

Prof. GÜNGÖR BAL

Personal Information

Office Phone: [+90 312 202 8520](tel:+903122028520)

Email: gunbal@gazi.edu.tr

Web: <https://avesis.gazi.edu.tr/gunbal>

International Researcher IDs

ScholarID: p-HRPA8AAAAJ

ORCID: 0000-0002-0564-5903

Publons / Web Of Science ResearcherID: AAH-5018-2019

Yoksis Researcher ID: 2470

Education Information

Doctorate, University of Strathclyde, Department Of Electronics And Electrical Engineering, United Kingdom 1989 - 1994

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Eğitimi (YI) (Tezli), Turkey 1985 - 1989

Undergraduate, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi Bölümü, Turkey 1979 - 1983

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, PERFORMANCE ANALYSIS OF FIELD-ORIENTATION CONTROLLED INDUCTION MOTOR WITH PARAMETER ADAPTATION , University of Strathclyde, Department Of Electronics And Electrical Engineering, 1994

Postgraduate, Endüstriyel yüklerdeki reaktif güç için bir kompensatör, Gazi University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Eğitimi (YI) (Tezli), 1989

Research Areas

Engineering and Technology

Academic Titles / Tasks

Professor, Gazi University, Teknoloji Fakültesi, Elektrik - Elektronik Mühendisliği, 2011 - Continues

Professor, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi, 2004 - 2011

Associate Professor, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi, 1998 - 2004

Assistant Professor, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi, 1994 - 1998

Research Assistant, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi, 1984 - 1994

Academic and Administrative Experience

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

Enstitü Yönetim Kurulu Üyesi, Gazi University, Fen Bilimleri Enstitüsü, 2013 - 2016

Gazi University, Teknik Eğitim Fakültesi, 2004 - 2006

Gazi University, Gazi Meslek Yüksekokulu, 2000 - 2003

Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi Bölümü, 1998 - 2000

Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi Bölümü, 1994 - 1996

Courses

ELECTRICAL MACHINES I, Undergraduate, 2021 - 2022

ELECTRICAL MACHINES II, Undergraduate, 2019 - 2020

SPECIAL ELECTRICAL MACHINES AND DRIVES, Doctorate, 2020 - 2021

AKILLI ŞEBEKELERE GİRİŞ, Doctorate, 2017 - 2018

Advising Theses

BAL G., Usage And Performance Investigation Of Artificial Neural Networks In Long-Term Wind Speed Prediction, Postgraduate, M.ALINSOY(Student), 2019

BAL G., Artırılmış gerçeklik içerik geliştirme ve tarayıcı platformu tasarımı, uygulaması ve değerlendirilmesi, Doctorate, T.İÇTEN(Student), 2019

BAL G., The Control Of Battery Energy Storage System To Mitigate The Power Fluctuations In Renewable Energy Sources, Postgraduate, S.EMRE(Student), 2018

BAL G., Segmental tip anahtarlamalı relüktans motorun moment salınımlarını azaltmak için sürücü ve kontrolör tasarımı ve gerçekleştirilmesi, Doctorate, H.TERZİOĞLU(Student), 2016

BAL G., Analysis of effect of communication frequency over the power line communication with ann and developing a communication system, Doctorate, N.DALDAL(Student), 2013

BAL G., Design and application of 5-phase bipolar excited 10/8 switched reluctance motor with U-type segmental rotor pairs, Doctorate, D.UYGUN(Student), 2012

BAL G., 5-azlı U-tipi segmental rotorlu bipolar uyarımlı 10/8 anahtarlamalı relüktans motorun tasarımı ve uygulaması, Doctorate, D.UYGUN(Student), 2012

BAL G., Implementation and analysis of series resonant inverter for self oscillating induction heater with current feedback driving circuit, Doctorate, S.ÖNCÜ(Student), 2011

BAL G., Yürüyen dalga ultrasonik motorun üç-mod çalışma özelliklerinin incelenmesi, Doctorate, A.GENCER(Student), 2011

BAL G., Mesleki ve teknik ortaöğretim kurumlarında elektrik elektronik teknolojileri alanında modüler öğretim sisteminin analizi, Postgraduate, Y.GÜRLEK(Student), 2010

BAL G., Anahtarlamalı relüktans motor için mikrodenetleyici ile ekonomik bir sürücü gerçekleştirilmesi, Postgraduate, K.POLAT(Student), 2010

