



# İSMAİL KIYAK

## PROF.

Email : [imkiyak@marmara.edu.tr](mailto:imkiyak@marmara.edu.tr)

Office Phone : [+90 7773833](tel:+907773833)

Fax Phone : [+90 216 337 8987](tel:+902163378987)

### International Researcher IDs

ScholarID: [kcKdD4wAAAAJ](https://orcid.org/0000-0002-5061-6378)

ORCID: 0000-0002-5061-6378

Publons / Web Of Science ResearcherID: AAH-6268-2020

ScopusID: 35230061400

Yoksis Researcher ID: 30855



## Learning Knowledge

Doctorate 2005 - 2010	Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Elektrik Eğitimi (Dr), Turkey
Postgraduate 2001 - 2005	Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Elektrik Eğitimi (YI) (Tezli), Turkey
Undergraduate 1996 - 2000	Marmara University, Faculty of Technical Education, Electric Education, Turkey

## Foreign Languages

English, B2 Upper Intermediate

## Dissertations

Doctorate, Rüzgar-güneş hibrid güç sistem beslemeli bir mekanın aydınlık düzeyinin LED'li armatürler kullanılarak kontrolü, Marmara Üniversitesi, Institute for Graduate Studies in Pure and Applied Sciences, Elektrik Eğitimi (Dr), 2010  
Postgraduate, Lineer elektrik makinelerinde uç etkilerinin incelenmesi, Marmara Üniversitesi, Institute for Graduate Studies in Pure and Applied Sciences, Elektrik Eğitimi (YI) (Tezli), 2005

## Academic Titles / Tasks

Associate Professor 2018 - Continues	Marmara University, Faculty of Technology, Electrical and Electronics Engineering
---	---

## Supported Projects

1. Kıyak İ., Heper M. E., TUBITAK Project, Dikey Tarım Alanında Aydınlatma ve Otomasyon Sistemi Tasarımı ve Geliştirilmesi, 2022 - 2024
2. Kıyak İ., Dursun E., Project Supported by Higher Education Institutions, Elektrik güç sistemleri için yenilenebilir enerji laboratuvarı, 2014 - 2016
3. Kıyak İ., Baba A. F., Oral B., Dursun E., Varbak Neşe S., Bayar H., Project Supported by Higher Education Institutions, Hidrejen Yakıt Pili Temelli Hibrit Güç Sistemlerinin Entegrasyonu Laboratuvarının Kurulması, 2014 - 2016
4. Dursun E., Baba A. F., Oral B., Kıyak İ., Bayar H., Varbak Neşe S., Project Supported by Higher Education Institutions, Fuel Cell Based Hybrid Solar and Wind Power Systems Training and Experimental Set, 2014 - 2016
5. Dursun E., Bayar H., Birbir Y., Varbak Neşe S., Baba A. F., Oral B., Erdal H., Oyman Serteller N. F., Terzi Ü. K., Kıyak İ., et al., Project Supported by Higher Education Institutions, ELEKTRİK MAKİNALARI VE DEVRELER LABORATUVARLARININ YENİDEN YAPILANDIRILMASI, 2014 - 2016
6. Kıyak İ., Kosgeb K., KOSGEB, Çubuk Lens ile Power LED Armatür Uygulaması, 2011 - 2012
7. Topuz V., Oral B., Kıyak İ., Atış S., Sağlam Ş., Project Supported by Higher Education Institutions, RÜZGAR GÜNEŞ HİBRİD GÜÇ SİSTEM BESLEMELİ BİR MEKANIN AYDINLIK DÜZEYİNİN LED'Lİ ARMATÜRLER KULLANILARAK KONTROLÜ, 2007 - 2010
8. Kıyak İ., Oral B., Topuz V., Sağlam Ş., Project Supported by Higher Education Institutions, Rüzgâr Güneş Hibrit Güç Sistem Beslemeli Bir Mekânın Aydınlik Düzeyinin LED li Armatürler Kullanılarak Kontrolü, 2007 - 2010

