

Asst. Prof. ERKAN DURSUN

Personal Information

Place of birth: Kayseri

Office Phone: [+90 216 770 4000](tel:+902167704000) Extension: 3836

Fax Phone: [+90 216 770 4001](tel:+902167704001)

Email: erkandursun@marmara.edu.tr

Web: <https://avesis.marmara.edu.tr/erkandursun>

Address: Marmara University, Faculty of Technology, 34722
Kadikoy Istanbul



Biography

Dr. Dursun has been working on energy efficiency and renewable energy systems for 12 years. He worked in a project UNIDO-ICHET from 2010 to 2012. UNIDO-ICHET (United Nations Industrial Development Organization - International Centre for Hydrogen Energy Technologies) with the mission of raising public awareness for renewable energy and demonstrating viable implementations of hydrogen energy technologies in developing countries. And also, He worked as researcher at European Commission, JRC Institute for Energy and Transport (IET) from 2012 to 2013, which is interested energy service companies (ESCOs).

The Phd thesis about the photovoltaic/wind/fuel cell hybrid power system. This concept shows that different renewable sources can be used simultaneously to power off-grid applications. In this thesis, hydrogen production capacity of a stand-alone renewable hybrid power system is evaluated. Results of the proposed model are calculated and compared with experimental data. The MATLAB/Simscape model is applied to a stand-alone photovoltaic-wind power system sited in Istanbul, Turkey. The quality of thesis results is demonstrated by the fact that a paper describing the core contribution of the thesis has been accepted to many scientific journals and conferences. His papers have received more than 450 citations in SCI database of Thomson Reuters.

Dr. Dursun is interested in Smart Grid and Advanced Metering Infrastructure (AMI), such as smart meters and sensors in post-doc studies.

Education Information

Doctorate, Marmara University, Faculty of Technical Education, Electric Education, Turkey 2009 - 2013

Post Graduate, Marmara University, Faculty of Technical Education, Electric Education, Turkey 2003 - 2008

Under Graduate, Marmara University, Faculty of Technical Education, Electric Education, Turkey 1996 - 2001

Foreign Languages

English, C2 Proficiency

Italian, A2 Elementary

Dissertations

Doctorate, Analysis of off-grid Wind-PV-PEMFC hybrid energy system, Marmara University, Faculty Of Technical

Education, Electric Education, 2013

Post Graduate, Electromagnetic Compatibility (EMC) in electrical systems, Marmara University, Institute For Graduate Studies In Pure And Applied Sciences, Department Of Electrical Education, 2006

Research Areas

Energy, Renewable energy

Academic Titles / Tasks

Assistant Professor, Marmara University, Faculty of Technology, Elektrik Ve Elektronik Mühendisliği Bölümü, 2014 - Continues

Research Assistant, Marmara University, Faculty of Technical Education, Electric Education, 2002 - Continues

Professional Experience

Researcher, European Commission, Joint Reseach Institute, Energy and Transport Unit, 2012 - 2013

Advising Theses

DURSUN E., Mevcut bir binanın LEED sertifikası açısından incelenmesi : kredi oluşturabilecek fırsat ve önerilerin sunulması, Post Graduate, A.Aytekin(Student), 2019

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

- I. **Analysis of factors affecting IoT-based smart hospital design**
Uslu B., Okay E., DURSUN E.
Journal of Cloud Computing, vol.9, 2020 (Journal Indexed in 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, 2020 (Journal Indexed in SCI Expanded)
- III. **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, 2019 (Journal Indexed in SCI)
- IV. **Nickel-titanium shape memory alloy-actuated thermal overload relay system design**
Dilibal S., Sahin H., Dursun E., Engeberg E. D.
ELECTRICAL ENGINEERING, vol.99, pp.923-930, 2017 (Journal Indexed in SCI)
- V. **Modeling of hydrogen production with a stand-alone renewable hybrid power system**
DURSUN E., ACARKAN B., KILIÇ O.
INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.37, pp.3098-3107, 2012 (Journal Indexed in SCI)
- VI. **Comparative evaluation of different power management strategies of a stand-alone PV/Wind/PEMFC hybrid power system**
DURSUN E., KILIÇ O.
INTERNATIONAL JOURNAL OF ELECTRICAL POWER & ENERGY SYSTEMS, vol.34, pp.81-89, 2012 (Journal Indexed in SCI)
- VII. **A mobile renewable house using PV/wind/fuel cell hybrid power system**
Eroglu M., DURSUN E., Seuencan S., Song J., Yazici S., KILIÇ O.

INTERNATIONAL JOURNAL OF HYDROGEN ENERGY, vol.36, pp.7985-7992, 2011 (Journal Indexed in SCI)

VIII. **Experimental Analysis and Electrical Modeling of PEM Fuel Cell's MEA**

DURSUN E., Ozalp G. Y. , KILIÇ O.

