



Name: Hany Mohamed Hasanien

Current Title (including department and university): Professor at Electrical Power and Machines Department, Faculty of Engineering, Ain Shams University

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FIELDS OF SPECIALIZATION

DEGREES

- **Ph.D., Faculty of Engineering, Ain Shams University, 2007.**
- **M.S., Faculty of Engineering, Ain Shams University, 2004.**
- **B.S.E.E., Faculty of Engineering, Ain Shams University, 1999.**

ACADEMIC AND INDUSTRIAL POSITIONS

POSITION	PLACE	DATES	COMMENTS
Professor (Scientific Distinguish Promotion)	Ain Shams University, Faculty of Engineering, Electrical Power and Machines Dept. Cairo, Egypt	May 2017-Till present	Instructor of several Electrical Engineering undergraduate and graduate courses. Research: Renewable energy systems, energy storage systems, smart grid, power systems control and dynamics
Courtesy Professor	Department of Electrical and Computer Engineering, Florida International University, Miami, USA	1 Feb. 2023-1 Feb. 2025	Renewable energy systems, energy storages, power systems, and electric drives.
Associate Professor	King Saud University, College of Engineering, Electrical Engineering Dept., Riyadh, SA.	20 Sept. 2011- May 2015	Instructor of several Electrical Engineering undergraduate and graduate courses. Research: Renewable energy systems, energy storage systems, smart grid, power systems control and dynamics
Associate Professor	1) Ain Shams University, Electrical Power and Machines Dept. Cairo, Egypt	July 2012- May 2017	Instructor of several Electrical Engineering undergraduate and graduate courses. Supervisor of undergraduate and graduate

	2) Part timer at British University in Egypt 3) Part timer at Arab Academy for Science and Technology and Maritime Transport, Cairo, Egypt		research assistants, and several teaching assistants. Research: Renewable energy systems, energy storage systems, smart grid, power systems control and dynamics
Assistant Professor	1) Ain Shams University, Electrical Power and Machines Dept. Cairo, Egypt 2) Part timer at British University in Egypt 3) Part timer at Arab Academy for Science and Technology and Maritime Transport, Cairo, Egypt	July 2007-June 2012	Instructor of several Electrical Engineering undergraduate and graduate courses. Supervisor of undergraduate and graduate research assistants, and several teaching assistants. Research: Renewable energy systems, energy storage systems, smart grid, power systems control and dynamics
Teaching Assistant	Ain Shams University, Electrical Power and Machines Dept. Cairo, Egypt	July 2004-June 2007	Teach tutorials and labs for different electrical engineering courses.
Demonstrator	Ain Shams University, Electrical Power and Machines Dept. Cairo, Egypt	July 1999-June 2004	Teach tutorials and labs for different electrical engineering courses.

RESEARCH PROJECTS

- [1] Ibrahim Alsaidan, Hany M. Hasanien, Muhaned Alarraj, Abrar Saleh Hammad, "Proton Exchange Membrane Fuel Cell Steady State Modelling Using Metaheuristic Optimization Algorithms", Deanship of Scientific Research, Qassim University, Qassim, S.A. (١٤٣٠-٢٠٢٠-١-٣-I) during the academic year ١٤٤١ AH / ٢٠٢١ AD", September 2020-September 2021.
- [2] Mohamed H. Qais, Hany M. Hasanien, Adnan Nouh, and Saad Alghuwainem, "Performance improvement of grid-connected renewable energy systems", Deanship of Scientific Research, King Saud University, Riyadh, S.A. RGP-1440-049. Dec. 2018- September 2019.
- [3] Mohamed H. Qais, Hany M. Hasanien, Adnan Nouh, and Saad Alghuwainem, "Performance improvement of grid-connected renewable energy systems", Deanship of Scientific Research, King Saud University, Riyadh, S.A. RGP-1440-049. September 2019-March 2020.
- [4] Mohamed H. Qais, Hany M. Hasanien, Adnan Nouh, and Saad Alghuwainem, "Performance improvement of grid-connected renewable energy systems", Deanship of Scientific Research, King Saud University, Riyadh, S.A. RGP-1440-049. March 2020-March 2021.
- [5] Hany M. Hasanien, "Design optimization of PID controller in automatic voltage regulator system using Taguchi combined genetic algorithm method", The Deanship of Scientific Research, Research Center, College of Engineering, King Saud University, 1 June 2012-1 April 2013.