## Awards

1. Kıyak İ., Araştırmacı teşvik ödülü, Tübitak, September 2017

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

1. **Estimating Average Power of Welding Process With Emitted Noises Based on Adaptive Neuro Fuzzy Inference System**  
GÖKMEN G., Akıncı T. Ç., Kocyigit G., KIYAK İ., Akbas M. I.  
IEEE Access, vol.11, pp.39154-39164, 2023 (SCI-Expanded)
2. **Technoeconomic Performance Analysis of Solar Tracking Methods for Roof-Type Solar Power Plants and Electric Vehicle Charging Stations**  
Boyekin T., Kıyak İ.  
INTERNATIONAL JOURNAL OF PHOTOENERGY, vol.2021, 2021 (SCI-Expanded)
3. **Lifetime Prediction for a Cell-on-Board (COB) Light Source Based on the Adaptive Neuro-Fuzzy Inference System (ANFIS)**  
KIYAK İ., GÖKMEN G., Kocyigit G.  
JOURNAL OF NANOMATERIALS, vol.2021, 2021 (SCI-Expanded)
4. **Smart indoor LED lighting design powered by hybrid renewable energy systems**  
KIYAK İ., ORAL B., TOPUZ V.  
ENERGY AND BUILDINGS, vol.148, pp.342-347, 2017 (SCI-Expanded)

5. **Design and comparative analysis of high power led with fluorescent lamp in laboratory lighting systems**  
KIYAK İ., ORAL B., TOPUZ V.  
ENERGY EDUCATION SCIENCE AND TECHNOLOGY PART A-ENERGY SCIENCE AND RESEARCH, vol.29, no.2, pp.1147-1158, 2012 (SCI-Expanded)
6. **Electricity deregulating in UK and Turkey: A comparative assessment**  
Kiyak I.  
ENERGY EDUCATION SCIENCE AND TECHNOLOGY PART A-ENERGY SCIENCE AND RESEARCH, vol.28, no.2, pp.739-748, 2012 (SCI-Expanded)
7. **A Study on the Working Performance of Dimming Methods for Single- and Multichip Power LEDs**  
Kiyak I.  
INTERNATIONAL JOURNAL OF PHOTOENERGY, 2012 (SCI-Expanded)
8. **Modeling of dimmable High Power LED illumination distribution using ANFIS on the isolated area**  
KIYAK İ., TOPUZ V., ORAL B.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.38, no.9, pp.11843-11848, 2011 (SCI-Expanded)
9. **Estimation End Effect of Single-Sided Linear Induction Motor by Using Discrete Wavelet Packet Transform and Artificial Neural Network**  
KIYAK İ., GÖKMEN G., KENTLİ F.  
INTERNATIONAL REVIEW OF ELECTRICAL ENGINEERING-IREE, vol.6, no.5, pp.2277-2285, 2011 (SCI-Expanded)
10. **Analyzing End Effect of Single-Sided LIM by Using Wavelet Filter Bank**  
KIYAK İ., Kentli F., GÖKMEN G.  
TECHNICS TECHNOLOGIES EDUCATION MANAGEMENT-TTEM, vol.6, no.1, pp.61-68, 2011 (SCI-Expanded)
11. **Experimental Wavelet Packet Transient State Analysis of Electrical Machines Directly Fed by Photovoltaic Cells**  
ONAT N., KIYAK İ., GÖKMEN G.  
International Review of Electrical Engineering, vol.5, pp.2081-2087, 2010 (SCI-Expanded)

