# Prof. AHMET EMİN KUZUCUOĞLU

## Personal Information

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**International Researcher IDs**
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## Education Information

Doctorate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Elektronik Ve Bilgisayar Eğitimi (Dr), Turkey 1994 - 2000
Postgraduate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Bilgisayar-Kontrol Eğitimi (Yl) (Tezli), Turkey 1992 - 1994
Undergraduate, Istanbul Technical University, Elektrik-Elektronik Fakültesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, Turkey 1980 - 1985

## Dissertations

Doctorate, İklimlendirme Deney Tesisatının Neuro-Fuzzy Yöntemiyle Kontrolü, Marmara Üniversitesi, Institute for Graduate Studies in Pure and Applied Sciences, Elektronik Ve Bilgisayar Eğitimi (Dr), 2000
Postgraduate, CS-113 Robot Kolunun İncelenmesi, Marmara Üniversitesi, Institute for Graduate Studies in Pure and Applied Sciences, Bilgisayar-Kontrol Eğitimi (Yl) (Tezli), 1994

## Research Areas

Information Systems, Communication and Control Engineering, Control and System Engineering, Simulation, Modelling and Identification, Controllers, Industrial automation, Robotics and Mechatronics Systems, Electrical and Electronics Engineering, Engineering and Technology

## Academic Titles / Tasks

Professor, Marmara University, Faculty of Technology, Electrical and Electronics Engineering, 2022 - Continues
Associate Professor, Marmara University, Faculty of Technology, Electrical and Electronics Engineering, 2016 - 2022
Assistant Professor, Marmara University, Faculty of Technology, Electrical and Electronics Engineering, 2013 - 2016
Assistant Professor, Marmara University, Faculty of Technical Education, Electronic and Computer Education, 2001 - 2013
Research Assistant, Marmara University, Faculty of Technical Education, Electronic and Computer Education, 1992 - 2001

## Academic and Administrative Experience

Head of Department, Marmara University, Faculty of Technology, Electrical and Electronics Engineering, 2023 - Continues
Head of Department, Marmara University, Faculty of Technology, Electrical and Electronics Engineering, 2021 - Continues
Vice Dean, Marmara University, Faculty of Technology, Electrical and Electronics Engineering, 2017 - 2021
Erasmus Coordinator, Marmara University, Faculty of Technology, Elektrik Ve Elektronik Mühendisliği Bölümü, 2014 - 2015
Marmara University, Faculty of Technical Education, Electronic and Computer Education, 2011 - 2013
Marmara University, Faculty of Technical Education, Electronic and Computer Education, 2011 - 2013
Marmara University, Faculty of Technical Education, 2011 - 2013

## Courses

Differential Equations, Undergraduate, 2021 - 2022

## Advising Theses

Dursun E., Kuzucuoğlu A. E., DAĞITIK GÜÇ ÜRETİM SİSTEMLERİNİN YAPAY ZEKA TEKNİKLERİ İLE YÖNETİMİ VE KONTROLÜ, Doctorate, A.Nabi(Student), 2021
KUZUCUOĞLU A. E., Çok rotorlu İHA sistemleri için gömülü uçuş kontrol ve benzetim yazılımı geliştirilmesi, Postgraduate, Y.Gürler(Student), 2019
KUZUCUOĞLU A. E., Kanserli lökosit hücrelerinin tespit ve sınıflandırılmasında dinamik bölütleme, Doctorate, Ö.Kasım(Student), 2015
KUZUCUOĞLU A. E., Uzman sistem tabanlı müzayede ile çoklu robot görev paylaşımı, Doctorate, S.Öztürk(Student), 2014
Kuzucuoğlu A. E., Design and implementation of adaptive control for a nonholonomic mobile manipülatör, Doctorate, G.Erdemir(Student), 2013
KUZUCUOĞLU A. E., Üçlü tank sisteminde yapay sinir ağları ile hata teşhisi, Postgraduate, E.Çifçi(Student), 2009
KUZUCUOĞLU A. E., PIDNN ile bir AC motor hız kontrolünün plc ile gerçekleştirilmesi, Postgraduate, V.Ayhan(Student), 2009
Kuzucuoğlu A. E., Küçük H., Escherichia coli bakterisinin görüntü işleme teknikleriyle belirlenmesi, Postgraduate, D.Tok(Student), 2009
KUZUCUOĞLU A. E., Matlab gereçleri ile kan hücrelerinin tanılanması, Postgraduate, Ö.Kasım(Student), 2008
Kuzucuoğlu A. E., Etmen tabanlı zeki öğretim sistemi geliştirme, Doctorate, M.Özbek(Student), 2007
KUZUCUOĞLU A. E., Kaskat bağlı sıvı seviye akış sisteminin web tabanlı gerçek zamanda zeki kontrolü, Postgraduate, G.Erdemir(Student), 2006
KUZUCUOĞLU A. E., Yapay zeka tekniklerinden genetik algoritma ve tabu arama yöntemlerinin eğitim kurumlarının haftalık ders programlarının hazırlanmasında kullanımı, Postgraduate, A.Gülcü(Student), 2006
KUZUCUOĞLU A. E., Bulanık mantık ve alternatif kontrol yöntemleri ile su sıcaklık kontrolü, Postgraduate, O.Karakuş(Student), 2004

