

Sudhakar Babu Thanikanti

List of Publications by Year in descending order

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124
papers

4,946
citations

101543

36
h-index

102487

66
g-index

128
all docs

128
docs citations

128
times ranked

2523
citing authors

#	ARTICLE	IF	CITATIONS
1	A comprehensive review on solar PV maximum power point tracking techniques. Renewable and Sustainable Energy Reviews, 2017, 67, 826-847.	16.4	374
2	Particle Swarm Optimization Based Solar PV Array Reconfiguration of the Maximum Power Extraction Under Partial Shading Conditions. IEEE Transactions on Sustainable Energy, 2018, 9, 74-85.	8.8	259
3	Solar PV array reconfiguration under partial shading conditions for maximum power extraction using genetic algorithm. Renewable and Sustainable Energy Reviews, 2015, 43, 102-110.	16.4	252
4	Empowering smart grid: A comprehensive review of energy storage technology and application with renewable energy integration. Journal of Energy Storage, 2021, 39, 102591.	8.1	239
5	A new hybrid bee pollinator flower pollination algorithm for solar PV parameter estimation. Energy Conversion and Management, 2017, 135, 463-476.	9.2	213
6	Parameter extraction of two diode solar PV model using Fireworks algorithm. Solar Energy, 2016, 140, 265-276.	6.1	167
7	Modified Particle Swarm Optimization technique based Maximum Power Point Tracking for uniform and under partial shading condition. Applied Soft Computing Journal, 2015, 34, 613-624.	7.2	166
8	A Comprehensive Review of Hybrid Energy Storage Systems: Converter Topologies, Control Strategies and Future Prospects. IEEE Access, 2020, 8, 148702-148721.	4.2	152
9	PV cell and module efficient parameters estimation using Evaporation Rate based Water Cycle Algorithm. Swarm and Evolutionary Computation, 2017, 35, 93-110.	8.1	135
10	Analysis on solar PV emulators: A review. Renewable and Sustainable Energy Reviews, 2018, 81, 149-160.	16.4	126
11	Fractional chaotic ensemble particle swarm optimizer for identifying the single, double, and three diode photovoltaic models' parameters. Energy, 2020, 195, 116979.	8.8	118
12	A Robust Strategy Based on Marine Predators Algorithm for Large Scale Photovoltaic Array Reconfiguration to Mitigate the Partial Shading Effect on the Performance of PV System. IEEE Access, 2020, 8, 112407-112426.	4.2	117
13	A novel approach to parameter estimation of photovoltaic systems using hybridized optimizer. Energy Conversion and Management, 2019, 187, 486-511.	9.2	92
14	A new metaphor-less algorithms for the photovoltaic cell parameter estimation. Optik, 2020, 208, 164559.	2.9	87
15	A Novel Chaotic Flower Pollination Algorithm for Global Maximum Power Point Tracking for Photovoltaic System Under Partial Shading Conditions. IEEE Access, 2019, 7, 121432-121445.	4.2	84
16	A novel approach for fuel cell parameter estimation using simple Genetic Algorithm. Sustainable Energy Technologies and Assessments, 2015, 12, 46-52.	2.7	78
17	Improved Perturb and Observation Maximum Power Point Tracking Technique for Solar Photovoltaic Power Generation Systems. IEEE Systems Journal, 2021, 15, 3024-3035.	4.6	78
18	A novel objective function with artificial ecosystem-based optimization for relieving the mismatching power loss of large-scale photovoltaic array. Energy Conversion and Management, 2020, 225, 113385.	9.2	77

