

## Lect. PhD CEMİL OCAK

### Personal Information

Office Phone: [+90 312 202 2685](tel:+903122022685)

Email: [cemilocak@gazi.edu.tr](mailto:cemilocak@gazi.edu.tr)

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

### Education Information

Doctorate, Gazi University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (Dr), Turkey 2009 - 2013

Post Graduate, Gazi University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (YI) (Tezli), Turkey 2007 - 2009

Under Graduate, Gazi University, Teknik Eğitim Fakültesi, Elektrik Eğitimi Bölümü, Turkey 2002 - 2007

### Dissertations

Doctorate, Elektrikli araçlar için üç kademeli yeni bir fırçasız da motoru tasarımı, analizi ve uygulaması, Gazi University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (Dr), 2013

Post Graduate, Mikro-hidroelektrik ve rüzgar santralleri için düşük devirli eksenel akılı kalıcı mıknatıslı generator tasarımı ve analizi, Gazi University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (YI) (Tezli), 2009

### Research Areas

Electrical and Electronics Engineering, Electrical Machine Theory and Design

### Academic Titles / Tasks

Lecturer PhD, Gazi University, Teknik Bilimler Meslek Yüksekokulu, Elektrik Ve Enerji Bölümü, 2012 - Continues

Lecturer, Kastamonu University, Tosya Meslek Yüksekokulu, Elektrik Ve Enerji Bölümü, 2010 - 2012

### Professional Experience

Head of Department, Gazi University, Ostim Meslek Yüksekokulu, Elektrik Ve Enerji Bölümü, 2012 - 2015

Assistant Director of Vocational School, Kastamonu University, Tosya Meslek Yüksekokulu, 2010 - 2012

### Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Transient analysis with coupled field-circuit model and experimental assessment of a PMSG used in small-scale wind turbine for water heating purpose**  
ÇETİNCİVİZ Y., ŞEHİRLİ E., Uygun D., OCAK C., DEMİREL H.  
ELECTRICAL ENGINEERING, vol.101, no.4, pp.1163-1175, 2019 (Journal Indexed in SCI)
- II. **FEM Based Multi-Criterion Design and Implementation of a PM Synchronous Wind Generator by Fully Coupled Co-Simulation**  
OCAK C., Uygun D., TARIMER İ.

- ADVANCES IN ELECTRICAL AND COMPUTER ENGINEERING, vol.18, no.1, pp.37-42, 2018 (Journal Indexed in SCI)
- III. **Design, analysis and experimental verification of an efficient 2 kW permanent magnet synchronous generator for WPAs**  
Uygun D., OCAK C., Buyukbicakci E.  
International Review of Electrical Engineering, vol.8, no.2, pp.603-607, 2013 (Journal Indexed in SCI Expanded)
- IV. **A Case Study of Getting Performance Characteristics of a Salient Pole Synchronous Hydrogenerators**  
Topaloglu I., Ocak C., Tarimer I.  
ELEKTRONIKA IR ELEKTROTEHNIKA, no.1, pp.57-61, 2010 (Journal Indexed in SCI)
- V. **Performance Comparison of Internal and External Rotor Structured Wind Generators Mounted from Same Permanent Magnets on Same Geometry**  
Tarimer I., Ocak C.  
ELEKTRONIKA IR ELEKTROTEHNIKA, no.4, pp.65-70, 2009 (Journal Indexed in SCI)

