# Gamal M. Dousoky

Minia University, Nahda University

+2010-9905-3763 +2086-236-2083 (Ext. 248) EAX +2086-234-6674



## Personal Information

Full Name Gamal Mahmoud Dousoky Ibrahim

Date of Birth October 10, 1977

Nationality Egyptian

Military Service Completed

Marital Status Married and having kids

Position(s) Permanent: Associate Professor, Faculty of Eng., Minia Univ., EGYPT

Half-Time: Associate Professor, Faculty of Eng., Nahda Univ. in Beni-Suef, EGYPT

Postal Address 318 Elect. Eng. Dept. Faculty of Engineering, Minia University, 61517, EGYPT

Email {dousoky@mu.edu.eg}

## **EDUCATION**

Received B.Sc., M.Sc., and PhD degrees in Electrical and Electronic Engineering, in 2000, 2004, and 2010, respectively, as follows:

2007 – 2010 **Ph.D. in Electrical and Electronic Engineering**, *Department of Electrical Engi-*Oct Sept *neering*, Kyushu University, Japan.

Home: http://www.kyushu-u.ac.jp

Doctor of Philosophy Thesis

title Electromagnetic Compatibility in Switching Power Converters with Digital Controllers

description It proposes and investigates the conducted-noise characteristics of many digital techniques, several of which are new, for conducted-noise reduction in dc-dc converters.

2000 – 2004 **M.Sc. in Electrical Engineering**, *Department of Electrical Engineering*, Minia Uni-Oct Jul versity, Egypt.

Home: http://www.minia.edu.eg/English/Home.aspx

Master Thesis

title A Study on the Power Electronics for the Interface of Alternate/Renewable Energy Systems with Utility Grid

description It investigates an intelligent power electronic interface between photovoltaic power systems and the utility grid, focusing on the design, cost, and reliability issues.

1995 – 2000 Bachelor of Electrical Engineering, *Minia University*, Egypt.

Sept May Major in Electrical Power Engineering
Overall years grade: Very good with honor's (84.7%), the top of the class

— GRADUATION PROJECT

title Design of Wind Energy System to be interconnected with the Utility Grid

description Develop a wind energy system for feeding a remote area with the electrical power demand and for interacting with the local power distribution network.

## **PUBLICATIONS**

Have authored and co-authored more than 85 publications, mainly published in first class journals and proceedings of first class conferences in Power Electronics and Industrial Technologies. A list of publications is addressed in Appendix A.

## RESEARCH GRANTS

Primary investigator and co-leader in each of the following awarded research projects:

- "Stability and Reliability Issues of Smart Grid with Network Topology and Flow Controls", LPI: Garng Huang, Co-LPI: **Gamal M. Dousoky**, Pls: Chanan Singh, Omar Ellabban, Hoe Ooi, QNRF (NPRP 7-106-2-053), three years (2014-2016), **\$865,280**.
- "Smart PV Skin: Grid-Connected, Non-Planar Photovoltaic Systems", LPI: Robert Balog, Co-LPI: **Gamal M. Dousoky**, Pls: Rasit Turan, Ibrahim Karaman, Omar Ellabban, Hoe Ooi, QNRF (NPRP 7-299-2-124), three years (2014-2016), **\$705,672**.