#	ARTICLE	IF	CITATIONS
19	Recent methodology based Harris Hawks optimizer for designing load frequency control incorporated in multi-interconnected renewable energy plants. Sustainable Energy, Grids and Networks, 2020, 22, 100352.	3.9	77
20	Evaluation of Mathematical Model to Characterize the Performance of Conventional and Hybrid PV Array Topologies under Static and Dynamic Shading Patterns. Energies, 2020, 13, 3216.	3.1	73
21	Solar PV Modelling and Parameter Extraction Using Artificial Immune System. Energy Procedia, 2015, 75, 331-336.	1.8	72
22	Photovoltaic Array Reconfiguration System for Maximizing the Harvested Power Using Population-Based Algorithms. IEEE Access, 2020, 8, 109608-109624.	4.2	69
23	Multi-Objective Grey Wolf Optimizer for Optimal Design of Switching Matrix for Shaded PV array Dynamic Reconfiguration. IEEE Access, 2020, 8, 159931-159946.	4.2	62
24	Optimal Allocation of DG and DSTATCOM in Radial Distribution System Using Cuckoo Search Optimization Algorithm. Modelling and Simulation in Engineering, 2017, 2017, 1-11.	0.7	54
25	Synchronverter: A Comprehensive Review of Modifications, Stability Assessment, Applications and Future Perspectives. IEEE Access, 2020, 8, 131565-131589.	4.2	53
26	Selective voltage harmonic elimination in PWM inverter using bacterial foraging algorithm. Swarm and Evolutionary Computation, 2015, 20, 74-81.	8.1	52
27	A robust parameter estimation approach based on stochastic fractal search optimization algorithm applied to solar PV parameters. Energy Reports, 2021, 7, 620-640.	5.1	51
28	Comparative study of PEM fuel cell parameter extraction using Genetic Algorithm. Ain Shams Engineering Journal, 2015, 6, 1187-1194.	6.1	50
29	Static and dynamic reconfiguration approaches for mitigation of partial shading influence in photovoltaic arrays. Sustainable Energy Technologies and Assessments, 2020, 40, 100738.	2.7	50
30	Fractional Chaos Maps with Flower Pollination Algorithm for Partial Shading Mitigation of Photovoltaic Systems. Energies, 2019, 12, 3548.	3.1	48
31	Enhanced Marine Predators Algorithm for identifying static and dynamic Photovoltaic models parameters. Energy Conversion and Management, 2021, 236, 113971.	9.2	42
32	L-Shape Propagated Array Configuration With Dynamic Reconfiguration Algorithm for Enhancing Energy Conversion Rate of Partial Shaded Photovoltaic Systems. IEEE Access, 2021, 9, 97661-97674.	4.2	42
33	Partial shading mitigation in PV arrays through dragonfly algorithm based dynamic reconfiguration. Energy, 2022, 257, 124795.	8.8	40
34	A Near Accurate Solar PV Emulator Using dSPACE Controller for Real-time Control. Energy Procedia, 2014, 61, 2640-2648.	1.8	39
35	An Effective Salp Swarm Based MPPT for Photovoltaic Systems Under Dynamic and Partial Shading Conditions. IEEE Access, 2021, 9, 34570-34589.	4.2	38
36	Simultaneous Allocation of DG and DSTATCOM Using Whale Optimization Algorithm. Iranian Journal of Science and Technology - Transactions of Electrical Engineering, 2020, 44, 879-896.	2.3	37

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37	A Comprehensive Survey on Different Control Strategies and Applications of Active Power Filters for Power Quality Improvement. <i>Energies</i> , 2021, 14, 4589.	3.1	37
38	A TCT-SC Hybridized Voltage Equalizer for Partial Shading Mitigation in PV Arrays. <i>IEEE Transactions on Sustainable Energy</i> , 2021, 12, 2268-2281.	8.8	36
39	A New Ken-Ken Puzzle Pattern Based Reconfiguration Technique for Maximum Power Extraction in Partial Shaded Solar PV Array. <i>IEEE Access</i> , 2021, 9, 65824-65837.	4.2	35
40	Efficient fractional-order modified Harris hawks optimizer for proton exchange membrane fuel cell modeling. <i>Engineering Applications of Artificial Intelligence</i> , 2021, 100, 104193.	8.1	35
41	A reliable approach for modeling the photovoltaic system under partial shading conditions using three diode model and hybrid marine predators-slime mould algorithm. <i>Energy Conversion and Management</i> , 2021, 243, 114269.	9.2	35
42	IoT-Based Real Time Energy Management of Virtual Power Plant Using PLC for Transactive Energy Framework. <i>IEEE Access</i> , 2021, 9, 97643-97660.	4.2	35
43	Ancient Chinese magic square-based PV array reconfiguration methodology to reduce power loss under partial shading conditions. <i>Energy Conversion and Management</i> , 2022, 253, 115148.	9.2	34
44	Application of Modified Particle Swarm Optimization for Maximum Power Point Tracking under Partial Shading Condition. <i>Energy Procedia</i> , 2014, 61, 2633-2639.	1.8	32
45	Comparative study on charge controller techniques for solar PV system. <i>Energy Procedia</i> , 2017, 117, 1070-1077.	1.8	32
46	Priority-based Energy Management Technique for Integration of Solar PV, Battery, and Fuel Cell Systems in an Autonomous DC Microgrid. <i>Electric Power Components and Systems</i> , 2017, 45, 1881-1891.	1.8	31
47	Voltage band based improved particle swarm optimization technique for maximum power point tracking in solar photovoltaic system. <i>Journal of Renewable and Sustainable Energy</i> , 2016, 8, .	2.0	28
48	Charge Scheduling Optimization of Plug-In Electric Vehicle in a PV Powered Grid-Connected Charging Station Based on Day-Ahead Solar Energy Forecasting in Australia. <i>Sustainability</i> , 2022, 14, 3498.	3.2	28
49	Power Enhancement in Partial Shaded Photovoltaic System Using Spiral Pattern Array Configuration Scheme. <i>IEEE Access</i> , 2021, 9, 123103-123116.	4.2	27
50	Induction Heating in Domestic Cooking and Industrial Melting Applications: A Systematic Review on Modelling, Converter Topologies and Control Schemes. <i>Energies</i> , 2021, 14, 6634.	3.1	27
51	Modeling, analysis and design of efficient maximum power extraction method for solar PV system. <i>Sustainable Energy Technologies and Assessments</i> , 2016, 15, 60-70.	2.7	26
52	A novel review on optimization techniques used in wind farm modelling. <i>Renewable Energy Focus</i> , 2020, 35, 84-96.	4.5	26
53	A State-of-the-Art Review on Conducted Electromagnetic Interference in Non-Isolated DC to DC Converters. <i>IEEE Access</i> , 2020, 8, 2564-2577.	4.2	26
54	Critical Evaluation of Genetic Algorithm Based Fuel Cell Parameter Extraction. <i>Energy Procedia</i> , 2015, 75, 1975-1982.	1.8	25