### Articles Published in Other Journals

- I. **DOĞRUDAN TAHRİKLİ ASANSÖR SİSTEMLERİNDE KULLANILAN SABİT MIKNATISLI SENKRON MOTORLARDA MIKNATIS GEOMETRİSİNİN MOTOR PERFORMANSI VE MALİYETİ ÜZERİNDEKİ ETKİLERİNİN İNCELENMESİ**  
OCAK C.  
Mühendislik Bilimleri ve Tasarım Dergisi, 2019 (Refereed Journals of Other Institutions)
- II. **Bir Elektromanyetik Fırlatıcı Bobininde Mermiye Etkiyen Kuvvetin Çok Katmanlı Sinir Ağı ile Kestirimi**  
DALCALI A., ÇETİN O., OCAK C., TEMURTAŞ F.  
Sakarya University Journal of Computer and Information Sciences, vol.1, no.3, pp.1-10, 2018 (Refereed Journals of Other Institutions)
- III. **DESIGN PARAMETERS OPTIMIZATION OF ASYNCHRONOUSMOTOR BY USING ARTIFICIAL BEE COLONY ALGORITHM ANDINVESTIGATING EFFECTS OF USING DIFFERENT FITNESSFUNCTIONS ON EFFICIENT**  
SÖNMEZ Y., Yenpınar B., YILMAZ C., OCAK C.  
International Journal of Electrical, Electronics and Data Communication, vol.6, no.6, pp.16-19, 2018 (Refereed Journals of Other Institutions)
- IV. **FEA-Based Design Improvement of Small Scale BLDCMs Considering Magnet Thickness and Pole Embrace**  
OCAK C., DALCALI A., ÇELİK E., Uygun D.  
International Journal of Computing, Communication and Instrumentation Engineering, vol.4, no.2, pp.31-35, 2017 (Refereed Journals of Other Institutions)
- V. **A COMPARATIVE STUDY AND INVESTIGATION OF DIFFERENT ROTOR DESIGNS OF INDUCTION MOTOR FOR URBAN USE ELECTRIC VEHICLE**  
DALCALI A., OCAK C., GÜNEŞER M. T. , ÖZTÜRK T.  
International Journal of Industrial Electronics and Electrical Engineering, vol.5, no.3, pp.10-12, 2017 (Refereed Journals of Other Institutions)
- VI. **Comparative study and investigation of different rotor designs of induction motor for urban use electric vehicle**  
DALCALI A., OCAK C., GÜNEŞER M. T. , ÖZTÜRK T.  
International Journal of Industrial Electronics and Electrical Engineering,, vol.5, no.3, pp.10-12, 2017 (Refereed Journals of Other Institutions)
- VII. **Advancing Pole Arc Offset Points in Designing an Optimal PM Generator**  
OCAK C., TARIMER İ., Dalcali A.  
TEM JOURNAL-TECHNOLOGY EDUCATION MANAGEMENT INFORMATICS, vol.5, no.2, pp.126-132, 2016 (Journal Indexed in ESCI)
- VIII. **Investigation Effects of Narrowing Rotor Pole Embrace to Efficiency and Cogging Torque at PM BLDC**

## Motor

OCAK C., TARIMER İ., Dalcali A., Uygun D.

TEM JOURNAL-TECHNOLOGY EDUCATION MANAGEMENT INFORMATICS, vol.5, no.1, pp.25-31, 2016 (Journal Indexed in ESCI)

### IX. OPTIMUM ROTOR DESIGN OF SMALL PM BLDC MOTOR BASED ON HIGH EFFICIENCY CRITERIA

SAYGIN A., OCAK C., DALCALI A., ÇELİK E.

ARPN Journal of Engineering and Applied Sciences, vol.10, no.19, pp.9127-9132, 2015 (Refereed Journals of Other Institutions)

### X. Influence Of Pole Arc Offset On The Field And Output Parameters Of Brushless Dc Motors

SAYGIN A., OCAK C., DALCALI A., GÜRDAL O., alantar s., tarhan y.

International Journal of Advancements in Electronics and Electrical Engineering – IJAEEEE, vol.3, no.1, pp.47-51, 2014 (Refereed Journals of Other Institutions)

## Books & Book Chapters

### I. RÜZGAR TÜRBİNLERİ İÇİN KALICI MIKNATISLI SENKROGENERATÖR PARAMETRELERİNİN SİMBİYOTİK ORGANİZMAARAMA ALGORİTMASI İLE ÇOK AMAÇLI OPTİMİZASYONU

SÖNMEZ Y., YILMAZ C., Yenpınar B., OCAK C.

in: Mühendislik ve Mimarlık Çalışmaları 2018, Nizamettin Çiftçi, Yusuf Yanar, Editor, Çizgi Kitabevi, pp.48-56, 2018

## Refereed Congress / Symposium Publications in Proceedings

### I. Optimization of PMSM Design Parameters Using Update Meta-heuristic Algorithms

YILMAZ C., Yenpınar B., SÖNMEZ Y., OCAK C.

International Conference on Artificial Intelligence and Applied Mathematics in Engineering, 20 - 22 June 2019, pp.914-934

### II. Influence of Rotor Slot Structure at Starting Torque and Efficiency on Urban Use EV Motor

GÜNEŞER M. T. , DALCALI A., ÖZTÜRK T., OCAK C.

5th International Conference on Power Generation Systems and Renewable Energy Technologies, 26 - 27 August 2019

### III. TOTAL HARMONIC DISTORTION OF V-SHAPED IPMSM MOTORS BASED ON MAGNET STRUCTURE

DALCALI A., OCAK C.

