

Rajasekar Natarajan

List of Publications by Year in descending order

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133
papers

5,817
citations

76322

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h-index

76898

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139
all docs

139
docs citations

139
times ranked

4092
citing authors

#	ARTICLE	IF	CITATIONS
1	Twisted Two-Step Arrangement for Maximum Power Extraction From a Partially Shaded PV Array. IEEE Journal of Photovoltaics, 2022, 12, 871-879.	2.5	16
2	Spotted Hyena Optimization Method for Harvesting Maximum PV Power under Uniform and Partial-Shadow Conditions. Energies, 2022, 15, 2850.	3.1	1
3	Identification and Localization of Array Faults With Optimized Placement of Voltage Sensors in a PV System. IEEE Transactions on Industrial Electronics, 2021, 68, 5921-5931.	7.9	30
4	Energy management techniques and topologies suitable for hybrid energy storage system powered electric vehicles: An overview. International Transactions on Electrical Energy Systems, 2021, 31, e12819.	1.9	38
5	An integrated approach on proton exchange membrane fuel cell performance enhancement combining flower pollination algorithm and nanofluids. IET Renewable Power Generation, 2021, 15, 2216-2227.	3.1	1
6	A new design and feasible architecture of DC microgrid for rural electrification. International Transactions on Electrical Energy Systems, 2021, 31, e12973.	1.9	5
7	A review of various components of solar water-pumping system: Configuration, characteristics, and performance. International Transactions on Electrical Energy Systems, 2021, 31, e13002.	1.9	13
8	Review on parameter estimation techniques of solar photovoltaic systems. International Transactions on Electrical Energy Systems, 2021, 31, e13113.	1.9	42
9	Comparison on DC bus voltage selection and real-time implementation of 24 V DC stand-alone PV system with a remote monitoring feature. , 2021, , .		0
10	Enhancing the power output of partially shaded PV array using column shift $right-left$ panel arrangement based array reconfiguration technique. International Transactions on Electrical Energy Systems, 2021, 31, e13192.	1.9	1
11	Soiling and Shading Analysis of Hybrid PV System for Rural Application using PVsyst Software. , 2021, , .		0
12	Modified Lo Shu Technique for Power Enhancement of a Partially Shaded PV array. , 2021, , .		1
13	Detection and Identification of Global Maximum Power Point Operation in Solar PV Applications Using a Hybrid ELPSO-P&O Tracking Technique. IEEE Journal of Emerging and Selected Topics in Power Electronics, 2020, 8, 1361-1374.	5.4	62
14	An Accurate, Shade Detection-Based Hybrid Maximum Power Point Tracking Approach for PV Systems. IEEE Transactions on Power Electronics, 2020, 35, 6594-6608.	7.9	57
15	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
16	Predictive Modelling and Surface Analysis for Optimization of Production of Biofuel as A Renewable Energy Resource: Proposition of Artificial Neural Network Search. Mathematical Problems in Engineering, 2020, 2020, 1-13.	1.1	4
17	Power enhancement of PV system via physical array reconfiguration based Lo Shu technique. Energy Conversion and Management, 2020, 215, 112885.	9.2	89
18	Illustration of experimental, machine learning, and characterization methods for study of performance of Li-ion batteries. International Journal of Energy Research, 2020, 44, 9513-9526.	4.5	15

