

Personal Information

First Name	Sinan	
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Citizenship	Turkish	
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I. Education Information

B. Sc.	:	Ege University, Izmir, Turkey, Sep. 2006 – June. 2011 (with 1 st Class Honors). Thesis Title: " Design of Flyback Micro-inverter for Grid Connected Photovoltaic Systems "
M. Sc.	:	Ege University, Izmir, Turkey, Sep. 2011 – Jan. 2013. Thesis Title: "Two Stage Soft Switched Flyback Type Photovoltaic Micro-inverters Design"
Ph. D.	:	Ege University, Izmir, Turkey, Feb. 2013 – On going. Thesis Title: " Modeling, Design and Performance Optimization of Modular Power Electronic Transformers using Silicon Carbide (SiC) power switches "

II. Academic Interests

-	Power conversion and control; solid state transformers, isolated power converters
-	Photovoltaic systems; micro-inverters, maximum power point trackers
-	Application of optimization methods in power conversion
-	Reliability and lifetime prediction of power electronic converters

III. Publications

***Journal Publications (3)**

- Zengin, S., Deveci, F. and Boztepe, M., "Volt-Second Based Control Method for DCM Flyback Micro-Inverters to Improve Total Harmonic Distortion", IET Power Electronics, Vol. 6(8), 2013, pp.1600-1607.
- Zengin, S., Deveci, F. and Boztepe, M., "Decoupling Capacitor Selection in DCM Flyback PV Micro-inverters Considering Harmonic Distortion", IEEE Transactions on Power Electronics, Vol. 28(2), 2013, pp. 816-825.
- Zengin, S. and Boztepe, M., "Design of Flyback Micro-inverter for Grid Connected Photovoltaic Systems", Pamukkale Üni. Mühendislik Bilimleri Dergisi, Vol. 21(2), 2015, pp. 30-36.

***Conference Papers (12)**

- Zengin, S., Boztepe, M., " Loss Analysis of Trapezoid and Triangular Current Modulated DCM AC/DC DAB Converter", International Symposium on Fundamentals of Electrical Engineering (ISFEE 2016), Bucharest, Romania, 30 June-2 July 2016.
- Özden, Ö., Duru, Y., Zengin, S., Boztepe, M., "Design and Implementation of Programmable PV Simulator", International Symposium on Fundamentals of Electrical Engineering (ISFEE 2016), Bucharest, Romania, 30 June-2 July 2016.
- Zengin, S. and Boztepe, M. "Lifetime Estimation of SiC MOSFETs in Conventional Three-Stage Solid State Transformer", 8th Int. Ege Energy Symposium (IEESE), Afyonkarahisar, May 11-13, 2016.
- Zengin, S., Boztepe, M., "Trapezoid Current Modulated DCM AC/DC DAB Converter for Two-Stage Solid State Transformer", 9th International Conference on Electrical and Electronics Engineering (ELECO 2015), Bursa, pp.634-638, 26-28 November 2015.
- Zengin, S. and Boztepe, M., "Bi-directional DCM DAB inverter for SST applications." Fundamentals of Electrical Engineering (ISFEE), 2014 International Symposium on. IEEE, 2014, Bucharest, Romania.
- Zengin, S. and Boztepe, M., "Modified dual active bridge photovoltaic inverter for solid state transformer applications." Fundamentals of Electrical Engineering (ISFEE), 2014 International Symposium on. IEEE, 2014, Bucharest, Romania.
- Zengin, S. and Boztepe, M., "Lifetime Estimation of DCM Flyback Micro-inverter", 7th International Ege Energy Symposium and Exhibition, 18-20 June, 2014, Uşak, Turkey.
- Zengin, S. and Boztepe, M., "Variable switching frequency operation of DCM flyback micro-inverter." Electrical and Electronics Engineering (ELECO), 2013 8th International Conference on. IEEE, 2013, Bursa, Turkey.

- Zengin, S. and Boztepe, M. "Evaluation of two-stage soft-switched flyback micro-inverter for photovoltaic applications." Electrical and Electronics Engineering (ELECO), 2013 8th International Conference on. IEEE, 2013, Bursa, Turkey.
- Zengin, S. and Boztepe, M. "Comparison of Conventional 50 Hz Transformer with Power Electronic Transformers." Elektrik Tesisat Ulusal Kongre ve Sergisi, 21-24 Ekim, 2015, Izmir, Turkey.
- Zengin, S., Boztepe, M. and Karatepe, E., " Power Loss Optimization in Flyback Micro-inverter Using Simulated Annealing", Elektrik-Elektronik ve Bilgisayar Ulusal Sempozyumu (ELECO 2012), 29 Kasım – 1 Aralık 2012, Bursa, Turkey.
- Deveci, F., Zengin, S. and Boztepe, M., "Microcontroller Controlled Grid Connected Photovoltaic Inverter Design ", 6. Yenilenebilir Enerji Kaynakları Sempozyumu (YEKSEM 2011), 14-16 Ekim, 2011, Denizli, Turkey.

IV. Awards

- Mr. Zengin is awarded by TUBITAK (The Scientific and Technological Research Council of Turkey) for full scholarship during M.Sc. and Ph.D. study from September 2011.

V. Other Academic Activities

***Paper Reviewer for:**

- IEEE Power Electronics 2013 - ...
- IET Power Electronics 2013 - ...
- IEEE Industrial Electronics 2015 - ...

***Member of Project:**

- Researcher in Scientific Research Project Titled "Design and Optimization of a Contactless Charging System for Electric Vehicles" funded by TUBITAK under the grant number 115E116, 2016.
- Researcher in Scientific Research Project, "A modular structure Photovoltaic Emulator Design and Implementation" Ege University, 14-MUH-057, 2015.

***Participated Workshops**

- 3rd Renewable Energy Systems Winter School: "Efficiency and Renewable Energy Sources", 21 - 25 Jan. 2014, Afyon, Turkey.
- 2nd Renewable Energy Systems Winter School: "Special Topics", 16 - 19 Jan. 2013, Afyon, Turkey.

VI. Social Activities

- Taking nature photographs
- Swimming
- Riding Bike