

Prof. ŞAFAK SAĞLAM

Personal Information

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International Researcher IDs

ScholarID: dsUuFS8AAAAJ

ORCID: 0000-0002-7759-1385

Publons / Web Of Science ResearcherID: R-1784-2019

ScopusID: 26025802200

Yoksis Researcher ID: 29706

Education Information

Doctorate, Marmara University, Faculty of Technical Education, Electric Education, Turkey 2000 - 2006

Postgraduate, Marmara University, Institute for Graduate Studies in Pure and Applied Sciences, Elektrik Eğitimi (YI) (Tezli), Turkey 1997 - 2001

Undergraduate, Marmara University, Faculty of Technical Education, Electric Education, Turkey 1993 - 1997

Foreign Languages

English, B2 Upper Intermediate

Dissertations

Doctorate, Şebeke bağlantılı fotovoltaik aydınlatma sisteminin bulanık mantık ile kontrolü, Marmara Üniversitesi, Faculty of Technical Education, Electric Education, 2006

Postgraduate, Türkiye'nin Güneş Enerjisi Potansiyelinin ve Kullanım Alanlarının İncelenmesi, Marmara Üniversitesi, Institute for Graduate Studies in Pure and Applied Sciences, Elektrik Eğitimi (YI) (Tezli), 2000

Research Areas

Direct Energy Conversion and Energy Storage, Generating Stations and Plants, Electric Power Transmission, Distribution and Protection, Protection Systems, Renewable energy, High Voltage Technique

Academic Titles / Tasks

Professor, Marmara University, Faculty of Technology, Electrical and Electronics Engineering, 2019 - Continues

Associate Professor, Marmara University, Faculty of Technology, Electrical and Electronics Engineering, 2013 - 2019

Assistant Professor, Marmara University, Faculty of Technical Education, Electric Education, 2009 - 2011

Research Assistant, Marmara University, Faculty of Technical Education, Electric Education, 1997 - 2009

Academic and Administrative Experience

Board Member, Marmara University, Faculty of Technical Education, Electric Education, 2013 - 2014

Director of the Center, Marmara University, Faculty of Technical Education, Electric Education, 2013 - 2013

Marmara University, Faculty of Technical Education, Electric Education, 2011 - 2013

Marmara University, Faculty of Technical Education, Electric Education, 2011 - 2013

Courses

Elektrik Enerjisi Üretimi, Undergraduate, 2018 - 2019, 2017 - 2018

Yüksek Gerilim Tekniği, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017

Enerji İletim Hatları, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017

Mikroişlemci Sistemleri ve Laboratuvarı, Undergraduate, 2018 - 2019, 2017 - 2018

Yenilenebilir Enerji Sistemlerinde Güç Üretim Tahmin Yöntemleri, Doctorate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Elektrik Tesislerinin Korunması, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

ELEKTRİK SİSTEMLERİNİN BİLGİSAYAR DESTEKLİ TASARIMI , Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

Elektrik Elektronik Mühendisliğine Giriş, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016

Enerji Nakil Hatlarının Mekanik Hesabı, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Yenilenebilir Enerji Sistemleri, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017

Elektrik Üretiminde Yenilenebilir Enerji Kaynakları, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Güç Sistemlerinin Analizi, Undergraduate, 2017 - 2018, 2016 - 2017

Mikroişlemciler / Mikrodenetleyiciler 2, Associate Degree, 2016 - 2017, 2015 - 2016, 2013 - 2014, 2012 - 2013

Elektroteknik, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Güç Sistemlerinde İleri Koruma Teknikleri, Doctorate, 2017 - 2018, 2016 - 2017, 2014 - 2015

İleri Mikrodenetleyiciler, Associate Degree, 2016 - 2017, 2015 - 2016

Mikrodenetleyici Tabanlı Kontrol, Associate Degree, 2016 - 2017, 2015 - 2016, 2014 - 2015