#### Articles Published in Other Journals

1. **Wavelength Tune Of InGaN Based Blue LEDs By Changing Indium Percentage And Operational Voltage Variables**  
KIYAK İ., Geçer B.  
Balkan Journal of Electrical and Computer Engineering, vol.10, no.3, pp.323-327, 2022 (Peer-Reviewed Journal)
2. **ECONOMIC ANALYSIS OF MAGLEV TRAIN TECHNOLOGY: A CASE STUDY FOR ANKARA-SIVAS LINE**  
ARSLAN TUNCAR E., KIYAK İ.  
Kırklareli University Journal of Engineering and Science, vol.7, no.2, pp.205-220, 2021 (Peer-Reviewed Journal)
3. **THERMAL CIRCUIT CALCULATION AND REAL-TIME ANALYSIS OF LED LIGHT SOURCE LUMINAIRES**  
Yüksel B., Kiyak İ.  
European Journal of Technique (EJT), vol.10, no.2, pp.252-263, 2020 (Peer-Reviewed Journal)
4. **Simulation of Induction / Permanent Magnet Motor Drives Used in Electric Vehicles and Analysis of Motor Dynamics**  
Kaya K. Y., KIYAK İ.  
International journal of advances in engineering and pure sciences (Online), vol.32, no.2, pp.152-157, 2020 (Peer-Reviewed Journal)
5. **COB LED'LERDE YAŞLANDIRMA ve ÖMÜR TAHMİNİ UYGULAMALI ANALİZİ**  
KIYAK İ., BOYEKİN T.  
KIRKLARELİ ÜNİVERSİTESİ MÜHENDİSLİK ve FEN BİLİMLERİ DERGİSİ, vol.4, pp.153-162, 2018 (Peer-Reviewed Journal)
6. **ANALYSIS OF ELECTROSPINDLE SYSTEM WITH WAVELET PACKET TRANSFORM**  
Kiyak İ.

Balkan Journal of Electrical and Computer Engineering, vol.6, pp.237-241, 2018 (Peer-Reviewed Journal)

7. **OLED Tabanlı Biyosensörler**  
KIYAK İ., MEMİŞ Ö.  
3e Electrotech Aylık Enerji, Elektrik, Elektronik ve Teknolojileri Dergisi, vol.281, pp.74-82, 2017 (Peer-Reviewed Journal)
8. **Elektrikli Araçlarda Enine Akıllı(Hub) Motor Tork Analizi**  
AÇIKGÖZ N., KIYAK İ.  
Electricity Turkey Dergisi, pp.102-107, 2017 (Peer-Reviewed Journal)
9. **Yüksek Hızlı Yer Taşımacılığında Kullanılan Lineer Motorların Karşılaştırmalı Analizi**  
KIYAK İ.  
Electricity TURKEY Dergisi, vol.58, pp.68-72, 2016 (Peer-Reviewed Journal)
10. **Elektrikli Taşıtlarda Enine Akıllı Motor İle Tork Üretimi ve Boyuna Akıllı Motorlar İle Karşılaştırılması**  
Günaltay M. A., KIYAK İ.  
3e Electrotech Aylık Enerji, Elektrik, Elektronik ve Teknolojileri Dergisi, pp.31-35, 2016 (Peer-Reviewed Journal)
11. **Experimental Wavelet Transient State Analysis of Electrical Machines Directly Fed by Photovoltaic Cells**  
ONAT N., KIYAK İ., GÖKMEN G.  
WSEAS Transactions on Circuits and Systems, vol.8, pp.719-728, 2009 (Peer-Reviewed Journal)
12. **Wavelet Çok Çözünürlüklü Analizin Simülasyon ile Gerçekleştirilmesi**  
KIYAK İ., GÖKMEN G.  
3e Electrotech, pp.124-130, 2009 (Peer-Reviewed Journal)
13. **Experimental wavelet transient-state analysis of electrical machines directly feeding by photovoltaic cells**  
Onat N., Kiyak İ., Gökmen G.  
WSEAS TRANSACTIONS ON POWER SYSTEMS, vol.8, pp.719-728, 2009 (ESCI)
14. **İç Aydınlatmanın Çalışma Performansı Üzerine Etkileri**  
KIYAK İ., GÖKMEN G.  
3e Electrotech, pp.110-115, 2007 (Peer-Reviewed Journal)