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55	Performance and Reliability Improvement of Partially Shaded PV Arrays by One-Time Electrical Reconfiguration. IEEE Access, 2022, 10, 46911-46935.	4.2	25
56	A Nearly Accurate Solar Photovoltaic Emulator Using a dSPACE Controller for Real-time Control. Electric Power Components and Systems, 2016, 44, 774-782.	1.8	23
57	An Enriched RPCO-BCNN Mechanisms for Attack Detection and Classification in SCADA Systems. IEEE Access, 2021, 9, 156297-156312.	4.2	23
58	Power losses mitigation through electrical reconfiguration in partial shading prone solar PV arrays. Optik, 2022, 259, 168973.	2.9	23
59	Fireworks Algorithm-Based Maximum Power Point Tracking for Uniform Irradiation as Well as Under Partial Shading Condition. Advances in Intelligent Systems and Computing, 2016, , 79-88.	0.6	22
60	Impact of Uneven Shading by Neighboring Buildings and Clouds on the Conventional and Hybrid Configurations of Roof-Top PV Arrays. IEEE Access, 2021, 9, 139059-139073.	4.2	22
61	Power Losses Reduction of Solar PV Systems Under Partial Shading Conditions Using Re-Allocation of PV Module-Fixed Electrical Connections. IEEE Access, 2021, 9, 94789-94812.	4.2	21
62	A Practical Approach for Predicting Power in a Small-Scale Off-Grid Photovoltaic System using Machine Learning Algorithms. International Journal of Photoenergy, 2022, 2022, 1-21.	2.5	20
63	A Novel Array Configuration Technique for Improving the Power Output of the Partial Shaded Photovoltaic System. IEEE Access, 2022, 10, 15056-15067.	4.2	19
64	Load Shifting and Peak Clipping for Reducing Energy Consumption in an Indian University Campus. Energies, 2021, 14, 558.	3.1	18
65	Performance Enhancement of Partial Shaded Photovoltaic System With the Novel Screw Pattern Array Configuration Scheme. IEEE Access, 2022, 10, 1731-1744.	4.2	18
66	Parameter extraction of solar PV double diode model using artificial immune system. , 2015, , .		17
67	Black Widow Optimization-Based Optimal PI-Controlled Wind Turbine Emulator. Sustainability, 2020, 12, 10357.	3.2	17
68	Firefly Algorithm-Based Photovoltaic Array Reconfiguration for Maximum Power Extraction during Mismatch Conditions. Sustainability, 2021, 13, 3206.	3.2	17
69	A Robust Fractional-Order PID Controller Based Load Frequency Control Using Modified Hunger Games Search Optimizer. Energies, 2022, 15, 361.	3.1	17
70	A Recurrent Reward Based Learning Technique for Secure Neighbor Selection in Mobile AD-HOC Networks. IEEE Access, 2021, 9, 21735-21745.	4.2	16
71	A New Multi-Output DC-DC Converter for Electric Vehicle Application. IEEE Access, 2022, 10, 19072-19082.	4.2	16
72	An Adaptive Feed-Forward Phase Locked Loop for Grid Synchronization of Renewable Energy Systems under Wide Frequency Deviations. Sustainability, 2020, 12, 7048.	3.2	15