- [6] Hany M. Hasanien and Syed Q. Ali, "Wind generator stability improvement by adaptive neural network controlled superconducting magnetic energy storage", Sustainable Energy Technology (SET), King Saud University, S.A. SP12/A1/010. 15 Jan. 2012-15 July 2012.
- [7] Hany M. Hasanien, Syed Q. Ali, and Essam A. Al-Ammar "Transient stability enhancement of DFIG based Wind farm using advanced controllers", Saudi Aramco Chair of Electrical Power, King Saud University, S.A. 1 Jan. 2012-30 Oct. 2012.
- [8] Hany M. Hasanien, "Speed control of grid-connected switched reluctance generator driven by variable speed wind turbine using adaptive neural network controller", The Deanship of Scientific Research, Research Center, College of Engineering, King Saud University, 1 October 2011-1 October 2012.

CONSULTANT

- Transmission line protection, Dubai Electricity and Water Association (DEWA), 22-26 April 2018, Dubai, UAE.
- Circuit breaker and switchgear, Career Development & Consultations Academy, (CDC), Cairo, Egypt.
- Power Transformer, Construction, Operation, and Maintenance, Career Development & Consultations Academy, (CDC), Cairo, Egypt.
- Electric drives: operation, control and maintenance" in INMA Kingdom Training & Development Center, Cairo, Egypt.
- Electrical power distribution systems troubleshooting" in the group training and consultation (GTC), Cairo, Egypt.
- Automatic voltage regulator operation and maintenance" in the group training and consultation (GTC), Dammam, Saudi Arabia.
- Training courses with GTC from 2012-2015 as follows:
- Generator protection
- Excitation control systems
- Switchgear, circuit breaker, relay operation and maintenance
- Distributed control system
- Electrical system transient investigation
- Grounding
- Power flow analysis
- Baterry
- Variable speed drives
- Faults analysis
- Distribution transformers
- Gas turbine control system
- Low voltage network operation, testing and maintenance
- Overhead lines Patrolling

AWARDS

- He was a member of the promotion committee for Associate Professors and Professors of Electrical Power Engineering in Egypt in September 2022.

- He was included in the Research Council of Ain Shams University in January 2021.
- He was awarded Superiority Egypt Award for Engineering Sciences in 2019.
- He was included in a Stanford University database (USA) for the best 2% of the scientists worldwide in 2020, 2021 and 2022.
- He was Editor in Chief of Ain Shams Engineering Journal in April 2021.
- He was awarded Institutions Egypt Award for Invention and Innovation of Renewable Energy Systems Development in 2014.
- He was awarded Encouraging Egypt Award for Engineering Sciences in 2012.
- He is IEEE PES EGYPT Chapter Chairman, April 2020.
- He is an Editor of Electronics Journal, MDPI, Industrial Electronics Section, July 2020.
- He is an Editor of IET Renewable Power Generation since September 2016.
- He is a member of Energy Research Council in Academy of Scientific Research and Technology 2016.
- He is a Guest Editor of Special Issue on: Emerging Technologies for Virtual Plant and Microgrid, of IET Generation, Transmission & Distribution, 2018.
- He is an Editorial Board Member of Electric Power Components and Systems Journal since 2013.
- He is an Associate Editor of Ain Shams Engineering Journal since 2015.
- His Biography has been included in ‘2000 Outstanding Intellectuals of the 21st Century 2011’ in International Biographical Center, Cambridge, England.
- His Biography has been included in ‘Great Minds in the 21st Century’ in American Biographical Institute, North Carolina, U.S.A. 2011.
- His Biography has been included in ‘Marquis Who’s Who’ in the world for its 28th edition, 2011.
- Ain Shams University international publications award for 2010.
- Ain Shams University international publications award for 2011.
- Ain Shams University international publications award for 2012.
- Highest distinction in B.Sc., first rank with honor.
- Faculty of Engineering, Ain Shams University excellent grade award for 5 years (1994-1998).

