

## Prof. ŞEVKİ DEMİRBAŞ



### Personal Information

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### International Researcher IDs

ScholarID: sevkidemirbas

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Publons / Web Of Science ResearcherID: M-3218-2015

ScopusID: 6603155363

Yoksis Researcher ID: 45048

### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (Dr), Turkey 1996 - 2001

Postgraduate, Gazi University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (YI) (Tezli), Turkey 1994 - 1996

Undergraduate, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi Bölümü, Turkey 1989 - 1993

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Sürekli mıknatıslı senkron motorun konum algılayıcısız denetimi, Gazi University, Fen Bilimleri Enstitüsü, 2001

Postgraduate, Fırçasız da motorlarının simülasyonu ve analizi, Gazi University, Fen Bilimleri Enstitüsü, 1996

### Research Areas

Direct Energy Conversion and Energy Storage, Electric Power Transmission, Distribution and Protection, Renewable energy, Electric Motor Drivers, Power Converters, Power Quality

### Academic Titles / Tasks

Professor, Gazi University, Teknoloji Fakültesi, Elektrik - Elektronik Mühendisliği, 2017 - Continues

Associate Professor, Gazi University, Teknoloji Fakültesi, Elektrik - Elektronik Mühendisliği, 2011 - 2017

Assistant Professor, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi, 2002 - 2011

Lecturer, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi, 1998 - 2002

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

## Academic and Administrative Experience

Head of Department, Gazi University, Teknoloji Fakültesi, Elektrik - Elektronik Mühendisliği, 2023 - Continues

Vice Dean, Gazi University, Teknoloji Fakültesi, 2020 - 2023

Gazi University, Teknoloji Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2016 - 2018

Gazi University, Atatürk Meslek Yüksekokulu, 2008 - 2012

Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi Bölümü, 2006 - 2009

Gazi University, Atatürk Meslek Yüksekokulu, 2002 - 2005

Gazi University, Atatürk Meslek Yüksekokulu, 2002 - 2005

## Courses

SCIENTIFIC RESEARCH METHODS AND ETHICS, Postgraduate, 2023 - 2024

CIRCUIT ANALYSIS-I, Undergraduate, 2023 - 2024

ELEKTRİK DEVRELERİ, Undergraduate, 2016 - 2017

DEVRE ANALİZİ-I, Undergraduate, 2016 - 2017

DEVRE ANALİZİ LAB.-I, Undergraduate, 2016 - 2017

## Advising Theses

DEMİRBAŞ Ş., Design Of Battery Charging System With High-Frequency Transformer Bi-Directional Dc/Dc Converter, Postgraduate, O.Alkul(Student), 2019

DEMİRBAŞ Ş., Real-Time Winding Temperature Estimator Of Permanent Magnet Synchronous Motor, Postgraduate, G.KİZİR(Student), 2019

DEMİRBAŞ Ş., Yüksek frekans transformatörlü çift yönlü DA-DA dönüştürücü yardımı ile batarya şarj sistemi tasarımı, Postgraduate, O.ALKUL(Student), 2019

DEMİRBAŞ Ş., Implementation Of An Experimental Setup For Position Detection Of Pmsm, Postgraduate, M.GÖZTAŞ(Student), 2018

DEMİRBAŞ Ş., Development of a mobile based patent search engine, Postgraduate, A.KAYAKÖKÜ(Student), 2017

DEMİRBAŞ Ş., Static voltage stability analyzes using PV-QV curve method in the power systems, Postgraduate, A.OVA(Student), 2017

DEMİRBAŞ Ş., Design of an efficient controller for double fed induction generator, Doctorate, S.BAYHAN(Student), 2012

DEMİRBAŞ Ş., Remote accessible power electronics laboratory, Postgraduate, G.MUTLU(Student), 2012

DEMİRBAŞ Ş., Design of a simulation tool for horizontal axis wind turbine systems, Postgraduate, S.İŞCAN(Student), 2012

DEMİRBAŞ Ş., Performance analysis of permanent magnet synchronous motor under different pulse width modulation techniques, Postgraduate, H.FİDANBOY(Student), 2011

DEMİRBAŞ Ş., A SURVEY ON USAGE OF THE WEB BASED DISTANCE EDUCATION AT VOCATIONAL AND TECHNICAL EDUCATION, Postgraduate, F.ÖZBUDUN(Student), 2010

