

# Ali M Eltamaly

## List of Publications by Year in descending order

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126  
papers

3,560  
citations

126907

33  
h-index

168389

53  
g-index

133  
all docs

133  
docs citations

133  
times ranked

2242  
citing authors

#	ARTICLE	IF	CITATIONS
1	A comprehensive comparison of different MPPT techniques for photovoltaic systems. Solar Energy, 2015, 112, 1-11.	6.1	342
2	Dynamic global maximum power point tracking of the PV systems under variant partial shading using hybrid GWO-FLC. Solar Energy, 2019, 177, 306-316.	6.1	163
3	Maximum power extraction from wind energy system based on fuzzy logic control. Electric Power Systems Research, 2013, 97, 144-150.	3.6	142
4	PSO-Based Smart Grid Application for Sizing and Optimization of Hybrid Renewable Energy Systems. PLoS ONE, 2016, 11, e0159702.	2.5	101
5	A novel smart grid theory for optimal sizing of hybrid renewable energy systems. Solar Energy, 2016, 124, 26-38.	6.1	91
6	Swarm intelligence-based optimization of grid-dependent hybrid renewable energy systems. Renewable and Sustainable Energy Reviews, 2017, 77, 515-524.	16.4	89
7	A Novel Self-Power SSHI Circuit for Piezoelectric Energy Harvester. IEEE Transactions on Power Electronics, 2017, 32, 7663-7673.	7.9	85
8	A Novel Bat Algorithm Strategy for Maximum Power Point Tracker of Photovoltaic Energy Systems Under Dynamic Partial Shading. IEEE Access, 2020, 8, 10048-10060.	4.2	84
9	A novel musical chairs algorithm applied for MPPT of PV systems. Renewable and Sustainable Energy Reviews, 2021, 146, 111135.	16.4	70
10	A novel evaluation index for the photovoltaic maximum power point tracker techniques. Solar Energy, 2018, 174, 940-956.	6.1	69
11	Sizing and techno-economic analysis of stand-alone hybrid photovoltaic/wind/diesel/battery power generation systems. Journal of Renewable and Sustainable Energy, 2015, 7, .	2.0	67
12	An Improved Cuckoo Search Algorithm for Maximum Power Point Tracking of Photovoltaic Systems under Partial Shading Conditions. Energies, 2021, 14, 953.	3.1	65
13	A Novel Crow Search Algorithm Auto-Drive PSO for Optimal Allocation and Sizing of Renewable Distributed Generation. IEEE Access, 2020, 8, 27807-27820.	4.2	64
14	Optimal Power Flow Using Particle Swarm Optimization of Renewable Hybrid Distributed Generation. Energies, 2017, 10, 1013.	3.1	61
15	Simulation and experimental validation of fast adaptive particle swarm optimization strategy for photovoltaic global peak tracker under dynamic partial shading. Renewable and Sustainable Energy Reviews, 2020, 124, 109719.	16.4	61
16	A novel framework-based cuckoo search algorithm for sizing and optimization of grid-independent hybrid renewable energy systems. International Journal of Green Energy, 2019, 16, 86-100.	3.8	60
17	Load management as a smart grid concept for sizing and designing of hybrid renewable energy systems. Engineering Optimization, 2017, 49, 1813-1828.	2.6	51
18	A Novel Design and Optimization Software for Autonomous PV/Wind/Battery Hybrid Power Systems. Mathematical Problems in Engineering, 2014, 2014, 1-16.	1.1	50

