

## **Asst. Prof. HİLMİ AYGÜN**

### **Personal Information**

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### **Education Information**

Doctorate, Karabuk University, Fen Bilimleri Enstitüsü, Electrical-Electronics Engineering, Turkey 2011 - 2019

Post Graduate, Karabük Üniversitesi, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği (YI) (Tezli), Turkey 2009 - 2011

Under Graduate, Kirikkale University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, Turkey 2003 - 2007

### **Foreign Languages**

English, B2 Upper Intermediate

### **Certificates, Courses and Trainings**

Vocational Course, Mühendislik Bilimlerinde Arastırma Projesi Hazırlama ve Yürütme Eğitimi-3, Karabuk University, 2015

### **Dissertations**

Doctorate, Elektrikli araçlarda kullanılan asenkron motorun optimal akı referanslı doğrudan moment denetimi, Karabuk University, Fen Bilimleri Enstitüsü, Electrical-Electronics Engineering, 2019

Post Graduate, Akışkan yataklı buhar kazanının yatak sıcaklığının parçacık sürüsü optimizasyonu tabanlı PID kontrolör (PSO-PID) ile kontrolü, Karabuk University, Fen Bilimleri Enstitüsü, Electrical-Electronics Engineering, 2011

### **Research Areas**

Electric Motor Drivers

### **Academic Titles / Tasks**

Assistant Professor, Karabuk University, Mühendislik Fakültesi, Mekatronik Mühendisliği, 2019 - Continues

Research Assistant, Karabuk University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2009 - 2019

### **Courses**

Control Systems I, Under Graduate, 2019 - 2020

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

- I. **LMC-based DTC for efficiency improvement of IM drives and their electric vehicle applications**  
AYGÜN H., AKTAŞ M.  
JOURNAL OF POWER ELECTRONICS, vol.20, pp.1232-1242, 2020 (Journal Indexed in SCI)
- II. **Control of the Bed Temperature of a Circulating Fluidized Bed Boiler by using Particle Swarm Optimization**  
AYGÜN H., DEMİREL H., Cernat M.  
ADVANCES IN ELECTRICAL AND COMPUTER ENGINEERING, vol.12, pp.27-32, 2012 (Journal Indexed in SCI)

## Articles Published in Other Journals

- I. **A Novel DTC Method with Efficiency Improvement of IM for EV Applications**  
AYGÜN H., AKTAŞ M.  
ENGINEERING TECHNOLOGY & APPLIED SCIENCE RESEARCH, vol.8, pp.3456-3462, 2018 (Journal Indexed in ESCI)
- II. **Comparison of DC link current and stator phase current in inverter switching faults detection of PMSM drives in HEVs**  
AKTAŞ M., AYGÜN H.  
ENGINEERING SCIENCE AND TECHNOLOGY-AN INTERNATIONAL JOURNAL-JESTECH, vol.21, pp.664-671, 2018 (Journal Indexed in ESCI)

## Refereed Congress / Symposium Publications in Proceedings

- I. **DSP based Motor/Generator Operation of Induction Machine**  
METİN O., AKTAŞ M., AYGÜN H.  
1st International Conference on Energy Systems Engineering, Karabük, Turkey, 2 - 04 November 2017, pp.197-202
- II. **A Novel Sensorless Field Oriented Controller for Permanent Magnet Synchronous Motors**  
AYGÜN H., GÖKDAĞ M., Aktas M., Cernat M.  
IEEE 23rd International Symposium on Industrial Electronics (ISIE), İstanbul, Turkey, 1 - 04 June 2014, pp.715-720
- III. **Comparison of PSO PID FLC and PID in a Circulating Fluidized Bed Boiler**  
AYGÜN H., DEMİREL H.  
7th International Conference on Electrical and Electronic Engineering ELECO 2011, Bursa, Turkey, 2 - 04 April 2012, vol.2, pp.355-359
- IV. **Parçacık Sürüsü Optimizasyonunda Farklı Hedef Fonksiyonları Kullanılmasının Dolaşım Akışkan Yataklı Buhar Kazanında Etkileri**  
AYGÜN H., DEMİREL H.  
International Iron Steel Symposium, Karabük, Turkey, 2 - 04 April 2012, pp.1040-1045

## Supported Projects

ARSLAN K., AYGÜN H., Project Supported by Higher Education Institutions, ELEKTRİKLİ ARAÇLARDA KULLANILAN ASENKRON MOTORUN OPTİMAL AKI REFERANSLI DOĞRUDAN MOMENT DENETİMİ, 2015 - 2019

## Citations

Total Citations (WOS):17

h-index (WOS):2