DEMİRBAŞ Ş., Aydınlatma elemanlarının verimliliği ve enerji kalitesi üzerine etkisinin incelenmesi, Postgraduate, K.OZAN(Student), 2010

DEMİRBAŞ Ş., AYDINLATMA ELEMANLARININ VERİMLİLİĞİ VE ENERJİ KALİTESİ ÜZERİNE ETKİSİNİN İNCELENMESİ, Postgraduate, K.Ozan(Student), 2010

DEMİRBAŞ Ş., Enerji kalitesinin internet tabanlı ölçüm ve analizi, Postgraduate, S.BAYHAN(Student), 2008

DEMİRBAŞ Ş., Üç fazlı asenkron motor deneylerinin eğitim amaçlı benzetimi, Postgraduate, U.BAYRAKTAR(Student), 2005

DEMİRBAŞ Ş., Mikrodenetleyici ile üç fazlı sistemin faz sırasının belirlenmesi ve gerilimi ile frekansının ölçülmesi, Postgraduate, A.KAHRAMAN(Student), 2004

## Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Long-Term Multiyear Transmission Expansion Planning in Turkish Power System**  
Ova A., Dogan E., DEMİRBAŞ Ş.  
International Transactions on Electrical Energy Systems, vol.2024, 2024 (SCI-Expanded)
- II. **Self-tuning fuzzy-PI-based current control algorithm for doubly fed induction generator**  
DEMİRBAŞ Ş.  
IET RENEWABLE POWER GENERATION, vol.11, no.13, pp.1714-1722, 2017 (SCI-Expanded)
- III. **Fuzzy-PI-based sensorless frequency and voltage controller for doubly fed induction generator connected to a DC microgrid**  
Bayhan S., DEMİRBAŞ Ş., Abu-Rub H.  
IET RENEWABLE POWER GENERATION, vol.10, no.8, pp.1069-1077, 2016 (SCI-Expanded)
- IV. **Exploration of the Chaotic Behaviour in a Buck-Boost Converter Depending on the Converter and Load Elements**  
DEMİRBAŞ Ş., FİDANBOY H., KURT E.  
JOURNAL OF ELECTRONIC MATERIALS, vol.45, no.8, pp.3889-3899, 2016 (SCI-Expanded)
- V. **Critical aspects of wind energy systems in smart grid applications**  
Colak I., Fulli G., Bayhan S., Chondrogiannis S., DEMİRBAŞ Ş.  
RENEWABLE & SUSTAINABLE ENERGY REVIEWS, vol.52, pp.155-171, 2015 (SCI-Expanded)
- VI. **Design and Analyse of a Parallel Connection Model for Hybrid Energy Systems**  
GÜLER N., DEMİRBAŞ Ş., IRMAK E.  
ELEKTRONIKA IR ELEKTROTEHNIKA, vol.21, no.2, pp.44-49, 2015 (SCI-Expanded)
- VII. **Implementation of a New Contactless Piezoelectric Wind Energy Harvester to a Wireless Weather Station**  
Uzun Y., DEMİRBAŞ Ş., KURT E.  
ELEKTRONIKA IR ELEKTROTEHNIKA, vol.20, no.10, pp.35-39, 2014 (SCI-Expanded)
- VIII. **A Novel Web-Based Laboratory for DC Motor Experiments**  
Colak I., DEMİRBAŞ Ş., SAĞIROĞLU Ş., IRMAK E.  
COMPUTER APPLICATIONS IN ENGINEERING EDUCATION, vol.19, no.1, pp.125-135, 2011 (SCI-Expanded)
- IX. **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)
- X. **REAL-TIME MEASUREMENT AND ANALYSIS OF HARMONICS IN POWER SYSTEMS**  
DEMİRBAŞ Ş., Bayhan S.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.24, no.3, pp.461-468, 2009 (SCI-Expanded)
- XI. **TORQUE AND SPEED CONTROL OF WOUND ROTOR INDUCTION MOTOR BY ADJUSTING THE ROTOR RESISTANCE WITH A MICROCONTROLLER**  
DEMİRBAŞ Ş., IRMAK E., Bayhan S., Colak I.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.23, no.4, pp.801-809, 2008 (SCI-Expanded)
- XII. **DESIGN AND IMPLEMENTATION OF AN INTELLIGENT SIMULATOR FOR REACTIVE POWER COMPENSATION**

BAYINDIR R., DEMİRBAŞ Ş., Sesveren O.

JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.23, no.3, pp.681-688, 2008 (SCI-Expanded)

**XIII. Remote controlling and monitoring of HVAC system over Internet**

Colak I., DEMİRBAŞ Ş., SEFA İ., IRMAK E., Kahraman H. T.

JOURNAL OF SCIENTIFIC & INDUSTRIAL RESEARCH, vol.67, no.9, pp.680-684, 2008 (SCI-Expanded)

**XIV. On line protection systems for induction motors**

Colak I., Celik H., Sefa İ., DEMİRBAŞ Ş.

ENERGY CONVERSION AND MANAGEMENT, vol.46, no.17, pp.2773-2786, 2005 (SCI-Expanded)

**XV. 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)

## Articles Published in Other Journals

**I. Transmission Expansion Planning Using A Noval Meta-Heuristic Method**

Ova A., Dogan E., DEMİRBAŞ Ş.

INTERNATIONAL JOURNAL OF RENEWABLE ENERGY RESEARCH, vol.12, no.4, pp.1988-2001, 2022 (ESCI)

**II. An Application of a Wireless Power Transfer at Low Frequency Range**

KURT E., Zafarmand F., FİDANBOY H., DEMİRBAŞ Ş.

TECHNOLOGY AND ECONOMICS OF SMART GRIDS AND SUSTAINABLE ENERGY, vol.6, no.1, 2021 (ESCI)

**III. Güç Elektroniği Transformatörlerinin İncelenmesi ve Bir DA/DA Dönüştürücü Uygulaması**

Alkul O., DEMİRBAŞ Ş.

Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.7, no.2, pp.450-471, 2019 (Peer-Reviewed Journal)

**IV. PATENT ARAMA MOTORLARININ KULLANIMI ÜZERİNE BİR İNCELEME**

KAYAKÖKÜ A., DEMİRBAŞ Ş.

Gazi Üniversitesi Fen Bilimleri Dergisi Part: C Tasarım ve Teknoloji, vol.5, no.3, pp.149-165, 2017 (Peer-Reviewed Journal)

**V. 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)

**VI. Yenilenebilir Enerji Kaynakları İçin DSP Tabanlı Üç Fazlı Şebeke Etkileşimli Evirici**

DEMİRBAŞ Ş., BAYHAN S.

Fırat Üniversitesi Mühendislik Bilimleri Dergisi, vol.23, no.1, pp.21-33, 2011 (Peer-Reviewed Journal)

**VII. Asenkron Motorlar İçin Denetleyici Tabanlı Koruma ve Yol Verme Rölesi Tasarımı ve Uygulaması**

BAYINDIR R., DEMİRBAŞ Ş., IRMAK E., BEKİROĞLU E.

Politeknik Dergisi, vol.10, no.1, pp.1-5, 2007 (Peer-Reviewed Journal)

**VIII. Asenkron Motor Benzetimi İçin Web Tabanlı Bir Eğitim Aracı**

DEMİRBAŞ Ş., IRMAK E., ÇOLAK İ.

Politeknik Dergisi, vol.9, no.4, pp.147-152, 2007 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

**I. Analyzing Controller Performance in Single-Phase Inverters under Variable Conditions - Part II: Proportional-Resonant, Lyapunov-Based, and Model Predictive Approaches**

Ayık S., DEMİRBAŞ Ş., FESLİ U.

4th International Conference on Smart Grid and Renewable Energy, SGRE 2024, Doha, Qatar, 8 - 10 January 2024