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

I. **Dynamic Stabilization of DC Microgrids using ANN-Based Model Predictive Control**
AKPOLAT A. N., Habibi M. R., Baghaee H. R., DURSUN E., KUZUCUOĞLU A. E., Yang Y., Dragicevic T., Blaabjerg F.
IEEE Transactions on Energy Conversion, vol.37, pp.999-1010, 2022 (SCI-Expanded)
II. **Sensorless Control of DC Microgrid Based on Artificial Intelligence**

Akpolat A. N., Habibi M. R., Dursun E., Kuzucuoğlu A. E., Yang Y., Dragicevic T., Blaabjerg F.
IEEE Transactions on Energy Conversion, vol.36, pp.2319-2329, 2021 (SCI-Expanded)

III. **Design Implementation and Operation of an Education Laboratory-Scale Microgrid**
AKPOLAT A. N., Yang Y., Blaabjerg F., DURSUN E., KUZUCUOĞLU A. E.
IEEE ACCESS, vol.9, pp.57949-57966, 2021 (SCI-Expanded)

IV. **Deep Learning-Aided Sensorless Control Approach for PV Converters in DC Nanogrids**
AKPOLAT A. N., DURSUN E., KUZUCUOĞLU A. E.
IEEE ACCESS, vol.9, pp.106641-106654, 2021 (SCI-Expanded)

V. **A mobile wind turbine design for emergencies in rural areas**
Erdemir G., KUZUCUOĞLU A. E., Selcuk F. A.
RENEWABLE ENERGY, vol.166, pp.9-19, 2020 (SCI-Expanded)

VI. **Performance Analysis of a Grid-Connected Rooftop Solar Photovoltaic System**
AKPOLAT A. N., DURSUN E., KUZUCUOĞLU A. E., Yang Y., Blaabjerg F., BABA A. F.
ELECTRONICS, vol.8, no.8, 2019 (SCI-Expanded)

VII. **A multi-robot coordination approach for autonomous runway Foreign Object Debris (FOD) clearance**
Ozturk S., KUZUCUOĞLU A. E.
ROBOTICS AND AUTONOMOUS SYSTEMS, vol.75, pp.244-259, 2016 (SCI-Expanded)

VIII. **Optimal bid valuation using path finding for multi-robot task allocation**
Ozturk S., KUZUCUOĞLU A. E.
JOURNAL OF INTELLIGENT MANUFACTURING, vol.26, no.5, pp.1049-1062, 2015 (SCI-Expanded)

IX. **DETECTION AND CLASSIFICATION OF LEUKOCYTE CELLS FROM SMEAR IMAGE**
Kasim O., Kuzucuoglu A. E.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.30, no.1, pp.95-109, 2015 (SCI-Expanded)

X. **Speed Control of an Asynchronous Motor Using PID Neural Network**
Maraba V. A., KUZUCUOĞLU A. E.
STUDIES IN INFORMATICS AND CONTROL, vol.20, no.3, pp.199-208, 2011 (SCI-Expanded)

XI. **DEVELOPMENT OF A WEB-BASED CONTROL AND ROBOTIC APPLICATIONS LABORATORY FOR CONTROL ENGINEERING EDUCATION**
KUZUCUOĞLU A. E., Erdemir G.
INFORMATION TECHNOLOGY AND CONTROL, vol.40, no.4, pp.352-358, 2011 (SCI-Expanded)

XII. **A comparison of genetic algorithms & tabu search for a course timetabling problem**
Gulcu A., KUZUCUOĞLU A. E., BULKAN S.
TECHNICS TECHNOLOGIES EDUCATION MANAGEMENT-TTEM, vol.6, no.4, pp.930-938, 2011 (SCI-Expanded)