INTERNATIONAL REVIEW OF ELECTRICAL ENGINEERING-IREE, vol.5, pp.1595-1599, 2010 (Journal Indexed in SCI)

Articles Published in Other Journals

- I. **Noise identification based on spectral analysis and noisy transfer function approach for fuel cells**
Akıncı T. Ç. , Seker S., DURSUN E., KILIÇ O.
NOISE MAPPING, vol.7, pp.14-20, 2020 (Journal Indexed in ESCI)
- II. **INTEGRATION OF WIND POWER PLANTS TO THE GRID AND REACTIVE POWER SUPPORT**
Takar O., BAYAR H., DURSUN E.
European Journal of Technique, vol.9, pp.186-196, 2019 (Refereed Journals of Other Institutions)
- III. **ELECTROMAGNETIC COMPATIBILITY TEST PROCEDURES AND RADIATED EMISSION TEST SAMPLE**
DURSUN E., AKÜNER M. C.
NWSA: Engineering Sciences, 2009 (Refereed Journals of Other Institutions)

Books & Book Chapters

- I. **Industry 4.0 and Smart Grids**
Dursun E.
in: Industry 4.0 Technological Areas and Applications, Kerim Çetinkaya, Pınar Demircioğlu, Koray Özsoy, Burhan Duman, Editor, Pegem A Yayıncılık, Ankara, pp.361-398, 2019
- II. **SANAYİ 4.0 VE AKILLI ŞEBEKELER**
DURSUN E.
in: Sanayi 4.0 Teknolojik Alanları ve Uygulamaları, Kerim ÇETİNKAYA , Pınar DEMİRCİOĞLU, Koray ÖZSOY , Burhan DUMAN, Editor, Pegem, pp.361-396, 2019

Refereed Congress / Symposium Publications in Proceedings

- I. **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
- II. **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
- III. **Internet of Things for the Distributed Generation**
Yıldırım O., Okay M., AKPOLAT A. N. , DURSUN E.
2019 Innovations in Intelligent Systems and Applications Conference (ASYU), Izmir, Turkey, Turkey, 31 October - 02 November 2019
- IV. **İyi Bir Tez Nasıl Yazılır?**
DURSUN E.
Öğrenmeyi Destekleyen Tez Araştırma Çalıştayı, Turkey, 06 November 2019
- V. **A dynamic pricing model for Turkey's electricity distribution companies in the future Smart Grid infrastructure**

DURSUN E., Siano P.

Akıllı Sistemlerde Yenilikler ve Uygulamaları Konferansı, Turkey, 31 October - 02 November 2019

- VI. **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
- VII. **FUTURE TRAIN STATIONS POWERED WITH RENEWABLE ENERGY**
DURSUN E., KILIÇ B.
4th International Symposium on Railway System Engineering, 10 - 12 October 2018
- VIII. **The Impact of GridConnected Distributed Power Generation Systems on Power Quality**
AKAR O., TERZİ Ü. K. , DURSUN E., ÖZGÖNENEL O., DEMİRCİ A.
CIAE 2018 International Conference on Innovative Engineering Applications, Sivas, Turkey, 20 - 22 September
2018
- IX. **Towards to Smart Grid: Dynamic Line Rating**
Akpolat A. N. , Varbak Neşe S., Dursun E.
7.Uluslararası İstanbul Akıllı Şebekeler ve Şehirler Kongre ve Fuarına, İstanbul, Turkey, 25 - 26 April 2018
- X. **Possible Physical and Cyber Attacks on Smart Grids**
DURSUN E., Hacinecipoglu A.
8th International Advanced Technologies Symposium (IATS'17), 19 - 21 October 2017
- XI. **Advanced Metering Infrastructure (AMI): Smart Meters and New Technologies**
AKPOLAT A. N. , DURSUN E.
8th International Advanced Technologies Symposium (IATS'17), 19 - 21 October 2017
- XII. **Integration of Innovative Photovoltaic Technology to the Railway Trains: A Case Study for Istanbul
Airport-M1 Light Metro Line**
KILIÇ B., DURSUN E.
IEEE EUROCON -17th International Conference on Smart Technologies, Ohrid, Macedonia, 6 - 08 July 2017, pp.336-
340
- XIII. **SNAPSHOT OF INTEGRATION DISTRIBUTED GENERATION INTO THE SMART GRID**
DURSUN E., VARBAK NEŞE S.
the International Engineering, Science and Education Conference (INESEC), 1 - 05 December 2016
- XIV. **FROM MICROGRID TO SMART GRID A REVIEW OF CAMPUS PROJECTS**
AKPOLAT A. N. , DURSUN E.
the International Engineering, Science and Education Conference (INESEC), 1 - 03 December 2016
- XV. **Snapshot of Integration Distributed Generation intothe Smart Grid**
DURSUN E., VARBAK NEŞE S.
International Engineering, Science and Education Conference, Diyarbakır, Turkey, 1 - 03 December 2016, vol.1,
pp.431-436
- XVI. **Advanced Metering Infrastructure AMI Smart Metering Design and Applications**
DURSUN E.
3th International Smart Grid Workshop and Certificate Program, 21 - 25 March 2016
- XVII. **ESCO market in Turkey: Challenges and Opportunities**
DURSUN E., Bertoldi P.
IEEE 15th International Conference on Environment and Electrical Engineering (EEEIC), Rome, Italy, 10 - 13 June
2015, pp.150-155
- XVIII. **A Review of Energy Management Systems for Smart Grids**
Yenginer H., Cetiz C., DURSUN E.
3rd International Istanbul Smart Grid Congress and Fair (ICSG), İstanbul, Turkey, 29 - 30 April 2015
- XIX. **Structure of Advance Measuring smart metering design and application**
DURSUN E.
Smart Grid Workshop, İstanbul, Turkey, 22 - 23 January 2015
- XX. **Integration of hydrogen energy into the Smart Grid in terms of energy storage Challenges and**

Barriers

DURSUN E., KILIÇ O.

