

Saad Motahhir

List of Publications by Year in descending order

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70
papers

1,733
citations

304743
22
h-index

315739
38
g-index

77
all docs

77
docs citations

77
times ranked

981
citing authors

#	ARTICLE	IF	CITATIONS
1	The most used MPPT algorithms: Review and the suitable low-cost embedded board for each algorithm. Journal of Cleaner Production, 2020, 246, 118983.	9.3	217
2	Modeling of Photovoltaic System with Modified Incremental Conductance Algorithm for Fast Changes of Irradiance. International Journal of Photoenergy, 2018, 2018, 1-13.	2.5	114
3	Photovoltaic system with quantitative comparative between an improved MPPT and existing INC and P&O methods under fast varying of solar irradiation. Energy Reports, 2018, 4, 341-350.	5.1	89
4	Modern improvement techniques of direct torque control for induction motor drives - a review. Protection and Control of Modern Power Systems, 2019, 4, .	7.5	76
5	Improved DTC strategy of doubly fed induction motor using fuzzy logic controller. Energy Reports, 2019, 5, 271-279.	5.1	69
6	Development of a low-cost PV system using an improved INC algorithm and a PV panel Proteus model. Journal of Cleaner Production, 2018, 204, 355-365.	9.3	60
7	Design and construction of a test bench to investigate the potential of floating PV systems. Journal of Cleaner Production, 2021, 278, 123917.	9.3	59
8	MIL and SIL and PIL tests for MPPT algorithm. Cogent Engineering, 2017, 4, 1378475.	2.2	57
9	A simple and low-cost active dual-axis solar tracker. Energy Science and Engineering, 2018, 6, 607-620.	4.0	51
10	Optimization and control of water pumping PV systems using fuzzy logic controller. Energy Reports, 2019, 5, 853-865.	5.1	48
11	Low-cost virtual instrumentation of PV panel characteristics using Excel and Arduino in comparison with traditional instrumentation. Renewables: Wind, Water, and Solar, 2018, 5, .	3.7	42
12	Optimal Energy Harvesting From a Multistrings PV Generator Based on Artificial Bee Colony Algorithm. IEEE Systems Journal, 2021, 15, 4137-4144.	4.6	39
13	Modeling of Photovoltaic Panel by using Proteus. Journal of Engineering Science and Technology Review, 2017, 10, 8-13.	0.4	39
14	Rooted Tree Optimization for the Backstepping Power Control of a Doubly Fed Induction Generator Wind Turbine: dSPACE Implementation. IEEE Access, 2021, 9, 26512-26522.	4.2	38
15	Preliminary design of an innovative, simple, and easy-to-build portable ventilator for COVID-19 patients. Euro-Mediterranean Journal for Environmental Integration, 2020, 5, 23.	1.3	35
16	Study of a Low-Cost PV Emulator for Testing MPPT Algorithm Under Fast Irradiation and Temperature Change. Technology and Economics of Smart Grids and Sustainable Energy, 2018, 3, 1.	2.6	31
17	Open hardware/software test bench for solar tracker with virtual instrumentation. Sustainable Energy Technologies and Assessments, 2019, 31, 9-16.	2.7	30
18	A novel hybrid GWO-PSO-based maximum power point tracking for photovoltaic systems operating under partial shading conditions. Scientific Reports, 2022, 12, .	3.3	30