BAL G., MESLEKİ VE TEKNİK ORTAÖĞRETİM KURUMLARINDA ELEKTRİK ELEKTRONİK TEKNOLOJİLERİ ALANINDA MODÜLER ÖĞRETİM SİSTEMİNİN ANALİZİ, Postgraduate, Y.GÜRLEK(Student), 2010

BAL G., Yürüyen dalga ultrasonik motorun mikrodenetleyici ile hız kontrolü, Postgraduate, H.UZEL(Student), 2006

BAL G., Megep kapsamında mikro denetleyicilerle dijital işlemler modülü eğitim programı ve deney setinin tasarımı, Postgraduate, Ş.ARSLAN(Student), 2006

BAL G., Yumuşak anahtarlamalı asenkron motorun dolaylı vektör denetiminin gerçekleştirilmesi, Doctorate, N.ÖZTÜRK(Student), 2006

BAL G., Uçaklarda buzlanma ve pervaneli uçaklarda buz giderme sisteminin değerlendirilmesi üzerine bir araştırma, Postgraduate, A.ÇAKICI(Student), 2005

BAL G., Endüstri meslek liseleri elektrik bölümü için PIC 16F84 mikrodenetleyici eğitim programı ve deney setinin tasarımı, Postgraduate, H.ŞERBETÇİ(Student), 2005

BAL G., Çok palıslı transformatörlerin modellenmesi ve analizi, Postgraduate, Y.UZUN(Student), 2004
BAL G., Kalıcı mıknatıslı senkron motorun vektör kontrol tekniği ile denetimi, Doctorate, M.CİHAT(Student), 2003
BAL G., Bilgisayar kontrollü yüksek hassasiyetli santrifüj pompa deney ünitesinin gerçekleştirilmesi, Doctorate, C.SUNGUR(Student), 2003
BAL G., Fırçasız doğru akım motorlarının kayma mod çözümleyicili algılayıcısız hız kontrolü, Doctorate, M.GEDİKPINAR(Student), 2002
BAL G., Yürüyen dalga ultrasonik motorun hız ve konum denetiminin bulanık mantık denetleyici kullanarak gerçekleştirilmesi, Doctorate, E.BEKİROĞLU(Student), 2002
BAL G., Sürekli mıknatıslı senkron motorun konum algılayıcısız denetimi, Doctorate, Ş.DEMİRBAŞ(Student), 2001
BAL G., Harmonik kaynakları ve aktif güç filtrelerinin incelenmesi, Postgraduate, M.ŞENBAYIR(Student), 2001
BAL G., Sürekli mıknatıslı doğru akım (PMDK) motorunun bilgisayarla hız kontrolünün gerçekleştirilmesi, Postgraduate, A.BÜYÜKYILDIZ(Student), 1999
BAL G., Bilgisayar kontrollü bir diş fırçası hareket mekanizmasının tasarımı, Postgraduate, E.BEKİROĞLU(Student), 1998
BAL G., İplik üretiminde iplik kalınlığının PLC ile otomatik kontrolü, Postgraduate, Y.HANÇER(Student), 1998
BAL G., Enerji dağıtım hatlarının korunmasına yönelik bir eğitim programının geliştirilmesi, Postgraduate, R.BAYINDIR(Student), 1998
BAL G., Seralarda ürün toplama ve ilaçlama makinasının PLC ile kontrolü, Postgraduate, İ.SAĞLAM YÜREK(Student), 1997
BAL G., Aktif güç filtrelerinin simülasyonu ve analizi, Postgraduate, M.DURŞUN(Student), 1996
BAL G., Fırçasız da motorlarının simülasyonu ve analizi, Postgraduate, Ş.DEMİRBAŞ(Student), 1995

