

## Asst. Prof. İPEK ÇETİNBAŞ

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: HLX-4126-2023

ScopusID: 56470748300

Yoksis Researcher ID: 59544

### Education Information

Doctorate, Eskişehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Elektrik-Elektronik Mühendisliği (Dr), Turkey 2014 - 2020

Undergraduate, Kirikkale University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, Turkey 2013 - 2014

Postgraduate, Karabuk University, Telekomünikasyon A.B.D, Elektrik-Elektronik Mühendisliği (YI) (Tezli), Turkey 2011 - 2014

Undergraduate, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi Bölümü, Turkey 2006 - 2011

Undergraduate, Anadolu University, Faculty Of Business Administration, Department Of Business, Turkey 2007 - 2009

### Dissertations

Doctorate, Otonom Mikro Şebekelerin Meta Sezgisel Algoritmalar İle Boyutlandırma Optimizasyonu, Eskişehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Elektrik-Elektronik Mühendisliği (Dr), 2020

Postgraduate, Güneş enerjili sistemlerde kullanılan maksimum güç noktası takibi yöntemlerinin zeki algoritmalar yardımıyla uygulanması, Karabuk University, Telekomünikasyon A.B.D, Elektrik-Elektronik Mühendisliği (YI) (Tezli), 2014

### Research Areas

Electrical and Electronics Engineering, Energy, Power Electronics

### Academic Titles / Tasks

Assistant Professor, Eskişehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, ELEKTRİK-ELEKTRONİK MÜHENDİSLİĞİ BÖLÜMÜ, 2023 - Continues

Research Assistant PhD, Eskişehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, ELEKTRİK-ELEKTRONİK

MÜHENDİSLİĞİ BÖLÜMÜ, 2020 - 2023

Research Assistant, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, ELEKTRİK-ELEKTRONİK MÜHENDİSLİĞİ BÖLÜMÜ, 2014 - 2020

## Courses

ENGINEERING GRAPHICS(A), Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021  
POWER ELECTRONICS APPLICATION(A), Undergraduate, 2023 - 2024, 2022 - 2023  
ENGINEERING GRAPHICS(B), Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022  
MICROGRID APPLICATIONS(A), Postgraduate, 2023 - 2024  
DESIGN PROCESSES(A), Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021  
INTRODUCTION TO POWER ELECTRONICS(A), Undergraduate, 2023 - 2024, 2022 - 2023  
INTRODUCTION TO MICROGRIDS(A), Postgraduate, 2023 - 2024  
POWER ELECTRONICS APPLICATION(A), Undergraduate, 2022 - 2023  
INTRODUCTION TO POWER ELECTRONICS(A), Undergraduate, 2023 - 2024, 2022 - 2023  
ENGINEERING GRAPHICS(A), Undergraduate, 2021 - 2022, 2020 - 2021  
DESIGN PROCESSES(B), Undergraduate, 2022 - 2023  
DESIGN PROCESSES(B), Undergraduate, 2022 - 2023  
DESIGN PROCESSES(A), Undergraduate, 2022 - 2023, 2021 - 2022  
OCCUPATIONAL HEALTH&SAFETY IN ELECTRICAL ENGIN.(A), Undergraduate, 2021 - 2022, 2020 - 2021  
OCCUPATIONAL HEALTH&SAFETY IN ELECTRICAL ENGIN.(A), Undergraduate, 2021 - 2022, 2020 - 2021

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

- I. **Parameter Extraction of Single, Double, and Triple-Diode Photovoltaic Models Using the Weighted Leader Search Algorithm**  
Çetinbaş İ.  
Global Challenges, vol.8, no.5, 2024 (SCI-Expanded)
- II. **Parameter extraction of photovoltaic cells and modules by hybrid white shark optimizer and artificial rabbits optimization**  
ÇETİNBAŞ İ., TAMYÜREK B., DEMİRTAŞ M.  
Energy Conversion and Management, vol.296, 2023 (SCI-Expanded)
- III. **The Hybrid Harris Hawks Optimizer-Arithmetic Optimization Algorithm: A New Hybrid Algorithm for Sizing Optimization and Design of Microgrids**  
Çetinbaş İ., Tamyürek B., Demirtaş M.  
IEEE Access, vol.10, pp.19254-19283, 2022 (SCI-Expanded)
- IV. **Sizing optimization and design of an autonomous AC microgrid for commercial loads using Harris Hawks Optimization algorithm**  
Çetinbaş İ., Tamyürek B., Demirtaş M.  
Energy Conversion and Management, vol.245, 2021 (SCI-Expanded)
- V. **Effects of Aging and Environmental Factors on Performance of CdTe and CIS Thin-Film Photovoltaic Modules**  
Demirtaş M., Tamyürek B., Kurt E., Çetinbaş İ., Öztürk M. K.  
JOURNAL OF ELECTRONIC MATERIALS, vol.48, no.11, 2019 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Parameter Extraction of Photovoltaic Models by Honey Badger algorithm and Wild Horse Optimizer**

