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FIELDS OF SPECIALIZATION

- Power electronics control, Grid connected converters, Renewable energy, smart grid, electric vehicle.

DEGREES

- Ph.D., Electrical engineering, Mansoura university, Mansoura, Egypt ,2017, " Improvements to The Operation and Control of Power Electronic Converters Used in Microgrids ".
- M.Sc, Electrical engineering, Mansoura university, Mansoura, Egypt ,2011, "Modeling and Control of Doubly Fed Induction Generator for Wind Energy Conversion Systems ".
- B.S.E.E., Electrical engineering, Mansoura university, Mansoura, Egypt, 2006.

ACADEMIC AND INDUSTRIAL POSITIONS

- Demonstrator at the department of Electrical Engineering, Mansoura University from December 2006 until 2011.
- Assistant lecturer at the department of Electrical Engineering, Mansoura University from May 2011 until 2017.
- Assistant professor at the department of Electrical Engineering, Mansoura University from November 2017 until 2022.
- Associate professor at the department of Electrical Engineering, Mansoura University from November 2022 until now.
- (2019-2021) Director of technical support and maintenance unit, Faculty of engineering, Mansoura university.
- (2022 -) Deputy Director of the Engineering workshop technology unit, Faculty of Engineering, Mansoura University.

PATENTS, PUBLICATIONS

- [1] Afaf Rabie, Abdelhady Ghanem, Sahar S. Kaddah and Magdi M. El-Saadawi, "Electric vehicles based electric power grid support: a review", International Journal of Power Electronics and Drive Systems (IJPEDS) Vol. 14, No. 1, March 2023, pp. 589-605.
- [2] Akram Elmitwally, Abdelhady Ghanem, "Communication-Free Travelling Wave-Based Method for Ground Fault Location in Radial Distribution Network with DG," 23rd International Middle East Power Systems Conference (MEPCON), Cairo, Egypt, 2022, pp. 1-6.

- [3] Y. Kassab, E. Gouda, A. Elmitwally and A. Ghanem, "Design and performance of a magnetic gear with a gear ratio ($Gr = 3.5$)," 23rd International Middle East Power Systems Conference (MEPCON), Cairo, Egypt, 2022, pp. 1-6.
- [4] A., Shahin, S., Abulanwar, A., Ghanem, M.E., Rizk, F., Deng, S., Pierfederici and I., Ismael, "Sensorless Robust Flatness-Based Control with Nonlinear Observer for Non-Ideal Parallel DC-AC Inverters", IEEE Access 2022.
- [5] A. Shahin, A. Ghanem, W. Hu and S. Abulanwar, "Robust Flatness Controller for DC/DC Converter for Fuel Cell under Constant Power Load", 2022 4th Asia Energy and Electrical Engineering Symposium (AEEES), 2022, pp. 587-593.
- [6] Rizk, M. E. M., Abulanwar, S. M., Ghanem, A. T. M., & Lehtonen, M. "Computation of Lightning-Induced Voltages Considering Ground Impedance of Multi-Conductor Line for Lossy Dispersive Soil", IEEE Transactions on Power Delivery, 2021.
- [7] S. Abulanwar, A. Ghanem, M. E. Rizk, and W. Hu, "Adaptive Synergistic Control Strategy for A Hybrid AC/DC Microgrid During Normal Operation and Contingencies", Applied Energy Journal, 2021.
- [8] Akram Elmitwally, Abdelhady Ghanem, "Local current-based method for fault identification and location on series capacitor-compensated transmission line with different configurations", International Journal of Electrical Power & Energy Systems, Volume 133, 2021.
- [9] 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 (2020).
- [10] Afaf Rabie, Abdelhady Ghanem, Sahar Kaddah and Magdi Saadawi, "Frequency Stability in Weak Grids Using Independent Electric Vehicle," MEPCON, Dec. 2019, Cairo.
- [11] A. Ghanem, S. Abulanwar, M. Rizk, and I. Ismael, "Multidisciplinary Control Scheme based Capacitor Voltage for LCL Filtered Grid Connected Converter," IEEE Conference on Power Electronics and Renewable Energy, 23-25 Oct. 2019, Aswan, Egypt.
- [12] Mohammad E. M. Rizk, Matti Lehtonen, Yoshihiro Baba, A. Ghanem, "Protection against Lightning-Induced Voltages: Transient Model for Points of Discontinuity on Multi-conductor Overhead Line", IEEE Transactions on Electromagnetic Compatibility, 2019.
- [13] A. Ghanem, S. Abulanwar, M. Rizk, and M. Rashed, "A Proposed Controller and Stability Analysis for DFIG To Suppress Stator Flux Oscillations During Autonomous Operation," IET Renewable Power Generation, 2019.
- [14] S. Abulanwar, A. Ghanem, M. E. Rizk, and W. Hu, "A proposed flicker mitigation scheme of DFIG in weak distribution networks," Alexandria Engineering Journal, 2019.
- [15] Ghanem, Abdelhady, Mohamed Rashed, Mark Sumner, Mohamed Adel El-sayes, and Ibrahim II Mansy. "Wide frequency range active damping of LCL-filtered grid-connected converters." The Journal of Engineering 2019, no. 17 (2019): 3542-3547
- [16] Ghanem, A. Rashed, M. Sumner, M. El-sayes, and I. I. I. Mansy, "Wide frequency range active damping of LCL-filtered grid connected converters," 9th IET International Conference on Power Electronics, Machines and Drives (PEMD 2018), 17-19 April 2018, Liverpool, UK.
- [17] Abdelhady Ghanem; Mohamed Rashed; Mark Sumner; Mohamed A. Elsayes; Ibrahim I. I. Mansy "Grid impedance estimation for islanding detection and adaptive control of converters" IET Power Electronics, Volume: 10, Issue: 11, Pages: 1279 – 1288, 2017.
- [18] Ghanem, A. Rashed, M. Sumner, M. El-sayes, and I. I. I. Mansy, "Hybrid active damping of LCL-filtered grid connected converter," 2016 IEEE 2nd Annual Southern Power Electronics Conference (SPEC).
- [19] Ghanem, A. Rashed, M. Sumner, M. El-sayes, and I. I. I. Mansy, "Grid impedance estimation for islanding detection and adaptive control of converters," 8th IET International Conference on Power Electronics, Machines and Drives (PEMD 2016).
- [20] M. Rashed, Abd El-Hady Ghanem, A. El-Sayes and III. Mansy "Control Strategy for an Isolated DFIG Based Micro-Grid with Integrated Super-Capacitors", The Online Journal on Electronics and Electrical Engineering (OJEEE), Vol. 1, No. 2, October 2009, pp. 81-88.

- [21] Elmitwally A, Rashed M and Ghanem A., "A Proposed Scheme for Torque Ripple Minimization of SRM In Four Quadrants of Operation" Engineering Conference, Faculty of Engineering, Mansoura University, EGYPT, 2008.