## HONORS AND AWARDS

- Sept, 2019 **Postdoctoral Research Fellowship**, *funded by the Egyptian government*, executed at Kyushu University and extended on an external fund, Japan.
- June, 2019, International Scientific Publication Award, Minia University Research Office, Minia University, Egypt.
- March, 2017 **Promoted to the Position of Associate Professor**, *Electrical Power and Machines Committee*, Universities Supreme Council, Egypt.
  - May, 2014 **Elevated to the grade of IEEE Senior member**, *IEEE Admission and Advancement Committee*, IEEE Senior Membership is an honor bestowed only to those who have made significant contributions to the profession, USA.
- March, 2013 **Offered an Assistant Research Scientist Position**, *Texas A&M University at Qatar*, due to outstanding record of research and academic achievements.
  - Sept, 2011 **Postdoctoral Research Fellowship**, *Kyushu University*, (extendable to Five years), Japan.
  - Oct, 2010 Listed in Who's Who in Science and Engineering 2011-2012 (11th Edition), Who's Who in America, biography was selected for inclusion after a standard selection based on outstanding achievements, USA.
  - Sept, 2010 **Designated Goodwill Ambassador of Kyushu University**, *President of Kyushu University*, for recognition of outstanding performance and successfull completion of Ph.D. program, Japan.
  - Feb, 2010 **The 2009 Excellent Student Award**, *The IEEE Fukuoka Section*, Japan. Webpage: http://www.ieee-jp.org/section/fukuoka/index.php?Awards
- 2006 2010 **Scholarship to pursue Ph.D. overseas**, *funded by the Egyptian government*, executed in Japan.
  - Jun, 2008 **EJISST2008 Award**, (Culture, Education, and Science Bureau), the Embassy of Egypt in Japan, for presentation at the First Egypt Japan International Symposium of Science and Technology 2008, Japan.
  - Feb, 2006 **Excellence Award**, *President of Minia University*, for outstanding academic performance during Master research study, Egypt.
- Summer, 2001 Outstanding Young Engineer Award, Egyptian Engineers Association, Egypt.
- Summer, 2000 **Selected to Join the Top Forum**, *Minia University*, Egypt. Minia University Leaders Meeting with the Top Students of their Classes
  - Oct, 2000 **Assignment for the Job of Demonstrator**, *Minia University*, Egypt. Demonstrator Position, in Minia University, is only offered to the Top-of-Class Candidate.

- Winter, 1998 **Distinguished Students Trip**, *Office of the Minister of Higher Education and Scientific Research*, Five days trip for excellent students of Minia University, Egypt.
- Summer, 1997 **Summer Camp**, *Ministry of Education*, One-Week Camp for Distinguished Performance in Community Service Activities, Egypt.
  - Sept, 1995 **Selected to Join the Distinguished Students Class**, *Ministry of Education*, Egypt. The students who achieved the top grades during their preparatory school study, and did well in the abilities test are selected to study their secondary school in this special class.

## Professional Experience

I. Tenure Track at Department of Electrical Engineering, Faculty of Engineering, Minia University, Egypt:

Apr., 2017 Associate Professor – Present

Feb, 2011 Lecturer

Aug, 2004 Assistant Lecturer

Oct, 2000 Demonstrator and M.Sc. Student

II. Education and Research Activities at Department of Electrical Engineering, Faculty of Information Science and Electrical Engineering, Kyushu University, Japan

2019 – 2021 Visiting Associate Professor

Oct May

2015 - 2015 Research Assistant Professor

Feb Sept

2011 – 2013 Research Fellow

Sept Mar

2010 – 2011 Postdoctoral Researcher

Oct Jan

2007 - 2010 Ph.D. Student and Research Assistant

Oct Sept

2006 – 2007 International Research Student in the Field of Electrical and Electronic Systems En-

Oct Sept gineering and Japanese Language Study

III. Research Activity at Department of Electrical and Computer Engineering, Texas A&M University at Qatar:

2013 – 2014 Assistant Research Scientist Apr Jun

IV. Instructor at Department of Communications and Computers Engineering, Faculty of Engineering, Nahda University in Beni-Suef, Egypt:

2017, Feb Associate Professor - Present (half-time)

## ADMINISTRATIVE ROLES AND FACULTY ACTIVITIES

#### Administrative

Responsible of the following administrative commitments:

- Manager of the Electronic Services and Information Technology Unit, Fac. of Eng., Minia University
- Vice-Manager of the Quality Assurance Quality Assurance Office, Fac. of Eng., Minia University
- Administration Committee Member of the Minia University Center for Faculty members Development and University Leaders, Minia University
- Egyptian Government Excellence Award Coordinator, Fac. of Eng., Minia University
- Quality Assurance Coordinator for the Standard of Scientific Research and Scientific Activities, Fac. of Eng., Minia University
- ullet Elect. Eng. Dept. Council Registrar (year 2016/2017), Fac. of Eng., Minia University

• Founder and Supervisor of Industrial Electronics Laboratory, Elect. Eng. Dept., Fac. of Eng., Minia University