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A new objective function design for optimization of secondary controllers in load frequency control**
Yılmaz 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 (SCI-Expanded)
- II. **Design and application of a novel high precision and low cost electronic tachogenerator for sensor-based brushless direct current motor drivers**
ÖZGENEL M. C., BAL G., Uygun D.
REVIEW OF SCIENTIFIC INSTRUMENTS, vol.88, no.3, 2017 (SCI-Expanded)
- III. **Complete analytical design and experimental verification of a new topology 5-phase bipolar excited 10/8 switched reluctance motor with segmental rotor**
Uygun D., BAL G.
INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS, vol.53, no.1, pp.77-94, 2017 (SCI-Expanded)
- IV. **Optimization study on a 0.6 kW PMSG for VAWTs and determination of open and short circuit performances by using external circuit method**
Uygun D., ÇETİNCEVİZ Y., BAL G.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.41, no.29, pp.12535-12545, 2016 (SCI-Expanded)
- V. **Low-Resolution and Low-Cost Position Sensor Implementation for Permanent Magnet Synchronous Motor Driver**
ÖZGENEL M. C., BAL G., Uygun D.
ELEKTRONIKA IR ELEKTROTEHNIKA, vol.22, no.4, pp.21-25, 2016 (SCI-Expanded)
- VI. **Linear model of a novel 5-phase segment type switched reluctance motor**
Uygun D., Bal G., Sefa İ.
Elektronika ir Elektrotehnika, vol.20, no.1, pp.3-7, 2014 (SCI-Expanded)
- VII. **Effects of a current transformer's magnetizing current on the driving voltage in self-oscillating converters**
BAL G., ÖNCÜ S.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.22, no.1, pp.191-201, 2014

(SCI-Expanded)

- VIII. **DESIGN AND IMPLEMENTATION OF A MESSAGE SENDING SYSTEM OVER POWER LINES**
BAL G., Daldal N.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.29, no.2, pp.415-424, 2014 (SCI-Expanded)
- IX. **PV supplied single stage mppt inverter for induction motor actuated ventilation systems**
ÖZDEMİR Ş., Altin N., Sefa İ., Bal G.
Elektronika ir Elektrotehnika, vol.20, no.5, pp.116-122, 2014 (SCI-Expanded)
- X. **Self-Oscillated Induction Heater for Absorption Cooler**
Bal G., Oncu S., Ozbas E.
ELEKTRONIKA IR ELEKTROTEHNIKA, vol.19, no.10, pp.45-48, 2013 (SCI-Expanded)
- XI. **DESIGN AND IMPLEMENTATION OF A SELF OSCILLATING INDUCTION HEATER**
BAL G., ÖNCÜ S., BÖREKÇİ S.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.26, no.4, pp.771-776, 2011 (SCI-Expanded)
- XII. **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 (SCI-Expanded)
- XIII. **DYNAMIC ANALYSIS OF VECTOR CONTROLLED PERMANENT MAGNET SYNCHRONOUS MOTOR DRIVEN WITH SPWM INVERTER**
BAL G., ÖZGENEL M. C., DEMİRBAŞ Ş.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.25, no.3, pp.569-577, 2010 (SCI-Expanded)
- XIV. **Experimental investigation of input-output characteristics of a travelling-wave ultrasonic motor**
BEKİROĞLU E., Bal G.
JOURNAL OF ELECTROCERAMICS, vol.20, pp.287-292, 2008 (SCI-Expanded)
- XV. **Microcontroller based digitally controlled ultrasonic motor drive system**
Bal G., BEKİROĞLU E., BAYINDIR R., Uzel H.
JOURNAL OF ELECTROCERAMICS, vol.20, pp.265-270, 2008 (SCI-Expanded)
- XVI. **A highly effective load adaptive servo drive system for speed control of travelling-wave ultrasonic motor**
Bal G., Bekiroglu E.
IEEE TRANSACTIONS ON POWER ELECTRONICS, no.5, pp.1143-1149, 2005 (SCI-Expanded)
- XVII. **A PWM technique for DSP controlled ultrasonic motor drive system**
Bal G., Bekiroglu E.
ELECTRIC POWER COMPONENTS AND SYSTEMS, no.1, pp.21-38, 2005 (SCI-Expanded)
- XVIII. **Fuzzy logic based DSP controlled servo position control for ultrasonic motor**
Bal G., Bekiroglu E., DEMİRBAŞ Ş., Colak I.
ENERGY CONVERSION AND MANAGEMENT, no.20, pp.3139-3153, 2004 (SCI-Expanded)
- XIX. **Servo speed control of travelling-wave ultrasonic motor using digital signal processor**
Bal G., Bekiroglu E.
SENSORS AND ACTUATORS A-PHYSICAL, no.3, pp.212-219, 2004 (SCI-Expanded)
- XX. **A Digitally Controlled Drive System for Travelling-wave Ultrasonic Motor**
BAL G.
Turkish Journal of Electrical Engineering and Computer Sciences, vol.11, no.3, pp.155-168, 2003 (SCI-Expanded)
- XXI. **PC controlled toothbrush/dentifrice abrasion machine**
BAL G., ÜÇTAŞLI S., Bekiroğlu E.
Journal of Medical Systems, vol.23, no.1, pp.27-33, 1999 (SCI-Expanded)
- XXII. **Review of the testing methods for full-load temperature rise testing of induction machines**
Colak I., BAL G., ELMAS Ç.
EPE Journal (European Power Electronics and Drives Journal), vol.6, no.1, pp.37-43, 1996 (SCI-Expanded)

