

## Assoc. Prof. MEHMET CİHAT ÖZGENEL

### Personal Information

**Office Phone:** [+90 446 224 0088](tel:+904462240088) Extension: 43142

**Fax Phone:** [+90 446 224 0077](tel:+904462240077)

**Email:** [mcozgenel@erzincan.edu.tr](mailto:mcozgenel@erzincan.edu.tr)

**Web:** <https://avesis.ebyu.edu.tr/mcozgenel>

**Address:** Erzincan Üniversitesi Mühendislik Fakültesi Elektrik Elektronik Mühendisliği Bölümü Yalnızbağ Yerleşkesi ERZİNCAN

### International Researcher IDs

ORCID: 0000-0001-5304-1488

Yoksis Researcher ID: 144047

### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Elektrik , Turkey 1997 - 2003

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, KALICI MIKNATISLI SENKRON MOTORUN VEKTÖR KONTROL TEKNİĞİ İLEDENETİMİ, Gazi Üniversitesi, Fen Bilimleri Enstitüsü, Elektrik Eğitimi Ana Bilim Dalı, 2003

Postgraduate, VARIAN E 104 EPR İÇİN ÇOK YÖNLÜ İNTERFACE , Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, Bilgisayar Bilimleri, 1994

### Research Areas

Electrical and Electronics Engineering, Power Electronics, Electrical Machine Theory and Design, Electric Motor Drivers, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Erzincan Binali Yildirim University, Rektörlük, 2021 - Continues

Associate Professor, Erzincan Binali Yildirim University, Mühendislik-Mimarlık Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2021 - Continues

Assistant Professor, Erzincan Binali Yildirim University, Mühendislik-Mimarlık Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2018 - 2021

Assistant Professor, Erzincan Binali Yildirim University, Mühendislik-Mimarlık Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2012 - 2018

Assistant Professor, Erzincan Binali Yildirim University, Meslek Yüksekokulu, Elektrik ve Enerji Bölümü, 2006 - 2012

Assistant Professor, Ataturk University, Erzincan Meslek Yüksekokulu, Teknik Programlar, 2003 - 2006

Lecturer PhD, Ataturk University, Erzincan Meslek Yüksekokulu, Teknik Programlar, 2002 - 2003

Lecturer, Ataturk University, Meslek Yüksekokulu, Teknik Bölümler, 1986 - 2002

## Courses

PROJE YÖNETİMİ, Undergraduate, 2015 - 2016

TIBBİ ELEKTRONİK, Undergraduate, 2015 - 2016

ENDÜSTRİYEL ELEKTRONİK, Undergraduate, 2015 - 2016

KONTROL SİSTEMLERİNE GİRİŞ, Undergraduate, 2015 - 2016

ELEKTRİK MAKİNELERİ I, Undergraduate, 2014 - 2015

SAYISAL TASARIM, Undergraduate, 2014 - 2015

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

- I. **Design and Implementation of a Flyback-Assisted Wide-Range Fully Soft-Switched T-Type Inverter**  
Tınç N. S., Sahin Y., Özgenel M. C.  
IEEE Transactions on Power Electronics, vol.38, no.7, pp.8643-8653, 2023 (SCI-Expanded)
- II. **Increasing power and torque capability of brushless direct current motor by employing 150-degree conduction mode controlled three-phase voltage source inverter**  
ÖZGENEL M. C.  
REVIEW OF SCIENTIFIC INSTRUMENTS, vol.89, no.8, 2018 (SCI-Expanded)
- III. **Design, implementation, and application of 150-degree commutation VSI to improve speed range of sensored BLDC motor**  
ÖZGENEL M. C.  
REVIEW OF SCIENTIFIC INSTRUMENTS, vol.88, no.9, 2017 (SCI-Expanded)
- IV. **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)
- 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. **SPWM evirici ile sürülen vektör denetimli kalıcı mıknatıslı senkron motorun dinamik analizi**  
BAL G., ÖZGENEL M. C., DEMİRBAŞ Ş.  
GAZİ ÜNİVERSİTESİ MÜHENDİSLİK MİMARLIK FAKÜLTESİ DERGİSİ, vol.25, no.3, pp.569-577, 2010 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Analysis of the Effects of Three Various Current Control Methods on BLDC Motors.**  
ÖZGENEL M. C.  
Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.12, no.3, pp.1550-1566, 2020 (Peer-Reviewed Journal)
- II. **Design, Producing and Testing of 12-Step Three-Phase Voltage Source Inverter with Flexible Independent PWM Current Control for Brushless Direct Current Motor**  
ÖZGENEL M. C.  
İğdır Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.10, no.2, pp.956-969, 2020 (Peer-Reviewed Journal)
- III. **LOW COST AND PRECISE ELECTRONIC TACHOGENERATOR FOR SPEED CONTROL APPLICATIONS OF**