Faculty Works

Member in the following Committees/Activities:

- Syllabus Development Committee (both graduate and undergraduate levels), Fac. of Eng., Minia University
- Examination control System for undergraduate level, Fac. of Eng., Minia University
- Elect. Eng. Dept. Council, Fac. of Eng., Minia University
- Engineering Consultation Unit Council, Fac. of Eng., Minia University
- Faculty Council, Fac. of Eng., Nahda University, Egypt
- Serves as a Professional Trainer in the Minia University Center for Faculty members Development and University Leaders, Minia University
- Served as a volunteer judge in students innovation contests by IEEE Student Chapter, Fac. of Eng., Minia University

## TEACHING EXPERIENCE

Lectures, laboratory experiments, and practice sessions of the following undergraduate and graduate courses:

Computing Advanced Engineering Mathematics, Programming Languages, Parallel Computing, FPGA Programming, Power System Applications, MATLAB, Computer Skills

Laboratories Electric Machines Laboratory, Electric Power Laboratory, Renewable Energy Laboratory, Power Electronics Laboratory, Control Laboratory

Elect. Eng. Principle of Electric Engineering, Electric Circuits Theory, Electromagnetic Engineering, Electronic Engineering, Power System Analysis, Industrial Electronics, Power Electronics, Measurements and Electrical Testing, Energy Conversion

HRD Project Management and Skills Development, Research Skills

## TECHNICAL SKILLS

OS Windows, DOS

programming Fortran, Basic, Visual Basic, VHDL

scientific MATLAB, Simulink, PSIM, AUTOCAD, Quartus II, Altium

typography LaTeX, Microsoft Office, Visio, Adobe Acrobat Professional, ICDL Certified (passed all the required modules for granting the International Computer Driving License)

Experience to develop Altera FPGAs using Quartus Software

circuits  $\;\;$  Experience to design and to fabricate PCBs using CAD/CAM systems

Electronic Circuits Assembly/Soldering

in-field Fault Detection/Diagnosis

In-Field Inspections/Debugging

edit Technical writing and reviewing

Responding to customer/reviewer's claims

leadership Work planning, job distribution, following, trainer

## LANGUAGES

Arabic Native

English Fluent

Japanese Intermediate

French Basic

## LICENSE

• Certified Associate Trainer by IBCT (International Board of Certified Trainers)

#### **Memberships**

Member in the following organizations:

- Institute of Electrical and Electronics Engineers (Senior Member, IEEE), USA
- Electronics and Telecommunications Research Institute (ETRI), South Korea
- Japan Egypt Network (JEN), Egypt
- Rural Development Association, Egypt
- Egyptian Engineers Syndicate, Egypt

## Research Interests

- Renewable Energy Applications, Smart Grids, Energy Conversion
- Energy Saving, Energy Efficiency
- Battery Management, Electric Vehicles
- Digital Control, Parallel Processing, Artificial Intelligence
- Power Electronics, Switching Power Supplies
- Electromagnetic Interference/Electromagnetic Compatibility

## REVIEWER.

Serving as a reviewer of scientific papers for the following journals and conferences:

- IEEE Transactions on {Power Electronics, Industrial Electronics, Circuits and Systems, Sustainable Energy, Industrial Applications}
- Journal of Power Electronics, ETRI Journal
- Journal of IET Science, Measurement & Technology
- Journal of Electric Power Components and Systems
- IEEE Applied Power Electronics Conference and Exposition, APEC
- IEEE International Telecommunications Energy Conference, INTELEC
- IEEE International Conference on Power Electronics, ECCE-Asia
- IEEE International Power Electronics and Motion Control Conference. IPEMC
- Annual Conference of the IEEE Industrial Electronics Society, IECON

#### Supervisor.

## Supervisor of Master/Doctor graduate students under the following research themes:

- Energy management and control of electrical vehicles
- Improving Power Quality in Electrical Smart Grids
- Characteristics of LED Lamps in Different operating conditions
- Maximizing SCADA System Contribution to Electrical Distribution Grid Management
- Study and Evaluation of Using DC Motors in PV Pumping Systems
- Employing Solid-State Transformers in Voltage Regulation
- Improving the performance of stand-alone PV system by using super-capacitors
- Failure Study and Analysis of Photovoltaic Power Systems