PROFESSIONAL RECOGNITION

Invited Speaker and Session Chair:

- [1] Hany M. Hasanien, “Photovoltaic modeling using metaheuristic algorithms”, *the 2nd INTERNATIONAL CONGRESS ON AI AND MACHINE LEARNING*, FEBRUARY 14-15, 2022, UK.
- [2] Hany M. Hasanien, “Artificial Intelligence Application for Photovoltaic Systems”, *International Conference on Artificial Intelligence and Robotics*, April 29-30, 2022, Osaka, Japan.
- [3] Hany M. Hasanien, “Session Chair”, *International Conference of Power Electronics and Renewable Energy (CPERE)*, Feb. 19-21, 2023, Cairo, Egypt.
- [4] Hany M. Hasanien, “Session Chair”, *International Middle East Power Systems Conference (MEPCON)*, December 19-21, 2017, Cairo, Egypt.
- [5] Hany M. Hasanien, “Session Chair”, *International Middle East Power Systems Conference (MEPCON)*, December 17-19, 2019, Cairo, Egypt.

- [6] Hany M. Hasanien, “Session Chair”, *International Middle East Power Systems Conference (MEPCON)*, December 15-17, 2021, Cairo, Egypt.

PATENTS, PUBLICATIONS

I) Articles Published and accepted to appear in refereed Journals: 195

- [1] George Fernandez Savari, M. Jagabar Sathik, L. Anantha Raman, Adel El-Shahat, Hany M. Hasanien, Dhafer Almakhles, Shady H.E. Abdel Aleem, Ahmed I. Omar, “Assessment of Charging Technologies, Infrastructure and Charging Station Recommendation Schemes of Electric Vehicles: A Review”, *Ain Shams Engineering Journal*, vol. 14, no. 4, pp. 1-15, April 2023. [ISI Journal](#)
- [2] Marcos Tostado-Véliz, Hany M. Hasanien, Rania A. Turky, Yasser O. Assolami, David Vera, Francisco Jurado, “Optimal Home Energy Management including Batteries and Heterogenous Uncertainties”, *Journal of Energy Storage*, vol 60, 106646, pp. 1-13, April 2023. [ISI Journal](#)
- [3] Mihailo Micev, Martin Čalasan, Milovan Radulović, Shady H. E. Abdel Aleem, Hany M. Hasanien, Ahmed F. Zobaa, “Artificial Neural Network-Based Nonlinear Black-Box Modeling of Synchronous Generators”, *IEEE Transactions on Industrial Informatics*, vol. 19, no. 3, pp. 1-12, March 2023. [ISI Journal](#)