## **BLDC MOTOR DRIVE WITH 150-DEGREE CONDUCTION MODE INVERTER**

ÖZGENEL M. C.

The Eurasia Proceedings of Science Technology Engineering and Mathematics, vol.1, no.1, pp.123-130, 2017 (Peer-Reviewed Journal)

### **IV. ZİHİNSEL ENGELLİLERE YÖNELİK ROBOT DESTEKLİ ÖĞRENME ORTAMLARINDA ETKİLEŞİM ALTERNATİFLERİNİN BELİRLENMESİ**

ÖZDEMİR D., KARAMAN S., ÖZGENEL C., ÖZPOLAT A. R.

EĞİTİM VE ÖĞRETİM ARAŞTIRMALARI DERGİSİ JOURNAL OF RESEARCH IN EDUCATION AND TEACHING, vol.4, no.1, pp.332-343, 2015 (Peer-Reviewed Journal)

### **V. VEKTÖR DENETİMLİ KALICI MIKNATISLI SENKRON MOTORUN UZAY VEKTÖR DARBE GENİŞLİĞİ MODÜLASYONU İLE PERFORMANS ANALİZİ.**

BAL G., ÖZGENEL M. C., DEMİRBAŞ Ş.

POLİTEKNİK DERGİSİ, vol.10, no.1, pp.7-13, 2007 (Peer-Reviewed Journal)

## **Books & Book Chapters**

### **I. Çözümlü Örneklerle Doğru Akım Elektrik Makinaları**

ÖZGENEL M. C.

Birsen Yayınevi, İstanbul, 2011

## **Refereed Congress / Symposium Publications in Proceedings**

### **I. SIMULATION OF PHASE CURRENT CONDUCT TIME EXTENSION IN BRUSHLESS DIRECT CURRENT MOTORS**

ÖZGENEL M. C.

1. ATLASINTERNATIONAL CONFERENCE ON RESEARCH IN APPLIED SCIENCES, Barselona, Spain, 09 July 2022

### **II. Design And Simulation of Continuous Connection Mode Zeta Converter with Voltage Feedback**

ÖZGENEL M. C.

2. Uluslararası Lisansüstü Çalışmalar Kongresi, Turkey, 08 June 2022

### **III. GÜNEŞ ENERJİLİ TARIMSAL SULAMADA BUCK-BOOST KONVERTÖRÜN MOTOR SÜRÜCÜSÜ OLARAK KULLANILMASININ SİMÜLASYONU**

ÖZGENEL M. C.

INTERNATIONAL CONGRESS of SCIENCE CULTURE and EDUCATION, Antalya, Turkey, 29 October - 02 November 2019, pp.253-260

### **IV. KALICI MIKNATISLI FIRÇALI DOĞRU AKIM MOTORU ESAS ALINARAK SENKRON MOTORUN ALAN YÖNLENDİRİLMELİ KONTROLÜ (FIELD ORIENTED CONTROL OF THE SYNCHRONOUS MOTOR BY CONSIDERING BRUSHED PERMANENT MAGNET DIRECT CURRENT MOTOR)**

ÖZGENEL M. C.