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19	Performance enhancement of solar PV systems applying P&O assisted Flower Pollination Algorithm (FPA). Solar Energy, 2020, 199, 214-229.	6.1	41
20	Investigation of Bacterial Foraging Algorithm Applied for PV Parameter Estimation, Selective Harmonic Elimination in Inverters and Optimal Power Flow for Stability. Modeling and Optimization in Science and Technologies, 2020, , 135-167.	0.7	4
21	Flower Pollination Based Solar PV Parameter Extraction for Double Diode Model. Lecture Notes in Electrical Engineering, 2020, , 303-312.	0.4	3
22	A New Array Reconfiguration Scheme for Solar PV Systems Under Partial Shading Conditions. Lecture Notes in Electrical Engineering, 2020, , 387-396.	0.4	4
23	Adaptability Analysis of Particle Swarm Optimization Variants in Maximum Power Tracking for Solar PV Systems. Lecture Notes in Electrical Engineering, 2020, , 397-409.	0.4	1
24	Optimal Parameter Extraction of PEM Fuel Cell Using an Effective Approach. Learning and Analytics in Intelligent Systems, 2020, , 24-30.	0.6	0
25	A Comparative Evaluation of Advanced Fault Detection Approaches for PV Systems. IEEE Journal of Photovoltaics, 2019, 9, 513-527.	2.5	111
26	Extended analysis on Line-Line and Line-Ground faults in PV arrays and a compatibility study on latest NEC protection standards. Energy Conversion and Management, 2019, 196, 988-1001.	9.2	22
27	Application of flower pollination algorithm for enhanced proton exchange membrane fuel cell modelling. International Journal of Hydrogen Energy, 2019, 44, 18438-18449.	7.1	68
28	A Compatibility Analysis on NEC, IEC, and UL Standards for Protection Against Line-Line and Line-Ground Faults in PV Arrays. IEEE Journal of Photovoltaics, 2019, 9, 864-871.	2.5	30
29	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
30	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
31	Enhanced power production in PV arrays using a new skyscraper puzzle based one-time reconfiguration procedure under partial shade conditions (PSCs). Solar Energy, 2019, 194, 209-224.	6.1	109
32	An MPPT-Based Sensorless Line-Line and Line-Ground Fault Detection Technique for PV Systems. IEEE Transactions on Power Electronics, 2019, 34, 8646-8659.	7.9	78
33	A comprehensive review on protection challenges and fault diagnosis in PV systems. Renewable and Sustainable Energy Reviews, 2018, 91, 18-40.	16.4	259
34	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
35	Analysis on solar PV emulators: A review. Renewable and Sustainable Energy Reviews, 2018, 81, 149-160.	16.4	126
36	An Internet of Things to Maximum Power Point Tracking Approach of Solar PV Array. Lecture Notes in Electrical Engineering, 2018, , 401-409.	0.4	4

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37	The Particle Swarm Optimization Algorithm for Maximum Power Extraction of Solar PV Array. Lecture Notes in Electrical Engineering, 2018, , 39-48.	0.4	3
38	PEM Fuel Cell Modeling Using Genetic Algorithm—A Novel Approach. Lecture Notes in Electrical Engineering, 2018, , 541-550.	0.4	0
39	Tuning PID Controller for Inverted Pendulum Using Genetic Algorithm. Lecture Notes in Electrical Engineering, 2018, , 395-404.	0.4	7
40	Dominance square based array reconfiguration scheme for power loss reduction in solar PhotoVoltaic (PV) systems. Energy Conversion and Management, 2018, 156, 84-102.	9.2	178
41	Metaheuristic algorithms for PV parameter identification: A comprehensive review with an application to threshold setting for fault detection in PV systems. Renewable and Sustainable Energy Reviews, 2018, 82, 3503-3525.	16.4	114
42	Green Algae, Sunflower Seed and Reduced Graphene Oxide in Organic Photovoltaic Cell. , 2018, , .		1
43	Design and testing of two phase array reconfiguration procedure for maximizing power in solar PV systems under partial shade conditions (PSC). Energy Conversion and Management, 2018, 178, 92-110.	9.2	67
44	Cancelled operations: a 7-day cohort study of planned adult inpatient surgery in 245 UK National Health Service hospitals. British Journal of Anaesthesia, 2018, 121, 730-738.	3.4	84
45	A novel Competence Square based PV array reconfiguration technique for solar PV maximum power extraction. Energy Conversion and Management, 2018, 174, 897-912.	9.2	126
46	A comprehensive review on parameter estimation techniques for Proton Exchange Membrane fuel cell modelling. Renewable and Sustainable Energy Reviews, 2018, 93, 121-144.	16.4	127
47	A simple, sensorless and fixed reconfiguration scheme for maximum power enhancement in PV systems. Energy Conversion and Management, 2018, 172, 402-417.	9.2	87
48	A new hybrid bee pollinator flower pollination algorithm for solar PV parameter estimation. Energy Conversion and Management, 2017, 135, 463-476.	9.2	213
49	Design and overview of maximum power point tracking techniques in wind and solar photovoltaic systems: A review. Renewable and Sustainable Energy Reviews, 2017, 73, 1138-1159.	16.4	101
50	A new robust, mutated and fast tracking LPSO method for solar PV maximum power point tracking under partial shaded conditions. Applied Energy, 2017, 201, 45-59.	10.1	60
51	A Novel Flower Pollination Based Global Maximum Power Point Method for Solar Maximum Power Point Tracking. IEEE Transactions on Power Electronics, 2017, 32, 8486-8499.	7.9	179
52	EL-PSO based MPPT for Solar PV under Partial Shaded Condition. Energy Procedia, 2017, 117, 1047-1053.	1.8	47
53	Modelling of Organic Photovoltaic Cells Based on an Improved Reverse Double Diode Model. Energy Procedia, 2017, 117, 1054-1061.	1.8	7
54	Solar PV array reconfiguration using the concept of Standard deviation and Genetic Algorithm. Energy Procedia, 2017, 117, 1062-1069.	1.8	61