- II. PSO-Based Frequency and Voltage Restoration with Virtual Impedance in Droop Control for Islanded Microgrid**  
Gurbuz F. B., BAYHAN S., DEMİRBAŞ Ş.  
4th International Conference on Smart Grid and Renewable Energy, SGRE 2024, Doha, Qatar, 8 - 10 January 2024
- III. Design of Sliding Mode Controller for Load Frequency Control Using Particle Swarm and Grey Wolf Algorithms**  
Cetinkaya U., DEMİRBAŞ Ş., Ayik S., BAYINDIR R.  
12th IEEE International Conference on Renewable Energy Research and Applications, ICRERA 2023, Oshawa, Canada, 29 August - 01 September 2023, pp.542-547
- IV. Battery Energy Storage Systems in Different Countries for Arbitrage Services**  
Cetinkaya U., Demirbaş Ş., Ayik S., Bayındır R.  
11th International Conference on Smart Grid, icSmartGrid 2023, Paris, France, 4 - 07 June 2023
- V. Determining a Methodology for Effective Reliability Program Plans**  
Sarıkaya G., DEMİRBAŞ Ş.  
11th International Conference on Smart Grid, icSmartGrid 2023, Paris, France, 4 - 07 June 2023
- VI. Multi Input-Multi Output (MIMO) converter system fed by Wind Energy**  
Gürbüz F. B., Kayışlı K., Demirbaş Ş., Bayındır R., Çolak İ., Roscia M.  
2022 11th IEEE International Conference on Renewable Energy Research and Applications, İstanbul, Turkey, 18 September 2022, pp.179-185
- VII. A Survey on the Provision of Smooth Transition between Operation Modes in PV-BESS Microgrid**  
Onar B., Demirbaş Ş.  
10th International Conference on Smart Grid, icSmartGrid 2022, İstanbul, Turkey, 27 - 29 June 2022, pp.203-207
- VIII. A Review of Wind Energy Conversion Systems**  
Alkul O., Syed D., Demirbaş Ş.  
10th International Conference on Smart Grid, icSmartGrid 2022, İstanbul, Turkey, 27 - 29 June 2022, pp.72-77
- IX. A Case Study of Obtaining Total Generation Costs using DC-Optimal Power Flow**  
Ova A., Demirbaş Ş.  
3rd International Conference on Smart Grid and Renewable Energy, SGRE 2022, Doha, Qatar, 20 - 22 March 2022
- X. Estimating Wind Power Plant Outputs in Transmission System Planning Studies Based on Probability Approaches**  
Ova A., DEMİRBAŞ Ş.  
10th IEEE International Conference on Renewable Energy Research and Applications, ICRERA 2021, İstanbul, Turkey, 26 - 29 September 2021, pp.180-183
- XI. Model Predictive Control for Full Bridge Boost Rectifier with Constant Switching Frequency**  
Alkul O., DEMİRBAŞ Ş., BAYHAN S., Abu-Rub H.  
10th IEEE International Conference on Renewable Energy Research and Applications, ICRERA 2021, İstanbul, Turkey, 26 - 29 September 2021, pp.221-225
- XII. AN APPLICATION OF A WIRELESS POWER TRANSFER AT LOW FREQUENCY RANGE**  
KURT E., Fatemeh Z., FİDANBOY H., DEMİRBAŞ Ş.  
8. European Conference on Renewable Energy Systems, İstanbul, Turkey, 24 - 25 August 2020
- XIII. A Novel High Frequency-Link Bidirectional DC-DC Converter for Electric Vehicle Applications**  
Alkul O., DEMİRBAŞ Ş.  
2nd International Conference on Smart Grid and Renewable Energy, 19 - 21 November 2019
- XIV. Real Time Energy Management and Monitoring System for DC Microgrid**  
FİDANBOY H., ÖNCÜ S., DEMİRBAŞ Ş.  
7th International Conference, ICAT'18 Antalya, Turkey, April 28 - May 1, 2018, 28 April - 01 May 2018
- XV. REAL-TIME RESISTANCE ESTIMATION OF PERMANENT MAGNET SYNCHRONOUS MOTOR**  
Kizir G., DEMİRBAŞ Ş., Sahin M.  
12th IEEE International Conference on Compatibility, Power Electronics and Power Engineering (CPE-POWERENG), Doha, Qatar, 10 - 12 April 2018
- XVI. A Novel Energy Management Algorithm for Islanded AC Microgrid with Limited Power Sources**