## Supervisor of Senior graduation projects under the following titles:

- Photovoltaic Applications and a USB Power Bank Prototype Implementation
- Photovoltaic Applications and Eco-Friendly Replacement of Batteries with SMPSs in Home Appliances
- Design and Implementation of a Photovoltaic Power System that Employs "Inverter Technology" to Save Energy Consumed by Heavy-Duty Applications: Water Irrigation Pumps, Electric Vehicles, and Air Conditioners

## INVITED SPEECH, AND CHAIR ACTIVITIES

- Photovoltaics Workshop: Strategic alternative energy source for Egypt; from cell to grid connected PV arrays, sponsor: British Council, London South Bank University, London, UK, July 18-20, 2016.
- Paving the Way to Sustainable Energy Solutions in Qatar, invited talk, host: HEC Paris in Qatar, Tornado Tower, Doha, Qatar, May 15, 2014.
- International Standards, invited presentation to the senior design students, host: Texas A&M University at Qatar, Doha, Qatar, April 6, 2014.
- Doha Carbon & Energy Forum, discussing and helping to create a permanent record of the Energy-Efficiency workshop, sponsor: Qatar Petroleum & Qatar Foundation, QNCC, Doha, Qatar, November 11-13, 2013.
- Power Electronics and Energy Conversion, session chair, Sponsor: IEEE-ICIT2013 conference, Kape Town, South Africa, February 27, 2013.

## TUTORIALS AND WORKSHOPS

#### **Tutorials:**

- FPGA Development in Quartus Environment, by Prof. Dr.-Ing. Jens Onno Krah , Sponsor: Texas A&M University at Qatar, Doha, Qatar, January, 2014.
- Art of Control of Advanced Power Semiconductors: From Theory to Practice, Sponsor: IPEMC2012-ECCE Asia, Harbin, China, June 2, 2012.
- Eco-Societies Power Semiconductor Device Technology, Sponsor: Mitsubishi Electric Inc., Fukuoka, Japan, May 13, 2010.
- High Efficiency Power Conversion through "Intelligent" Power Processing, Sponsor: Mesago PCIM GmbH, Nuremberg, Germany, May 3, 2010.
- Internationalization and standardization, privately and professionally , Sponsor: Kyushu University, Fukuoka, Japan, Feb 24, 2010.
- Controlling Conducted and Radiated EMI issues in Power Electronics Designs, Sponsor: European Power Electronics and Adjustable Speed Drives, Barcelona, Spain, Sept 7, 2009.

#### Workshops:

- Doha Carbon & Energy Forum, Doha, Qatar, November 11-13, 2013.
- Annual Research and Industry Forum of Texas A&M University at Qatar, Doha, Qatar, April 22, 2013.
- An Opportunity to Develop Your Future Career, Kyushu University, Japan, Apr 5, 2012.
- Power Electronics Symposium, Nagasaki University, Japan, Jan 11, 2012.
- Power Electronics Symposium, Nagasaki University, Japan, Feb 17, 2010.
- Summer Seminar, Kyushu University, Japan, Sept 4, 2009.

## Training Courses

## A. Courses Sponsored by International Board of Certified Trainers Middle East and South Africa Headquarters, (IBCT MENA):

• Training of Trainers (TOT), five days course, Dec 10-15, 2014.

#### B. Courses Sponsored by Texas A&M University, (TAMU):

- Emergency Evacuation Exercise executed jointly by Global Rescue and the Office of Building Operations, Oct 2013.
- Export Controls Training for TAMUQ, Oct 2013.
- General Laboratory Safety Training for Working in an Electrical Engineering Laboratory, Sept 2013.
- Export Controls & Embargo Training Basic Course, Sept 2013.
- Information Security Awareness, Apr 2013.
- Reporting Fraud, Waste and Abuse, Apr 2013.
- Creating a Discrimination-Free Workplace, Mar 2013.
- Financial Conflicts of Interest in Research, Mar 2013.