## Books & Book Chapters

1. **LIGHTING TECHNOLOGY: FUNDAMENTALS OF CONTROL AND DESIGN**  
Kiyak İ.  
Nobel Yayınevi, Ankara, 2021
2. **ANALYSIS of POWER SYSTEMS USED inELECTRIC VEHICLES**  
KIYAK İ., Abdullayev F.  
in: Current Academic Research in Science and Engineering, Hasan ÖKTEM, Editor, SRA Academic Publishing Press, Klaipeda, Lithuania, Klaipeda, pp.77-112, 2019
3. **Light Pipes and Power LEDs Energy Saving Application**  
GÖKMEN G., KIYAK İ.  
LAMBERT Academic Publishing, Saarbrücken, 2016

## Refereed Congress / Symposium Publications in Proceedings

1. **RFID Based Indoor Localization for Autonomous Guided Vehicles Application and Management Panel**  
Emanet B., KIYAK İ.  
INTERNATIONAL SYMPOSIUM ON AUTOMOTIVE SCIENCE AND TECHNOLOGY, Ankara, Turkey, 07 September 2023, pp.359-369
2. **Hand Recognition Solution as Conference Room Intelligent Lighting Control Technique**

Karail A., BÖCEKÇİ V. G., KIYAK İ.

7th International Symposium on Multidisciplinary Studies and Innovative Technologies, ISMSIT 2023, Ankara, Turkey, 26 - 28 October 2023

3. **İstanbul Marmaray Raylı Elektrik Sistemlerinin İletim Şebekesi Üzerine Etkisinin Değerlendirilmesi**  
KIYAK İ., Çelik M. Z.  
ELEKTRİK-ELEKTRONİK ve BİYOMEDİKAL MÜHENDİSLİĞİ KONFERANSI\_22, Bursa, Turkey, 24 November 2022, pp.1-4
4. **ANALYSIS OF THE HARMONIC EFFECTS OF ELECTRIC RAIL SYSTEMS ON THE ENERGY DISTRIBUTION NETWORK**  
KIYAK İ., Çelik M. Z.  
International Conference on Engineering Technologies\_22, Konya, Turkey, 17 November 2022, pp.1-12
5. **USES OF LIGHT EMITTING DIODE LED LIGHT AS AN ACTIVE INGREDIENT IN MEDICAL TREATMENTS A REVIEW STUDY**  
KIYAK İ., Kamber B. r., Keskintaş S., Koçak E.  
International Conference on Engineering Technologies\_22, Konya, Turkey, 17 November 2022, pp.1-15
6. **Rail-to-Rail CMOS Voltage Buffer Design for LCD Column Drivers**  
Osmani F., ARSLAN E., KIYAK İ.  
Proc. of the International Conference on Electrical, Computer and Energy Technologies (ICECET), Cape-Town, South Africa, 9 - 10 December 2021, pp.1-5
7. **Energy management intelligent Street Lighting System in Ahar City with the internet of things -A Case Study**  
Moradi H., KIYAK İ.  
International Conference on Engineering Technologies, Konya, Turkey, 18 - 20 November 2021
8. **Performance Effective Battery Management System(BMS) Design of Mini Electric Vehicles**  
Emanet B., KIYAK İ.  
5th International Symposium on Multidisciplinary Studies and Innovative Technologies, Bolu, Turkey, 21 - 23 October 2021
9. **Automatic Charging of Electric Driverless Vehicles with Robotic Arm**  
Güngör A. K., KIYAK İ.  
Innovations in Intelligent Systems and Applications Conference, Elazığ, Turkey, 6 - 08 October 2021
10. **Study and Design of Power Supply Based on Peltier to Charge the EV Auxiliary Battery**  
Skheta A., KIYAK İ.  
9th International Conference on Advanced Technologies (ISTANBUL), İstanbul, Turkey, 10 August 2020, pp.65-74
11. **Artificial Intelligence Based Outdoor Lighting System Control Design for Smart Cities**  
Kurt H., Kiyak İ., Gökmen G., Koçyiğit G.  
Alternative Energy Sources, Materials & Technologies (AESMT'20), Plovdiv, Bulgaria, 08 June 2020, pp.1-2
12. **MIMO ANN to Daylight Harvested Hybrid Lighting Control for an Office Building**  
Abdullayev F., KIYAK İ.  
International Conference on Advanced Technologies, Computer Engineering and Science(ICATCES20), Karabük, Turkey, 03 June 2020, pp.169-185
13. **Artificial Intelligence Supported Tunnel Lighting System**  
SPOR A., KIYAK İ., SOLAK G.  
2019 International Conference on Applied Automation and Industrial Diagnostics (ICAAID), Elazığ, Turkey, 25 - 27 September 2019, vol.1
14. **Artificial Intelligence Supported Healthy Unit Hybrid Lighting Control**  
SOLAK G., KIYAK İ., SPOR A.  
2019 International Conference on Applied Automation and Industrial Diagnostics (ICAAID), Elazığ, Turkey, 25 - 27 September 2019, vol.1
15. **LIGHT PIPE SUPPORTED ARTIFICIAL INTELLIGENCE BASED TUNNEL LIGHTING**  
Boyekin T., Kiyak İ., Abdullayev F.  
10th International Conference of Strategic Research on Scientific Studies and Education (10th ICoSReSSE), Rome,