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55	Comparative study on charge controller techniques for solar PV system. Energy Procedia, 2017, 117, 1070-1077.	1.8	32
56	Dynamic Performance Enhancement of Three-Phase PV Grid-Connected Systems Using Constant Power Generation (CPG). Advances in Intelligent Systems and Computing, 2017, , 187-198.	0.6	0
57	Genetic Algorithm-based Modeling of PEM Fuel Cells Suitable for Integration in DC Microgrids. Electric Power Components and Systems, 2017, 45, 1152-1160.	1.8	11
58	A comprehensive review on solar PV maximum power point tracking techniques. Renewable and Sustainable Energy Reviews, 2017, 67, 826-847.	16.4	374
59	Intranasal insulin improves cerebral blood flow, Nrf-2 expression and BDNF in STZ (ICV)-induced memory impaired rats. Life Sciences, 2017, 173, 1-10.	4.3	50
60	Intranasal Insulin Administration Ameliorates Streptozotocin (ICV)-Induced Insulin Receptor Dysfunction, Neuroinflammation, Amyloidogenesis, and Memory Impairment in Rats. Molecular Neurobiology, 2017, 54, 6507-6522.	4.0	67
61	A new global maximum power point tracking technique for solar photovoltaic (PV) system under partial shading conditions (PSC). Energy, 2017, 118, 512-525.	8.8	86
62	Priority-based Energy Management Technique for Integration of Solar PV, Battery, and Fuel Cell Systems in an Autonomous DC Microgrid. Electric Power Components and Systems, 2017, 45, 1881-1891.	1.8	31
63	Energy management technique for home micro grid system. , 2017, , .		6
64	A novel method for modeling of thermo electric coolers. , 2017, , .		1
65	Design of controllers for energy management system. , 2017, , .		1
66	Chaos control in solar fed DC-DC boost converter by optimal parameters using nelder-mead algorithm powered enhanced BFOA. IOP Conference Series: Materials Science and Engineering, 2017, 263, 052018.	0.6	1
67	Chaos minimization in DC-DC boost converter using circuit parameter optimization. IOP Conference Series: Materials Science and Engineering, 2017, 263, 052016.	0.6	2
68	Advanced single-phase inverse park PLL with tuning of PI controller for improving stability of grid utility using soft computing technique. , 2016, , .		5
69	A dynamic photo voltaic emulator using dSPACE controller with high accuracy solar photo voltaic characteristics. Journal of Renewable and Sustainable Energy, 2016, 8, .	2.0	10
70	Voltage band based improved particle swarm optimization technique for maximum power point tracking in solar photovoltaic system. Journal of Renewable and Sustainable Energy, 2016, 8, .	2.0	28
71	Modeling, analysis and design of efficient maximum power extraction method for solar PV system. Sustainable Energy Technologies and Assessments, 2016, 15, 60-70.	2.7	26
72	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

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73	FPA based approach for solar maximum power point tracking. , 2016, , .		9
74	Solar PV parameter extraction using FPA. , 2016, , .		3
75	FPGA based Chaotic PWM combined with soft switching for effective EMI mitigation in boost converter. , 2016, , .		8
76	Parameter extraction of two diode solar PV model using Fireworks algorithm. Solar Energy, 2016, 140, 265-276.	6.1	167
77	Inhibitory Effect of Memantine on Streptozotocin-Induced Insulin Receptor Dysfunction, Neuroinflammation, Amyloidogenesis, and Neurotrophic Factor Decline in Astrocytes. Molecular Neurobiology, 2016, 53, 6730-6744.	4.0	21
78	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
79	Sulforaphane Ameliorates Okadaic Acid-Induced Memory Impairment in Rats by Activating the Nrf2/HO-1 Antioxidant Pathway. Molecular Neurobiology, 2016, 53, 5310-5323.	4.0	50
80	An innovative method for solar pv parameter extraction for double diode model. , 2015, , .		2
81	Parameter extraction of solar PV double diode model using artificial immune system. , 2015, , .		17
82	Power system reconfiguration in a radial distribution network for reducing losses and to improve voltage profile using modified plant growth simulation algorithm with Distributed Generation (DG). Energy Reports, 2015, 1, 116-122.	5.1	177
83	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
84	Critical Evaluation of Genetic Algorithm Based Fuel Cell Parameter Extraction. Energy Procedia, 2015, 75, 1975-1982.	1.8	25
85	Comparative study of PEM fuel cell parameter extraction using Genetic Algorithm. Ain Shams Engineering Journal, 2015, 6, 1187-1194.	6.1	50
86	A novel approach for fuel cell parameter estimation using simple Genetic Algorithm. Sustainable Energy Technologies and Assessments, 2015, 12, 46-52.	2.7	78
87	Selective voltage harmonic elimination in PWM inverter using bacterial foraging algorithm. Swarm and Evolutionary Computation, 2015, 20, 74-81.	8.1	52
88	Hypertension exacerbates predisposition to neurodegeneration and memory impairment in the presence of a neuroinflammatory stimulus: Protection by angiotensin converting enzyme inhibition. Pharmacology Biochemistry and Behavior, 2015, 133, 132-145.	2.9	37
89	Solar PV Modelling and Parameter Extraction Using Artificial Immune System. Energy Procedia, 2015, 75, 331-336.	1.8	72
90	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

