

	Contact Information		
	Name: Sayed Mohamed Mohamed Abulanwar		
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Google scholar	https://scholar.google.com/citations?hl=en&user=kWcM-MEAAAAJ&view_op=list_works&sortby=pubdate		
Research gate	researchgate.net/profile/Sayed-Abulanwar		
Web of science	webofscience.com/wos/author/record/l-3132-2018		
ORCID	orcid.org/0000-0002-3396-4020		
Scopus	scopus.com/authid/detail.uri?authorId=56018700100		
Education/ Academic qualifications			
PhD in Electrical Engineering	Energy Technology Dept., Aalborg University, Denmark	March 2012	June 2016
Msc in Electrical Engineering	Faculty of Engineering, Mansoura University	July 2007	May 2010
Bsc in Electrical Engineering	Faculty of Engineering, Mansoura University	September 2001	June 2005
Academic Employment History			
Associate Professor	Faculty of Engineering, Mansoura University	February 2022	now
Assistant professor	Faculty of Engineering, Mansoura University	February 2017	February 2022
Lecturer Assistant	Faculty of Engineering, Mansoura University	May 2010	February 2017
Demonstrator	Faculty of Engineering, Mansoura University	September 2005	May 2010
Administrative Positions:			

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Name:

Signature:

Director of Labs Unit	Faculty of Engineering, Mansoura University	August 2020	August 2021
Director of Virtual Labs	Faculty of Engineering, Mansoura University	December 2018	December 2020
Member of Liaison Committee	Mansoura University- Arizona state University	2021	2022

Teaching Experience (Courses, Language, Higher Education Only)

Undergraduate Courses: Electric circuits, Electromagnetics, Power systems, Electric Drives, DC machines and transformers, Humanities, Presentation skills, Materials.

Postgraduate courses: Modeling and simulation using computer, advanced topics in high voltage engineering, advanced analysis of power systems, advanced control of power systems.

Languages: Arabic, English

Publications:

Editorials

1. W. Hu, A. Anvari-Moghaddam , L. Xiong, H. Zhao, Y. Du, D. Cao, **S. Abulanwar** “Planning and Operation of Hybrid Renewable Energy Systems, Volume II”, *Frontiers in Energy Research.*, May, 2023. doi: 10.3389/fenrg.2023.1212394
2. W. Hu, Q. Wu, A. Anvari-Moghaddam, J. Zhao, X. Xu, **S. Abulanwar** and D. Cao, “Applications of artificial intelligence in renewable energy systems”, *IET Ren. Power Gen.*, pp. 1-4, 2022. doi: 10.1049/rpg2.12479

Journal Papers

3. O. Badran, M. E. M. Rizk, W. Hu and **S. Abulanwar** “Gaussian process regression-based predictive fault location model for three-terminal transmission line using two-terminal PMUs”, Early access, *IEEE Transactions on Power Systems*.
4. A. Mewafy, I. Ismael, S. Kaddah, W. Hu, Z. Chen and **S. Abulanwar**, “Optimal design of multiuse hybrid microgrids power by green hydrogen-ammonia”, *Renewable & Sustainable Energy Reviews*, vol. 192, 114174, March 2024.
5. **S. Abulanwar**, M. E. M. Rizk and W. Hu, Z. Chen, A. Ghanem “Novel zonal fault detection scheme for DC wind farm via disposition of surge arresters in multipurpose grounding system”, Early access, *IEEE Transactions on Power Delivery*, 2023.