#	ARTICLE	IF	CITATIONS
19	Performance Improvement of PV Systemsâ€™ Maximum Power Point Tracker Based on a Scanning PSO Particle Strategy. Sustainability, 2020, 12, 1185.	3.2	50
20	An insight to the energy policy of GCC countries to meet renewable energy targets of 2030. Energy Policy, 2020, 147, 111864.	8.8	46
21	Recent developments of MPPT techniques for PV systems under partial shading conditions: a critical review and performance evaluation. IET Renewable Power Generation, 2020, 14, 3401-3417.	3.1	46
22	Performance of smart maximum power point tracker under partial shading conditions of photovoltaic systems. Journal of Renewable and Sustainable Energy, 2015, 7, .	2.0	45
23	Hybrid PSO-FLC for dynamic global peak extraction of the partially shaded photovoltaic system. PLoS ONE, 2018, 13, e0206171.	2.5	45
24	A Novel Demand Response Strategy for Sizing of Hybrid Energy System With Smart Grid Concepts. IEEE Access, 2021, 9, 20277-20294.	4.2	45
25	Maximum Power Extraction from a Partially Shaded PV System Using an Interleaved Boost Converter. Energies, 2018, 11, 2543.	3.1	44
26	Design and implementation of wind energy system in Saudi Arabia. Renewable Energy, 2013, 60, 42-52.	8.9	43
27	Impact of PSO Reinitialization on the Accuracy of Dynamic Global Maximum Power Detection of Variant Partially Shaded PV Systems. Sustainability, 2019, 11, 2091.	3.2	43
28	An Intelligent Data-Driven Model to Secure Intravehicle Communications Based on Machine Learning. IEEE Transactions on Industrial Electronics, 2020, 67, 5112-5119.	7.9	43
29	Fuzzy logic based speed control of indirect field oriented controlled Double Star Induction Motors connected in parallel to a single six-phase inverter supply. Electric Power Systems Research, 2016, 134, 126-133.	3.6	42
30	Modeling of Wind Turbine Driving Permanent Magnet Generator with Maximum Power Point Tracking System. Journal of King Saud University, Engineering Sciences, 2007, 19, 223-236.	2.0	40
31	Economic Modeling of Hybrid Renewable Energy System: A Case Study in Saudi Arabia. Arabian Journal for Science and Engineering, 2014, 39, 3827-3839.	1.1	39
32	A novel scanning bat algorithm strategy for maximum power point tracker of partially shaded photovoltaic energy systems. Ain Shams Engineering Journal, 2020, 11, 1093-1103.	6.1	38
33	A novel PSO strategy for improving dynamic change partial shading photovoltaic maximum power point tracker. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 0, , 1-15.	2.3	36
34	Grade point average assessment for metaheuristic GMPP techniques of partial shaded PV systems. IET Renewable Power Generation, 2019, 13, 1215-1231.	3.1	35
35	A Novel Strategy for Optimal PSO Control Parameters Determination for PV Energy Systems. Sustainability, 2021, 13, 1008.	3.2	35
36	Interleaved boost converter for global maximum power extraction from the photovoltaic system under partial shading. IET Renewable Power Generation, 2019, 13, 1232-1238.	3.1	34

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37	Optimal Sizing and Designing of Hybrid Renewable Energy Systems in Smart Grid Applications. , 2018, , 231-313.		31
38	Photovoltaic maximum power point tracking under dynamic partial shading changes by novel adaptive particle swarm optimization strategy. Transactions of the Institute of Measurement and Control, 2020, 42, 104-115.	1.7	31
39	Energy management and renewable energy integration in smart grid system. , 2015, , .		30
40	Current controller design for DFIG-based wind turbines using state feedback control. IET Renewable Power Generation, 2019, 13, 1938-1948.	3.1	30
41	Dynamic Control of a DFIG Wind Power Generation System to Mitigate Unbalanced Grid Voltage. IEEE Access, 2020, 8, 39091-39103.	4.2	29
42	Digital implementation of general purpose fuzzy logic controller for photovoltaic maximum power point tracker. , 2010, , .		28
43	Fuzzy logic control of wind energy conversion system. Journal of Renewable and Sustainable Energy, 2013, 5, .	2.0	28
44	Optimal configuration for isolated hybrid renewable energy systems. Journal of Renewable and Sustainable Energy, 2016, 8, .	2.0	28
45	A novel software for design and optimization of hybrid power systems. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2016, 38, 1299-1315.	1.6	28
46	IoT-Based Hybrid Renewable Energy System for Smart Campus. Sustainability, 2021, 13, 8555.	3.2	28
47	New formula to determine the minimum capacitance required for self-excited induction generator. , 0, , .		27
48	Design of State Feedback Current Controller for Fast Synchronization of DFIG in Wind Power Generation Systems. Energies, 2019, 12, 2427.	3.1	25
49	Wireless Network Architecture for Cyber Physical Wind Energy System. IEEE Access, 2020, 8, 40180-40197.	4.2	25
50	Novel Fuzzy-Swarm Optimization for Sizing of Hybrid Energy Systems Applying Smart Grid Concepts. IEEE Access, 2021, 9, 93629-93650.	4.2	25
51	A Smart Strategy for Sizing of Hybrid Renewable Energy System to Supply Remote Loads in Saudi Arabia. Energies, 2021, 14, 7069.	3.1	25
52	A Modified Harmonics Reduction Technique for a Three-Phase Controlled Converter. IEEE Transactions on Industrial Electronics, 2008, 55, 1190-1197.	7.9	24
53	New software for hybrid renewable energy assessment for ten locations in Saudi Arabia. Journal of Renewable and Sustainable Energy, 2013, 5, .	2.0	24
54	Performance of MPPT Techniques of Photovoltaic Systems Under Normal and Partial Shading Conditions. , 2018, , 115-161.		23