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91	Application of Bacterial Foraging Algorithm and Genetic Algorithm for Selective Voltage Harmonic Elimination in PWM Inverter. Journal of Electrical Engineering and Technology, 2015, 10, 944-951.	2.0	0
92	An FPGA Chaos-Based PWM Technique Combined with Simple Passive Filter for Effective EMI Spectral Peak Reduction in DC-DC Converter. Advances in Power Electronics, 2014, 2014, 1-11.	0.8	8
93	Application of Modified Particle Swarm Optimization for Maximum Power Point Tracking under Partial Shading Condition. Energy Procedia, 2014, 61, 2633-2639.	1.8	32
94	A Near Accurate Solar PV Emulator Using dSPACE Controller for Real-time Control. Energy Procedia, 2014, 61, 2640-2648.	1.8	39
95	Effective Suppression of Conducted Electro Magnetic Interference in DC-DC Boost Converter Using Field Programmable Gate Array Based Chaotic Pulse Width Modulation Switching. Electric Power Components and Systems, 2014, 42, 471-480.	1.8	6
96	EMI mitigation in closed loop boost converter using soft switching combined with chaotic mapping. , 2014,, .		6
97	Impact of postoperative non-steroidal anti-inflammatory drugs on adverse events after gastrointestinal surgery. British Journal of Surgery, 2014, 101, 1413-1423.	0.3	81
98	Maximum power point tracking using modified PSO with CUK Converter. , 2014, , .		9
99	Protection of streptozotocin induced insulin receptor dysfunction, neuroinflammation and amyloidogenesis in astrocytes by insulin. Neuropharmacology, 2014, 86, 337-352.	4.1	42
100	Preparation and characterization of graphene supported palladium nanoparticles for Direct Methanol Fuel Cells. , 2014, , .		0
101	Effect of angiotensin II on spatial memory, cerebral blood flow, cholinergic neurotransmission, and brain derived neurotrophic factor in rats. Psychopharmacology, 2013, 226, 357-369.	3.1	37
102	Bacterial foraging algorithm based parameter estimation of solar PV model. , 2013, , .		18
103	Neuroprotective effect of curcumin on okadaic acid induced memory impairment in mice. European Journal of Pharmacology, 2013, 715, 381-394.	3.5	63
104	Bacterial Foraging Algorithm based solar PV parameter estimation. Solar Energy, 2013, 97, 255-265.	6.1	255
105	Evaluation of amentoflavone isolated from Cnestis ferruginea Vahl ex DC (Connaraceae) on production of inflammatory mediators in LPS stimulated rat astrocytoma cell line (C6) and THP-1 cells. Journal of Ethnopharmacology, 2013, 146, 440-448.	4.1	31
106	An enhanced bacterial foraging algorithm approach for optimal power flow problem including FACTS devices considering system loadability. ISA Transactions, 2013, 52, 622-628.	5.7	41
107	The effect of guggulipid and nimesulide on MPTP-induced mediators of neuroinflammation in rat astrocytoma cells, C6. Chemico-Biological Interactions, 2012, 200, 73-83.	4.0	19
108	Feedback controller design for variable voltage variable speed induction motor drive via Ant Colony Optimization. Applied Soft Computing Journal, 2012, 12, 2132-2136.	7.2	13