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

6. S. Li, W. Hu, D. Cao, **S. Abulanwar**, Z. Zhang, Z. Chen and F. Blaabjerg, “Energy management of multiple microgrids considering missing measurements: A novel MADRL approach”, *IEEE Transactions on Smart Grid*, vol. 14, no.5, pp. 4133 – 4136, June, 2023.
7. M. E. M. Rizk, A. Ghanem, **S. Abulanwar**, A. Shahin, Y. Baba, I. Ismael, “Lightning induced electromagnetic fields on underground cables considering the influence of nearby wind towers”, *IEEE Transactions on Electromagnetic Compatibility*, vol. 65, no. 6, pp. 1684 – 1694, 2023.
8. O. Badran, M. E. M. Rizk, **S. Abulanwar**, “Comprehensive fault reporting for three-terminal transmission line using adaptive estimation of line parameters”, *Electric Power Systems Research* 223 (2023) 109536.
9. A. Shahein, H. Gad, M. E. M. Rizk, W. Hu, **S. Abulanwar**, “Maximum power point tracking using cross-correlation algorithm for PV system”, *Sustainable. Energy, Grids and Networks* 34 (2023) 101057.
10. **S. Abulanwar**, M. Saeed, H. Mosalem, H. Khater, “Recurrent neural networks RNNs and decision tree DT machine learning-based approaches for transmission system faults diagnosis”, *Journal of Engineering Research*, vol. 7, no. 5, pp. 67-76, 2023.
11. A. Shahin, **S. Abulanwar**, A. Ghanem, M. E. M. Rizk, F. Deng, S. Pierfederici-lemta and I. Ismael, “Sensorless robust flatness-based control with nonlinear observer for non-ideal parallel DC-AC inverters”, *IEEE Access*, vol.10, pp. 53940-53953, May, 2022.
12. X. Xiao, W. Hu, W. Liu, Z. Zhang, Y. Du, **S. Abulanwar**, Z. Chen, “Optimal operational strategy for a future electricity and hydrogen supply system in a residential area”, *International Journal of Hydrogen Energy*, vol. 47, pp.4426-4440, 2022.
13. **S. Abulanwar**, A. Ghanem, M. E. M. Rizk and W. Hu, “Adaptive synergistic control strategy for a hybrid AC/DC microgrid during normal operation and contingencies”, *Applied Energy*, vol. 304, pp. 1-18, 117756, 11 Sep. 2021.
14. M. E. M. Rizk, **S. Abulanwar**, A. Ghanem and M. Lehtonen, “Computation of lightning-induced voltages considering ground impedance of multi-conductor line for lossy dispersive soil”, *IEEE Transactions on Power Delivery*, vol. 37, no. 4, pp. 2464-2473, Sep. 2021.
15. M. E. M. Rizk, **S. Abulanwar**, A. Ghanem and Z. Chen, “Investigation of novel DC wind farm layout during continuous operation and lightning strikes”, *IEEE Transactions on Power Delivery*, vol. 36. no. 4, pp. 2221-2230, Aug. 2021.
16. Q. Yu, F. Deng, C. Liu, J. Zhao, F. Blaabjerg, **S. Abulanwar**, “DC-Link high-frequency current ripple elimination strategy for MMCs using phase-shifted double-group

I do hereby declare that the information furnished above is true to the best of my knowledge .