#	ARTICLE	IF	CITATIONS
19	Improvement control of photovoltaic based water pumping system without energy storage. Solar Energy, 2019, 190, 319-328.	6.1	29
20	Robust sliding-Backstepping mode control of a wind system based on the DFIG generator. Scientific Reports, 2022, 12, .	3.3	29
21	An improved control strategy for charging solar batteries in off-grid photovoltaic systems. Solar Energy, 2021, 220, 927-941.	6.1	28
22	Shading Effect to Energy Withdrawn from the Photovoltaic Panel and Implementation of DMPPT Using C Language. International Review of Automatic Control, 2016, 9, 88.	0.3	27
23	Improvement of PMSC-Based Wind Energy Conversion System Using Developed Sliding Mode Control. Energies, 2022, 15, 1625.	3.1	26
24	Design and Embedded Implementation of a Power Management Controller for Wind-PV-Diesel Microgrid System. International Journal of Photoenergy, 2019, 2019, 1-16.	2.5	24
25	DSPACE-based implementation for observer backstepping power control of DFIG wind turbine. IET Electric Power Applications, 2020, 14, 2395-2403.	1.8	23
26	Trusted Simulation Using Proteus Model for a PV System: Test Case of an Improved HC MPPT Algorithm. Energies, 2020, 13, 1943.	3.1	22
27	Proposal and implementation of a novel perturb and observe algorithm using embedded software. , 2015, , .		21
28	FPGA in the Loop Implementation for Observer Sliding Mode Control of DFIG-Generators for Wind Turbines. Electronics (Switzerland), 2022, 11, 116.	3.1	20
29	Comparative study with practical validation of photovoltaic monocrystalline module for single and double diode models. Scientific Reports, 2021, 11, 19153.	3.3	19
30	Experimental Validation of Predictive Current Control for DFIG: FPGA Implementation. Electronics (Switzerland), 2021, 10, 2670.	3.1	19
31	Real-time virtual instrumentation of Arduino and LabVIEW based PV panel characteristics. IOP Conference Series: Earth and Environmental Science, 2018, 161, 012019.	0.3	17
32	High-Performance Standalone Photovoltaic Water Pumping System Using Induction Motor. International Journal of Photoenergy, 2020, 2020, 1-13.	2.5	17
33	Internet of vehicles: concept, process, security aspects and solutions. Multimedia Tools and Applications, 2022, 81, 16563-16587.	3.9	17
34	Performance analysis of a robust adaptive fuzzy logic controller for wind turbine power limitation. Journal of Cleaner Production, 2020, 265, 121659.	9.3	16
35	Enhanced energy output from a PV system under partial shaded conditions through grey wolf optimizer. Cleaner Engineering and Technology, 2022, 9, 100533.	4.0	16
36	A new model for a photovoltaic panel using Proteus software tool under arbitrary environmental conditions. Journal of Cleaner Production, 2022, 333, 130074.	9.3	15

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37	Optimization and implementation of a photovoltaic pumping system using the sineâ€‘cosineâ€‘ algorithm. Engineering Applications of Artificial Intelligence, 2022, 114, 105104.	8.1	13
38	Implementation and Validation of Hybrid Control for a DFIG Wind Turbine Using an FPGA Controller Board. Electronics (Switzerland), 2021, 10, 3154.	3.1	12
39	Proposed Design of Walk-Through Gate (WTG): Mitigating the Effect of COVID-19. Applied System Innovation, 2020, 3, 41.	4.6	11
40	Improved TCT topology for shaded photovoltaic arrays. Energy Reports, 2022, 8, 5943-5956.	5.1	11
41	Comparison between Kalman filter and incremental conductance algorithm for optimizing photovoltaic energy. Renewables: Wind, Water, and Solar, 2017, 4, .	3.7	10
42	Preliminary Design of a Smart Wristband Disinfectant to Help in Covid-19 Fight. Inventions, 2020, 5, 32.	2.5	10
43	Intelligent control of induction motor for photovoltaic water pumping system. SN Applied Sciences, 2021, 3, 1.	2.9	10
44	Improving the Maximum Power Extraction from Wind Turbines Using a Second-Generation CRONE Controller. Energies, 2022, 15, 3644.	3.1	10
45	Blockchain Technology for a Safe and Transparent Covid-19 Vaccination. Journal of ICT Standardization, 0, , .	0.6	10
46	A fast and accurate sine-cosine MPPT algorithm under partial shading with implementation using arduino board. Cleaner Engineering and Technology, 2022, 9, 100535.	4.0	10
47	Optimal Control of Induction Motor for Photovoltaic Water Pumping System. Technology and Economics of Smart Grids and Sustainable Energy, 2020, 5, 1.	2.6	9
48	Investigation of Partial Shading Scenarios on a Photovoltaic Arrayâ€™s Characteristics. Electronics (Switzerland), 2022, 11, 96.	3.1	9
49	Optimization for a Photovoltaic Pumping System Using Indirect Field Oriented Control of Induction Motor. Electronics (Switzerland), 2021, 10, 3076.	3.1	9
50	Sustainable Solution for Crude Oil and Natural Gas Separation using Concentrated Solar Power Technology. IOP Conference Series: Materials Science and Engineering, 2017, 225, 012134.	0.6	8
51	Global MPPT of photovoltaic system based on scanning method under partial shading condition. SN Applied Sciences, 2020, 2, 1.	2.9	8
52	Parabolic bifacial solar panel with the cooling system: concept and challenges. SN Applied Sciences, 2019, 1, 1.	2.9	7
53	Improved Hybrid Parameters Extraction of a PV Module Using a Moth Flame Algorithm. Electronics (Switzerland), 2021, 10, 2798.	3.1	7
54	A low-cost PV Emulator for testing MPPT algorithm. IOP Conference Series: Earth and Environmental Science, 2018, 161, 012018.	0.3	6

