMİNYUM FİN YAPI İÇERİSİNDE GRAFEN KATKILI

PCM MALZEMESİNİN DEĞERLENDİRİLMESİ, Postgraduate, Y.AYDIN(Student), 2023

Published journal articles indexed by SCI, SSCI, and AHCI

I. **Acoustic Noise Mitigation of Switched Reluctance Machines with Leaf Springs**
Yasa Y., Sozer Y., Garip M.
IEEE Transactions on Industrial Electronics, vol.70, no.2, pp.1250-1260, 2023 (SCI-Expanded)

II. **Consideration of graphene material in PCM with aluminum fin structure for improving the battery cooling performance**
Aslan E., Aydin Y., Yaşa Y.
INTERNATIONAL JOURNAL OF ENERGY RESEARCH, vol.46, no.8, pp.10758-10769, 2022 (SCI-Expanded)

III. **Acoustic Noise Mitigation in High Pole Count Switched Reluctance Machines Utilizing Skewing Method on Stator and Rotor Poles**
Gundogmus O., Das S., Yaşa Y., Elamin M., Sozer Y., Kutz J., Tylenda J., Wright R. L.
IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, vol.69, no.6, pp.5581-5593, 2022 (SCI-Expanded)

IV. **Sensorless Control of Synchronous Reluctance Motor Based on Active Flux Vector and Extended Kalman Filter**
Cebeci E., Yaşa Y.
JOURNAL OF ELECTRICAL ENGINEERING & TECHNOLOGY, vol.17, no.2, pp.1207-1215, 2022 (SCI-Expanded)

V. **Acoustic Noise Mitigation of Switched Reluctance Machines With Windows on Stator and Rotor Poles**
Gundogmus O., Elamin M., Yasa Y., Husain T., Sozer Y., Kutz J., Tylenda J., Wright R. L.
IEEE TRANSACTIONS ON INDUSTRY APPLICATIONS, vol.56, no.4, pp.3719-3730, 2020 (SCI-Expanded)

VI. **Unbalanced distributed and balanced concentrated winding comparison in servo motor applications**
Mese E., Yasa Y., Ertugrul B. T., Sincar E.
ELECTRIC POWER SYSTEMS RESEARCH, vol.156, pp.64-74, 2018 (SCI-Expanded)

VII. **High-speed switched reluctance machine: natural frequency calculation and acoustic noise prediction**
Yasa Y., Sozer Y., GARİP M.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.26, no.2, pp.999-1010, 2018 (SCI-Expanded)

VIII. **Loss analysis of high speed switched reluctance machine with integrated simulation methods**
Yasa Y., Sozer Y., GARİP M.
INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS, vol.56, no.3, pp.479-497, 2018 (SCI-Expanded)

IX. **High-power density switched reluctance machine development for high-speed spindle applications**
Yasa Y., Sozer Y., GARİP M.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.26, no.3, pp.1572-1586, 2018 (SCI-Expanded)

X. **A multidisciplinary design approach for electromagnetic brakes**
Yaşa Y., Sincar E., Ertugrul B. T., Mese E.
Electric Power Systems Research, vol.141, pp.165-178, 2016 (SCI-Expanded)

XI. **Investigating operating modes and converter options of dual winding permanent magnet synchronous machines for hybrid electric vehicles**
Mese E., Yaşa Y., AKÇA H., AYDENİZ M. G., GARİP M.
IEEE Transactions on Energy Conversion, vol.30, no.1, pp.285-295, 2015 (SCI-Expanded)

Refereed Congress / Symposium Publications in Proceedings

I. **An Unscented Kalman Filter Design on Rotating Reference Frame For Induction Machines**

Cebeci E., Yasa Y.
6th International Conference on Electric Power and Energy Conversion Systems (EPECS), ELECTR NETWORK, 5 - 06 October 2020, pp.146-150

II. **Design of Outer Runner-Type Brushless Permanent Magnet DC Motor for Lightweight E-Vehicles**
Garip S., Yasa Y.
6th International Conference on Electric Power and Energy Conversion Systems (EPECS), ELECTR NETWORK, 5 - 06 October 2020, pp.151-156

III. **A Review on the Battery State of Charge Estimation Methods for Electric Vehicle Battery Management Systems**
Aslan E., Yasa Y.
11th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 28 - 30 November 2019, pp.281-285

IV. **Acoustic Noise Mitigation of Switched Reluctance Machines with Windows in Both Stator and Rotor Poles**
Elamin M., Yasa Y., Gundogmus O., Sozer Y., Kutz J., Tylenda J., Wright R. L.
33nd Annual IEEE Applied Power Electronics Conference and Exposition (APEC), San-Antonio, Northern Mariana Islands, 4 - 08 March 2018, pp.1205-1210

V. **Acoustic noise mitigation for high pole count switched reluctance machines through skewing method with multiphysics FEA simulations**
Yaşa Y., Elamin M., Sozer Y., Kutz J., Tylenda J. S., Wright R. L.
9th Annual IEEE Energy Conversion Congress and Exposition, ECCE 2017, Ohio, United States Of America, 1 - 05 October 2017, vol.2017-January, pp.738-744

VI. **Effects of windows in stator and rotor poles of switched reluctance motors in reducing noise and vibration**
Elamin M., Yaşa Y., Sozer Y., Kutz J., Tylenda J., Wright R. L.
2017 IEEE International Electric Machines and Drives Conference, IEMDC 2017, Florida, United States Of America, 21 - 24 May 2017

VII. **Performance improvement of the delta-connected SRM driven by a standard three phase inverter**
Elamin M., Yaşa Y., Elrayyah A., Sozer Y.
2017 IEEE International Electric Machines and Drives Conference, IEMDC 2017, Florida, United States Of America, 21 - 24 May 2017