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- multicarrier-based phase-disposition PWM”, *IEEE Transactions on Power Electronics*, vol. 36. no. 8, pp. 8872-8886, Aug. 2021.
17. J. Zhao, F. Deng, W. Hu, Y. Du, **S. Abulanwar**, “Thermal optimization strategy based on second-order harmonic circulating current injection for MMCs”, *IEEE Access*, vol. 9, pp. 80183-80196, June. 2021.
18. J. Chen, K. Ding, Y. Zhong, F. Deng, **S. Abulanwar**, “A double input-parallel-output-series hybrid switched-capacitor boost converter”, *Chinese Journal of Electrical Engineering*, vol. 6, no. 4, pp. 15 – 27, Dec., 2020.
19. **S. Abulanwar**, A. Ghanem, M. E. M. Rizk, W. Hu, “A proposed flicker mitigation scheme of DFIG in weak distribution networks”, *Alexandria Engineering Journal*, vol. 58, no. 2, pp. 677-687, June. 2019.
20. A. Ghanem, M. Rashed, **S. Abulanwar**, M. E. M. Rizk, “Proposed controller and stability analysis for DFIG to suppress stator flux oscillations during autonomous operation”, *IET Ren. Power Gen.*, vol. 14, no. 5, pp. 747-758, Feb. 2020.
21. M. E. M. Rizk, M. Lehtonen, Y. Baba and **S. Abulanwar**, “Performance of large-scale grounding systems in thermal power plants against lightning strikes to nearby transmission towers”, *IEEE Transactions on Electromagnetic Compatibility.*, vol. 61, no. 2, pp. 400-408, April, 2019.
22. **S. Abulanwar**, W. Hu, Z. Chen, F. Iov, “Adaptive voltage control strategy for variable-speed wind turbine connected to a weak network”, *IET Ren. Power Gen.*, vol. 10, no. 2, pp. 238-249, 2016.
23. M. Rashed, **S. Abulanwar**, F. M. H. Youssef, “H_∞ robust controller for a long VSC-HVDC link connected to a weak grid”, *Mansoura Engineering Journal*, vol. 35, no.1, March 2010, pp.E.53-E.60.
24. E.A. Badran, **S. Abulanwar**, “Dynamic performance comparison between STATCOM and SVC”, *Mansoura Engineering Journal*, vol. 36, no.1, March 2011, pp.E.11-E.17.

Conference papers

25. Y. Zhao, F. Deng, Y. Zheng and **S. Abulanwar**, “A power prediction based model predictive control strategy for dual active bridge converters”, *IEEE The 6th Asia Energy and Electrical Engineering Symposium (AEEES)*, 2024.
26. X. Zhou, F. Deng, Z. Yin and **S. Abulanwar**, “Deadbeat startup optimal control strategy for dual active bridge converters”, *IEEE The 6th Asia Energy and Electrical Engineering Symposium (AEEES)*, 2024.

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27. W. Zeng, F. Deng, Z. Yin, **S. Abulanwar**, “Deadbeat control with parameter identification for extended phase-shift based DAB converters”, 10th International Power Electronics and Motion Control Conference (ECCE Asia), 2024, submitted.
28. Z. Li, F. Deng, **S. Abulanwar**, “Parameter identification with particle filtering algorithm for deadbeat control in DAB converter”, 10th International Power Electronics and Motion Control Conference (ECCE Asia), 2024, submitted.
29. A. S. Gardouh, A. Ghanem, **S. Abulanwar**, E. Gouda, “Current components extraction based open switch fault detection for induction motor drive system”, Middle East Power Systems Conference MEPCON, Mansoura, Dec.19-21, 2023, Egypt.
30. A. Elbeshbeshy, A. Ghanem, **S. Abulanwar**, F. Deng, S. Kaddah, M. E. M. Rizk, “Enhanced stability in hybrid AC/DC microgrids with controlled magnetic energy router”, Middle East Power Systems Conference MEPCON, Mansoura, Dec.19-21, 2023, Egypt.
31. A. Ghanem, M. Saeed, F. Deng, **S. Abulanwar**, “Pade approximation based open switch fault detection for induction motor drive system”, AIRGEC conference, October 25-26, 2023, Egypt.
32. H. Jiang, F. Deng, Y. Zhang, **S. Abulanwar**, “A currentless circulating current suppressing control for modular multilevel converters”, in Proc. 10th International Conference on Power and Energy Systems Engineering (CPESE 2023), Nagoya, Japan, pp. 135-140, 2023.
33. X. Tang, L. Zhang, G. Tan, Y. Zheng, W. Li, **S. Abulanwar**, “An Insulator defect detection approach based on improved feature pyramid and attention mechanism”, in Proc. 2023 Panda Forum on Power and Energy (PandaFPE), 27-30 April 2023.
34. Z. Chang, Y. Deng, J. Wu, M. Chen, **S. Abulanwar**, W. Hu, “Research on performance of RFID Tag implanted in electric safety tool”, in Proc. 2023 Panda Forum on Power and Energy (PandaFPE), 27-30 April 2023.
35. Y. Ma, **S. Abulanwar**, W. Hu, Z. Chang, H. Liu, Y. Wei, Q. Li, “Research on carbon accounting method of industrial park considering various uncertain factors”, in Proc. 2023 Panda Forum on Power and Energy (PandaFPE), 27-30 April 2023.
36. X. Liu, H. Liu, L. Zhang, Y. Wei, Y. Chen, L. Zhang, **S. Abulanwar**, “Analysis of urban charging and replacement facilities planning layout based on SCR synergy index”, in Proc. 2023 Panda Forum on Power and Energy (PandaFPE), 27-30 April 2023.
37. Z. Chang, D. Cai, J. Wu, Z. Guan, F. Feng, Z. Zheng, J. Qu, M. He, **S. Abulanwar**, “Real-time testbed for smart substation interoperability: a case study on auxiliary control system”, in Proc. 2023 Panda Forum on Power and Energy (PandaFPE), 27-30 April 2023.