KOÇ K., DEMİRTAŞ M., ÇETİNBAŞ İ.

JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, vol.26, pp.1453-1465, 2023 (ESCI)

**II. Designing and optimizing a hybrid microgrid supplying various electric vehicle charging modes**

MOHAMUD F. A., ÇETİNBAŞ İ., DEMİRTAŞ M., ERKAYA H. H.

PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, 2023 (ESCI)

**III. Akıllı Şebekelerde Güneş Enerjisi Üretiminin Zamana Bağlı Olasılıksal Tahmini**

Demirtaş M., Akkoyun N., Akkoyun E., Çetinbaş İ.

Gazi Üniversitesi Fen Bilimleri Dergisi Part C: Tasarım ve Teknoloji, vol.7, no.2, pp.411-424, 2019 (Peer-Reviewed Journal)

**IV. Design, Analysis and Optimization of a Hybrid Microgrid System Using HOMER Software: Eskisehir Osmangazi University Example**

Çetinbaş İ., Tamyürek B., Demirtaş M.

INTERNATIONAL JOURNAL OF RENEWABLE ENERGY DEVELOPMENT-IJRED, vol.8, no.1, pp.65-79, 2019 (Peer-Reviewed Journal)

**V. Eskişehir Osmangazi Üniversitesi Kampüsünde Elektrik Tüketim Maliyetinin Azaltılmasına Yönelik FV Üretim ve Enerji Depolama Biriminden Oluşan bir Mikro Şebekenin Optimal Tasarımı**

Çetinbaş İ., Tamyürek B., Demirtaş M.

EMO Bilimsel Dergi, vol.8, no.1, pp.33-38, 2018 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

**I. MPPT with INFO Algorithm Tuned Nonlinear PI Control for a PV Array**

Celik K., ÇETİNBAŞ İ., DEMİRTAŞ M.

12th International Conference on Renewable Energy Research and Applications (ICRERA), Oshawa, Canada, 29 August - 01 September 2023

**II. Parameter Extraction with Honey Badger Algorithm and Wild Horse Optimizer for Single and Double Diode PV Models**

KOÇ K., DEMİRTAŞ M., ÇETİNBAŞ İ.

10. European Conference on Renewable Energy Systems, İstanbul, Turkey, 07 May 2022

**III. Endüstriyel Soğutucular İçin Değişken Devirli Kompresör Teknolojisinin Verim Parametreleri**

KOŞAN M., ÇETİNBAŞ İ., DEMİRTAŞ M., ERTEN S., ERDOĞMUŞ F. N., DEMİRCİ E.

II. International Science and Innovation Congress, Turkey, 25 - 27 June 2021

**IV. Fuzzy logic and artificial neural network based grid-interactive systems for renewable energy sources: A review**

Colak M., ÇETİNBAŞ İ., DEMİRTAŞ M.

9th International Conference on Smart Grid, icSmartGrid 2021, Virtual, Setubal, Portugal, 29 June - 01 July 2021, pp.186-191

**V. Security Applications for Reliable Energy Management in a Microgrid**

CIVLEZ M., DEMİRTAŞ M., ÇETİNBAŞ İ., AKINC H.

International Conference on Electrical, Communication, and Computer Engineering (ICECCE), 12 - 13 June 2020

**VI. Estimation of Energy Production by Using Probabilistic Programming Methods in Solar Power Plants: The case of Gazi Technopark**

DEMİRTAŞ M., AKKOYUN N., AKKOYUN E., ÇETİNBAŞ İ.

8TH INTERNATIONAL CONFERENCE ON RENEWABLE ENERGY RESEARCH AND APPLICATIONS, 3 - 06 November 2019

**VII. Energy Management of a PV Energy System and a Plugged-in Electric Vehicle Based Micro-Grid Designed for Residential Applications**

ÇETİNBAŞ İ., TAMYÜREK B., DEMİRTAŞ M.