8th International Conference on Advanced Technologies (ICAT'xx19, Sarajevo, Bosnia And Herzegovina, 26 - 30 August 2019, pp.66-69

### IV. A Comparison of the THD Values of Four-Pole BLDC Motors with Different Slot and Winding Arrangements

OCAK C., DALCALI A.

8th International Conference on Advanced Technologies, 26 - 30 August 2019

### V. The Total Harmonic Distortion of V-Shaped IPMSM Motors Based on Magnet Structure

DALCALI A., OCAK C.

8th International Conference on Advanced Technologies, 26 - 30 August 2019

### VI. BANDIRMA BÖLGESİNDEKİ ÇİFTLİK KULLANIMINA UYGUN SABİT MIKNATISLI SENKRON GENERATÖR TASARIMI VE ANALİZİ

DALCALI A., OCAK C.

ULUSLARARASI BANDIRMA VE ÇEVRESİ SEMPOZYUMU (UBS'18), 17 - 19 September 2018, pp.417-426

### VII. DESIGN AND PERFORMANCE COMPARISON OF FOUR-POLE BRUSHLESS DC MOTORS WITH DIFFERENT POLE/SLOT COMBINATIONS

OCAK C.

3rd International Energy Engineering Congress, 18 - 19 October 2018, pp.71-81

- VIII. **FARKLI MIKNATIS MALZEMELERİNİN YÜZEY MIKNATISLI DOĞRUDAN TAHRİKLİ SABİT MIKNATISLI SENKRON MOTOR PERFORMANSINA ETKİSİ**  
DALCALI A., OCAK C.  
III. INTERNATIONAL RATING ACADEMY CONGRESS ON APPLIED SCIENCES, Lviv, Ukraine, 6 - 07 September 2018
- IX. **GÖMÜLÜ MIKNATISLI SENKRON MOTORLARIN GEOMETRİ TABANLI AKI BARIYERİ OPTİMİZASYONU**  
OCAK C., DALCALI A.  
III. Uluslararası Rating Academy Kongresi: Uygulamalı Bilimler, 6 - 07 September 2018
- X. **DESIGN AND PERFORMANCE COMPARISON OF DIFFERENT CONFIGURATION OUTER ROTOR BRUSHLESS DC MOTORS FOR ELECTRIC VEHICLES**  
OCAK C.  
1st International Turkish World Engineering and Science Congress, Antalya, Turkey, 7 - 10 December 2017
- XI. **IMPROVEMENT OF STARTING AND SYNCHRONIZATION PERFORMANCE IN LINE-START PERMANENT MAGNET SYNCHRONOUS MOTORS**  
OCAK C.  
1st International Turkish World Engineering and Science Congress, Antalya, Turkey, 7 - 10 December 2017, pp.41
- XII. **Küçük Güçlü Rüzgâr Türbinleri İçin Dış Rotorlu Kalıcı Mıknatıslı Bir Senkron Generatöre Ait Mıknatis Optimizasyonunun Gerçekleştirilmesi**  
YENİPINAR B., YILMAZ C., OCAK C., SÖNMEZ Y.  
9. Yenilenebilir Enerji Kaynakları Sempozyumu ve Sergisi, Turkey, 3 - 05 November 2017
- XIII. **FEA-Based Design Improvement of Small Scale BLDCMs Considering Magnet Thickness and Pole Embrace**  
OCAK C., DALCALI A., ÇELİK E., Uygun D.  
6th PARIS International Conference on "Recent Trends in Engineering and Technology", Paris, France, 25 - 26 April 2017
- XIV. **A Comparative Study and Investigation of Different Rotor Designs of Induction Motor for Urban Use Electric Vehicle**  
DALCALI A., OCAK C., GÜNEŞER M. T. , ÖZTÜRK T.  
Proceedings of 65th ISERD International Conference, Mekke, Saudi Arabia, 23 - 24 January 2017
- XV. **Comparative study and investigation of different rotor designs of induction motor for urban use electric vehicle**  
DALCALI A., GÜNEŞER M. T. , OCAK C., ÖZTÜRK T.  
127th International Conference on Recent Innovations in Engineering and Technology, Mekke, Saudi Arabia, 23 - 24 January 2017
- XVI. **An Induction Motor Design for Urban Use Electric Vehicle**  
GÜNEŞER M. T. , Dalcali A., Ozturk T., OCAK C., Cernat M.  
17th IEEE International Power Electronics and Motion Control Conference (PEMC), Varna, Bulgaria, 25 - 30 September 2016, pp.261-266
- XVII. **Optimum rotor design of small PM BLDC motor based on high efficiency criteria**  
SAYGIN A., OCAK C., DALCALI A., ÇELİK E.  
International Conference On Electrical And Electronic Engineering (Ic3e2015), Malekka, Malaysia, 10 - 11 August 2015, vol.10, pp.9128-9132
- XVIII. **INFLUENCE OF POLE ARC OFFSET ON THE FIELD AND OUTPUT PARAMETERS OF BRUSHLESS DC MOTORS**  
SAYGIN A., OCAK C., DALCALI A., GÜRDAL O., ALANTAR S., TARHAN Y.  
FTEE-2013 Proc. of the Intl. Conf. on Future Trends in Electronics and Electrical Engineering, Bangkok, Thailand, 13 - 14 July 2013, pp.16-20
- XIX. **The development of GPRS based speed regulator for DC motor**  
UYGUN D., Yakup G., ÇETİNCEVİZ Y., OCAK C.  
IEEE 4th International Conference on Power Engineering, Energy and Electrical Drives, Istanbul, Turkey, Turkey, 13 - 17 May 2013, vol.1, pp.1082-1086
- XX. **Performance aspects and verifications of in runner and out runner permanent magnet synchronous**