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55	Dynamic global power extraction from partially shaded photovoltaic using deep recurrent neural network and improved PSO techniques. <i>International Transactions on Electrical Energy Systems</i> , 2019, 29, e12061.	1.9	23
56	Sensorless Active and Reactive Control for DFIG Wind Turbines Using Opposition-Based Learning Technique. <i>Sustainability</i> , 2020, 12, 3583.	3.2	23
57	Nested multi-objective PSO for optimal allocation and sizing of renewable energy distributed generation. <i>Journal of Renewable and Sustainable Energy</i> , 2018, 10, .	2.0	22
58	Fuzzy controller for three phases induction motor drives. , 2010, , .		21
59	Comparative study of economic viability of rural electrification using renewable energy resources versus diesel generator option in Saudi Arabia. <i>Journal of Renewable and Sustainable Energy</i> , 2013, 5, .	2.0	21
60	Parameter Estimation of Static/Dynamic Photovoltaic Models Using a Developed Version of Eagle Strategy Gradient-Based Optimizer. <i>Sustainability</i> , 2021, 13, 13053.	3.2	19
61	Optimal Design of Hybrid Renewable Energy System for a Reverse Osmosis Desalination System in Arar, Saudi Arabia. <i>Arabian Journal for Science and Engineering</i> , 2021, 46, 9879-9897.	3.0	18
62	Wind energy assessment for five locations in Saudi Arabia. <i>Journal of Renewable and Sustainable Energy</i> , 2012, 4, 022702.	2.0	17
63	Maximum Power Extraction from the Photovoltaic System Under Partial Shading Conditions. <i>Green Energy and Technology</i> , 2020, , 107-129.	0.6	17
64	Power Quality and Reliability Considerations of Photovoltaic Distributed Generation. <i>Technology and Economics of Smart Grids and Sustainable Energy</i> , 2020, 5, 1.	2.6	17
65	A novel severity performance index for optimal allocation and sizing of photovoltaic distributed generations. <i>Energy Reports</i> , 2020, 6, 2180-2190.	5.1	16
66	Modeling and Simulation of Smart Grid Integrated with Hybrid Renewable Energy Systems. <i>Studies in Systems, Decision and Control</i> , 2018, , .	1.0	16
67	Optimal control parameters for bat algorithm in maximum power point tracker of photovoltaic energy systems. <i>International Transactions on Electrical Energy Systems</i> , 2021, 31, e12839.	1.9	15
68	Musical chairs algorithm for parameters estimation of PV cells. <i>Solar Energy</i> , 2022, 241, 601-620.	6.1	15
69	Low cost PWM converter for utility interface of variable speed wind turbine generators. , 1999, , .		14
70	A novel particle swarm optimization optimal control parameter determination strategy for maximum power point trackers of partially shaded photovoltaic systems. <i>Engineering Optimization</i> , 2022, 54, 634-650.	2.6	13
71	Novel Third Harmonic Current Injection Technique for Harmonic Reduction of Controlled Converters. <i>Journal of Power Electronics</i> , 2012, 12, 925-934.	1.5	13
72	Modified DFIG control strategy for wind energy applications. , 2010, , .		12