- C. Courses Sponsored by Good Practice Project, (GP), Kyushu University, Japan:
  - International Demonstration Techniques, Superior Level, Apr 2010 Jul 2010.
  - International Demonstration Techniques, Intermediate Level, Dec 2009 Mar 2010.
- D. Courses Sponsored by Faculty and Leadership Development Project, (FLDP), Minia University, Egypt:
  - Dealing with Students with Special Needs, two days course, April 27-28, 2021.
  - Combating Corruption, two days course, Feb 16-17, 2021.
  - Credit Hours System, two days course, July 10-11, 2019.
  - Use of Technology in Teaching, two days course, May 15-16, 2019.
  - Student Assessment and Exams Preparation, two days course, May 29-30, 2017.
  - Financial and Legal Aspects, two days course, Dec 1-2, 2014.
  - Strategic Planning, two days course, Feb 12-13, 2014.
  - Ethics of Scientific Research, two days course, Feb 17-18, 2014.
  - University Management, two days course, Feb 26-27, 2014.
  - International Scientific Publishing Skills, two days course, Marc 17-18, 2014.
  - Quality Standards in Teaching Process, three days course, Dec 13-14, 2010.
  - Effective Communication Skills, three days course, Jul 11-14, 2005.
  - Effective Presentation Skills, three days course, Jun 20-23, 2005.
  - Effective Teaching Skills, five days course, May 3-5 and 7-9, 2005.
  - Thinking Skills, three days course, Jul 11-14, 2005.
  - Ethics of Profession, three days course, Aug 15-17, 2005.
  - How to Use Technology in Teaching, one week course, Oct 14-23, 2002.
  - Teacher Preparation, two weeks course, Sep 28-Oct 13, 2002.
- E. Courses Sponsored by Quality Assurance Office, Minia University, Egypt:
  - Accreditation of Educational Institutions, one day course, Dec, 2017.
  - Educational Programs and Courses Description, one day course, Dec, 2017.