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109	Modeling and simulation of 6-pulse rectifier drives with impacts to input current harmonics. , 2012, , .		0
110	Mitigation of EMI in DC-DC converter using analogue chaotic PWM technique. , 2011, , .		2
111	Performance Evaluation of Energy Efficient Speed Control Techniques for Capacitor-run Single-phase Induction Motor Driving Domestic Fans. Electric Power Components and Systems, 2011, 39, 331-345.	1.8	3
112	Optimal feedback controller design for a buck converter using Gaussian type pheromone profile. European Transactions on Electrical Power, 2010, 20, 979-993.	1.0	2
113	An improved energy saving v/f control technique for solar powered single-phase induction motor. Energy Conversion and Management, 2009, 50, 2913-2918.	9.2	22
114	A Fuzzy Logic Approach for Speed Controller Design of A.C. Voltage Controller Fed Induction Motor Drive. , 2009, , .		5
115	A telecommunications web services platform for third party network access and SOA-based service delivery. , 2007, , .		2
116	Performance comparison of capacitor-run induction motors supplied from AC voltage regulator and SPWM AC chopper. IEEE Transactions on Industrial Electronics, 2006, 53, 990-993.	7.9	14
117	Complexes of lanthanide nitrates with N,N-diethylantipyrine-4-carboxamide. Proceedings of the Indian Academy of Sciences - Section A, 1988, 100, 1-6.	0.2	2
118	Synthesis and Spectroscopic Investigations of Complexes of Lanthanide Nitrates with N-(2-Pyridyl)Benzamide. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 1987, 17, 445-454.	1.8	1
119	Lanthanide perchlorate complexes of 4-chloroquinoline-1-oxide and 5-chloroisoquinoline-2-oxide. Inorganica Chimica Acta, 1987, 128, 277-282.	2.4	1
120	Lanthanide perchlorate complexes of 2-acetamidopyridine-1-oxide. Journal of Chemical Sciences, 1987, 98, 161-164.	1.5	0
121	Synthesis and spectroscopic investigations of complexes of lanthanide nitrates with 50-nitroisoquinoline-2-oxide. Proceedings of the Indian Academy of Sciences - Section A, 1987, 99, 137-141.	0.2	1
122	Synthesis and Spectroscopic Investigations of Complexes of Lanthanide Nitrates with Isoquinoline-2-oxide. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 1986, 16, 1109-1119.	1.8	2
123	Electron transfer. 65. Cerium catalysis of the disproportionation of carboxylato-bound chromium(V). Inorganic Chemistry, 1983, 22, 3798-3801.	4.0	10
124	Electron transfer. 56. Charge effects in inner-sphere reductions by uranium(III). Inorganic Chemistry, 1982, 21, 3245-3247.	4.0	4
125	Electron transfer. 55. Reductions of pyridinecarboxylato-bridged dicobalt(III) complexes. Inorganic Chemistry, 1982, 21, 2824-2828.	4.0	6
126	Electron transfer. 54. Remote attack in the reductions of carboxylato-bridged dicobalt(III) complexes. Inorganic Chemistry, 1982, 21, 2531-2537.	4.0	6

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127	Electron transfer. 58. A four-electron reduction, converting chromium(V) to chromium(I). Inorganic Chemistry, 1982, 21, 4110-4111.	4.0	9
128	Complexes of lanthanide perchlorates with 2-N-(pyridyl)benzamide. Journal of Inorganic and Nuclear Chemistry, 1981, 43, 977-980.	0.5	12
129	Complexes of Lanthanide Perchlorates with N-(2-Pyrimidyl)benzamide. Synthesis and Reactivity in Inorganic, Metal Organic, and Nano Metal Chemistry, 1981, 11, 99-107.	1.8	0
130	Complexes of lanthanide nitrates with 2-N-(6-picolyl)-benzamide. Proceedings of the Indian Academy of Sciences - Section A, 1980, 89, 263-267.	0.2	3
131	Complexes of lanthanide nitrates with 2-N-(6-acetylamino)pyrimidine. Bulletin Des Sociétés Chimiques Belges, 1979, 88, 773-780.	0.0	7
132	Thermal Analysis & Studies on Low Pressure Gas Turbine Blades Coated with Ytria Stabilized Zirconia (YSZ). Advanced Materials Research, 0, 622-623, 1596-1600.	0.3	0
133	Application of Particle Swarm Optimization Technique for the Design of Maximum Power Point Tracking. Advanced Materials Research, 0, 768, 47-56.	0.3	6