Mikrodenetleyiciler, Associate Degree, 2016 - 2017, 2015 - 2016

Elektrik Tesislerinde Koruma ve Topraklama, Undergraduate, 2015 - 2016

Elektrik Güç Sistemlerinde Röle Koordinasyonu, Postgraduate, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014

Güç Sistemlerinin İşletimi ve Kontrolü, Postgraduate, 2015 - 2016, 2014 - 2015, 2013 - 2014

Mikroişlemciler / Mikrodenetleyiciler 1, Associate Degree, 2016 - 2017, 2015 - 2016, 2014 - 2015, 2013 - 2014, 2012 - 2013

Sinyaller ve Sistemler, Undergraduate, 2014 - 2015

Mikroişlemciler / Mikrodenetleyiciler, Associate Degree, 2014 - 2015

İleri Yüksek Gerilim Tekniği, Doctorate, 2013 - 2014

ELEKTRİK TESİSLERİ 2, Undergraduate, 2012 - 2013

ELEKTRİK TESİSLERİ 1, Undergraduate, 2012 - 2013

Advising Theses

Sağlam Ş., Kılıç B., MONITORING AND RECORDING PANEL DATA BY REMOTE ACCESS IN PHOTOVOLTAIC POWER

PLANTS, Postgraduate, M.ŞAMİL(Student), 2023

Sağlam Ş., MODELING AND ANALYSIS OF THE SHIP ELECTRIC DISTRIBUTION SYSTEM IN AIRCRAFT CARRIERS DESIGN, Postgraduate, K.KELLEÇİ(Student), 2023

Ekren N., Sağlam Ş., Fotovoltaik panellerde verim artırıcı nano yapıli kaplamalar, Doctorate, A.SAMET(Student), 2022

Oral B., Sağlam Ş., Fotovoltaik panel testleri için ışık spektrumu kontrollü solar simülatör tasarımı, Doctorate, V.ESEN(Student), 2020

Sağlam Ş., YENİLENEBİLİR ENERJİ KAYNAKLARININ POTANSİYELİNİ BELİRLEMEK İÇİN METEOROLOJİ İSTASYONU TASARIMI, Postgraduate, N.ÖZDEMİR(Student), 2019

Sağlam Ş., Oral B., POLİKRİSTAL YAPILI FOTOVOLTAİK PANELLERİN LABORATUVAR TESTLERİ VE FİZİBİLİTE ÇALIŞMALARI İLE SAHA UYGULAMASI SONUÇLARININ KARŞILAŞTIRILMASI, Postgraduate, E.KİLİNÇ(Student), 2019

Sağlam Ş., Fotovoltaik panellerde güneş ışıını-sıcaklık-akım-gerilim (GISAG) taşınabilir veri kayıt sistemi tasarımı ve uygulaması, Postgraduate, G.SOYER(Student), 2017

Sağlam Ş., Fotovoltaik panellerde güç üretiminin gerçek zamanlı olarak izlenmesi ve verilerin saklanması, Postgraduate, S.ŞERBETLİ(Student), 2016

Sağlam Ş., Üstün Ö., Tekerlek içi fırçasız doğru akım motorlarının en iyi tasarımı için yeni bir yaklaşım, Doctorate, A.SİNAN(Student), 2016

Sağlam Ş., Kılıç B., Fotovoltaik panellerin verimine panel yüzey sıcaklığı etkisinin incelenmesi, Postgraduate, M.BİLGİN(Student), 2013

Oral B., Sağlam Ş., Bina montajlı güneş-rüzgar hibrid elektrik güç sistemlerinin analizi, Postgraduate, D.AYHAN(Student), 2011

Education Infrastructure Information

Sağlam Ş., Oral B., Varbak Neşe S., Kıyak İ., ELEKTRİK GÜÇ SİSTEMLERİ İÇİN YENİLENEBİLİR ENERJİ LABORATUVARI, April 2016