Articles Published in Other Journals

- I. **Design of Hybrid Controller for Automatic Voltage Regulator**
Bal G., Öztürk N., Öncü S., Ünal K.
JOURNAL OF POLYTECHNIC-POLITEKNİK DERGISI, vol.1, no.1, 2021 (ESCI)
- II. **Design of wind turbine system integrated with battery energy storage system**
Bal G., Eyimaya S. E.
IRO Journal on Electrical Engineering and Automation, vol.1, no.2, pp.72-82, 2019 (Peer-Reviewed Journal)
- III. **Web Tabanlı Artırılmış Gerçeklik Sanal Giyinme Uygulamasının Tasarımı ve Test Edilmesi**
BAL G., İÇTEN T.
Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, 2019 (Peer-Reviewed Journal)
- IV. **Uzun dönem rüzgâr hızı tahmininde yapay sinir ağlarının kullanımı ve performans incelemesi**
Altınsoy M., BAL G.
Mesleki Bilimler Dergisi (MBD), 2019 (Peer-Reviewed Journal)
- V. **Electromagnetic design of a new radial flux permanent magnet motor**
Bouloukza I., Mourad M., KURT E., BAL G., Ökmen C.
Journal of Energy Systems, vol.2, no.1, 2018 (Scopus)
- VI. **Artırılmış Gerçeklik Üzerine son gelişmelerin ve uygulamaların İncelenmesi**
İÇTEN T., BAL G.
Gazi Üniversitesi Fen Bilimleri Dergisi Part: C Tasarım ve Teknoloji, 2017 (Peer-Reviewed Journal)
- VII. **Artırılmış Gerçeklik Teknolojisi Üzerine Yapılan Akademik Çalışmaların İçerik Analizi**
İÇTEN T., BAL G.
Bilişim Teknolojileri Dergisi, 2017 (Peer-Reviewed Journal)
- VIII. **ENERJİ HATLARI ÜZERİNDEN ELEKTRİK SAYACININ OKUNMASI VE DENEYSEL ANALİZİ**
DEMİRBAŞ Ş., BAL G., GÜLÖNÜ R.
Gazi Üniversitesi Fen Bilimleri Dergisi Part: C Tasarım ve Teknoloji, vol.4, no.1, pp.1-11, 2016 (Peer-Reviewed Journal)
- IX. **The minimization of torque ripples of segmental type switched reluctance motor by particle swarm optimization**
TERZİOĞLU H., HERDEM S., BAL G.
International Journal of Intelligent Systems and Applications in Engineering, 2013 (Peer-Reviewed Journal)
- X. **A novel switched reluctance motor with U-type segmental rotor pairs: Design, analysis and simulation results**
BAL G., UYGUN D.
World Academy of Science, Engineering and Technology, vol.64, pp.189-193, 2010 (Scopus)
- XI. **An approach to obtain an advisable ratio between stator and rotor tooth widths in switched reluctance motors for higher torque and smoother output power profile**
BAL G., UYGUN D.
GAZI UNIVERSITY JOURNAL OF SCIENCE, 2010 (Scopus)
- XII. **Dynamic response of a simple rotor resistance compensation method for field-oriented induction motor**
BAL G., ELMAS Ç., Colak I., SEFA İ.
vol.1, pp.386-389, 1994 (Scopus)
- XIII. **Off-line testing of an EKF algorithm for rotor resistance estimation of induction motor drives**
BAL G., ELMAS Ç., Colak I., BAY Ö. F.
vol.1, pp.501-504, 1994 (Scopus)

Books & Book Chapters

- I. **Elektrik Makinaları I**

- BAL G.
Seçkin Yayınevi, 2016
- II. **Doğru Akım Makinaları ve Sürücüler**
BAL G.
Seçkin, 2014
- III. **Alternatif Akım Devre Analizi**
BAL G., ÖZDEMİR Ş.
Semih Ofset, Ankara, 2013
- IV. **Transformatörler**
BAL G.
Seçkin, 2012
- V. **Özel Elektrik Makinaları**
BAL G.
Seçkin, 2011
- VI. **Direct Current Circuit Analysis**
Bal G., Bayhan S.
özel, Ankara, 2011