#	ARTICLE	IF	CITATIONS
55	Development of an Improved GMPPT Based on Scanning Method for PV System Operating under a Dynamic Partial Shading Conditions. Technology and Economics of Smart Grids and Sustainable Energy, 2021, 6, 1.	2.6	6
56	Design and processor in the loop implementation of an improved control for IM driven solar PV fed water pumping system. Scientific Reports, 2022, 12, 4688.	3.3	5
57	Determination of the maximum power point in a photovoltaic panel using Kalman Filter on the environment PSIM. , 2016, , .		4
58	Supervision and Monitoring of Photovoltaic Systems Using Siemens PLC and HMI. Lecture Notes in Networks and Systems, 2021, , 1147-1157.	0.7	4
59	PV Energy Generation and IoT Power Consumption for Telecom Networks in Remote Areas. Technology and Economics of Smart Grids and Sustainable Energy, 2021, 6, 1.	2.6	4
60	Performance Analysis and Techno-Economic Optimization of Green Energy Systems for Remote Areas in the Maghreb. Technology and Economics of Smart Grids and Sustainable Energy, 2021, 6, 1.	2.6	4
61	Fuzzy-PI Controller for Photovoltaic Water Pumping Systems. , 2019, , .		3
62	Embedded Implementation of Improved IFOC for Solar Photovoltaic Water Pumping System Using dSpace. Green Energy and Technology, 2021, , 435-456.	0.6	3
63	Twelve sectors DTC strategy of IM for PV water pumping system. Materials Today: Proceedings, 2022, 51, 2081-2090.	1.8	3
64	MPPT Techniques Investigation in Photovoltaic System. , 2021, , .		3
65	Internet of Things-Based Solar Tracker System. Green Energy and Technology, 2021, , 75-95.	0.6	2
66	Erratum to "Modeling of Photovoltaic System with Modified Incremental Conductance Algorithm for Fast Changes of Irradiance". International Journal of Photoenergy, 2019, 2019, 1-2.	2.5	1
67	Contribution to the Optimization of Energy Withdrawn from a PV Panel Using An Embedded System. SSRN Electronic Journal, 0, , .	0.4	1
68	Global Maximum Power Point Tracking Using Genetic Algorithm Combined with PSO Tuned PID Controller. Lecture Notes in Networks and Systems, 2021, , 1171-1180.	0.7	0
69	Design of system-on-chip for real-time nanosatellite photovoltaic curves telemetry. , 2020, , .		0
70	Purely mechanically driven door-controlled disinfection device for automatic COVID-19. Euro-Mediterranean Journal for Environmental Integration, 2021, 6, 75.	1.3	0