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Investigation of Failures during Commissioning and Operation in Photovoltaic Power Systems**
Gökgöz M., Sağlam Ş., Oral B.
APPLIED SCIENCES, vol.14, no.5, pp.1-17, 2024 (SCI-Expanded)
- II. **Systematic review of the data acquisition and monitoring systems of photovoltaic panels and arrays**
KALAY M. Ş., KILIÇ B., SAĞLAM Ş.
SOLAR ENERGY, vol.244, pp.47-64, 2022 (SCI-Expanded)
- III. **A Hydrophobic Antireflective and Antidust Coating With SiO_2 and TiO_2 Nanoparticles Using a New 3-D Printing Method for Photovoltaic Panels**
Ekren N., Sarkin A. S., Sağlam Ş.
IEEE JOURNAL OF PHOTOVOLTAICS, vol.12, no.4, pp.1014-1026, 2022 (SCI-Expanded)
- IV. **Toward Class AAA LED Large Scale Solar Simulator With Active Cooling System for PV Module Tests**
Esen V., SAĞLAM Ş., ORAL B., Esen O. C.
IEEE JOURNAL OF PHOTOVOLTAICS, vol.12, no.1, pp.364-371, 2022 (SCI-Expanded)
- V. **A review of anti-reflection and self-cleaning coatings on photovoltaic panels**
Sarkın A. S., EKREN N., SAĞLAM Ş.
Solar Energy, vol.199, pp.63-73, 2020 (SCI-Expanded)
- VI. **Investigation on efficiency of in-wheel BLDC motors for different winding structures**
Çabuk A. S., SAĞLAM Ş., Üstün Ö.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.34, no.4, pp.1975-1985, 2019 (SCI-Expanded)
- VII. **Light sources of solar simulators for photovoltaic devices: A review**

Esen V., SAĞLAM Ş., ORAL B.

RENEWABLE & SUSTAINABLE ENERGY REVIEWS, vol.77, pp.1240-1250, 2017 (SCI-Expanded)

VIII. **Artificial neural network-based model for estimating the produced power of a photovoltaic module**

Mellit A., Saglam S., Kalogirou S. A.

RENEWABLE ENERGY, vol.60, pp.71-78, 2013 (SCI-Expanded)

IX. **A technical review of building-mounted wind power systems and a sample simulation model**

Ayhan D., Saglam S.

RENEWABLE & SUSTAINABLE ENERGY REVIEWS, vol.16, no.1, pp.1040-1049, 2012 (SCI-Expanded)

X. **Controlling of grid connected photovoltaic lighting system with fuzzy logic**

SAĞLAM Ş., Ekren N., ERDAL H.

SOLAR ENERGY, vol.84, no.2, pp.256-262, 2010 (SCI-Expanded)

Articles Published in Other Journals

I. **Challenges During Commissioning and Operation in Photovoltaic Power Plants by Electrical Faults**

Gökgöz M., SAĞLAM Ş., ORAL B.

Turkish Journal of Electromechanics and Energy, vol.8, no.1, pp.37-44, 2023 (Peer-Reviewed Journal)

II. **Spectrum Measurement of Variable Irradiance Controlled LED-Based Solar Simulator**

ESEN V., SAĞLAM Ş., ORAL B., CEYLAN ESEN Ö.

INTERNATIONAL JOURNAL OF RENEWABLE ENERGY RESEARCH, vol.10, no.1, pp.109-116, 2020 (ESCI)

III. **Comparison of the Effects of Regional Meteorological and Geographical Parameters on PV Generation Simulation Results**

SAĞLAM Ş., Kılınç e., ORAL B.

WSEAS TRANSACTIONS on CIRCUITS and SYSTEMS, vol.18, pp.84-89, 2019 (Peer-Reviewed Journal)

IV. **The Training of Renewable Energy Systems: Undergraduate Studies**

ESEN V., VARBAK NEŞE S., SAĞLAM Ş., ORAL B.

Balkan Journal of Electrical and Computer Engineering, vol.5, pp.26-29, 2017 (Peer-Reviewed Journal)

V. **IMPACT OF VARIOUS SLOT-POLE COMBINATIONS ON AN IN-WHEEL BLDC MOTOR PERFORMANCE**

Çabuk A. S., SAĞLAM Ş., Üstün Ö.

