

# Prof. AHMET EMİN KUZUCUOĞLU

## Personal Information

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## International Researcher IDs

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Publons / Web Of Science ResearcherID: AAA-7944-2019

ScopusID: 53979866900

Yoksis Researcher ID: 172468

## 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 (YI) (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 (YI) (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, 2011 - 2013

Marmara University, Faculty of Technical Education, Electronic and Computer Education, 2011 - 2013

## Courses

### Undergraduate

Differential Equations, Undergraduate, 2021 - 2022

## Supervised 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., Kanseri 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 manipulator, 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 tanınması, 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

- Vision-Based Localization in Urban Areas for Mobile Robots**  
Alimovski E., Erdemir G., KUZUCUOĞLU A. E.  
Sensors, vol.25, no.4, 2025 (SCI-Expanded)

- II. **Modeling and operation of a fuel cell stack for distributed energy resources: A living lab platform**  
Akpolat A. N., Dursun E., Kuzucuoğlu A. E.  
International Journal of Hydrogen Energy, vol.75, pp.578-591, 2024 (SCI-Expanded)
- III. **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)
- IV. **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)
- V. **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)
- VI. **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)
- VII. **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)
- VIII. **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)
- IX. **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)
- X. **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)
- XI. **DETECTION AND CLASSIFICATION OF LEUKOCYTE CELLS FROM SMEAR IMAGE**  
Kasim O., Kuzucuoğlu A. E.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.30, no.1, pp.95-109, 2015 (SCI-Expanded)
- XII. **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)
- XIII. **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)
- XIV. **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**

## Papers Published in Refereed Scientific Meetings

- 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), İstanbul, Turkey, Turkey, 26 - 27 August 2019
- VI. **JADE İle Etmen Tabanlı Benzetim Tecrübeleri**  
ÖZTÜRK S., KUZUCUOĞLU A. E.  
10. Ulusal Yazılım Mühendisliği Sempozyumu (UYMS 2016), Çanakkale, Turkey, 24 October 2016
- VII. **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
- VIII. **JADE ile etmen tabanlı benzetim tecrübeleri**  
Öztürk S., KUZUCUOĞLU A. E.  
10th Turkish National Software Engineering Symposium, UYMS 2016, Çanakkale, Turkey, 24 - 26 October 2016, vol.1721, pp.635-640
- IX. **Bulanık Mantıklı ve PID Denetleyicilerinin Yolcu Uçağı Modelleri Üzerinde Karşılaştırmalı Simülasyonu**  
HACİBEYOĞLU E. P., KUZUCUOĞLU A. E., Caferov E.  
TOK-2012 Otomatik Kontrol Ulusal Toplantısı, Niğde, Turkey, 11 - 13 October 2013
- X. **Gerçek Verili Ani ve Kısa Süreli Bozucu Durumlarında Yolcu Uçağının Yunuslama Açısının Karşılaştırmalı Denetimi**  
HACİBEYOĞLU E. P., KUZUCUOĞLU A. E., Caferov E.  
Otomatik Kontrol Ulusal Toplantısı, TOK2013, Malatya, Turkey, 26 - 28 September 2013
- XI. **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
- XII. **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
- XIII. **An Agent-Based Intentional Multi-Robot Task Allocation**  
ÖZTÜRK S., KUZUCUOĞLU A. E.  
The 15th International Conference on Artificial Intelligence (IC-AI), Las Vegas, United States Of America, 22 July 2013
- XIV. **A Quantitative Approach For Ant-Based Clustering Performance**  
ÖZTÜRK S., KUZUCUOĞLU A. E.  
The 15th International Conference on Artificial Intelligence (IC-AI), Las Vegas, United States Of America, 22 July 2013
- XV. **Hastalıklı Lökosit Hücrelerinin Preparat Görüntüsünden Tespiti**  
Ömer K., KUZUCUOĞLU A. E.  
21. Sinyal İşleme ve İletişim Uygulamaları Kurultayı(SİU2013), Girne, Cyprus (Kkct), 24 - 26 April 2013
- XVI. **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
- XVII. **Trade Based Multi Robot Task Allocation Using Jade**  
Savaş Ö., KUZUCUOĞLU A. E.  
8th International Symposium on Intelligent and Manufacturing Systems (IMS 2012), Antalya, Turkey, 27 - 28 September 2012
- XVIII. **Trade-based Multi-robot Task Allocation Using JADE**  
ÖZTÜRK S., KUZUCUOĞLU A. E.  
8th International Intelligent Manufacturing Systems Conference (IMS 2012), Antalya, Turkey, 27 September 2012
- XIX. **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 (Kkct), 16 - 19 August 2009
- XX. **WEB Tabanlı Robotik Eğitim**  
ERDEMİR G., KUZUCUOĞLU A. E.  
1st International Vocational and Technical Education Technologies Congress, İstanbul, Turkey, 5 - 07 July 2005
- XXI. **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
- XXII. **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
- XXIII. **Intelligent Tutoring Systems and Agents**  
Özbek M., KUZUCUOĞLU A. E.  
3rd International Advanced Technologies Symposium, Ankara, Turkey, 18 - 20 August 2003
- XXIV. **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
- XXV. **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
- XXVI. **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
- XXVII. **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

**XXVIII. 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

**XXIX. 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

**XXX. Yapay Sinir Ağları İle Sistem Tanıma**

KUZUCUOĞLU A. E., ÇALIŞKAN F.

TOK-98 Otomatik Kontrol Ulusal Toplantısı, İstanbul, Turkey, 15 - 16 October 1998

**XXXI. 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: 48

Citation (WoS): 89

Citation (Scopus): 200

H-Index (WoS): 6

H-Index (Scopus): 8

## Non Academic Experience

Marmara Üniversitesi Teknoloji Fakültesi Elektrik-Elektronik Mühendisliği, Profesör

Marmara Üniversitesi Teknoloji Fakültesi Elektrik-Elektronik Mühendisliği, Doçent

Marmara Üniversitesi Teknoloji Fakültesi Elektrik-Elektronik Mühendisliği, Yardımcı Doçent

Marmara Üniversitesi Teknik Eğitim Fakültesi, Yardımcı Doçent

Marmara Üniversitesi Teknik Eğitim Fakültesi, Dr. Araştırma Görevlisi

Marmara Üniversitesi Teknik Eğitim Fakültesi, Araştırma Görevlisi

Çukurova Üniversitesi İskenderun MYO, Öğretim Görevlisi