## HOBBIES

Sports (Squash, Cycling), Fishing

#### Relevant Links

#### **Personal Profiles:**

Google scholar https://scholar.google.com.eg/citations?user=ecYGXQoAAAAJ&hl=en

ORCID https://orcid.org/0000-0002-4737-4259

Scopus https://www2.scopus.com/authid/detail.uri?authorld=26632824900

Researchgate https://www.researchgate.net/profile/Gamal\_Dousoky

LinkedIn https://www.linkedin.com/in/dousoky/

#### **Institutional Websites:**

Kyushu Univ. http://www.kyushu-u.ac.jp/en/

Minia Univ. https://www.minia.edu.eg/Minia/EHome.aspx

Texas A&M https://www.gatar.tamu.edu/

Nahda Univ. http://www.nub.edu.eg/

## UPDATED

September 13, 2021

#### **Appendix A: List of Publications**

#### **Journal Papers:**

- 1. Y. M. Esmail, and **G. M. Dousoky**, Power Quality Improvement in Smart Distribution Grid Using Low-Cost Two-level Inverter DVR, Journal of Advanced Engineering Trends (JAET), ISSN: 2682-2091, Vol. 42, No. 1, pp 111–120, January 2023.
- 2. M. R. M. Hassan, M. A. Mossa, and **G. M. Dousoky**, Evaluation of Electric Dynamic Performance of an Electric Vehicle System Using Different Control Techniques, Electronics, ISSN: 2079-9292, Volume: 10, Issue: 21, Article Number: 2586, pp. 1–34, October 2021.
- 3. M. A. Ragab, A. A. Z. Diab, and **G. M. Dousoky**, Failure Analysis in Photovoltaic Power Systems Using an Artificial Neural Network, Journal of Advanced Engineering Trends (JAET), ISSN: 2682-2091, Vol. 41, No. 2, pp 205–218, July 2021.
- 4. M. S. Hassan, A. Abdelhakim, M. Shoyama, J. Imaoka, and G. M. Dousoky, Parallel Operation of Split-Source Inverters for PV Systems: Analysis and Modulation for Circulating Current and EMI Noise Reduction, IEEE Transactions on Power Electronics, Vol. 36, No. 8, pp. 9547–9564, August 2021.
- 5. Y. M. Esmail, A. H. K. Alaboudy, M. S. Hassan, and G. M. Dousoky, Mitigating Power Quality Disturbances in Smart Grid Using FACT Systems, Indonesian Journal of Electrical Engineering and Computer Science, Vol. 22, No. 3, pp. 1223–1235, June 2021.
- M. S. Hassan, A. Abdelhakim, M. Shoyama, and G. M. Dousoky, On-the-Analysis and Reduction of Common-Mode Voltage of a Single-Stage Inverter through Control of a Four-Leg-Based Topology, International Journal of Electrical Power and Energy Systems, ISSN: 0142-0615, Vol. 127, No. 106710, pp. 1–24, May 2021.
- 7. E. B. Helal, O. M. Saad, A. G. Hafez, Y. Chen, and **G. M. Dousoky**, Seismic Data Compression using Deep Learning, IEEE Access, Vol. 9, pp. 58161–58169, DOI:10.1109/ACCESS.2021.3073090, April 2021.
- 8. S. Zhang, Q. Lin, Y. Noge, M. Shoyama, E. Takegami, and **G. M. Dousoky**, Developed Common Mode Noise Modeling Approach for DC-DC Flyback Converters, IEEE Letters on Electromagnetic Compatibility Practice and Applications, ISSN: 2637-6423, Volume: 2, Issue: 4, pp. 147–151, December 2020.
- M. S. Hassan, A. Abdelhakim, M. Shoyama, J. Imaoka, and G. M. Dousoky, Three-Phase Split-Source Inverter-Fed PV Systems: Analysis and Mitigation of Common-Mode Voltage, IEEE Transactions on Power Electronics, Vol. 35, No. 9, pp. 9826–9840, September 2020.
- 10. **G. M. Dousoky**, Z. M. M. Ali, and A. M. El-Sawy, An Experimental Evaluation of Photometric Performance and Power Quality of LED Lamps in Different Operating Conditions, Journal of Advanced Engineering Trends (JAET), ISSN: 2682-2091, Vol. 39, No. 2, pp 157-166, July 2020.
- G. M. Dousoky, O. K. Ahmed, and A. M. El-Sawy, SCADA-Based Methodology for Circuit Breaker Monitoring and Protection in Electrical Distribution Networks, Journal of Advanced Engineering Trends (JAET), ISSN: 2682-2091, Vol. 39, No. 2, pp 147-155, July 2020.
- 12. S. Zhang, B. Zhang, Q. Lin, E. Takegami, M. Shoyama, and G. M. Dousoky, Modeling and Optimization of Impedance Balancing Technique for Common Mode Noise Attenuation in DC-DC Boost Converters, Electronics, ISSN: 2079-9292, Volume: 9, Issue: 3, Article Number: 480, pp. 1–16, March 2020.
- 13. M. A. Gaafar, **G. M. Dousoky**, Emad M. Ahmed, M. Shoyama, and M. Orabi, New Design Approach for Grid-Current-Based Active Damping of LCL Filter Resonance in Grid-Connected Converters, Journal of Power Electronics, Vol. 18, No. 4, pp. 1165–1177, July 2018.
- 14. **G. M. Dousoky**, and M. Shoyama, New Parameter for Current-Sensorless MPPT in Grid-Connected Photovoltaic VSIs, Solar Energy Journal (Elsevier), Vol. 143, pp. 113-119, February 2017.
- 15. **G. M. Dousoky**, and M. Shoyama, An AC MPPT with Active/Reactive Power Control Feature for Single-Stage Three-Phase Grid-Connected Photovoltaic VSIs, Electric Power Components & Systems Journal, Vol. 45, No. 4, pp. 442-450, January 2017.
- 16. M. Ali, **G. M. Dousoky**, and M. Shoyama, An Overheating Tolerant Space Vector Modulation Algorithm for Multilevel Inverters, IEEJ Transactions on Electrical and Electronic Engineering-Industry Applications, Vol. 11, No. S2, pp. S75–S83, December 2016.
- 17. H. Rezk, and **G. M. Dousoky**, Technical and economic analysis of different configurations of stand-alone hybrid renewable power systems A case study, Renewable and Sustainable Energy Reviews, Vol. 62, pp. 941–953, September 2016.
- 18. **G. M. Dousoky**, A. El-Sayed, and M. Shoyama, Improved Orientation Strategy for Energy-Efficiency in Photovoltaic Panels, Journal of Power Electronics, Vol. 11, No. 3, pp. 335–341, May 2011.