## Articles Published in Other Journals

I. **Supervised Learning-Aided Control of a DC-DC Power Converter in Wind Energy Conversion Systems**
AKPOLAT A. N., DURSUN E., KUZUCUOĞLU A. E.
International journal of advances in engineering and pure sciences (Online), vol.33, pp.47-56, 2021 (Peer-Reviewed Journal)

II. **Design and Implementation of Web Based Mobile Robot Control Platform for Robotics Education**
ERDEMİR G., KUZUCUOĞLU A. E., KAPLANOĞLU E., EL KAHLOUT Y.
Applied Mechanics and Materials, vol.704, pp.283-287, 2015 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

I. **Modeling and Operation of a Fuel Cell Stack for Distributed Energy Resources: A Living Lab Platform**

**Consist of PV/Wind/PEMFC Hybrid Power System**
Akpolat A. N., Dursun E., Kuzucuoğlu A. E.
7th International Hydrogen Technologies Congress, Elazığ, Turkey, 10 May 2022 - 12 May 2023, pp.684-687

II. **AI-Aided Control of a Power Converter in Wind Energy Conversion System**
AKPOLAT A. N., DURSUN E., KUZUCUOĞLU A. E.
2020 Innovations in Intelligent Systems and Applications Conference (ASYU), İstanbul, Turkey, 15 - 17 October 2020

III. **Li-ion-based Battery Pack Designing and Sizing for Electric Vehicles under Different Road Conditions**
AKPOLAT A. N., YANG Y., BLAABJERG F., DURSUN E., KUZUCUOĞLU A. E.
2020 International Conference on Smart Energy Systems and Technologies (SEST), İstanbul, Turkey, 7 - 09 September 2020, pp.1-6

IV. **Building a Generic Simulation Model for Analyzing the Feasibility of Multi-Robot Task Allocation (MRTA) Problems**
Ozturk S., KUZUCUOĞLU A. E.
6th International Conference on Modelling and Simulation for Autonomous Systems (MESAS), Palermo, Italy, 29 - 31 October 2019, vol.11995, pp.71-87

V. **Modeling Photovoltaic String in PLECS Under Partial Shading**
AKPOLAT A. N., YANG Y., BLAABJERG F., DURSUN E., KUZUCUOĞLU A. E.
2019 International Conference on Power Generation Systems and Renewable Energy Technologies (PGSRET), Istanbul, Turkey, Turkey, 26 - 27 August 2019

VI. **Identification of Tumor Area From Brain MR Image**
Kasim O., KUZUCUOĞLU A. E.
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.809-812

VII. **Bulanık Mantıklı ve PID Denetleyicilerinin Yolcu Uçağı Modelleri Üzerinde Karşılaştırmalı Simülasyonu**
HACIBEYOĞLU E. P., KUZUCUOĞLU A. E., Caferov E.
TOK-2012 Otomatik Kontrol Ulusal Toplantısı, Niğde, Turkey, 11 - 13 October 2013

VIII. **Gerçek Verili Ani ve Kısa Süreli Bozucu Durumlarında Yolcu Uçağının Yunuslama Açısının Karşılaştırmalı Denetimi**
HACIBEYOĞLU E. P., KUZUCUOĞLU A. E., Caferov E.
Otomatik Kontrol Ulusal Toplantısı, TOK2013, Malatya, Turkey, 26 - 28 September 2013

IX. **Havaalanlarındaki Uçuş Güvenliğini Tehlikeye Atan Yabancı Nesnelerin Temizliği İçin Çoklu Robot Koordinasyonu Yaklaşımı**
Öztürk S., KUZUCUOĞLU A. E.
Otomatik Kontrol Ulusal Toplantısı, TOK2013, Malatya, Turkey, 26 - 28 September 2013

X. **An Agent Based Intentional Multi Robot Task Allocation Framework**
Öztürk S., KUZUCUOĞLU A. E.
The 2013 International Conference On Artificial Intelligence, Las Vegas, United States Of America, 22 - 23 July 2013

XI. **Hastalıklı Lökosit Hücrelerinin Preparat Görüntüsünden Tespiti**
Ömer K., KUZUCUOĞLU A. E.
21. Sinyal İşleme ve İletişim Uygulamaları Kurultayı(SİU2013), Girne, Cyprus (Kktc), 24 - 26 April 2013

XII. **Identification of Diseased Leukocytes Cells From Blood Smear**
Kasim O., KUZUCUOĞLU A. E.
21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013

XIII. **Trade Based Multı Robot Task Allocatıon Using Jade**
Savaş Ö., KUZUCUOĞLU A. E.
8th International Symposium on Intelligent and Manufacturing Systems (IMS 2012), Antalya, Turkey, 27 - 28 September 2012

XIV. **Image Based Identification of Escherichia coli Bacteria From Its Colony Properties**
Tok D., Hacıoğlu H., KÜÇÜK H., KUZUCUOĞLU A. E., BİRBİR M.