- Bayhan S., Liu Y., DEMİRBAŞ Ş.  
6th IEEE International Conference on Renewable Energy Research and Applications (ICRERA), California, United States Of America, 5 - 08 December 2017, pp.64-69
- XVII. **Three-Phase Three-Level Inverter with Reduced Number of Switches for Stand-Alone PV Systems**  
SEFA İ., Komurcugil H., DEMİRBAŞ Ş., ALTIN N., ÖZDEMİR Ş.  
6th IEEE International Conference on Renewable Energy Research and Applications (ICRERA), California, United States Of America, 5 - 08 November 2017, pp.1115-1120
- XVIII. **Stability Analysis of an Offshore Wind Farm Connected to Turkish Electricity Transmission System**  
DEMİRBAŞ Ş., BAYINDIR R., OVA A., ÇETİNKAYA Ü., YEŞİL M.  
Int Conference on Renewable Energy Research and Applications, Birmingham, United Kingdom, 20 - 23 November 2016, pp.314-318
- XIX. **Model Predictive Control of 33 level Input Switched Multilevel Inverter for GridConnected Photovoltaic System**  
BAYHAN S., HAITHAM A. R., RIVERA M., DEMİRBAŞ Ş.  
ECRES – 4th European Conference on Renewable Energy Systems, İstanbul, Turkey, 28 - 31 August 2016
- XX. **Effects of Renewable Energy Sources on the Power System**  
BAYINDIR R., DEMİRBAŞ Ş., IRMAK E., Cetinkaya U., Ova A., Yesil M.  
17th IEEE International Power Electronics and Motion Control Conference (PEMC), Varna, Bulgaria, 25 - 30 September 2016, pp.388-393
- XXI. **Exploration of the chaotic behaviour in a buck boost converter depending on the converter and load elements**  
DEMİRBAŞ Ş., FİDANBOY H., KURT E.  
3. European Conference on Renewable Energy Systems, Antalya, Turkey, 7 - 10 October 2015
- XXII. **Design And Application Of A Control System For DC Motors Over Power Line**  
Colak A. M., Garip I., DEMİRBAŞ Ş.  
16th International Power Electronics and Motion Control Conference and Exposition (PEMC), Antalya, Turkey, 21 - 24 September 2014, pp.1116-1121
- XXIII. **Microgrid facility around Asia and Far East**  
Hossain E., KABALCI E., BAYINDIR R., DEMİRBAŞ Ş.  
3rd International Conference on Renewable Energy Research and Application (ICRERA), Wisconsin, United States Of America, 19 - 22 October 2014, pp.873-879
- XXIV. **Interned based experimental tools for voltage source inverters**  
DEMİRBAŞ Ş., MUTLU G.  
4th International Conference on Power Engineering, Energy and Electrical Drives, 13 - 17 May 2013
- XXV. **Active and reactive power control of doubly fed induction generator using direct power control technique**  
DEMİRBAŞ Ş., BAYHAN S.  
4th International Conference on Power Engineering, Energy and Electrical Drives, Istanbul, Turkey, 13 - 17 May 2013
- XXVI. **Active and Reactive Power Control of Grid Connected Permanent Magnet Synchronous Generator in Wind Power Conversion System**  
Bayhan S., FİDANBOY H., DEMİRBAŞ Ş.  
International Conference on Renewable Energy Research and Applications (ICRERA), Madrid, Spain, 20 - 23 October 2013, pp.1048-1052
- XXVII. **Histeresiz Akım Kontrol DGM ve Sinüsoidal DGM Yöntemlerinin SSM un Performansına Etkisinin İncelenmesi**  
BAYHAN S., FİDANBOY H., DEMİRBAŞ Ş.  
UMÇÖS 2012, Turkey, 13 - 15 June 2012
- XXVIII. **Design and implementation of DSP-based three-phase PFC**  
BAYHAN S., DEMİRBAŞ Ş., GARİP İ.  
2011 XXIII International Symposium on Information, Communication and Automation Technologies, 27 - 29