- Italy, 17 - 18 June 2019, vol.1, pp.209-225
16. **EXAMINATION OF AC / DC BUS AND POWER TRANSMISSION METHODS USED IN ELECTRIC VEHICLES**  
Abdullayev F., KIYAK İ.  
10th International Conference of Strategic Research on Scientific Studies and Education (10th ICoSReSSE), Roma, Italy, 17 - 18 June 2019, vol.1, pp.27-37
  17. **Illumination design of educational environment with efficient lighting luminaries**  
SPOR A., KIYAK İ.  
International Conference on Innovative Engineering Applications CIEA 2018, Sivas, Turkey, 20 - 22 September 2018, vol.1, pp.408-416
  18. **LED / IRLED Components and Application Example Used in Medical Systems**  
AYTEKİN A., KIYAK İ.  
International Conference on Innovative Engineering Applications CIEA 2018, Sivas, Turkey, 20 - 22 September 2018, vol.1, pp.399-407
  19. **Rooftop Solar Power Plant Based Electric Vehicle Charging Station**  
BOYEKİN T., KIYAK İ.  
6.Europan Conference on Renewable Energy Systems ECRES 2018, İstanbul, Turkey, 25 - 27 June 2018, pp.959-966
  20. **The System Design of Photovoltaic Supported Light Pipe LED Hybrid Illumination**  
GÖKMEN G., KIYAK İ.  
6. Europan Conference on Renewable Energy Systems ECRES 2018, İstanbul, Turkey, 25 - 27 June 2018, pp.1079-1088
  21. **Temperature and Photometric Analysis of Multichip Power LED and Retrofit Lamp**  
KIYAK İ., GÖKMEN G.  
8th International advanced Technologies Symposium, Elazığ, Turkey, 19 - 22 October 2017, pp.884-894
  22. **Smart Headlight System Design Using LED**  
KIYAK İ., GÜNALTAI M. A.  
8th International Advanced Technologies Symposium, Elazığ, Turkey, 19 - 22 October 2017, pp.290-299
  23. **Increase Energy Savings with Lighting Automation Using Light Pipes and Power LEDs**  
KIYAK İ., GÖKMEN G.  
at International Conference on Civil and Architectural Engineering ICCAE 2013, Stockholm, Sweden, 15 - 16 July 2013
  24. **Effects of lighting performance on cooling for power LED**  
KIYAK İ., ORAL B., TOPUZ V.  
11th European Lighting Conference, 9 - 11 September 2008
  25. **Modeling of High Power LED Illumination Distribution Using ANN**  
KIYAK İ., TOPUZ V., ORAL B.  
6.th International Conference on Electrical and Electronics Engineering, 1 - 03 September 2009
  26. **Yerleşim Bölgelerinde Rüzgâr Enerjisi Kullanımının Yaygınlaştırılması Bina Montajlı Rüzgâr Türbinleri**  
KIYAK İ., ORAL B., TOPUZ V.  
Türkiye 11.Enerji Kongresi ve Sergisi, Turkey, 1 - 03 June 2009