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Signature:

38. Y. Zheng, W. Hu, Z. Zhang, Q. Huang, Z. Chen, **S. Abulanwar**, “Construction of uncertainty models for renewable energy systems on multiple time scales”, in Proc. The 6th IEEE Conference on Energy Internet and Energy System Integration, Oct. 28-30, 2022, Chengdu, China.
39. K. Zhu, F. Deng, S. Chen, J. Hou, **S. Abulanwar**, R. Ufa, “An AC-side start-up scheme for thyristor-based modular multilevel converters”, in Proc., The 3rd IEEE International Power Electronics and Application Conference and Exposition (PEAC), China, pp. 1426–1431, 2022.
40. A. Shahein, A. Ghanem, W. Hu and **S. Abulanwar**, “Robust flatness controller for dc/dc converter for fuel cell under constant power load”, in Proc., 4th Asia Energy and Electrical Engineering Symposium AEEES, Chengdu, China, 2022.
41. A. F. Ali, E. Gouda, M. A. Elsayes, D. Cao, W. Hu and **S. Abulanwar**, “Optimal sizing of standalone hybrid microgrid using artificial jellyfish search”, in Proc., 4th Asia Energy and Electrical Engineering Symposium AEEES, Chengdu, China, 2022.
42. A. Ghanem, **S. Abulanwar**, M. E. M. Rizk and I. Ismael, "Multidisciplinary Control Scheme based Capacitor Voltage for LCL Filtered Grid Connected Converter," *2019 IEEE Conference on Power Electronics and Renewable Energy (CPERE)*, Aswan City, Egypt, 2019, pp. 82-87.
43. **S. Abulanwar**, A. Ghanem, M. E. M. Rizk and I. Ismael, "Mitigation of DC Wind Farm Power Fluctuations Based Battery Energy Storage System," *2019 21st International Middle East Power Systems Conference (MEPCON)*, Cairo, Egypt, 2019, pp. 1089-1094.
44. **S. Abulanwar**, W. Hu, F. Iov and Z. Chen, “Characterization and assessment of voltage and power constraints of DFIG WT connected to a weak network”, in Proc, IEEE PES General Meeting, pp. 1-5, Washington, USA, July 2014.
45. **S. Abulanwar**, Z. Chen and F. Iov, “Improved FRT Control Scheme for DFIG Wind Turbine Connected to a Weak Grid”, in Proc, IEEE PES Asia-Pacific Power and Energy Engineering Conference (IEEE PES APPEEC), pp. 1-6, Hong Kong, Dec. 2013.
46. **S. Abulanwar**, Z. Chen and F. Iov, “Enhanced LVRT Control Strategy for DFIG Based WECS in Weak Grid”, in Proc, The International Conference on Renewable Energy Research and Applications, ICRERA, pp. 476 – 481, Madrid, Spain, Oct. 2013.
47. **S. Abulanwar**, Z. Chen and B. Bak-Jensen, “Study of DFIG Wind Turbine Fault Ride-Through According to The Danish Grid Code” in Proc. IEEE PES General Meeting, pp.1-5, Vancouver, Canada, July 2013.