October 2011

- XXIX. **Investigation of Current Harmonics Using FEM on Different Rotor Types of PMSMs**  
ARSLAN S., FİDANBOY H., DEMİRBAŞ Ş., GÜVEN M. E., KURT E.  
23. International Symposium on Information, Communication and Automation Technologies (ICAT 2011), 27 - 29 October 2011
- XXX. **Grid synchronization of doubly fed induction generator in wind power systems**  
DEMİRBAŞ Ş., BAYHAN S.  
2011 International Conference on Power Engineering, Energy and Electrical Drives, Malaga, Spain, 11 - 13 May 2011
- XXXI. **Internet Based Toolkit for Simulation of DC/DC Converters**  
DEMİRBAŞ Ş., MUTLU G.  
International Conference on Power Engineering, Energy and Electrical Drives, 11 - 13 May 2011
- XXXII. **Akım Kontrollü Gerilim Kaynaklı Evirici ile Sürülen RL Yükü Üzerindeki Akım Harmoniklerinin İncelenmesi**  
DEMİRBAŞ Ş., FİDANBOY H.  
6. İleri Teknolojiler Sempozyumu (IATS'11), 16 - 18 May 2011
- XXXIII. **Mikrodenetleyici Tabanlı İki Seviye DA/DA Alçaltan Dönüştürücü**  
DEMİRBAŞ Ş., BAYHAN S., GARİP İ.  
6. Uluslar arası İleri Teknolojiler Sempozyumu (IATS'2011), 16 - 18 May 2011
- XXXIV. **Şebeke Rüzgar Türbin Laboratuvarı: Daimi Mıknatıslı Senkron Generatörlü Rüzgar Türbini Modellenmesi ve Simülasyonu**  
İŞCAN S., DEMİRBAŞ Ş.  
6. Uluslar arası İleri Teknolojiler Sempozyumu (IATS'2011), 16 May 2011 - 18 May 2011
- XXXV. **Design and Implementation of Microcontroller Based Two Level DC DC Buck Converter**  
DEMİRBAŞ Ş., BAYHAN S., GARİP İ.  
6th International Advanced Technologies Symposium (IATS'11), Elazığ, Turkey, 16 - 18 May 2011
- XXXVI. **Şebeke Bağlantısız Çift Beslemeli Asenkron Generatörün Doğrudan Gerilim Denetimi**  
DEMİRBAŞ Ş., BAYHAN S.  
Elektrik-Elektronik-Bilgisayar Sempozyumu ve Fuarı (ELECO2010), Turkey, 2 - 05 December 2010
- XXXVII. **Güç Elektroniği Denepleri İçin Bir Sanal Laboratuvar DA DA Çevirici Benzetimi**  
DEMİRBAŞ Ş., BAYHAN S., MUTLU G.  
1. Uluslar arası, 5. Ulusal Meslek Yüksekokulları Sempozyumu, Konya, Turkey, 27 - 29 May 2009
- XXXVIII. **Simulation of Speed Control for Travelling Wave Ultrasonic Motor**  
DEMİRTAŞ M., BAYINDIR R., DEMİRBAŞ Ş., SEFA İ.  
5TH International Advanced Technologies Symposium (IATS'09), Karabük, Turkey, 13 - 15 May 2009
- XXXIX. **Simulation of Parallel Connected DC DC Boost Converter for Hybrid Energy Sources**  
DEMİRTAŞ M., BAYINDIR R., DEMİRBAŞ Ş., SEFA İ.  
5TH International Advanced Technologies Symposium (IATS'09), Karabük, Turkey, 13 - 15 May 2009
- XL. **Application of Microcontroller Based Meteorology Station**  
DEMİRTAŞ M., BAYINDIR R., DEMİRBAŞ Ş., SEFA İ.  
5TH International Advanced Technologies Symposium (IATS'09), Karabük, Turkey, 13 - 15 May 2009
- XLI. **Mikrodenetleyici Tabanlı Multimetre Tasarımı ve Gerçekleştirilmesi**  
BAYHAN S., DEMİRBAŞ Ş.  
5. Uluslar arası İleri Teknolojiler Sempozyumu (IATS'09), 13 - 15 May 2009
- XLII. **Şebeke Gerilim Değişimlerinin LabVIEW Tabanlı İzlenmesi**  
BAYHAN S., DEMİRBAŞ Ş.  
5. Uluslararası İleri Teknolojiler Sempozyumu, Karabük, Turkey, 13 - 15 May 2009
- XLIII. **A User Friendly Educational Tool for Observing Synchronous Motor Operation Conditions**  
BAYINDIR R., SEFA İ., DEMİRBAŞ Ş., ÇOLAK İ., GÖRGÜN A.  
4. International Conference on Technical and Physical Problems in Power Engineering, 4 - 06 September 2008
- XLIV. **Building of W&S Energy System**

DEMİRBAŞ Ş., DEMİRTAŞ M., SEFA İ., Colak I.