15th International Biomedical Science & Technology Symposium, Güzelyurt, Cyprus (Kktc), 16 - 19 August 2009

XV. **WEB Tabanlı Robotik Eğitim**
ERDEMİR G., KUZUCUOĞLU A. E.
1st International Vocational and Technical Education Technologies Congress, İstanbul, Turkey, 5 - 07 July 2005

XVI. **Gerçek Zamanlı Yörünge Takipli Bulanık Kontrolör ile Sıvı Seviye Kontrolü**
KUZUCUOĞLU A. E., SUBAŞI N.
1st International Vocational and Technical Education Technologies Congress, İstanbul, Turkey, 5 - 07 July 2005

XVII. **AS i Experimental Setup for Mechatronics Laboratories**
KAPLANOĞLU E., KUZUCUOĞLU A. E.
The 9th Mechatronics Forum International Conference, Ankara, Turkey, 30 August - 01 September 2004

XVIII. **Intelligent Tutoring Systems and Agents**
Özbek M., KUZUCUOĞLU A. E.
3rd International Advanced Technologies Symposium, Ankara, Turkey, 18 - 20 August 2003

XIX. **A Robust Communication Infrastructure For Swarm Intelligent Robotic Systems**
KUZUCUOĞLU A. E., İsa T.
International Twelfth Turkish Symposium on Artificial Intelligence and Neural Networks (TAINN 2003), Turkey, 2 - 04 April 2003

XX. **Student Assessment In An Intelligent Tutoring System**
Özbek M., KUZUCUOĞLU A. E., Gürbüz A.
International Twelfth Turkish Symposium on Artificial Intelligence and Neural Networks (TAINN 2003), Çanakkale, Turkey, 2 - 04 April 2003

XXI. **Eğitim Amaçlı Tasarlanan 8051 Tabanlı İnteraktif Bir Mikrodenetleyici Deney Seti**
ÇELİK H. H., KUZUCUOĞLU A. E.
2. Uluslararası Eğitim Teknolojileri Sempozyumu, Sakarya, Turkey, 7 - 10 October 2002

XXII. **Neurocontrol of Air Speed of HVAC Experimental Room**
KUZUCUOĞLU A. E., CAN B., ERDAL H.
3rd International Symposium on Intelligent Manufacturing Systems, Turkey, 30 - 31 August 2001

XXIII. **İklimlendirme Odasının Matematik Modeli Ve Simülasyonunun Yapılması**
Taşdelen İ., BABA A. F., ERDAL H., KUZUCUOĞLU A. E.
Eleco'2000, Elektrik-Elektronik-Bilgisayar Mühendisliği Sempozyumu, Bursa, Turkey, 8 - 12 November 2000

XXIV. **Kapalı Bir Ortam Sıcaklığının Bulanık Kontrolü**
ERDAL H., KUZUCUOĞLU A. E., BABA A. F., CAN B.
2nd Advanced Technologies Symposium, Turkey, 8 - 10 March 1999

XXV. **Yapay Sinir Ağları İle Sistem Tanıma**
KUZUCUOĞLU A. E., ÇALIŞKAN F.
TOK-98 Otomatik Kontrol Ulusal Toplantısı, İstanbul, Turkey, 15 - 16 October 1998

XXVI. **Bir İklimlendirme Odasının Kontrol Eğitiminde Kullanılması**
ERDAL H., CAN B., KUZUCUOĞLU A. E.
1. Mesleki ve Teknik Eğitim Sempozyumu, Karabük, Turkey, 6 - 08 August 1998

## Activities in Scientific Journals

International Periodical of Recent Technologies in Applied Engineering, First Editor, 2018 - 2021

## Metrics

Publication: 42
Citation (WoS): 90
Citation (Scopus): 126

H-Index (WoS): 6
H-Index (Scopus): 7

## Non Academic Experience

Marmara Üniversitesi Teknoloji Fakültesi Elektrik-Elektronik Mühendisliği
Marmara Üniversitesi Teknoloji Fakültesi Elektrik-Elektronik Mühendisliği
Marmara Üniversitesi Teknoloji Fakültesi Elektrik-Elektronik Mühendisliği
Marmara Üniversitesi Teknik Eğitim Fakültesi
Marmara Üniversitesi Teknik Eğitim Fakültesi
Marmara Üniversitesi Teknik Eğitim Fakültesi
Çukurova Üniversitesi İskenderun MYO