- 19. **G. M. Dousoky**, M. Shoyama, and T. Ninomiya, FPGA-Based Spread-Spectrum Schemes for Conducted-Noise Mitigation in DC-DC Power Converters: Design, Implementation, and Experimental Investigation, IEEE Transactions on Industrial Electronics, Vol. 58, No. 2, pp. 429–435, February 2011.
- G. M. Dousoky, M. Shoyama, and T. Ninomiya, A Comparative Investigation of Several Frequency Modulation Profiles for Programmed Switching Controllers Targeted Conducted-Noise Reduction in DC-DC Converters, IEICE Transactions on Communications, Vol. E93-B, No. 09, pp. 2265–2272, September 2010.
- H. H. El-Tamaly, G. M. Dousoky, and M. Shoyama, Low-Harmonics Three-Phase Power Conditioner for Photovoltaic Integration, Research Reports on Information Science and Electrical Engineering of Kyushu University, ISSN: 1342-3819, Vol. 15, No. 2, pp. 71-76, September 2010.
- G. M. Dousoky, M. Shoyama, and T. Ninomiya, A Double-Hybrid Spread-Spectrum Technique for EMI Mitigation in DC-DC Switching Regulators, Journal of Power Electronics, Vol. 10, No. 4, pp. 342–350, July 2010.
- 23. **G. M. Dousoky**, M. Shoyama, and T. Ninomiya, Conducted-Noise Characteristics of a Digitally-Controlled Randomly-Switched DC-DC Converter with an FPGA-Based Implementation, Journal of Power Electronics, Vol. 10, No. 3, pp.228–234, May 2010.
- 24. **G. M. Dousoky**, M. Shoyama, and T. Ninomiya, Triple-Hybrid Switching Strategy for Conducted-Noise Level Reduction in DC-DC Converters, Research Reports on Information Science and Electrical Engineering of Kyushu University, ISSN: 1342-3819, Vol. 15, No. 1, pp. 25-30, March 2010.

## Theses:

- Gamal Dousoky, On Intelligent Power Electronic Interface for Renewable Energy Systems. Saarbrücken, Germany: VDM Verlag Publishing House Ltd., Book, ISBN: 9783639232110, February 2010.
- 26. **Gamal Dousoky**, Digital Techniques for EMC in Switching Power Converters. Saarbrücken, Germany: VDM Verlag Publishing House Ltd., Book, ISBN: 9783639266504, August 2010.