8TH INTERNATIONAL CONFERENCE ON RENEWABLE ENERGY RESEARCH AND APPLICATIONS, Brasov, Romania,

3 - 06 November 2019

- VIII. **A Review of Turkey's Current Situation in Resource Utilization of Renewables and Energy Policies**  
ÇETİNBAŞ İ., TAMYÜREK B.  
ICSEEC: SUSTAINABLE ENERGY AND ENERGY CALCULATIONS, Muğla, Turkey, 12 - 14 April 2019
- IX. **Design and Analysis of A Hybrid Microgrid System Using Homer Software: Eskişehir Osmangazi University Example**  
ÇETİNBAŞ İ., TAMYÜREK B., DEMİRTAŞ M.  
6. European Conference on Renewable Energy Systems, 25 - 27 June 2018
- X. **Effect of aging and environmental factors on performance of thin film photovoltaic modules: A comparative analysis**  
DEMİRTAŞ M., TAMYÜREK B., KURT E., ÇETİNBAŞ İ.  
6. European Conference on Renewable Energy Systems, 25 - 27 June 2018
- XI. **Yenilenebilir Enerji Kaynaklı Akıllı Bir Ev İçin Enerji Yönetimi Uygulaması**  
ÇETİNBAŞ İ., TAMYÜREK B., DEMİRTAŞ M.  
Yenilenebilir Enerji Kaynakları Sempozyumu (YEKSEM 2017), Antalya, Turkey, 3 - 05 November 2017, pp.159-165
- XII. **Mikro Şebeke Topolojileri Ve Türkiye'nin Yenilenebilir Enerji Potansiyelinin Mikro Şebekeler Açısından Değerlendirilmesi**  
ÇETİNBAŞ İ., TAMYÜREK B., DEMİRTAŞ M.  
Yenilenebilir Enerji Kaynakları Sempozyumu (YEKSEM 2017), Antalya, Turkey, 3 - 05 November 2017, pp.152-158
- XIII. **Eskişehir Osmangazi Üniversitesi Kampüsü için Tasarlanmış bir AA Mikro Şebekede Enerjinin Optimal Yönetimi**  
ÇETİNBAŞ İ., TAMYÜREK B., DEMİRTAŞ M.  
1. Ulusal Elektrik Enerjisi Dönüşümü Kongresi (EL-EN), Elazığ, Turkey, 21 - 22 September 2017, pp.251-256
- XIV. **ANN Controlled Single Phase Inverter For Solar Energy Systems**  
DEMİRTAŞ M., ÇETİNBAŞ İ., Serefoğlu S., KAPLAN O.  
16th International Power Electronics and Motion Control Conference and Exposition (PEMC), Antalya, Turkey, 21 - 24 September 2014, pp.768-772
- XV. **Akıllı Algoritmalar Kullanılarak Güneş Enerji Dönüşüm Sistemleri Uygulamaları**  
DEMİREL H., DEMİRTAŞ M., ÇETİNBAŞ İ.  
Yenilenebilir Enerji Kaynakları Sempozyumu (YEKSEM 2013), Girne, Cyprus (Kktc), 4 - 06 October 2013
- XVI. **Rüzgâr Enerjili Sistemler İçin FPGA Denetimli Dönüştürücü Tasarımı ve Uygulaması**  
DEMİRTAŞ M., TAPLAMACIOĞLU M. C., GÖKKUŞ G., ÇETİNBAŞ İ.  
YENİLENEBİLİR ENERJİ KAYNAKLARI SEMPOZYUMU 2013, Girne, Cyprus (Kktc), 4 - 06 October 2013
- XVII. **Maximum Power Point Tracking Application with Intelligent Algorithms in The Renewable Energy Sourced Systems**  
ÇETİNBAŞ İ.  
European Workshop on Renewable Energy Systems (EWRES 2013), Antalya, Turkey, 20 - 23 September 2012
- XVIII. **Güneş Enerjili Sistemler İçin Enerji Takip Sistemi Uygulaması**  
DEMİRTAŞ M., ŞEREFOĞLU Ş., ÇETİNBAŞ İ.  
VI. Yenilenebilir Enerji Kaynakları Sempozyumu (YEKSEM 2011), Denizli, Turkey, 14 - 16 October 2011

## Metrics

Publication: 28

Citation (WoS): 147

Citation (Scopus): 202

H-Index (WoS): 6

H-Index (Scopus): 7