I do hereby declare that the information furnished above is true to the best of my knowledge .

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48. M. Rashed, **S. M. Abo El-Anwar**, F. M. H. Youssef, “Nonlinear control scheme for VSC-HVDC transmission systems”, MEPCON’08 Conference, Aswan, EGYPT, March, 2008, pp. 486-491.

Research Projects

- STDF Egypt-Chinese collaboration research project “*Planning and Stability Control of Hybrid Renewable Energy Systems in Weak Interconnected Networks*” with University of Electronic Science and Technology of China, 2019. Role: Co-PI
- STDF Egypt-Chinese collaboration research project “*Multi-Objective Optimization Control of Hybrid Microgrid Driven by Magnetic Network-based Energy Router*” with Southeast University, China, 2022 (Ongoing). Role: Co-PI
- STDF Egypt-Chinese collaboration research project “*Resilience Improvement of Power Grid with High Hydro-wind-solar-storage Penetration under Extreme Scenarios*” with University of Electronic Science and Technology of China, 2023 (Under review). Role: Co-PI

Other Relevant Experience

Scientific Distinction

- IEEE Senior Member
- Promoted to Associate Professor of Electrical Engineering by scientific excellence, Supreme Council of Universities, Egypt, 2021.
- Ranked third best PhD student at the Danish wind industry annual event, Herning Denmark 2014.

Editorial Positions

- Associate Editor, *IET Renewable Power Generation*, **Q2 WOS, IF 3.034**
- Associate Editor, *Alexandria Engineering Journal*, **Q1 WOS, IF 6.8**.
<https://www.sciencedirect.com/journal/alexandria-engineering-journal/about/editorial-board>
- Guest Editor for Special Issue: Planning and Operation of Hybrid Renewable Energy Systems, Volume II, *Frontiers in Energy Research*, 2022. doi: 10.3389/fenrg.2023.1212394
- Guest Editor for Special Issue: Applications of Artificial Intelligence in Renewable Energy Systems, 2022. *IET Renewable Power Generation*. doi: 10.1049/rpg2.12479

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- Section Editor for Section Collections, Insight-Energy Science.
- Section Editor for Section Collections, Progress in Energy & Fuels.

Conferences Participation

- Technical committee member, The 7th International Conference on Electrical Engineering and Green Energy (CEEGE), Los Angeles, USA from June 28-July 1, 2024, <http://ceege.org/>
- Technical committee member, The 6th Asia Energy and Electrical Engineering Symposium), March 28-31, 2024, Chengdu, China.
- Speaker, 2nd Global Meet on Power and Energy Engineering, GMPOWER2024, Sept. 02-04, 2024, Dubai, UAE. <https://primemeetings.org/2024/power-energy-engineering>
- Speaker, International Conference on Power and Energy Engineering (EnergyEng-2024)", March 14-16, 2024, in Dubai, UAE. <https://www.xpertsmeetings.org/energyeng2024/>
- Speaker, Euro Global Congress on Power and Energy Engineering (EGCPEE2024), May 13-15, 2024 in Munich, Germany. <https://avouchconferences.com/2024/power-energy-engineering/>
- Publicity Chair, The 6th Asia Energy and Electrical Engineering Symposium (AEEES), Chengdu, China from March 28 to 31, 2024. <https://aeecs.org/organizing.html>
- Program Committee Chair of the 4th International Conference on Power Engineering ICPE 2023, Macau, China, December 11-13, 2023. <http://www.icpe.net/committee.html>
- Keynote speaker, 4th International Conference on Clean Energy and Electric Power Engineering ICCEPE 2023, May 19-21, 2023. <http://www.iccepe.org/speaker>
- OCM, International Conference on Power and Energy Engineering, November 06-07, 2023, Dubai, UAE. <https://crgconferences.com/power-energy/>
- Technical program committee, 2023 8th International Conference on Sustainable and Renewable Energy Engineering (ICSREE 2023), Nice, France, May 11-13, 2023. <http://www.icsree.com/committee.html>
- TCM, 2023 Panda Forum on Power and Energy (PandaFPE 2023), April 27-30, 2023 in Chengdu. <https://www.pandafpe.org/tc.html>
- Program Committee Chair of the 3rd International Conference on Power Engineering ICPE 2022, Sanya, Hainan Province, China, December 09-11, 2022. <http://www.icpe.net/committee.html>