#### **Peer Reviewed Proceedings of International Conferences:**

- 27. H. Funaki, A. Mishima, M. Shoyama, Y. Noge, T. Kimura, T. Yamada, and **G. M. Dousoky**, A Condition to Get Rid of Slope-Compensation in Peak-Current-Mode Controllers, paper accepted and will be presented in the IEEE Energy Conversion Congress and Exposition, ECCE2020, Detroit, Michigan, USA, pp. 3580-3586, October 11-15, 2020.
- 28. M. S. Hassan, A. A. Diab, M. Shoyama, and **G. M. Dousoky**, Interleaved PWM Strategy for Common-Mode Leakage Current and EMI Noise Reduction of Paralleled Single-Stage DC-AC Converters, In proceedings of the IEEE Applied Power Electronics Conference & Exposition, APEC 2020, New Orleans, Louisiana, USA, pp. 768-774, March 15-19, 2020.
- 29. M. A. Gaafar, G. M. Dousoky, E. M. Ahmed, M. Shoyama, Systematic design of grid-current-based active damping for grid-connected LCL filters, In proceedings of the IEEE Applied Power Electronics Conference and Exposition, APEC 2017, FL, USA, pp. 2652-2657, March 26-30, 2017.
- M. Aly, G. M. Dousoky, E. M. Ahmed, M. Shoyama, A Unified SVM Algorithm for Lifetime Prolongation of Thermally-Overheated Power Devices in Multi-Level Inverters, In proceedings of the IEEE Energy Conversion Congress and Exposition, ECCE2016, Milwaukee, WI, USA, pp. 1-6, September 18-22, 2016.
- 31. M. A. Gaafar, **G. M. Dousoky**, M. Shoyama, New Active Damping Method for LCL Filter Resonance Based on Two Feedback System, In proceedings of the IEEE Applied Power Electronics Conference and Exposition, APEC 2016, California, USA, pp. 2735-2741, March 20-24, 2016.
- 32. M. Aly, **G. M. Dousoky**, M. Shoyama, Lifetime-Oriented SVPWM for Thermally-Overloaded Power Devices in Three-Level Inverters, In proceedings of the 41st Annual Conference of IEEE Industrial Electronics Society, IECON'2015, Yokohama, Japan, pp. 3614-3619, November 9-12, 2015.
- 33. M. A. Gaafar, **G. M. Dousoky**, M. Shoyama, Dual Feedback Active Damping Method for Grid-Connected LCL Filter Resonance, In proceedings of the 41st Annual Conference of IEEE Industrial Electronics Society, IECON'2015, Yokohama, Japan, pp. 3821-3826, November 9-12, 2015.
- 34. D. Radianto, G. M. Dousoky, M. Shoyama, Design and Implementation of Fast PWM Boost Converter based on Low Cost Microcontroller for Photovoltaic Systems, In proceedings of the 41st Annual Conference of IEEE Industrial Electronics Society, IECON'2015, Yokohama, Japan, pp. 2324-2328, November 9-12, 2015.
- 35. S. Ida, G. M. Dousoky, M. Shoyama, and T. Yamashita, Performance Evaluation of Surge Energy

- Regenerative Two-Switch Power Supply with TEC values, In proceedings of the IEEE International Future Energy Electronics Conference 2015, IFEEC'2015, Taipei, Taiwan, pp. 1-5, November 1-4, 2015.
- 36. M. Aly, **G. M. Dousoky,** and M. Shoyama, Reliability Enhancement of Multilevel Inverters through SVPWM-Based Thermal Management Methodology, In proceedings of the IEEE International Future Energy Electronics Conference 2015, IFEEC'2015, Taipei, Taiwan, pp. 1-6, November 1-4, 2015.
- 37. B. Zhang, K. Shi, Q. Lin, **G. M. Dousoky**, M. Shoyama, and S. Tomioka, Conducted Noise Reduction of Totem-pole Bridgeless PFC Converter Using GaN HEMTs, In proceedings of the 37th IEEE International Telecommunications Energy Conference, INTELEC'2015, Osaka, Japan, October 18-22, 2015.
- 38. T. Takahashi, M. Miyamoto, G. M. Dousoky, M. Shoyama, Droop Control for Bi-Directional DC-DC Converters Used in Multi-Level Virtual Conductors, In proceedings of the 37th IEEE International Telecommunications Energy Conference, INTELEC'2015, Osaka, Japan, October 18-22, 2015.
- 39. M. Sato, **G. M. Dousoky**, M. Shoyama, Improved Digital Control Scheme of Synchronous Rectification for Resonant Converter at Light Load Conditions, In proceedings of the 37th IEEE International Telecommunications Energy Conference, INTELEC'2015, Osaka, Japan, October 18-22, 2015.
- 40. M. A. Gaafar, G. M. Dousoky, M. Shoyama, Robustness Analysis for Observer Based Active Damping of LCL Filter at Different Resonant Frequencies, In proceedings of the 37th IEEE International Telecommunications Energy Conference, INTELEC'2015, Osaka, Japan, October 18-22, 2015.
- 41. M. Aly, **G. M. Dousoky**, M. Shoyama, Design and Validation of SVPWM Algorithm for Thermal Protection of T-Type Three-Level Inverters, In proceedings of the 37th IEEE International Telecommunications Energy Conference, INTELEC'2015, Osaka, Japan, October 18-22, 2015.
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