International Symposium on Power Electronics, Electrical Drives, Automation and Motion, Ischia, Italy, 11 - 13 June 2008, pp.1466-1469

**XLV. A novel integrated web based learning system for electrical machines education**

Colak I, IRMAK E., DEMİRBAŞ Ş., Sagioglu Ş.

International Conference on Power Engineering, Energy and Electrical Drives, POWERENG 2007, Setúbal, Portugal, 12 - 14 April 2007, pp.265-269

**XLVI. Remote Control Of DC Motor Over the Internet**

ÇOLAK İ., DEMİRBAŞ Ş., IRMAK E., SEFA İ., BAYINDIR R.

3rd International Conference on Technical and Physical Problems in Power Engineering, Ankara, Turkey, 29 - 31 May 2006, pp.216-219

**XLVII. 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

**XLVIII. 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

**XLIX. Hibrit Enerji Sistemleri İçin Paralel Çalışabilen Boost Konvertör Simülasyonu**

ÇOLAK İ., SEFA İ., BAYINDIR R., DEMİRBAŞ Ş., DEMİRTAŞ M.

VI. Ulusal Temiz Enerji Sempozyumu-UTES'2006, Isparta, Turkey, 25 - 27 May 2006

**L. Güneş Pillerinin Elektrik Enerjisi Üretiminde Kullanımı**

ÇOLAK İ., SEFA İ., BAYINDIR R., DEMİRBAŞ Ş., DEMİRTAŞ M.

VI. Ulusal Temiz Enerji Sempozyumu-UTES'2006, Isparta, Turkey, 25 - 27 May 2006

**LI. Açık ve Kapalı Döngü Denetim Sistemlerinin Web Tabanlı Benzetimi**

ÇOLAK İ., IRMAK E., BAYINDIR R., DEMİRBAŞ Ş., SEFA İ.

6. International Educational Technology Conference, 19 - 21 April 2006

**LII. Açık veya Kapalı Döngü Denetim Sistemlerinin Web Tabanlı Benzetimi**

ÇOLAK İ., IRMAK E., BAYINDIR R., DEMİRBAŞ Ş., SEFA İ.

6 th International Educational Technology Conference, Eastern Mediterranean University, Gazimagusa, Cyprus (Kktc), 19 - 21 April 2006, pp.446-451

**LIII. Temel Elektrik Devrelerinin Analizi için İnternet Tabanlı Bir Eğitim Aracı**

ÇOLAK İ., IRMAK E., SEFA İ., DEMİRBAŞ Ş., BAYINDIR R.

6th International Educational Technology Conference, FAMAGUSTA, Cyprus (Kktc), 19 - 21 April 2006, pp.446-451

**LIV. Bulanık Mantık Denetimli Senkron Motor İle Reaktif Güç Kompanzasyonu Benzetimi**

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

Bilimde Modern Yöntemler Sempozyumu, Kocaeli, Turkey, 16 - 18 November 2005

**LV. Doğru Akım Motorlarının Web Tabanlı Modellenmesi ve Analizi**

DEMİRBAŞ Ş., IRMAK E., SEFA İ., BAYINDIR R., ÇOLAK İ.

Bilimde Modern Yöntemler Sempozyumu, Turkey, 16 - 18 November 2005

**LVI. Doğru Akım Motorunun Web Tabanlı Modellenmesi ve Analizi**

DEMİRBAŞ Ş., IRMAK E., SEFA İ., BAYINDIR R., ÇOLAK İ.

Bilimde Modern Yöntemler Sempozyumu, Kocaeli, Turkey, 16 - 18 November 2005

**LVII. Alternatif Enerji Kaynaklarının Kullanımı**

ÇOLAK İ., BAYINDIR R., SEFA İ., DEMİRBAŞ Ş., ergen h.

III. Yenilenebilir Enerji Kaynakları Sempozyumu ve Sergisi, Mersin, Turkey, 19 - 21 October 2005

**LVIII. Teknik Eğitimde İnternet Teknolojisinin Kullanımı**

ÇOLAK İ., DEMİRBAŞ Ş., IRMAK E., BAYINDIR R.

1. Uluslararası Mesleki ev Teknik Eğitim Teknolojileri Kongresi, 5 - 07 September 2005

**LIX. Sanayide Enerji Verimliliği**



ÇOLAK İ., BAYINDIR R., SEFA İ., DEMİRBAŞ Ş., arslan c.