- [4] Andrew J. Riad, Hany M. Hasanien, Rania A. Turky, Ahmed Yakout, “Identifying the PEM Fuel Cell Parameters Using Artificial Rabbits Optimization Algorithm”, *Sustainability*, vol. 15, no. 6, 5009, pp. 1-25, March 2023. [ISI Journal](#)
- [5] Amr Saleh, Hany M. Hasanien, Rania A. Turky, Balgynbek Turdybek, Mohammed Alharbi, Francisco Jurado, and Walid A. Omran, “Optimal Model Predictive Control for Virtual Inertia Control of Autonomous Microgrids”, *Sustainability*, vol. 15, no. 5, 4625, pp. 1-17, March 2023. [ISI Journal](#)
- [6] Zia Ullah, Shaorong Wang, Guan Wu, Hany M. Hasanien, Anis Ur Rehman, Rania A. Turky, Mohamed R. Elkadeem, “Optimal Scheduling and Techno-Economic Analysis of Electric Vehicles by Implementing Solar-Based Grid-Tied Charging Station”, *Energy*, vol. 267, 126560, pp. 1-15, March 2023. [ISI Journal](#)
- [7] Ziad M. Ali, Martin Calasan, Shady H. E. Abdel Aleem, and Hany M. Hasanien, “On the exact analytical formulas of leakage current-based supercapacitor model operating in industrial applications”, *Energies*, vol. 16, no. 4, pp. 1-22, Feb. 2023. [ISI Journal](#)
- [8] Martin Čalasan, Shady H. E. Abdel Aleem, Hany M. Hasanien, Zuhair M. Alaas, and Ziad M. Ali, “An innovative approach for mathematical modeling and parameter estimation of PEM fuel cells based on iterative Lambert W function”, *Energy*, vol. 264, 126165, pp. 1-15, February 2023. [ISI Journal](#)
- [9] Marcos Tostado-Véliz, Hany M. Hasanien, Salah Kamel, Rania A. Turky, Francisco Jurado and M. R. Elkadeem, “Multiobjective home energy management systems in nearly-zero energy buildings under uncertainties considering vehicle-to-home: A novel lexicographic-based stochastic-information gap decision theory approach”, *Electric Power Systems Research*, vol. 214, 108946, pp. 1-13, January 2023. [ISI Journal](#)
- [10] Ahmed M.Taher, Hany M. Hasanien, Shady H. E. Abdel Aleem, Marcos Tostado-Véliz, Martin Čalasan, Rania A. Turky, and Francisco Jurado, “Optimal Model Predictive Control of Energy Storage Devices for Frequency Stability of Modern Power Systems”, *Journal of Energy Storage*, vol. 57, 106310, pp. 1-14, January 2023. [ISI Journal](#)