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. **Design of an Energy Management System with Power Fluctuation Mitigation Capability for PV/Wind Hybrid Renewable Energy Sources**
Eyimaya S. E., Altın N., Bal G.
13th International Conference on Electronics, Computers and Artificial Intelligence, ECAI 2021, Pitesti, Romania, 1 - 03 July 2021
- III. **Artificial Neural Network Based Automatic Voltage Regulator for a Stand-Alone Synchronous Generator**
BAL G., KAPLAN O., Yalçın S. S.
International Conference on Renewable Energy Research and Applications, 3 - 06 November 2019
- IV. **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
- V. **A fuzzy logic control study for the mitigation of power fluctuations in the wind turbines.**
Eyimaya S. E., Bal G., Altın N.
VI. European Conference on Renewable Energy Systems, İstanbul, Turkey, 25 - 27 June 2018
- VI. **Control of wind-photovoltaic-battery hybrid system energy management and power fluctuation mitigation system.**
EYİMAYA S. E., BAL G., ALTIN N.
7th International Conference on Advanced Technologies, 28 April - 01 May 2018
- VII. **Analyses of Losses and Efficiency for a New Three Phase Axial Flux Permanent Magnet Generator**
GÖR H., KURT E., BAL G.
4th International Conference on Electric Power and Energy Conversion Systems (EPECS), Sharjah, United Arab Emirates, 24 - 26 November 2015
- VIII. **Design, Analysis and Prototyping of a 6 kW High Torque In-wheel On-drum BLDC Electric Motor for Automotive Applications**
UYGUN D., BAL G., Solmaz S.

3rd International Conference on Information Processing and Electrical Engineering, 16 - 24 November 2014

- IX. **A New Approach to Measure and Control Grounding Resistance**
Garip I., BAL G.
16th International Power Electronics and Motion Control Conference and Exposition (PEMC), Antalya, Turkey, 21 - 24 September 2014, pp.1154-1158
- X. **Design and implementation of microcontroller based temperature measurement and control system using powerline communication**
BAL G., DALDAL N.
4th International Conference on Power Engineering, Energy and Electrical Drives, 13 - 17 May 2013
- XI. **Parallel DC-AC conversion system based on separate solar farms with MPPT control**
ÇOLAK İ., KABALCI E., BAL G.
8th International Conference on Power Electronics-ECCE Asia, 30 May - 03 June 2011
- XII. **Internet based virtual electric machine lab: Switched reluctance motor**
BAL G., Bayhan S.
4th International Conference on Application of Information and Communication Technologies, AICT2010, Tashkent, Uzbekistan, 12 - 14 October 2010
- XIII. **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
- XIV. **Modeling of a three phase SPWM multilevel VSI with low THD using Matlab/Simulink**
Colak I., KABALCI E., BAYINDIR R., BAL G.
13th European Conference on Power Electronics and Applications (EPE 2009), Barcelona, Spain, 8 - 10 September 2009, pp.3132-3134
- XV. **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
- XVI. **A Parameter Determination System for Wind Turbines Based On Naive Bayes Classification Algorithm**
Colak I., DEMİRTAŞ M., Bal G., Kahraman H. T.
8th International Conference on Machine Learning and Applications, Florida, United States Of America, 13 - 15 December 2009, pp.611-616
- XVII. **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
- XVIII. **A Web Based Real Time Speed Control Experiment on Ultrasonic Motor for Educational Purposes**
IRMAK E., BAYINDIR R., Colak I., SAĞIROĞLU Ş., BAL G.
International Symposium on Power Electronics, Electrical Drives, Automation and Motion, Ischia, Italy, 11 - 13 June 2008, pp.1451-1452
- XIX. **Protection of induction motor using PLC**
Colak I., BAYINDIR R., Bektas A., Sefa İ., Bal G.
International Conference on Power Engineering, Energy and Electrical Drives, POWERENG 2007, Setúbal, Portugal, 12 - 14 April 2007, pp.96-99
- XX. **Developing of a control unit for the parallel operation of AC generators**
ÇOLAK İ., BAYINDIR R., SEFA İ., DEMİRBAŞ Ş., BAL G.
3rd International Conference on Technical and Physical Problems in Power Engineering, Ankara, Turkey, 29 - 31 May 2006, pp.134-137
- XXI. **Microcontroller based protection of induction motors**

ÇOLAK İ., BAYINDIR R., DEMİRBAŞ Ş., SEFA İ., BAL G.