5th World Hydrogen Technologies Convention (WHTC2013), Shanghai, China, 25 - 28 September 2013

- XXI. **Intelligence based modeling An Adaptive Neuro Fuzzy Inference System for performance prediction of PEMFC s membrane electrode assembly**
DURSUN E., BAYAR H., YEGEN OZALP G., KILIÇ O.
IEEE International Conference on Power Engineering, Energy and Electrical Drives, 13 - 17 May 2013
- XXII. **The Levenberg Marquardt Neural Network model of the PEMFC s MEA**
DURSUN E., KILIÇ O.
2011 10th International Conference on Environment and Electrical Engineering, Rome, Italy, 8 - 11 May 2011
- XXIII. **Performance Evaluation of a Stand Alone Photovoltaic Wind turbine Fuel cell Power System for Each Province in the Aegean Region of Turkey**
DURSUN E., BAYAR H., GÖRGÜN H., KILIÇ O.
5.International Ege Energy Symposium (IEESE-5), Denizli, Turkey, 27 - 30 June 2010
- XXIV. **Türkiyede Kurulu Rüzgar Satrallerinde Kurulan Generatörlerin Kaşılaştırılması**
DURSUN E., KAKİLLİ A.
Türkiye 11. Enerji Kongresi ve Sergisi, İzmir, Turkey, 21 - 23 October 2009, pp.21-23
- XXV. **Türkiyede Kurulu Rüzgar Türbinlerinde Kullanılan Generatörlerin Karşılaştırılması**
DURSUN E., KAKİLLİ A.
11.Enerji Kongresi, İzmir, Turkey, 21 - 23 October 2009
- XXVI. **Rüzgar Güneş Hidrojen Enerji Sistemlerinin Entegrasyonu**
DURSUN E., KILIÇ O.
IV.Ulusal Hidrojen Enerjisi Kongresi. Kocaeli, Türkiye, Turkey, 15 - 16 October 2009
- XXVII. **A Stand Alone Mobile House using PV Wind Fuel Cell Hybrid Power System**
MEHMED E., DURSUN E., GÖKHAN K., SUAT S., YAZICI S., JUNSEOK S.
III. World Congress of Young Scientists on Hydrogen Energy Systems, 7 - 09 October 2009
- XXVIII. **Rüzgar Türbinlerinde Kullanılan Generatörler**
DURSUN E., KORHAN BİNARK A.
VII.Ulusal Temiz Enerji Sempozyumu, İstanbul, Turkey, 17 - 19 December 2008
- XXIX. **Europic Software for Illumination Technique Lessons**
DURSUN E., OĞUZ Y.
International Educational Technology Conference., Eskişehir, Turkey, 6 - 09 May 2008

Scientific Refereeing

TUBITAK Project, 1501 - Industry R & D Projects Support Program, TÜBİTAK, Turkey, September 2019

TUBITAK Project, 1501 - Industry R & D Projects Support Program, TÜBİTAK, Turkey, May 2019

TUBITAK Project, 1501 - Industry R & D Projects Support Program, TÜBİTAK, Turkey, December 2015

H2020 Project, ERC H2020 European Research Council Project, TÜBİTAK, Turkey, December 2015

H2020 Project, FET, H2020 Future & Emerging Technologies Project, ISC Konstanz, Germany, September 2015

Citations

Total Citations (WOS):320

h-index (WOS):4

Invited Talks

Endüstri 4.0 ve Akıllı Şebekeler, Seminar, Bahadır Demir Ortaokulu, Turkey, December 2019

Endüstri 4.0 ve Akıllı Şebekeler, Seminar, Yusuf Özvatan Ortaokulu, Turkey, November 2019

Öğrenmeyi Destekleyen Tez Araştırma Çalıştayı, Workshop, Marmara Üniversitesi, Turkey, October 2019

Scholarships

TÜBİTAK-2214-B - Yurt Dışı Müşterek Doktora Burs Programı, European Commission, 2012 - 2013

Awards

Dursun E., Yayın Teşvik-UBYT, Tübitak, September 2019

Dursun E., Yayın Teşvik-UBYT, Tübitak, October 2013

Dursun E., Akademik Teşvik-Atıf Ödülü, Marmara Üniversitesi, October 2013

Dursun E., Yayın Teşvik-UBYT, Tübitak, January 2012

Dursun E., Yayın Teşvik- UBYT, Tübitak, May 2011