## Courses

Test ve Ölçme Teknikleri, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

Yarıiletken Aydınlatma Teknolojisi, Postgraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Aydınlatma Teknolojisi, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Yapay Zeka Tabanlı Aydınlatma Kontrolü, Doctorate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Elektrikli Taşıtlar ve Dinamiği, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016  
İş Sağlığı ve Güvenliği, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016  
Elektromanyetik Alan Teorisi, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019  
Elektrik Tesisat Teknikleri, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017  
OG-YG Proje ve Uygulamaları, Undergraduate, 2019 - 2020, 2018 - 2019, 2017 - 2018  
Sarım Tekniği, Undergraduate, 2014 - 2015, 2013 - 2014

## Advising Theses

Kıyak İ., Hibrid Sistem Işık Kaynaklı Yapay Zeka Destekli Tünel Aydınlatma Sistemi Tasarımı, Postgraduate, G.SOLAK(Student), Continues  
Kıyak İ., LCD Kolon Sürücülerini İçin Beslemeden-Beslemeye CMOS Gerilim Tampon Tasarımı, Postgraduate, F.OSMANİ(Student), Continues  
Kıyak İ., Isı Transfer Katsayısı Farklı Soğutucuların LED Çalışma Performansına Etkilerinin İncelenmesi, Postgraduate, A.SPOR(Student), 2021  
Kıyak İ., Bir Ofis Katının Yapay Zeka Destekli Doğal & Yapay Hibrid Aydınlatma Kontrolü, Postgraduate, F.ABDULLAYEV(Student), 2021  
Kıyak İ., Çatı tip güneş enerjisi santrali ile beslenen elektrikli araç şarj istasyonu, Postgraduate, T.BOYEKİN(Student), 2020  
KIYAK İ., Grid yapıklı akıllı LED aydınlatma sistemi uygulaması, Postgraduate, M.ALİ(Student), 2018

## Patent

Kıyak İ., Oral B., Topuz V., POWER LED MODÜL İÇEREN DAHİLİ AKILLI AYDINLATMA ARMATÜRÜ, Patent, CHAPTER H Electricity, The Invention Recourse Number: , Standard Registration, 2017

## Activities in Scientific Journals

Turkish Journal Of Electrical Engineering And Computer Sciences, Editor, 2017 - Continues

## Scientific Refereeing

TURKISH JOURNAL OF ENGINEERING AND ENVIRONMENTAL SCIENCES, National Scientific Refreed Journal, September 2018  
BALKAN JOURNAL OF ELECTRICAL AND COMPUTER ENGINEERING, National Scientific Refreed Journal, May 2018  
Bitlis Eren Üniversitesi Fen Bilimleri Dergisi, National Scientific Refreed Journal, August 2017  
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, SCI Journal, September 2016

## Scientific Consultations

MOONLIGHT AYDINLATMA SAN. VE TİC. A.Ş., Project Consultancy, Marmara University, Faculty Of Technology, Electrical And Electronics Engineering, Turkey, 2022 - Continues

## Metrics

Publication: 59

Citation (WoS): 58

Citation (Scopus): 42

H-Index (WoS): 5

H-Index (Scopus): 4

## Research Areas

Electric and Magnetic Fields, Electromagnetic Environment and Interaction, Lighting Technology, Generating Stations and Plants, Renewable energy, Engineering and Technology