

Prof. NİHAT ÖZTÜRK

Personal Information

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Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (Dr), Turkey 2000 - 2006

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (YI) (Tezli), Turkey 1997 - 2000

Undergraduate, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi Bölümü, Turkey 1993 - 1996

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Yumuşak Anahtarlamalı Asenkron Motorun Dolaylı Vektör Denetiminin Gerçekleştirilmesi, Gazi University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (Dr), 2006

Postgraduate, Alan Yönlendirmeli Asenkron Motora Bulanık Kontrolün Uygulanması, Gazi University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (YI) (Tezli), 2000

Research Areas

Electric Motor Drivers

Academic Titles / Tasks

Professor, Gazi University, Teknoloji Fakültesi, Elektrik - Elektronik Mühendisliği, 2019 - Continues

Associate Professor, Gazi University, Teknoloji Fakültesi, Elektrik - Elektronik Mühendisliği, 2014 - 2019

Assistant Professor, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi, 2009 - 2014

Lecturer PhD, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi, 2006 - 2009

Research Assistant, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi, 1998 - 2006

Academic and Administrative Experience

Gazi University, Teknoloji Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2020 - Continues

Gazi University, Teknoloji Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2015 - 2016

Gazi University, Atatürk Meslek Yüksekokulu, 2012 - 2014

Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi Bölümü, 2010 - 2012

Courses

ELEKTRİKELEKTRONİK MÜHENDİSLİĞİNDE YAPAY ZEKA UYGULAMALARI, Doctorate, 2021 - 2022
YAPAY ZEKA TEKNİKLERİ, Undergraduate, 2021 - 2022
Devre Analizi-II, Undergraduate, 2021 - 2022
DEVRE ANALİZİ LAB.II, Undergraduate, 2021 - 2022

Advising Theses

ÖZTÜRK N., Development Of A Modular And Reconfigurable Actuator Control Hardware Platform Based On Triz Methodology, Postgraduate, E.BİLGEHAN(Student), 2019
ÖZTÜRK N., Sip (Session initiation protocol) attacks and security measures, Postgraduate, M.YÜKSEL(Student), 2017
ÖZTÜRK N., A New Approach To Reduce Commutation Current Ripple For Three-Phase Brushless Direct Current Motors, Doctorate, E.ÇELİK(Student), 2016
ÖZTÜRK N., Constant voltage output control with diode clamped three level inverter, Postgraduate, R.CANBAZ(Student), 2014
ÖZTÜRK N., Graphical interface aided simulation of speed control of permanent magnet synchronous motor with genetic based fuzzy logic controller, Postgraduate, E.ÇELİK(Student), 2012

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Influence of energy storage device on load frequency control of an interconnected dual-area thermal and solar photovoltaic power system**
Celik E., ÖZTÜRK N., Houssein E. H.
NEURAL COMPUTING & APPLICATIONS, 2022 (Journal Indexed in SCI)
- II. **Advancement of the search process of salp swarm algorithm for global optimization problems**
Celik E., Öztürk N., Arya Y.
EXPERT SYSTEMS WITH APPLICATIONS, vol.182, 2021 (Journal Indexed in SCI)
- III. **(1+PD)-PID cascade controller design for performance betterment of load frequency control in diverse electric power systems**
Celik E., Öztürk N., Arya Y., Ocak C.
NEURAL COMPUTING & APPLICATIONS, 2021 (Journal Indexed in SCI)
- IV. **Commutation current ripple minimization of brushless DC motor drive based on programmed phase current references**
Celik E., Öztürk N.
ELECTRICAL ENGINEERING, 2021 (Journal Indexed in SCI)
- V. **A new objective function design for optimization of secondary controllers in load frequency control**
Yilmaz Z. Y., BAL G., Celik E., ÖZTÜRK N., GÜVENÇ U., Arya Y.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.36, no.4, pp.2053-2067, 2021 (Journal Indexed in SCI)
- VI. **Wind turbine speed control of a contactless piezoelectric wind energy harvester**
Celik E., KURT E., ÖZTÜRK N.
INTERNATIONAL JOURNAL OF ELECTRONICS, vol.107, no.2, pp.226-238, 2020 (Journal Indexed in SCI)
- VII. **A new fuzzy logic estimator for reduction of commutation current pulsation in brushless DC motor drives with three-phase excitation**
Celik E., ÖZTÜRK N.
NEURAL COMPUTING & APPLICATIONS, vol.31, pp.1125-1134, 2019 (Journal Indexed in SCI)
- VIII. **A hybrid symbiotic organisms search and simulated annealing technique applied to efficient design of PID controller for automatic voltage regulator**
Celik E., ÖZTÜRK N.
SOFT COMPUTING, vol.22, no.23, pp.8011-8024, 2018 (Journal Indexed in SCI)