3rd International Conference on Technical and Physical Problems in Power Engineering, Ankara, Turkey, 29 - 31 May 2006, pp.164-167

XXII. **Comparison of an extended Kalman filter and compensation methods for rotor resistance variation**
BAL G.

Proceedings of the 1995 30th Universities Power Engineering Conference. Part 1 (of 2), London, Canada, 5 - 07 September 1995, vol.1, pp.126-129

XXIII. **Nonlinear modelling of a switched reluctance drive based on neural networks**

ELMAS Ç., SAĞIROĞLU Ş., ÇOLAK İ., BAL G.

Mediterranean Electrotechnical Conference, 1994, 12 - 14 April 1994

XXIV. **MODELLING OF A NONLINEAR SWITCHED RELUCTANCE DRIVE BASED ON ARTIFICIAL NEURAL NETWORKS**

ELMAS Ç., SAGIROGLU Ş., COLAK I., BAL G.

5th International Conference on Power Electronics and Variable-Speed Drives (PEVD94), London, Canada, 26 - 28 October 1994, pp.7-12

XXV. **HIGH-FREQUENCY RESONANT DC LINK PWM INVERTER**

COLAK I., ELMAS Ç., BAL G., COSKUN I.

7th Mediterranean Electrotechnical Conference (MeleCON 94), Antalya, Turkey, 12 - 14 April 1994, pp.1251-1254

XXVI. **NONLINEAR MODELING OF A SWITCHED RELUCTANCE DRIVE BASED ON NEURAL NETWORKS**

ELMAS Ç., SAGIROGLU Ş., COLAK I., BAL G.

7th Mediterranean Electrotechnical Conference (MeleCON 94), Antalya, Turkey, 12 - 14 April 1994, pp.809-812

Supported Projects

ÖZTÜRK N., BAL G., ÖNCÜ S., ÜNAL K., Project Supported by Higher Education Institutions, Hafif Elektrikli Araçlar için Güneş Enerjisi ile Beslenen Kablosuz Şarj Sisteminin Tasarımı, 2021 - 2023

BAL G., Project Supported by Higher Education Institutions, Elektrik-Elektronik Mühendisliği Bölümü Elektrik Makinaları Laboratuvarının Modernizasyonu, 2014 - 2018

BAL G., Project Supported by Higher Education Institutions, Elektrik Makinaları Laboratuvarının Modernizasyonu, 2014 - 2018

BAL G., Project Supported by Higher Education Institutions, ENERJİ HATLARI ÜZERİNDEN UZAKTAN YÖNETİMLİ ELEKTRONİK TEMELLİ ELEKTRİK SAYACININ OKUNMASI, 2011 - 2013

BAL G., Project Supported by Higher Education Institutions, 5-FAZLI 10/8 SEGMENTAL TİP ANAHTARLAMALI RELÜKTANS MOTOR SÜRÜCÜSÜNÜN OPTİMİZASYONU, 2011 - 2013

BAL G., Project Supported by Higher Education Institutions, Kendinden Tetiklemeli İndüksiyon Isıtma Sistemi Tasarımı, 2008 - 2010

BAL G., Project Supported by Higher Education Institutions, Anahtarlama Relüktans Motorun Tasarımı ve Kontrolü, 2008 - 2010

BAL G., Project Supported by Higher Education Institutions, Alternatif Akım Elektrik Makinasının Profinet Tabanlı Denetimi, 2007 - 2008

ÖZTÜRK N., BAL G., Project Supported by Higher Education Institutions, Yumuşak Anahtarlama Asenkron Motorun Dolaylı Vektör Kontrolünün Gerçekleştirilmesi, 2003 - 2005

ÖZTÜRK N., BAL G., Project Supported by Higher Education Institutions, Asenkron motorun mikroişlemci ile vektör kontrolü, 2000 - 2002

BAL G., Project Supported by Higher Education Institutions, Asenkron motorun mikroişlemci ile metro kontrolü, 2000 - 2001

BAL G., Project Supported by Higher Education Institutions, Fırçasız DAmotor kontrolü, 1996 - 1996

Metrics

Publication: 69

Citation (WoS): 201

Citation (Scopus): 409

H-Index (WoS): 8

H-Index (Scopus): 12

Congress and Symposium Activities

9TH INTERNATIONAL CONFERENCE ON RENEWABLE ENERGY RESEARCH AND APPLICATIONS, Invited Speaker,
Glasgow, United Kingdom, 2020