- [11] Ahmed Mahdy, Hany M. Hasanien, Rania A. Turky, and Shady H. E. Abdel Aleem, “Modeling and optimal operation of hybrid wave energy and PV system feeding supercharging stations based on golden jackal optimal control strategy”, *Energy*, vol. 263, 125932, pp. 1-19, January 2023. [ISI Journal](#)
- [12] Mahmoud A. El-Dabah, Ragab A. El-Sehiemy, Hany M. Hasanien, and Bahaa Saad, “Photovoltaic Model Parameters Identification Using Northern Goshawk Optimization Algorithm”, *Energy*, vol. 262, Part B, 125522, pp. 1-18, Jan. 2023. [ISI Journal](#)
- [13] Mohamed S. Hashish, Hany M. Hasanien, Haoran Ji, Abdulaziz Alkuhayli, Mohammed Alharbi, Tlenshiyeva Akmaral, Rania A. Turky, Francisco Jurado, and Ahmed O. Badr, “Monte Carlo Simulation and a Clustering Technique for Solving the Probabilistic Optimal Power Flow Problem for Hybrid Renewable Energy Systems”, *Sustainability*, vol 15, no. 1, pp. 1-26, January 2023. [ISI Journal](#)
- [14] W.D. Chen, Hany M. Hasanien, K.J. Chua, “Towards a digital twin approach – Experimental analysis and energy optimization of a multi-bed adsorption system”, *Energy Conversion and Management*, vol. 271, 116346, pp. 1-21, November 2022. [ISI Journal](#)
- [15] Mahmoud A. Soliman, Hany M. Hasanien, Rania A. Turky, and S.M. Muyeen, “Hybrid African Vultures-Grey Wolf Optimizer Approach for Electrical Parameters Extraction of Solar Panel Models”, *Energy Reports*, vol. 8, pp. 14888-14900, November 2022. [ISI Journal](#)
- [16] Ahmed M. Hussien, Jonghoon Kim, Abdulaziz Alkuhayli, Mohammed Alharbi, Hany M. Hasanien, Marcos Tostado-Véliz, Rania A. Turky, Francisco Jurado, “Adaptive PI Control Strategy for Optimal Microgrid Autonomous Operation”, *Sustainability*, vol. 14, no. 22, pp. 1-22, November 2022. [ISI Journal](#)
- [17] Mohamed A. M. Shaheen, Zia Ullah, Mohammed H. Qais, Hany M. Hasanien, K.J. Chua, Marcos Tostado-Véliz, Rania A. Turky, Francisco Jurado, and Mohamed R. Elkadeem, “Solution of Probabilistic Optimal Power Flow Incorporating Renewable Energy Uncertainty using a Novel Circle Search Algorithm”, *Energies*, vol. 15, no. 21, pp. 1-19, November 2022. [ISI Journal](#)
- [18] Samuel R. Fahim, Hany M. Hasanien, Rania A. Turky, Shady H.E. Abdel Aleem and Martin Ćalasan, “A Comprehensive Review of Photovoltaic Modules Models and Algorithms Used in Parameter Extraction”, *Energies*, vol. 15, no. 23, pp. 1-53, November 2022. [ISI Journal](#)
- [19] Ibrahim Alsaidan, Mohamed A. M. Shaheen, Hany M. Hasanien, Muhammed Alaraj, Abrar S. Alnafisah, “A PEMFC model optimization using the enhanced bald eagle algorithm”, *Ain Shams Engineering Journal*, vol. 13, no. 6, 101749, pp. 1-11, November 2022. [ISI Journal](#)
- [20] Mohamed Mostafa Elsaied, Walid Helmy, Hany M. Hasanien, “Frequency Stabilization of a hybrid three-area power system equipped with Energy Storage Units and renewable energy sources”, *IET Renewable Power Generation*, vol. 16, no. 15, pp. 3267-3286, November 2022. [ISI Journal](#)
- [21] Nourhan A. Maged, Hany M. Hasanien, Essamudin A. Ebrahim, Marcos Tostado-Véliz, and Francisco Jurado, “Real-Time Implementation and Evaluation of Gorilla Troops Optimization-Based Control Strategy for Autonomous Microgrids”, *IET Renewable Power Generation*, vol. 16, no. 14, pp. 3071-3091, October 2022. [ISI Journal](#)
- [22] Banaja Mohanty, Rajvikram Madurai Elavarasan, Hany M. Hasanien, Elangovan Devaraj, Rania A. Turky, and Rishi Pugazhendhi, “Parameters Identification of Proton Exchange Membrane Fuel Cell Model Based on the Lightning Search Algorithm”, *Energies*, vol. 15, no. 21, pp. 1-19, October 2022. [ISI Journal](#)
- [23] Bachir BENTOUATI, Ragab A. EL-SHEIEMY, Saliha CHETTIH and Hany M. Hasanien, “A chaotic krill herd optimizer for efficient combination of renewable energy sources in isolated microgrid mode”, *Electric Power Components and Systems*, vol. 49, no. 18-19, pp. 1445-1462, October 2022. [ISI Journal](#)