- IX. **First application of symbiotic organisms search algorithm to off-line optimization of PI parameters for DSP-based DC motor drives**
Celik E., ÖZTÜRK N.
NEURAL COMPUTING & APPLICATIONS, vol.30, no.5, pp.1689-1699, 2018 (Journal Indexed in SCI)
- X. **A Neural Network Design for the Estimation of Nonlinear Behavior of a Magnetically-Excited Piezoelectric Harvester**
Celik E., UZUN Y., KURT E., ÖZTÜRK N., TOPALOĞLU N.
JOURNAL OF ELECTRONIC MATERIALS, vol.47, no.8, pp.4412-4420, 2018 (Journal Indexed in SCI)
- XI. **Zero-current switching technique for constant voltage constant frequency sinusoidal PWM inverter**
ÖZTÜRK N., KAPLAN O., Celik E.
ELECTRICAL ENGINEERING, vol.100, no.2, pp.1147-1157, 2018 (Journal Indexed in SCI)
- XII. **Attenuating saturated-regulator operation effect of brushless DC motors through genetic-based fuzzy logic estimator**
Celik E., ÖZTÜRK N.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.26, no.6, pp.3207-3225, 2018 (Journal Indexed in SCI)
- XIII. **Application of artificial neural network to estimate power generation and efficiency of a new axial flux permanent magnet synchronous generator**
Celik E., Gor H., ÖZTÜRK N., KURT E.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.42, no.28, pp.17692-17699, 2017 (Journal Indexed in SCI)
- XIV. **Cogging torque reduction by optimal design of PM synchronous generator for wind turbines**
ÖZTÜRK N., Dalcali A., Celik E., Sakar S.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.42, no.28, pp.17593-17600, 2017 (Journal Indexed in SCI)
- XV. **An educational tool for the genetic algorithm-based fuzzy logic controller of a permanent magnet synchronous motor drive**
ÖZTÜRK N., Celik E.
INTERNATIONAL JOURNAL OF ELECTRICAL ENGINEERING EDUCATION, vol.51, no.3, pp.218-231, 2014 (Journal Indexed in SCI)
- XVI. **Speed control of permanent magnet synchronous motors using fuzzy controller based on genetic algorithms**
ÖZTÜRK N., Celik E.
INTERNATIONAL JOURNAL OF ELECTRICAL POWER & ENERGY SYSTEMS, vol.43, no.1, pp.889-898, 2012 (Journal Indexed in SCI)
- XVII. **Speed Control for DC Motor Drive based on Fuzzy and Genetic PI Controller - A Comparative Study**
ÖZTÜRK N.
ELEKTRONIKA IR ELEKTROTEHNIKA, vol.123, no.7, pp.43-48, 2012 (Journal Indexed in SCI)
- XVIII. **A Novel Control Technique for Soft-switching Sinusoidal Pulse Width Modulation Inverter**
BAL G., ÖZTÜRK N.
ELECTRIC POWER COMPONENTS AND SYSTEMS, vol.39, no.1, pp.31-45, 2011 (Journal Indexed in SCI)
- XIX. **ANALYSIS OF SWITCHING LOSSES OF HARD AND SOFT SWITCHING IN FULL BRIDGE CONVERTER**
ÖZTÜRK N.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.23, no.1, pp.147-155, 2008 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Design of Hybrid Controller for Automatic Voltage Regulator**
Bal G., Öztürk N., Öncü S., Ünal K.
Politeknik Dergisi, vol.1, no.1, 2021 (Other Refereed National Journals)
- II. **Cogging Torque Minimization Using Skewed and Separated Magnet Geometries**