ISTANBUL UNIVERSITY-JOURNAL OF ELECTRICAL AND ELECTRONICS ENGINEERING, vol.17, no.2, 2017 (ESCI)

VI. **Measurements of meteorological parameter effects on photovoltaic energy production**

SAĞLAM Ş., ORAL B., GÖRGÜLÜ S.

International Journal of Circuits, Systems and Signal Processing, vol.9, pp.240-246, 2015 (Scopus)

VII. **Meteorological Parameters Effects on Solar Energy Power Generation**

SAĞLAM Ş.

WSEAS Transactions on Circuit and Systems, vol.9, pp.637-649, 2010 (Peer-Reviewed Journal)

VIII. **Computer Simulation Modeling and Analysis of Sudden Load Rejection In Power System of Istanbul European Side**

ORAL B., SAĞLAM Ş.

International Review on Computers and Software, vol.5, pp.557-561, 2010 (Peer-Reviewed Journal)

IX. **Modern Lighting Sources and Controls for Energy Efficient Lighting and a Smart Control Algorithm Application**

SAĞLAM Ş., ORAL B.

WSEAS Transactions on Systems, vol.9, pp.1098-1108, 2010 (Scopus)

X. **The importance of in service training in restructuring sectors**

ORAL B., SAĞLAM Ş.

Procedia - Social and Behavioral Sciences, vol.2, pp.4383-4386, 2010 (Peer-Reviewed Journal)

XI. **Production Techniques of PV s and Polycrystalline PV Performance Analyses for Permanent Resistive Load**

SAĞLAM Ş., KOÇYİĞİT G., ONAT N.

WSEAS Transactions on Circuit and Systems, vol.8, pp.589-598, 2009 (Peer-Reviewed Journal)

XII. Household Type Loads Effects on Photovoltaic Systems

EKREN N., ONAT N., SAĞLAM Ş.

WSEAS Transactions on Circuit and Systems, vol.12, pp.1020-1028, 2008 (Peer-Reviewed Journal)

Books & Book Chapters

I. Enerji Teknolojileri (Ortaokul)

Oral B., Sağlam Ş.

TÜBİTAK Yayınları, Ankara, 2023

II. Enerji Teknolojileri (Lise)

Oral B., Sağlam Ş.

TÜBİTAK Yayınları, Ankara, 2023

III. Solar Irradiation Fundamentals and Solar Simulators

Sağlam Ş., Oral B., Esen V.

in: A Practical Guide for Advanced Methods in Solar Photovoltaic Systems, Adel Mellit, Mohamed Benghanem, Editor, Springer, London/Berlin, Luzern, pp.3-28, 2020

Refereed Congress / Symposium Publications in Proceedings

I. IoT Based Data Acquisition and Remote Monitoring System for Large-Scale Photovoltaic Power Plants

Kalay M. Ş., Kılıç B., Mellit A., Oral B., Sağlam Ş.

The Third Edition of the International Conference on Electronic Engineering and Renewable Energy (ICEERE'2022), Sattat, Morocco, 20 May 2022

II. Investigation of Light Transmittance of Coatings Containing SiO₂ and TiO₂ Nano-Particle made by Electrospinning Technique

SARKIN A. S., EKREN N., SAĞLAM Ş.

International Symposium Energy Management and Sustainability 2022, İstanbul, Turkey, 07 April 2022

III. Analysis of a Building-Mounted Wind-Solar Hybrid Power System in Urban Residential Areas: The Case Study of Istanbul

ORAL B., SAĞLAM Ş., Mellit A.

2nd International Conference on Electronic Engineering and Renewable Energy, Saida, Algeria, 13 - 15 April 2020, vol.1, pp.729-737

IV. TÜRKİYE'DEKİ ENERJİ İLETİM HATLARINDAKİ CANLI BAKIM ÇALIŞMALARININ ENERJİ MALİYETİNE ETKİSİ

Çelik M. Z., İSPİRLİ M. M., SAĞLAM Ş., ORAL B.