VIII. **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

IX. **The development of DC-DC buck converter with practical design methods PratiK tasarim metodlariyla dusurucu Tip DA-DA dÖnÜstÜrÜcÜnÜn gelistirilmesi**
Cebeci E., Yaşa Y.
2016 National Conference on Electrical, Electronics and Biomedical Engineering, ELECO 2016, Bursa, Turkey, 1 - 03 December 2016, pp.691-695

X. **Investigation of power distribution on an axial fan**
Hashim H. M., Yaşa Y., Dogruoz M. B., Arik M., Mese E.
15th InterSociety Conference on Thermal and Thermomechanical Phenomena in Electronic Systems, ITherm 2016, Nevada, United States Of America, 31 May - 03 June 2016, pp.160-167

XI. **Comparison of SVPWM, SPWM and HCC control techniques in power control of PMSG used in wind turbine systems**
Ting N. S., Yaşa Y., Aksoy I., ŞAHİN Y.
1st Joint International Aegean Conference on Electrical Machines and Power Electronics, ACEMP 2015, International Conference on Optimization of Electrical and Electronic Equipment, OPTIM 2015 and International Symposium on Advanced Electromechanical Motion Systems, ELECTROMOTION 2015, Side, Turkey, 2 - 04 September 2015, pp.69-74

XII. **Design of a high performance servo motor for low speed high torque application**
Mese E., Yaşa Y., Ertugrul B. T., Sincar E.
21st International Conference on Electrical Machines, ICEM 2014, Berlin, Germany, 2 - 05 September 2014, pp.2014-2020

XIII. **Thermal management of power LED system**
AKÇA H., Yaşa Y., AYAZ R., DURUSU A., AJDER A., NAKİR İ., Tanrioven M.
3rd International Conference on Renewable Energy Research and Applications, ICRERA 2014, Wisconsin, United States Of America, 19 - 22 October 2014, pp.760-764

XIV. **Design and analysis of generator and converters for outer rotor direct drive gearless small-scale wind turbines**
Yaşa Y., Mese E.
3rd International Conference on Renewable Energy Research and Applications, ICRERA 2014, Wisconsin, United States Of America, 19 - 22 October 2014, pp.689-694

XV. **Design considerations of electromagnetic brakes for servo applications**
Yaşa Y., Sincar E., Ertugrul B. T., Mese E.
2014 IEEE 23rd International Symposium on Industrial Electronics, ISIE 2014, İstanbul, Turkey, 1 - 04 June 2014, pp.768-774

XVI. **Harmonic analysis of doubly fed induction generator based utility interactive wind turbine systems during fault conditions**
Yaşa Y., Sozer Y., Mese E.
5th Annual IEEE Energy Conversion Congress and Exhibition, ECCE 2013, Denver, CO, United States Of America, 15 - 19 September 2013, pp.2270-2276

XVII. **Analysis of doubly fed induction generator wind turbine system during one phase-to-ground fault**
Yaşa Y., Isen E., Sozer Y., Mese E., Gurleyen H.
2013 15th European Conference on Power Electronics and Applications, EPE 2013, Lille, France, 2 - 06 September 2013

XVIII. **Fault ride through of DFIG-based wind turbine with saturable transformer model**
Gurleyen H., Mese E., Yaşa Y.
2013 15th European Conference on Power Electronics and Applications, EPE 2013, Lille, France, 2 - 06 September 2013

XIX. **Comparative design of direct drive PM synchronous motors in gearless elevator systems**
Yetiş H., Boztepeli H., Yaşa Y., Meşe E.
2013 3rd International Conference on Electric Power and Energy Conversion Systems, EPECS 2013, İstanbul, Turkey, 2 - 04 October 2013

XX. **Investigating converter options for automotive grade permanent magnet sychronous generators**
Mese E., Yaşa Y., AKÇA H., AYDENİZ M. G., AYAZ M., Tezcan M.
2013 3rd International Conference on Electric Power and Energy Conversion Systems, EPECS 2013, İstanbul, Turkey, 2 - 04 October 2013

XXI. **Servo motor driver design for high performance applications**
Yaşa Y., Sahin E., Acar C., Gozutok A., Firat E., Mese E.
2013 3rd International Conference on Electric Power and Energy Conversion Systems, EPECS 2013, İstanbul, Turkey, 2 - 04 October 2013

XXII. **Unbalanced fault analysis of doubly fed induction generator drive system for wind turbine applications**
Yaşa Y., Sozer Y., Mese E.
28th Annual IEEE Applied Power Electronics Conference and Exposition, APEC 2013, Long Beach, CA, United States Of America, 17 - 21 March 2013, pp.2953-2960

XXIII. **A new electric accessory drive system for hybrid electric vehicles**
Mese E., Yaşa Y., AKÇA H., AYDENİZ M. G., GARİP M.
4th Annual IEEE Energy Conversion Congress and Exposition, ECCE 2012, Raleigh, NC, United States Of America, 15 - 20 September 2012, pp.1909-1916

XXIV. **Design considerations for dual winding permanent magnet synchronous machines**
Mese E., Tezcan M., AYAZ M., Yaşa Y., YILMAZ K.
4th Annual IEEE Energy Conversion Congress and Exposition, ECCE 2012, Raleigh, NC, United States Of America, 15 - 20 September 2012, pp.1894-1901

Patent

Yaşa Y., ACOUSTIC NOISE MITIGATION SYSTEM FOR AN ELECTRIC MACHINE, Patent, CHAPTER H Electricity, The Invention Registration Number: 11233445 , Standard Registration, 2022