- Dalcali A., KURT E., Celik E., ÖZTÜRK N.
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, vol.23, no.1, pp.223-230, 2020 (Journal Indexed in ESCI)
- III. **Estimation of the Clearance Effect in the Blanking Process of CuZn30 Sheet Metal Using Neural Network—A Comparative Study**
ÇELİK E., ÇAVUŞOĞLU O., GÜRÜN H., ÖZTÜRK N.
Bilişim Teknolojileri Dergisi, vol.11, no.2, pp.187-193, 2018 (Other Refereed National Journals)
- IV. **SIP Saldırıları ve Güvenlik Yöntemleri**
Yüksel M., ÖZTÜRK N.
Bilişim Teknolojileri Dergisi, vol.10, no.3, pp.301-310, 2017 (Other Refereed National Journals)
- V. **Doğru akım motor sürücülerini için PI parametrelerinin simbiyotik organizmalar arama algoritması ile optimal ayarı**
ÇELİK E., ÖZTÜRK N.
Bilişim Teknolojileri Dergisi, vol.10, no.3, pp.311-318, 2017 (Other Refereed National Journals)
- VI. **Application of genetic algorithms to core loss coefficient extraction**
Öztürk N., Çelik E.
Progress In Electromagnetics Research M, vol.19, pp.133-146, 2011 (Journal Indexed in ESCI)

Refereed Congress / Symposium Publications in Proceedings

- I. **An Application of PDM Technique for MPPT in Solar Powered Wireless Power Transfer Systems**
Bal G., Öncü S., Öztürk N., Ünal K.
International Conference on Renewable Energy Research and Application (ICRERA), 26 - 29 September 2021
- II. **The Comparing of Linear Damping Methods for Constant Power Loads and Stability Analysis**
BODUR F., KAPLAN O., ÖZTÜRK N.
10th IEEE International Conference on Renewable Energy Research and Applications, ICRERA 2021, İstanbul, Turkey, 26 - 29 September 2021, pp.294-300
- III. **HAVAYOLU AÇIKLIĞI BASINCINA BAĞLI OLARAK ALVEOLAR BASINCIN BULANIK MANTIK DENETLEYİCİ İLE KONTROLÜ**
Bayazıt A., BURUNKAYA M., ÖZTÜRK N.
6. ULUSLARARASI MUHENDISLIK MİMARLIK VE TASARIM KONGRESİ, İstanbul, Turkey, 17 - 18 December 2020, pp.357-364
- IV. **İki alanlı termik güç sistemi yük frekans kontrolünde PID denetleyicinin simbiyotik organizmalar arama algoritması ile tasarımı**
ÖZTÜRK N., ÇELİK E., YENEN Z.
Uluslararası Marmara Fen ve Sosyal Bilimler Kongresi, 1 - 03 November 2019
- V. **Two-Degrees-of-Freedom PID Controller For AC/DC Converters**
ÖZTÜRK N., ÇELİK E.
8TH INTERNATIONAL CONFERENCE ON RENEWABLE ENERGY RESEARCH AND APPLICATIONS, Brasov, Romania, 3 - 06 November 2019
- VI. **Enhancing Adaptability Features of Electronics in Instrumentation Hardware with TRIZ**
Uyar E. B., ÖZTÜRK N.
11th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 28 - 30 November 2019, pp.527-531
- VII. **Türkiye’de TRIZ Uygulamaları: Bir Tez Veritabanı İncelemesi**
Uyar E. B., Şahin M., ÖZTÜRK N.
ELECO 2018, Elektrik-Elektronik ve Biyomedikal Mühendisliği Konferansı, Turkey, 30 November - 01 December 2018, pp.449-453
- VIII. **Design of PID controlled-automatic voltage regulator system based on a new neighborhood strategy of simulated annealing**
ÇELİK E., ÖZTÜRK N., BAL G.

4th International Conference on Engineering and Natural Sciences, Kiev, Ukraine, 2 - 06 May 2018, pp.102