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73	Power systems automation, communication, and information technologies for smart grid: A technical aspects review. <i>Telkomnika (Telecommunication Computing Electronics and Control)</i> , 2021, 19, 1017.	0.8	15
74	Review of the Estimation Methods of Energy Consumption for Battery Electric Buses. <i>Energies</i> , 2021, 14, 7578.	3.1	15
75	Performance of Hybrid Filter in a Microgrid Integrated Power System Network Using Wavelet Techniques. <i>Applied Sciences (Switzerland)</i> , 2020, 10, 6792.	2.5	14
76	Recent approach based heterogeneous comprehensive learning Archimedes optimization algorithm for identifying the optimal parameters of different fuel cells. <i>Energy</i> , 2022, 248, 123587.	8.8	14
77	Updated PSO optimised fuzzyâ€”PI controlled buck type multiâ€”phase inverterâ€”based PMSM drive with an overâ€”current protection scheme. <i>IET Electric Power Applications</i> , 2020, 14, 2331-2339.	1.8	13
78	Scenario-Based Investigation on the Effect of Partial Shading Condition Patterns for Different Static Solar Photovoltaic Array Configurations. <i>IEEE Access</i> , 2021, 9, 116050-116072.	4.2	11
79	Parameter extraction of photovoltaic cell based on a multi-objective approach using nondominated sorting cuckoo search optimization. <i>Solar Energy</i> , 2022, 239, 359-374.	6.1	11
80	A dynamic photo voltaic emulator using dSPACE controller with high accuracy solar photo voltaic characteristics. <i>Journal of Renewable and Sustainable Energy</i> , 2016, 8, .	2.0	10
81	Design, development, and performance testing of thermal energy storage based solar dryer system for seeded grapes. <i>Sustainable Energy Technologies and Assessments</i> , 2022, 51, 101923.	2.7	10
82	Maximum power point tracking using modified PSO with CUK Converter. , 2014, , .		9
83	FPA based approach for solar maximum power point tracking. , 2016, , .		9
84	Fractional chaos maps with flower pollination algorithm for chaotic systemsâ€™ parameters identification. <i>Neural Computing and Applications</i> , 2020, 32, 16291-16327.	5.6	9
85	Managing the exchange of energy between microgrid elements based on multi-objective enhanced marine predators algorithm. <i>AEJ - Alexandria Engineering Journal</i> , 2022, 61, 8487-8505.	6.4	9
86	Conducted Electromagnetic Interference Spectral Peak Mitigation in Luo-Converter Using FPGA-Based Chaotic PWM Technique. <i>Electric Power Components and Systems</i> , 2019, 47, 838-848.	1.8	8
87	Self-Controlled PMSM Drive Employed in Light Electric Vehicle-Dynamic Strategy and Performance Optimization. <i>IEEE Access</i> , 2021, 9, 57967-57975.	4.2	8
88	A new sevenâ€”level ANPC inverter structure with semiconductor device reduction. <i>International Journal of Circuit Theory and Applications</i> , 2022, 50, 2660-2670.	2.0	8
89	Solid-State Transformers: Fundamentals, Topologies, Applications, and Future Challenges. <i>Sustainability</i> , 2022, 14, 319.	3.2	8
90	Tuning PID Controller for Inverted Pendulum Using Genetic Algorithm. <i>Lecture Notes in Electrical Engineering</i> , 2018, , 395-404.	0.4	7