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73	Pairing between Sites and Wind Turbines for Saudi Arabia Sites. Arabian Journal for Science and Engineering, 2014, 39, 6225-6233.	1.1	12
74	A smart technique for optimization and simulation of hybrid photovoltaic/wind/diesel/battery energy systems. , 2015, , .		12
75	Techno-Economical Study of Using Nuclear Power Plants for Supporting Electrical Grid in Arabian Gulf. Technology and Economics of Smart Grids and Sustainable Energy, 2017, 2, 1.	2.6	12
76	Condition Monitoring of DC-Link Electrolytic Capacitors in PWM Power Converters Using OBL Method. Sustainability, 2020, 12, 3719.	3.2	12
77	Sensorless control for <scp>PMSM</scp> using model reference adaptive system. International Transactions on Electrical Energy Systems, 2021, 31, e12733.	1.9	12
78	Modeling and Control of Single-Stage Quadratic-Boost Split Source Inverters. IEEE Access, 2022, 10, 24162-24180.	4.2	12
79	Harmonics reduction of three-phase boost rectifier by modulating duty ratio. Electric Power Systems Research, 2007, 77, 1425-1431.	3.6	11
80	A novel harmonic reduction technique for controlled converter by third harmonic current injection. Electric Power Systems Research, 2012, 91, 104-112.	3.6	11
81	Performance of smart maximum power point tracker under partial shading conditions of PV systems. , 2015, , .		11
82	Adaptive static synchronous compensation techniques with the transmission system for optimum voltage control. Ain Shams Engineering Journal, 2020, 11, 35-44.	6.1	10
83	A Sensorless Wind Speed and Rotor Position Control of PMSG in Wind Power Generation Systems. Sustainability, 2020, 12, 8481.	3.2	10
84	A novel sizing inherits allocation strategy of renewable distributed generations using crow search combined with particle swarm optimization algorithm. IET Renewable Power Generation, 2021, 15, 1436-1450.	3.1	10
85	Fuzzy controller for three phases induction motor drives. , 2010, , .		9
86	Performance Analysis of a Stand-Alone PV/WT/Biomass/Bat System in Alrashda Village in Egypt. Applied Sciences (Switzerland), 2021, 11, 10191.	2.5	9
87	Maximum power extraction from grid-connected PV system. , 2017, , .		8
88	Harmonic injection scheme for harmonic reduction of threeâ€phase controlled converters. IET Power Electronics, 2018, 11, 110-119.	2.1	8
89	Modeling of Hybrid Renewable Energy System. Studies in Systems, Decision and Control, 2018, , 11-21.	1.0	8
90	Novel Demand Side-Management Strategy for Smart Grid Concepts Applications in Hybrid Renewable Energy Systems. , 2022, , .		8