- IX. **COGGING TORQUE REDUCTION BY USING THE SKEWING AND SEPARATED MAGNET TECHNIQUES**
DALCALI A., KURT E., ÇELİK E., ÖZTÜRK N.
THE 6TH EUROPEAN CONFERENCE ON RENEWABLE ENERGY SYSTEMS, İstanbul, Turkey, 25 - 27 June 2018
- X. **Particle Swarm Optimization Based Determination of Learning Parameters in Artificial Neural Networks with Backpropagation Learning Algorithm**
ÇELİK E., ÖZTÜRK N., DALCALI A.
International Conference on Advanced Technologies, Computer Engineering and Science, Karabük, Turkey, 11 - 13 May 2018, pp.592-597
- XI. **Design and implementation of a rotational speed controller for a contactless piezoelectric wind energy harvester**
ÇELİK E., KURT E., ÖZTÜRK N.
6th European Conference on Renewable Energy Systems, 25 - 27 June 2018, pp.1306-1314
- XII. **Tuning of anti-windup PID controller for a DC motor drive system using stochastic fractal search algorithm**
ÇELİK E., GÖR H., ÖZTÜRK N.
The V. European Conference on Renewable Energy Systems, Saraybosna, Bosnia And Herzegovina, 27 - 30 August 2017
- XIII. **A Neural Network Design And Prediction Scheme upon the Behavior of a Piezoelectric Harvester**
ÇELİK E., UZUN Y., KURT E., ÖZTÜRK N.
The V. European Conference on Renewable Energy Systems, SARAYBOSNA, Bosnia And Herzegovina, 28 - 30 August 2017, pp.172-180
- XIV. **Tuning of PI Controller Parameters for a DC Motor Drive System Using Stochastic Fractal Search Algorithm**
ÇELİK E., GÖR H., ÖZTÜRK N.
5th European Conference on Renewable Energy Systems (ECRES –2017), SARAYBOSNA, Bosnia And Herzegovina, 27 - 30 August 2017
- XV. **Genetik algoritma tabanlı geliştirilmiş benzetilmiş tavlama algoritması**
ÇELİK E., ÖZTÜRK N.
Akıllı Sistemlerde Yenilikler ve Uygulamaları Sempozyumu, 29 September - 01 October 2016
- XVI. **Estimation of the Power Generation and Efficiency of a New Axial Flux Permanent Magnet Synchronous Generator Via A Neural Network Algorithm**
ÇELİK E., GÖR H., ÖZTÜRK N., KURT E.
IV. European Conference On Renewable Energy Systems, 28 - 31 August 2016
- XVII. **OPTIMUM DESIGN OF PERMANENT MAGNET WIND GENERATOR BASED ON LOW COGGING TORQUE CRITERIA**
ÖZTÜRK N., DALCALI A., ÇELİK E., SAKAR S.
ECRES – 3. European Conference on Renewable Energy Systems, 7 - 10 October 2015
- XVIII. **DsPIC Uygulama ve Geliştirme Seti Tasarımı**
CANBAZ R., ÇELİK E., ÖZTÜRK N., DEMİRTAŞ M.
Ulusal Meslek Yüksekokulları Çalıştay ve Öğrenci Sempozyumu (UMÇÖS 2012), Nevşehir, Turkey, 13 - 15 June 2012
- XIX. **Constant Voltage Constant Frequency Control for Single Phase Three Level Inverter**
ÖZTÜRK N., Canbaz R., Celik E.
1st International Conference on Renewable Energy Research and Applications (ICRERA), Nagasaki, Japan, 11 - 14 November 2012
- XX. **Implementation of a call system with power line communication**
BAL G., Daldal N., ÖZTÜRK N.
2009 International Conference on Application of Information and Communication Technologies, AICT 2009, Baku, Azerbaijan, 14 - 16 October 2009
- XXI. **Investigation of Switching Losses for Sinusoidal PWM Zero Current Switching Inverter and Resonant**

Link Inverter

BAL G., ÖZTÜRK N., BEKİROĞLU E.

35th Annual Conference of the IEEE-Industrial-Electronics-Society, Porto, Portugal, 3 - 05 November 2009, pp.550-551

XXII. **Implementation of Indirect Vector Control to Induction Motor with Zero Current Transition Inverter**

BAL G., ÖZTÜRK N., BEKİROĞLU E.

22nd International Symposium on Information Communication and Automation Technologies, Sarajevo, Bosnia And Herzegovina, 29 - 31 October 2009, pp.345-346

XXIII. **Sıfır Akım Anahtarlama Yöntemi ile IGBT deki Kesim Kayıplarının Azaltılması**

ÖZTÜRK N.

1. Uluslararası Mesleki ve Teknik Eğitim Teknolojileri Kongresi, MTET-2005, 5-7 Eylül 2005, İstanbul, 5 - 07 September 2005

Supported Projects

ÖZTÜRK N., Project Supported by Higher Education Institutions, ÜÇ SEVİYELİ DİYOT TUTMALI EVİRİCİ İLE ÇEŞİTLİ YÜKLERDE HARMONİKLERİN ANALİZ EDİLMESİ (OMİK-RL-RC)?, 2011 - 2014

Activities in Scientific Journals

Gazi Üniversitesi Fen Bilimleri Dergisi Part: C Tasarım ve Teknoloji, Committee Member, 2019 - Continues

Scientific Refereeing

IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, SCI Journal, May 2020

IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, SCI Journal, February 2020

IEEE TRANSACTIONS ON INDUSTRIAL ELECTRONICS, SCI Journal, February 2020

Citations

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