- [24] Hany M. Hasanien, Marcos Tostado-Véliz, Rania A. Turky, and Francisco Jurado, “Hybrid Adaptive Controlled Flywheel Energy Storage Units for Transient Stability Improvement of Wind Farms”, *Journal of Energy Storage*, vol. 54, 105262, pp. 1-13, October 2022. [ISI Journal](#)
- [25] Basma Salah, Hany M. Hasanien, Fadia M. A. Ghali, Yasser M. Alsayed, Shady H. E. Abdel Aleem, Adel El-Shahat, “African Vulture Optimization-Based Optimal Control Strategy for Voltage Control of Islanded DC Microgrids”, *Sustainability*, vol. 14, no. 19, 11800, pp. 1-27, September 2022. [ISI Journal](#)
- [26] Zia Ullah, Shoarong Wang; Guoan Wu; Hany M. Hasanien; M. Waqas Jabbar; Hassan Saeed Qazi; Marcos Tostado-Véliz; Rania A. Turky, M.R. Elkadeem, “Advanced Studies for Probabilistic Optimal Power Flow in Active Distribution Networks: A Scientometric Review”, *IET Generation, Transmission & Distribution*, vol. 16, no. 18, pp. 3579-3604, September 2022. [ISI Journal](#)
- [27] Mohamed A. M. Shaheen, Hany M. Hasanien, S. F. Mekhamer, Mohammed H. Qais, Saad Alghuwainem, Zia Ullah, Marcos Tostado-Véliz, Rania A. Turky, Francisco Jurado and Mohamed R. Elkadeem, “Probabilistic Optimal Power Flow Solution Using a Novel Hybrid Metaheuristic and Machine Learning Algorithm”, *Mathematics*, vol. 10, no. 17, 3036, pp. 1-24, September 2022. [ISI Journal](#)
- [28] Mahmoud A. Soliman, Hany M. Hasanien, Mohamed Shawky El Moursi, Ahmed Al-Durra, “Chaotic-Billiards Optimization Algorithm-Based Optimal FLC Approach for Stability Enhancement of Grid-Tied Wind Power Plants”, *IEEE Transactions on Power Systems*, vol. 37, no. 5, pp. 3614-3629-September 2022. [ISI Journal](#)
- [29] Ahmed H. Yakout, Waheed Sabry, Almoataz Y. Abdelaziz, Hany M. Hasanien, Hossam Kotb and Kareem M. AboRas, “Enhancement of Frequency Stability of Power Systems Integrated with Wind Energy Using Marine Predator Algorithm Based PIDA Controlled STATCOM”, *Alexandria Engineering Journal*, vol. 61, no. 8, pp. 5851-5867, August 2022. [ISI Journal](#)
- [30] Ahmed H. Yakout, Hossam Kotb, Kareem M. AboRas, Hany M. Hasanien, “Comparison among different recent metaheuristic algorithms for parameters estimation of solid oxide fuel cell: Steady-state and dynamic models”, *Alexandria Engineering Journal*, vol. 61, no. 11, pp. 8507-8523, November 2022. [ISI Journal](#)
- [31] Marcos Tostado-Véliz, Salah Kamel, Hany M. Hasanien, Rania A. Turky, Francisco Jurado, “Optimal Energy Management of Cooperative Energy Communities considering Flexible Demand, Storage and Vehicle-to-Grid under Uncertainties”, *Sustainable Cities and Society*, vol. 84, 104019, pp. 1-13, September 2022. [ISI Journal](#)
- [32] Marcos Tostado-Véliz, Salah Kamel, Hany M. Hasanien, Paul Arévalo, Rania A. Turky, Francisco Jurado, “A Stochastic-Interval Model for Optimal Scheduling of PV-assisted Multi-mode Charging Stations”, *Energy*, vol. 253, 124219, pp. 1-13, August 2022. [ISI Journal](#)
- [33] Ahmed R. Ginidi, Abdullah M. Shaheen, Ragab A. El-Sehiemy, Hany M. Hasanien, and Ahmed Al-Durra, “Estimation of electrical parameters of photovoltaic panels using heap-based algorithm”, *IET Renewable Power Generation*, vol. 16, no. 11, pp. 2292-2312, August 2022. [ISI Journal](#)
- [34] Abdullah M. Shaheen, Ragab A. El-Sehiemy, Hany M. Hasanien, Ahmed R. Ginidi, “An Improved Heap Optimization Algorithm for Efficient Energy Management based Optimal Power Flow Model”, *Energy*, vol. 250, 123795, pp. 1-18, July 2022. [ISI Journal](#)
- [35] Hazem Hassan Ellithy, Adel M. Taha, Hany M. Hasanien, Mahmoud A. Attia, Adel El-Shahat, and Shady H. E. Abdel Aleem, “Estimation of Parameters of Triple Diode Photovoltaic Models Using Hybrid Particle Swarm and Grey Wolf Optimization”, *Sustainability*, vol. 14, no. 15, 9046, pp. 1-20, July 2022. [ISI Journal](#)