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91	Smart maximum power extraction for wind energy systems. , 2015, , .		7
92	Performance of Communication Network for Monitoring Utility Scale Photovoltaic Power Plants. Energies, 2020, 13, 5527.	3.1	7
93	A novel digital implementation of AC voltage controller for speed control of induction motor. International Journal of Power and Energy Conversion, 2010, 2, 78.	0.3	6
94	Optimum Wind Turbine Site Matching for Three Locations in Saudi Arabia. Advanced Materials Research, 0, 347-353, 2130-2139.	0.3	6
95	PV Characteristics, Performance and Modelling. Green Energy and Technology, 2020, , 31-63.	0.6	6
96	Photovoltaic Maximum Power Point Trackers: An Overview. Green Energy and Technology, 2021, , 117-200.	0.6	6
97	Optimization of Wind Driven RO Plant for Brackish Water Desalination during Wind Speed Fluctuation with and without Battery. Membranes, 2021, 11, 77.	3.0	6
98	Performance evaluation of three-phase induction motor under different ac voltage control strategies&#x2019; Part I&#x2019;. , 2007, , .		5
99	Design and Simulation of Wind Energy System in Saudi Arabia. , 2013, , .		5
100	Modeling of distance protection logic for out-of-step condition in power system. Electrical Engineering, 2018, 100, 1891-1899.	2.0	5
101	Enhancement of Power System Quality Using PI Control Technique with DVR for Mitigation Voltage Sag. , 2018, , .		4
102	Robust Control Based on H <sup>∞</sup> and Linear Quadratic Gaussian of Load Frequency Control of Power Systems Integrated with Wind Energy System. Green Energy and Technology, 2021, , 73-86.	0.6	4
103	A modified active frequency islanding detection method based on load frequency and chopping fraction changes. International Transactions on Electrical Energy Systems, 2021, 31, e13033.	1.9	4
104	Wind Power Plants Control Systems Based on SCADA System. Green Energy and Technology, 2021, , 109-151.	0.6	4
105	Flexible Dispatch Strategy Adopted by Optimizing DG Parameters in a Real Time Power System Distributed Network. Journal of Electrical Engineering and Technology, 2022, 17, 847-861.	2.0	4
106	Power quality considerations of heavy loads of CFL on distribution system. , 2011, , .		3
107	D-STATCOM for Distribution Network Compensation Linked with Wind Generation. Green Energy and Technology, 2021, , 87-107.	0.6	3
108	Performance evaluation of three-phase induction motor under different ac voltage control strategies&#x2019; Part II&#x2019;. , 2007, , .		2

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109	Economic Modeling of Site-Specific Optimum Wind Turbine for Electrification Studies. <i>Advanced Materials Research</i> , 0, 347-353, 1973-1986.	0.3	2
110	Design and economic assessment of an autonomous flexible wind energy system powering a large capacity water desalination plant. , 0, 228, 47-62.		2
111	Sizing and Techno-Economic Analysis of Stand-Alone Hybrid Photovoltaic/Wind/Diesel/Battery Energy Systems. <i>Studies in Systems, Decision and Control</i> , 2018, , 23-38.	1.0	2
112	Criteria for comparison of energy efficient lamps. , 2010, , .		1
113	Digital implementation of harmonics reduction of three-phase boost rectifier. , 2010, , .		1
114	A novel harmonic reduction technique for controlled converter by third harmonic current injection. , 2012, , .		1
115	Efficient current injection device for harmonic reduction of three-phase controlled converters. <i>IET Circuits, Devices and Systems</i> , 2017, 11, 648-655.	1.4	1
116	New Software for Matching Between Wind Sites and Wind Turbines. <i>Green Energy and Technology</i> , 2021, , 275-317.	0.6	1
117	Criteria for comparison of energy efficient lamps. , 2011, , .		0
118	A novel harmonic reduction technique for controlled converter by third harmonic current injection. , 2012, , .		0
119	A novel current injection device for harmonic reduction of three-phase controlled converters in renewable energy utility interfacing. <i>Journal of Renewable and Sustainable Energy</i> , 2017, 9, 045504.	2.0	0
120	Voltage Source Converter Control Under Unbalanced Grid Voltage. <i>Green Energy and Technology</i> , 2021, , 57-72.	0.6	0
121	Design and Comprehensive Analysis of Maximum Power Point Tracking Techniques in Photovoltaic Systems. <i>Green Energy and Technology</i> , 2021, , 253-284.	0.6	0
122	Different Approaches for Efficiency Optimization of DFIG Wind Power Generation Systems. <i>Green Energy and Technology</i> , 2021, , 35-56.	0.6	0
123	Wind Distributed Generation with the Power Distribution Network for Power Quality Control. <i>Algorithms for Intelligent Systems</i> , 2021, , 131-149.	0.6	0
124	Economical Study on Load Shaving by PV Implementation for Bulk Customers in Riyadh. , 2021, , .		0
125	A Novel Control Of AC Voltage Controller Under Induction Motor Load. , 2009, , .		0
126	Integration of DPMUs with the Distribution Network at Portion Nodes for Voltage Control. , 2021, , .		0