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Name:

Signature:

- Invited speaker, 4th *Asia Energy and Electrical Engineering Symposium AEEES*, Chengdu, China, March 25-28, 2022 - <http://aees.org/keynote.html>
- Session Chair, *The 5th International Conference on Electrical Engineering and Green Energy CEEGE*, Berlin, Germany, 8-11 June, 2022. <http://cege.org/>

Supervised PhD Theses

- Advanced operation and control of wind farm with hybrid energy storage system, 2019 (Ongoing).
- Enhanced design and operation of an integrated hybrid microgrid for power/gas supply, 2021 (Ongoing).

Supervised Msc Theses

- Energy management of hybrid AC/DC microgrids with combined energy storage systems, 2022 (Ongoing).
- Development of a hybrid fault current limiter using liquid metal for medium voltage DC systems, 2021 (Ongoing)
- Communication-less fault detection and location scheme in multi-terminal DC microgrids, 2021 (Ongoing)
- Fault detection and location technique for multi terminal transmission lines, 2021 (Ongoing)
- Multi-objective techno-economic-environmental optimization for off-grid renewable energy systems, 2021 (Ongoing)
- Investigating solar cell performance with a spectral filtration technique, 2022 (Ongoing)

Examiner for Msc Theses

- E. Hamza, “Study the effect of high penetration of photovoltaic systems in distribution networks”, Msc Thesis, Faculty of Engineering, Mansoura University, Egypt, August. 2023.
- M. E. E. Abdelhamid, “Modeling and analysis of EV PMSM drive system under regenerative braking operation with fault-tolerant control”, Msc Thesis, Arab Academy for Science, Technology and Maritime Transport (AASTMT), College of Engineering and Technology, 2022.
- T. J. Duvenhage “Proposed mitigation techniques for non-compliance challenges of a grid-connected photovoltaic plant”, Msc Thesis, Faculty of Engineering and the Built Environment, Cape Peninsula University of Technology (CPUT), March. 2022.

I do hereby declare that the information furnished above is true to the best of my knowledge .

Name:

Signature:

- R. Esterhuizen “An approach to voltage quality enhancement in wind energy conversion systems”, Msc Thesis, Faculty of Engineering and the Built Environment, Cape Peninsula University of Technology (CPUT), Dec. 2022.

Area of Expertise

- Hybrid AC/DC Microgrids, optimization, operation and control
- Fault detection and protection of DC and AC microgrids
- Wind energy conversion systems
- Grid-connected converters
- Power system transients

Academic Profile

- scholar.google.com/citations?user=kWcM-MEAAAAJ&hl=en
- scopus.com/authid/detail.uri?authorId=56018700100
- orcid.org/0000-0002-3396-4020
- growkudos.com/profile/sayed_abulanwar
- researchgate.net/profile/Sayed-Abulanwar
- linkedin.com/in/sayed-abulanwar-9363a339/
- webofscience.com/wos/author/record/I-3132-2018
- mymans.mans.edu.eg/cv/054a2b70-7793-4191-9a1a-86d87362148c/2

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