1. Enerji Verimliliği ve Kalite Sempozyumu, TMMOB Elektrik Mühendisleri Odası Kocaeli Şubesi, Kocaeli, Turkey, 17 - 18 May 2005, pp.336-339

**LX. Güneş Takip Sistemi Tasarım ve Uygulaması**

ÇOLAK İ., BAYINDIR R., SEFA İ., DEMİRBAŞ Ş., DEMİRTAŞ M.

1. Enerji Verimliliği ve Kalite Sempozyumu, TMMOB Elektrik Mühendisleri Odası Kocaeli Şubesi, Turkey, 17 - 18 May 2005, pp.301-305

## Supported Projects

DEMİRBAŞ Ş., Onar B., GÜLER N., Project Supported by Higher Education Institutions, PV ve Batarya Enerji Depolama Sistemini (BESS) Kapsayan Mikro Şebekeler için Şebeke Bağlantılı Çalışma ile Ada Modu Arasında Geçişlerin Sorunsuz Sağlanmasına Yönelik Bir Denetleyici Tasarımı, 2023 - Continues

DEMİRBAŞ Ş., BAGHERİ F., Alkul O., Onar B., OCAK C., GÜLER N., KÖMÜRCÜGİL H., BAYHAN S., KAPLAN O., FESLİ U., Project Supported by Higher Education Institutions, Akıllı Şebekeler için Çoklu Bağlantı Noktasına Sahip Bir Akıllı Transformatör Tasarımı Uygulaması ve Kontrolü, 2023 - Continues

Demirbaş Ş., Project Supported by Public Organizations in Other Countries, Autonomous Control Actions For Smart Devices In Response To Cyber-Physical Attach And Other Anomalies With Resilient Solutions For Critical Infrastructure, 2021 - 2025

Demirbaş Ş., FESLİ U., Project Supported by Public Organizations in Other Countries, In-depth cyber-physical attack detection via smart devices and deep learning , 2021 - 2025

DEMİRBAŞ Ş., Project Supported by Higher Education Institutions, Yüksek Frekans Transformatörlü Çift Yönlü DC-DC Konvertör Yardımı ile Batarya Şarj Sistemi Tasarımı, 2018 - 2019

DEMİRBAŞ Ş., Project Supported by Higher Education Institutions, Şebeke Bağlantısız Daimi Mıknatıslı Senkron Generatör için Etkin Bir Denetleyici Tasarımı, 2012 - 2014

DEMİRBAŞ Ş., Project Supported by Higher Education Institutions, Çift Beslemeli Asenkron Generatör İçin Etkin Bir Denetleyici Tasarımı, 2010 - 2013

DEMİRBAŞ Ş., Project Supported by Higher Education Institutions, Farklı Darbe Genişlik Modülasyon Teknikleri İle Sürekli Mıknatıslı Senkron Motorun Performans Analizi, 2010 - 2012

DEMİRBAŞ Ş., Project Supported by Higher Education Institutions, Uzaktan Erişimli Güç Elektroniği Laboratuvarının Gerçekleştirilmesi, 2009 - 2011

DEMİRBAŞ Ş., Project Supported by Higher Education Institutions, Enerji Kalitesinin İnternet Tabanlı Ölçüm ve Analizi, 2007 - 2009

DEMİRBAŞ Ş., Project Supported by Higher Education Institutions, Asenkron Motorların PLC Tabanlı Korunması, 2007 - 2008

DEMİRBAŞ Ş., Project Supported by Higher Education Institutions, Elektrik Makinaları Derslerinin ve Deneylerinin Gerçekleştirilmesi için İnternet Tabanlı Uzaktan Eğitim, 2006 - 2007

DEMİRBAŞ Ş., Project Supported by Higher Education Institutions, Değişken hızlı asenkron motor sürücüleri için bir eğitim seti tasarımı, 2005 - 2007

## Metrics

Publication: 84

Citation (WoS): 265

Citation (Scopus): 356

H-Index (WoS): 11

H-Index (Scopus): 12

## **Non Academic Experience**

University, University of Wisconsin-Milwaukee, Center for Sustainable Electrical Energy Systems

Gazi Üniversitesi

Company, Lütfi Özcan, Company