- [36] Ghazi A. Ghazi, Hany M. Hasanien, Essam A. Al-Ammar, Rania A. Turky, Wonsuk Ko, Sisam Park, Hyeong-Jin Choi, "African Vulture Optimization Algorithm-Based PI Controllers for Performance Enhancement of Hybrid Renewable-Energy Systems", *Sustainability*, vol. 14, 8172, pp. 1-25, July 2022. [ISI Journal](#)
- [37] Ahmed Mahdy, Hany M. Hasanien, Waleed Helmy, Rania A. Turky, Shady H. E. Abdel Aleem, and Essamudin Ali Ebrahim, "Nonlinear Modeling and Real-Time Simulation of a Grid-Connected AWS Wave Energy Conversion System", *IEEE Transactions on Sustainable Energy*, vol. 13, no. 3, pp. 1744-1755, July 2022. [ISI Journal](#)
- [38] Hany M. Hasanien, Rania A. Turky, Marcos Tostado-Véliz, S. M. Muyeen, and Francisco Jurado, "Enhanced Block-Sparse Adaptive Bayesian Algorithm Based Control Strategy of Superconducting Magnetic Energy Storage Units for Wind Farms Power Ripple Minimization", *Journal of Energy Storage*, vol. 50, 104208, pp. 1-11, June 2022. [ISI Journal](#)
- [39] M. H. Qais, Hany M. Hasanien, Rania A. Turky, Saad Alghuwainem, K.H. Loo, and M. Elgendi, "Optimal PEM Fuel Cell Model Using a Novel Circle Search Algorithm", *Electronics*, vol. 11, no. 12, 1808, pp. 1-20, June 2022. [ISI Journal](#)
- [40] Hany M. Hasanien, Mohamed A. M. Shaheen, Rania A. Turky, Mohammed H. Qais, Saad Alghuwainem, Salah Kamel, Marcos Tostado-Véliz, and Francisco Jurado, "Precise modeling of PEM fuel cell using a novel Enhanced Transient Search Optimization algorithm", *Energy*, vol. 247, 123530, pp. 1-14, May 2022. [ISI Journal](#)
- [41] M. H. Qais, Hany M. Hasanien, Saad Alghuwainem, K.H. Loo, M. Elgendi, and Rania A. Turky, "Accurate Three-Diode model estimation of Photovoltaic modules using a novel circle search algorithm", *Ain Shams Engineering Journal*, vol. 13, no. 3, 101824, pp. 1-14, May 2022. [ISI Journal](#)
- [42] Mohamed H. Qais, Hany M. Hasanien, Rania A. Turky, Saad Alghuwainem Marcos Tostado-Véliz, Francisco Jurado, "Circle Search Algorithm: A Geometry-Based Metaheuristic Optimization Algorithm", *Mathematics*, vol. 10, no. 10, 1626, pp. 1-18, May 2022. [ISI Journal](#)
- [43] Amr Saleh, Walid A. Omran, Hany M. Hasanien, Marcos Tostado-Véliz, Abdulaziz Alkuhayli, and Francisco Jurado, "Manta Ray Foraging Optimization for the Virtual Inertia Control of Islanded Microgrids Including Renewable Energy Sources", *Sustainability*, vol. 14, 4189, pp. 1-19, April 2022. [ISI Journal](#)
- [44] Marcos Tostado-Véliz, Salah Kamel, Hany M. Hasanien, Rania A. Turky, Francisco Jurado, "Uncertainty-Aware Day-Ahead Scheduling of Microgrids considering Response Fatigue: an IGDT Approach", *Applied Energy*, vol. 310, 118611, pp. 1-15, March 2022. [ISI Journal](#)
- [45] Rania A. Turky, Hany M. Hasanien, and Abdulaziz Alkuhayli, "Dynamic Stability Improvement of AWS-Based Wave Energy Systems Using a Multiobjective Salp Swarm Algorithm-Based Optimal Control Scheme", *IEEE Systems Journal*, vol. 16, no. 1, pp. 79-87, March 2022. [ISI Journal](#)
- [46] Heba tallah.K. Abdelbadie, Adel T. M.Taha, Hany M. Hasanien, Rania A. Turky, and S.M. Muyeen, "Stability Enhancement of Wind Energy Conversion Systems based on Optimal Superconducting Magnetic Energy Storage Systems Using Archimedes Optimization Algorithm", *Processes*, vol. 10, no. 366, pp. 1-1-28, Feb. 2022. [ISI Journal](#)
- [47] Mihailo Micev, Martin Čalasan, Shady H. E. Abdel Aleem, Hany M. Hasanien and Dragan S. Petrovic, "Two Novel Approaches for Identification of Synchronous Machine Parameters from Short-Circuit Current Waveform", *IEEE Transactions on Industrial Electronics*, vol. 69, no. 6, pp. 5536-5546, June 2022. [ISI Journal](#)
- [48] Ahmed Mahdy, Hany M. Hasanien, Waleed Helmy, Rania A. Turky, and Shady H. E. Abdel Aleem, "Transient Stability Improvement of Wave Energy Conversion Systems Connected to