ELEKTRİK İLETİM VE ÜRETİMİNDE ENERJİ VERİMLİLİĞİ SEMPOZYUMU, Ankara, Turkey, 24 February 2020

V. Experimental assessment of Poly C-Si, CIGS and CdTe Photovoltaic technologies under real working conditions

BOUKENOUİ R., Bouhedir R., Mellit A., SAĞLAM Ş.

The 5th International Conference on Wireless Technologies, Embedded and Intelligent Systems (WITS 2019), FEZ, Morocco, 3 - 05 April 2019

VI. Study on Efficiency of In-Wheel BLDC Motors used in Light Electric Vehicle for Different Magnet Materials and Magnet Embrace Ratio

ÇABUK A. S., SAĞLAM Ş., ÜSTÜN Ö.

International Conference on Science And Technology, Prizren, KOSOVA, 5 - 09 September 2018, vol.1, pp.705-714

VII. Estimation of Solar Radiation Using Artificial Neural Network with Meteorological Data of Marmara University Goztepe Campus

SAĞLAM Ş., AKAR O., ORAL B.

International Conference on Science and Technology, Prizren, Serbia, 5 - 09 September 2018, vol.1, pp.695-704

- VIII. **Analysis of Blackout Cases in the Power Systems**
ORAL B., SAĞLAM Ş.
International Science and Technology Conference, Paris, France, 18 July - 20 August 2018, vol.1, pp.95-102
- IX. **Comparison Study of an In-Wheel BLDC Motor for Light Electric Vehicle Propulsion Using Matlab/Simulink**
ÇABUK A. S., SAĞLAM Ş., ÜSTÜN Ö.
6. European Conference on Renewable Energy Systems, İstanbul, Turkey, 25 - 27 June 2018, vol.1, pp.973-981
- X. **Low Cost Led Based Solar Simulator with Variable Spectrum Controller**
ESEN V., SAĞLAM Ş., ORAL B., CEYLAN ESEN Ö.
6. European Conference on Renewable Energy Systems, İstanbul, Turkey, 25 - 27 June 2018, vol.1, pp.967-972
- XI. **PV Güç Sistemlerinin Şebekeye Bağlanmasında Karşılaşılan Sorunlar ve Çözüm Yöntemleri**
SARKIN A. S., SAĞLAM Ş.
8th International Advanced Technologies Symposium, Elazığ, Turkey, 19 - 22 October 2017
- XII. **Investigation of Wavelength Changes of the LEDs Used for Illumination**
ESEN V., SAĞLAM Ş., ORAL B.
Lux Europa 2017, Ljubljana, Slovenia, 18 - 20 September 2017, pp.299-303
- XIII. **Hafif Elektrikli Araçlar İçin Kullanılan Tekerlek İç Fırçasız Doğru Akım Motorlarının Farklı Oluk ve Kutup Sayısı Kombinasyonlarının Verim Üzerine Etkilerinin İncelenmesi**
ÇABUK A. S., SAĞLAM Ş., tosun g., ÜSTÜN Ö.
Elektrik-Elektronik ve Biyomedikal Mühendisliği Konferansı(ELECO), Bursa, Turkey, 1 - 03 December 2016
- XIV. **Building Mounted Solar Wind Hybrid Electric Power System Analysis**
SAĞLAM Ş., ORAL B., Dursun A.
10th Conference on Sustainable Development of Energy, Water and Environment Systems (SDEWES '15), 27 September - 02 October 2015
- XV. **The Effects of the Economic Crisis on the Electricity in Turkey**
ORAL B., SAĞLAM Ş.
International Conference on Science Technology and Management (ICSTM), 2 - 04 August 2015
- XVI. **The Effects of The Economic Crisis On The Electricity Sector in Turkey**
ORAL B., SAĞLAM Ş.
International Conference on Science Technology and Management. Barcelona, Spain, Barcelona, Spain, 1 - 02 August 2015
- XVII. **Comparison of Regional Photovoltaic Energy Production Marmara Region**
SAĞLAM Ş., ORAL B., GÖRGÜLÜ S.
13th International Conference on Instrumentation, Measurement, Circuits and Systems (IMCAS'xx14), 15 - 17 December 2014
- XVIII. **Assessment of MPPT Algorithms Under Irradiance and Temperature Changes With Static and Dynamic Load**
Boilouta A., Mellit A., Lalili D., SAĞLAM Ş.
III. International Conference on Nuclear Renewable Energy Resources 2012, İstanbul, Turkey, 20 - 23 May 2012, vol.1
- XIX. **Energy Efficient Lighting Controls and a Sample Application**
SAĞLAM Ş., ORAL B.
WSEAS International Conference on Energy Planning, Energy Saving, Environmental Education (EPESE'xx 10), 3 - 06 May 2010, vol.1, pp.176
- XX. **Analyses of Solar Energy Power Generation Depending on Meteorological Conditions for Istanbul**
SAĞLAM Ş.
WSEAS International Conference on Renewable Energy Sources (RES'xx 10), 3 - 06 May 2010, vol.1, pp.166
- XXI. **The importance of in-service training in restructuring sectors**
ORAL B., SAĞLAM Ş.