ULUSLARARASI ERCİYESBİLİMSEL ARAŞTIRMALAR KONGRESİ, 26 - 28 April 2019, pp.839-856

### **V. MİKRO ŞEBEKELERDE HİYERARŞİK KONTROL**

ÖZGENEL M. C., Akkamış M. C.

ULUSLARARASI ISPEC MÜHENDİSLİK VE FEN BİLİMLERİ KONGRESİ, Malatya, Turkey, 3 - 04 May 2019, pp.91-98

### **VI. Use of Zeta Converters for Solar Power Systems in Smart Farming Applications**

ÖZGENEL M. C., DEMİR E.

INTERNATIONAL AGEAN SYMPOSIUM ON INNOVATIVE INTERDISCIPLINARY SCIENTIFIC RESEARCHES, İzmir, Turkey, 26 - 27 March 2019

### **VII. DESIGN, IMPLEMENTATION, AND TESTING TWELVE-STEP VOLTAGE SOURCE INVERTER WITH PULSE WIDTH MODULATION CURRENT CONTROL TECHNIQUE FOR THREE-PHASE BRUSHLESS DIRECT CURRENT MOTOR**

ÖZGENEL M. C.

INES INTERNATIONAL CONGRESS of SCIENCE CULTURE and EDUCATION, Antalya, Turkey, 30 October - 03 November 2018, pp.250

**VIII. Closed Loop Speed Control of Brushed PermanentMagnet Direct Current Motor without UsingRotational Speed Sensor**

ÖZGENEL M. C.

7th International Conference on Advanced Technologies (ICAT'18), Antalya, Turkey, 28 April - 01 May 2018, pp.119-123

**IX. TO IMPROVE PRODUCING TORQUE AND SPEED CAPABILITY OF BLDCMOTORS BY INCREASING CONDUCTION ANGLE**

ÖZGENEL M. C.

International Conference on Advanced Technologies (ICAT'18), 28 April - 01 May 2018

**X. LOW COST AND PRECISE ELECTRONIC TACHOGENERATOR FOR SPEED CONTROL APPLICATIONS OF BLDC MOTOR DRIVE WITH 150-DEGREE CONDUCTION MODE INVERTER**

ÖZGENEL M. C.

ICONTE2017: International Conference on Technology, Engineering and Science, Antalya, Turkey, 26 - 29 October 2017, vol.1, pp.123-130

## Supported Projects

ÖZGENEL M. C., AKAR M. G., BURAT G., Project Supported by Higher Education Institutions, Fırçasız Doğru Akım Motorları (FDAM) İçin 165 Derece İletim Modlu İnverterin Tasarımı Üretimi ve Performansının İncelenmesi, 2016 - 2017  
ÖZGENEL M. C., Project Supported by Higher Education Institutions, Zihinsel Engelliler için Robot Destekli Öğrenme Ortamının Geliştirilmesi ve Değerlendirilmesi, 2014 - 2015

## Scientific Refereeing

IEEE TRANSACTIONS ON POWER ELECTRONICS, SCI Journal, November 2022

IEEE TRANSACTIONS ON POWER ELECTRONICS, Journal Indexed in SSCI, October 2019

INTERNATIONAL TRANSACTIONS ON ELECTRICAL ENERGY SYSTEMS, Journal Indexed in SCI-E, January 2019

Turkish Journal of Electrical Engineering & Computer Sciences, SCI Journal, November 2017

Turkish Journal of Electrical Engineering & Computer Sciences, SCI Journal, October 2017

## Metrics

Publication: 22

Citation (WoS): 3

Citation (Scopus): 10

H-Index (WoS): 1

H-Index (Scopus): 2

## Non Academic Experience

ERZİNCAN ENDÜSTRİ MESLEK LİSESİ MÜDÜRLÜĞÜ