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91	Development of Control Techniques Using Modified Fuzzy Based SAPF for Power Quality Enhancement. IEEE Access, 2021, 9, 68396-68413.	4.2	7
92	Electric Buses in Malaysia: Policies, Innovations, Technologies and Life Cycle Evaluations. Sustainability, 2021, 13, 11577.	3.2	7
93	Enhanced Salp Swarm Algorithm for Multimodal Optimization and Fuzzy Based Grid Frequency Controller Design. Energies, 2022, 15, 3210.	3.1	7
94	Bypass Diodes Configurations for Mismatch Losses Mitigation in Solar PV Modules. Lecture Notes in Electrical Engineering, 2022, , 197-208.	0.4	6
95	Power System Resiliency and Wide Area Control Employing Deep Learning Algorithm. Computers, Materials and Continua, 2021, 68, 553-567.	1.9	5
96	Power smoothing techniques to mitigate solar intermittency. , 2019, , .		4
97	Techno economic performance analysis of hybrid renewable electrification system for remote villages of India. International Transactions on Electrical Energy Systems, 2021, 31, e12515.	1.9	4
98	Single Source Multi-Frequency AC-AC Converter for Induction Cooking Applications. Energies, 2021, 14, 4799.	3.1	4
99	A Comprehensive Research on Video Imaging Techniques. International Journal of Innovative Technology and Exploring Engineering, 2019, 8, 1592-1596.	0.3	4
100	Simulation and investigation of MEMS bilayer solar energy harvester for smart wireless sensor applications. Sustainable Energy Technologies and Assessments, 2022, 52, 102102.	2.7	4
101	Solar PV parameter extraction using FPA. , 2016, , .		3
102	An Innovative Approach of PEMFC Parameter Extraction Using Artificial Immune System. , 2018, , .		3
103	Effect of Partial Shading and Performance Analysis on Various Array Configurations of Photovoltaic System. , 2019, , .		3
104	Optimal extraction of photovoltaic energy using fuzzy logic control for maximum power point tracking technique. International Journal of Power Electronics and Drive Systems, 2020, 11, 1628.	0.6	3
105	Universal Motor with On-Off Controller for Washing Machine Application. , 2021, , .		3
106	A novel virtual inertia emulation technique for the single phase electric vehicle charging topology. Computers and Electrical Engineering, 2022, 101, 108114.	4.8	3
107	Hunting Based Optimization Techniques Used in Controlling an Active Magnetic Bearing System. IEEE Access, 2022, 10, 62702-62721.	4.2	3
108	Solving optimum power flow in dynamic environments to minimize tracking errors using dynamic bacterial foraging algorithm. , 2013, , .		2

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109	An innovative method for solar pv parameter extraction for double diode model. , 2015, , .		2
110	A New Alternate Method to Reuse Rehashed Edible Oil for the Betterment of Society - Dual Benefit Approach in Photovoltaic Modules. IEEE Access, 2021, 9, 128434-128441.	4.2	2
111	Estimating the optimal parameters of solid oxide fuel cell-based circuit using <scp>parasitismâ€predation</scp> algorithm. International Journal of Energy Research, 2021, 45, 18018-18032.	4.5	2
112	Cost-Effective Energy Conservation Techniques for Textile Spinning Mills. IEEE Access, 2022, 10, 49839-49852.	4.2	2
113	A novel method for modeling of thermo electric coolers. , 2017, , .		1
114	Comment on "Important notes on parameter estimation of solar photovoltaic cell", by Gnetchejo et al. [Energy Conversion and Management, https://doi.org/10.1016/j.enconman.2019.111870]. Energy Conversion and Management, 2019, 201, 112131.	9.2	1
115	Reply on "Reply to comment on Important notes on parameter estimation of solar photovoltaic cell", by Gnetchejo et al. [Energy Conversion and Management, https://doi.org/10.1016/j.enconman.2019.111870]. Energy Conversion and Management, 2019, 201, 112234.	9.2	1
116	Sensor angle-based control strategy and dynamic analysis of a sinusoidal pulse width modulation-operated permanent magnet synchronous machine drive for electric propulsion unit. International Transactions on Electrical Energy Systems, 2021, 31, e13090.	1.9	1
117	Thermal Comfort for a Green Office Building: Current Status and Future Direction. , 2021, , .		1
118	Fuzzy-Based EV Charging Station and DVR-Fed Voltage Compensation for a DFIG-Fed Wind Energy System during Grid Faults. International Transactions on Electrical Energy Systems, 2022, 2022, 1-22.	1.9	1
119	Dynamic Performance Enhancement of Three-Phase PV Grid-Connected Systems Using Constant PowerGeneration (CPG). Advances in Intelligent Systems and Computing, 2017, , 187-198.	0.6	0
120	Converter/Inverter Topologies for Standalone and Grid-Connected PV Systems. Energy Systems in Electrical Engineering, 2021, , 35-80.	0.7	0
121	Research on Harmonics and Ripple Content in Vector Control Schemes for Induction Motor. International Journal of Innovative Technology and Exploring Engineering, 2019, 8, 610-615.	0.3	0
122	Optimal Parameter Extraction of PEM Fuel Cell Using an Effective Approach. Learning and Analytics in Intelligent Systems, 2020, , 24-30.	0.6	0
123	Visual Comfort for a Green Office Building: An Overview. , 2021, , .		0
124	An Effective EMI Mitigation Technique Using Chaotic PWM for Interleaved Boost Converter. , 2021, , .		0