2nd World Conference on Educational Sciences (WCES-2010), İstanbul, Turkey, 4 - 08 February 2010, vol.2, pp.4383-4386

XXII. Transformation of technical education faculties in Turkey in the process of European Union: Faculty of applied sciences

SAĞLAM Ş., ORAL B.

2nd World Conference on Educational Sciences (WCES-2010), İstanbul, Turkey, 4 - 08 February 2010, vol.2, pp.4513-4517

XXIII. Performance Analyses of PV Panel for Istanbul

Kocyigit G., SAĞLAM Ş., Onat N.

3rd WSEAS International Conference on Energy Planning, Energy Saving, Environmental Education/3rd WSEAS RES 2009/3rd WSEAS WWAI 2009, Tenerife, Spain, 1 - 03 July 2009, pp.353-354

XXIV. An Experimental Study of DC and AC Load Effects on Photovoltaic Systems

EKREN N., Onat N., SAĞLAM Ş.

2nd WSEAS/IASME International Conference on Renewable Energy Sources, Corfu, Greece, 26 - 28 October 2008, pp.81-82

XXV. An Experimental Study of D C and A C Load Effects on Photovoltaic Systems

EKREN N., ONAT N., SAĞLAM Ş.

WSEAS International Conference on Renewable Energy Sources (RES'xx 08), CORFU ISLAND, Greece, 26 - 28 October 2008, vol.1

XXVI. Türkiye de Rüzgar Enerjisinin Kullanım Durumu ve Bir Türbin Tasarım Örneği

GÜNEY K. R. İ., SAĞLAM Ş.

Yenilenebilir Enerji Kaynakları Sempozyumu 2001, Kayseri, Turkey, 12 - 13 October 2001, vol.1

XXVII. Güneş Evlerinin Tasarım Kriterleri

GÜNEY K. R. İ., SAĞLAM Ş.

III Ulusal Temiz Enerji Sempozyumu, İstanbul, Turkey, 15 - 17 November 2000, vol.1

Metrics

Publication: 52

Citation (WoS): 484

Citation (Scopus): 487

H-Index (WoS): 6

H-Index (Scopus): 8

Awards

Sağlam Ş., Uluslararası Bilimsel Yayınları Teşvik, Tübitak, January 2022

Sağlam Ş., Uluslararası Bilimsel Yayınları Teşvik, Tübitak, January 2021

Sağlam Ş., Oral B., Esen V., Uluslararası Bilimsel Yayınları Teşvik, Tübitak, May 2018

Sağlam Ş., Uluslararası Bilimsel Yayınları Teşvik, Tübitak, May 2012

Sağlam Ş., Uluslararası Bilimsel Yayınları Teşvik, Tübitak, January 2010