- Power Grid Using Anti-Windup-Coot Optimization Strategy”, *Energy*, vol. 245, 123321, pp. 1-16, April 2022. [ISI Journal](#)
- [49] Martin Čalasan, Ahmed F. Zobaa, Hany M. Hasanien, Shady H. E. Abdel Aleem, and Ziad M. Ali, “Corrigendum to “Towards accurate calculation of supercapacitor electrical variables in constant power applications using new analytical closed-form expressions” [J. Energy Storage 42 (2021) 102998]”, *Journal of Energy Storage*, vol. 48, 104367, pp. 1, April 2022. [ISI Journal](#)
- [50] Muhyaddin Rawa; Sultan Alghamdi; Ahmad H. Milyani; Fahd Hariri; Baheej Alghamdi; Mohammed Ajour; Martin Čalasan; Ziad M Ali, Hany M. Hasanien; Bozidar Popovic; Shady H. E. Abdel Aleem, “Thermal Model of Supercapacitors Operating in Constant Power Applications: New Mathematical Expressions for Precise Calculation of Temperature Change”, *Journal of Energy Storage*, vol. 49, 104121, pp. 1-20, May 2022. [ISI Journal](#)
- [51] Ahmed Fathy, Abdullah G. Alharbi, Sulaiman Alshammari, and Hany M. Hasanien, “Archimedes optimization algorithm Based Maximum Power Point Tracker for Wind Energy Generation System”, *Ain Shams Engineering Journal*, vol. 13, no. 2, 101548, pp. 1-18, March 2022. [ISI Journal](#)
- [52] Ahmed M. Hussien, Rania A. Turky, Abdulaziz Alkuhayli, Hany M. Hasanien, Marcos Tostado-Véliz, Francisco Jurado, and Ramesh C. Bansal, “Coot bird algorithms based tuning PI controller for optimal microgrid autonomous operation”, *IEEE ACCESS*, vol. 10, pp. 6442-6458, January 2022. [ISI Journal](#)
- [53] Abdelhady Ramadan, Salah Kamel, Mohamed H. Hassan, Emad M. Ahmed, Hany M. Hasanien, “Accurate Photovoltaic Models Based on an Adaptive Opposition Artificial Hummingbird Algorithm”, *Electronics*, vol. 11, no. 3, 318, pp. 1-27, January 2022. [ISI Journal](#)
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