### **generator designs of the same magnet structure for low speed wind systems**

OCAK C., UYGUN D., ÇETİNCEVİZ Y., güngör y.

IEEE 11th International Conference on Environment and Electrical Engineering, Venice, Italy, Italy, 18 - 25 May 2012, vol.1, pp.440-445

XXI. **CAD based design analysis and experimental verification of an out runner permanent magnet synchronous generator for small scale wind turbines**

UYGUN D., OCAK C., ÇETİNCEVİZ Y., güngör y.

IEEE 11th International Conference on Environment and Electrical Engineering, Venice, Italy, Italy, 18 - 25 May 2012, vol.1, pp.179-183

XXII. **Investigation of the effect of magnet thickness on output power and torque of PM BLDC machines using parametric approach method**

BAYINDIR R., OCAK C., TOPALOĞLU İ.

IEEE 3th International Conference on Power Engineering, Energy and Electrical Drives, Malaga, Spain, Spain, 11 - 13 May 2011, vol.1, pp.1-4

XXIII. **Investigation of the effect of magnet thickness on motor losses of PM BLDC machines using parametric approach method**

BAYINDIR R., TOPALOĞLU İ., OCAK C.

IEEE 3th International Conference on Power Engineering, Energy and Electrical Drives, Malaga, Spain, Spain, 11 - 13 May 2011, vol.1, pp.1-4

## **Supported Projects**

OCAK C., TUBITAK Project, METRO VE HAFİF RAYLI ULAŞIM ARAÇLARI İÇİN YÜKSEK VERİMLİ SABİT MIKNATISLI SENKRON CER MOTORU GELİŞTİRİLMESİ, 2019 - Continues

OCAK C., Project Supported by Other Private Institutions, Metro ve Hafif Raylı Sistemler İçin Yüksek Verimli Cer Motoru Geliştirilmesi, 2017 - 2018

OCAK C., TUBITAK Project, Sanayi Tipi Soğutma Grubu Chiller Ünitesi Tasarımı Üretimi ve Testleri, 2016 - 2018

OCAK C., TUBITAK Project, Sürekli Miknatıslı Senkron Motor Teknolojilerinin Geliştirilmesi (Tübitak 1511 Çağrısı), 2014 - 2017

UZUN G., TURGUT Y., OCAK C., TUBITAK Project, Elektrik Makinalarında Kullanılan Silisli Sac Paketlerin Farklı Kesme Yöntemleri İle Üretilerek Performanslarının Araştırılması, 2015 - 2016

OCAK C., TUBITAK Project, İÇ SULARDA KULLANILAN TEKNELEER İÇİN ELEKTRİK MOTORU GÖSTERGE VE KUMANDA PANELİ GELİŞTİRME PROJESİ, 2014 - 2016

OCAK C., TUBITAK Project, Elektrikli Araçlar İçin Sıvı Soğutmalı ve Yüksek Güç Yoğunluğuna Sahip Teker İçi Fırçasız Doğru Akım Motoru, 2012 - 2015

OCAK C., Industrial Thesis Project, Yüksek Verimli Kriyojenik Soğutucu Motoru Geliştirilmesi, 2012 - 2013

## **Citations**

Total Citations (WOS):22

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