Marco Mussetta

List of Publications by Year
in descending order

209 papers	2,997 citations	218662 26 h-index	223791 46 g-index
209 all docs	209 docs citations	209 times ranked	2554 citing authors

#	Article	IF	Citations
1	Analysis and validation of 24 hours ahead neural network forecasting of photovoltaic output power. Mathematics and Computers in Simulation, 2017, 131, 88-100.	4.4	221
2	Light Unmanned Aerial Vehicles (UAVs) for Cooperative Inspection of PV Plants. IEEE Journal of Photovoltaics, 2014, 4, 1107-1113.	2.5	188
3	A Physical Hybrid Artificial Neural Network for Short Term Forecasting of PV Plant Power Output. Energies, 2015, 8, 1138-1153.	3.1	152
4	Pitch angle control using hybrid controller for all operating regions of SCIG wind turbine system. Renewable Energy, 2014, 70, 197-203.	8.9	116
5	Genetical Swarm Optimization: Self-Adaptive Hybrid Evolutionary Algorithm for Electromagnetics. IEEE Transactions on Antennas and Propagation, 2007, 55, 781-785.	5.1	104
6	Hybrid Predictive Models for Accurate Forecasting in PV Systems. Energies, 2013, 6, 1918-1929.	3.1	83
7	Planning for PV plant performance monitoring by means of unmanned aerial systems (UAS). International Journal of Energy and Environmental Engineering, 2015, 6, 47-54.	2.5	83
8	Metaheuristic Algorithm for Photovoltaic Parameters: Comparative Study and Prediction with a Firefly Algorithm. Applied Sciences (Switzerland), 2018, 8, 339.	2.5	82
9	Differentiated Meta-PSO Methods for Array Optimization. IEEE Transactions on Antennas and Propagation, 2008, 56, 67-75.	5.1	75
10	Performance Analysis of a Single-Axis Tracking PV System. IEEE Journal of Photovoltaics, 2012, 2, 524-531.	2.5	66
11	Modified Compact Genetic Algorithm for Thinned Array Synthesis. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 1105-1108.	4.0	57
12	The Optimum PV Plant for a Given Solar DC/AC Converter. Energies, 2015, 8, 4853-4870.	3.1	56
13	Some Insight Over New Variations of the Particle Swarm Optimization Method. IEEE Antennas and Wireless Propagation Letters, 2006, 5, 235-238.	4.0	52
14	Improving Transient Stability in a Grid-Connected Squirrel-Cage Induction Generator Wind Turbine System Using a Fuzzy Logic Controller. Energies, 2015, 8, 6328-6349.	3.1	48
15	A Comparative Study on Controllers for Improving Transient Stability of DFIG Wind Turbines During Large Disturbances. Energies, 2018, 11, 480.	3.1	48
16	Comparison of Training Approaches for Photovoltaic Forecasts by Means of Machine Learning. Applied Sciences (Switzerland), 2018, 8, 228.	2.5	46
17	Development and validation of different hybridization strategies between GA and PSO. , 2007, , .		45
18	ANN Sizing Procedure for the Day-Ahead Output Power Forecast of a PV Plant. Applied Sciences (Switzerland), 2017, 7, 622.	2.5	45

#	Article	IF	Citations
19	Comparison of echo state network and feed-forward neural networks in electrical load forecasting for demand response programs. Mathematics and Computers in Simulation, 2021, 184, 282-293.	4.4	45
20	PV Module Fault Diagnosis Based on Microconverters and Day-Ahead Forecast. IEEE Transactions on Industrial Electronics, 2019, 66, 3928-3937.	7.9	40
21	Photovoltaic plants predictive model by means of ANN trained by a hybrid evolutionary algorithm. , 2010, , .		37
22	Architecture and Methods for Innovative Heterogeneous Wireless Sensor Network Applications. Remote Sensing, 2012, 4, 1146-1161.	4.0	35
23	Novel Speed-Bump Design and Optimization for Energy Harvesting From Traffic. IEEE Transactions on Intelligent Transportation Systems, 2013, 14, 1983-1991.	8.0	35
24	An Evolutionary-Based MPPT Algorithm for Photovoltaic Systems under Dynamic Partial Shading. Applied Sciences (Switzerland), 2018, 8, 558.	2.5	35
25	State of the Art in the Optimisation of Wind Turbine Performance Using CFD. Archives of Computational Methods in Engineering, 2020, 27, 413-431.	10.2	32
26	Novel Speed Bumps Design and Optimization for Vehicles' Energy Recovery in Smart Cities. Energies, 2012, 5, 4624-4642.	3.1	31
27	Design of Tubular Permanent Magnet Generators for Vehicle Energy Harvesting by Means of Social Network Optimization. IEEE Transactions on Industrial Electronics, 2018, 65, 1884-1892.	7.9	30
28	Hybrid model for hourly forecast of photovoltaic and wind power. , 2013, , .		29
29	Hybrid model analysis and validation for PV energy production forecasting. , 2014, , .		27
30	Multiple Site Intraday Solar Irradiance Forecasting by Machine Learning Algorithms: MGGP and MLP Neural Networks. Energies, 2020, 13, 3005.	3.1	27
31	Neuro-fuzzy predictive model for PV energy production based on weather forecast. , 2011, , .		26
32	Comparison of power quality in different grid-integrated wind turbines. , 2014, , .		26
33	Neural Network Characterization of Reflectarray Antennas. International Journal of Antennas and Propagation, 2012, 2012, 1-10.	1.2	25
34	Comparison and evaluation of statistical criteria in the solar cell and photovoltaic module parameters' extraction. International Journal of Ambient Energy, 2020, 41, 1482-1494.	2.5	24
35	Particle swarm optimization of microwave microstrip filters. , 2004, , .		22
36	Weather-based machine learning technique for Day-Ahead wind power forecasting. , 2017, , .		22

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37	Machine Learning-Based Detection Technique for NDT in Industrial Manufacturing. Mathematics, 2021, 9, 1251.	2.2	22
38	Robust 24 Hours ahead Forecast in a Microgrid: A Real Case Study. Electronics (Switzerland), 2019, 8, 1434.	3.1	20
39	Optimization of a linear generator for sea-wave energy conversion by means of a hybrid evolutionary algorithm. , 2010, , .		19
40	DEFINITION FOR POLARIZATION P AND MAGNETIZATION M FULLY CONSISTENT WITH MAXWELL'S EQUATIONS. Progress in Electromagnetics Research B, 2015, 64, 83-101.	1.0	19
41	Short Term Electric Power Load Forecasting Using Principal Component Analysis and Recurrent Neural Networks. Forecasting, 2022, 4, 149-164.	2.8	19
42	SOCIAL NETWORK OPTIMIZATION FOR MICROWAVE CIRCUITS DESIGN. Progress in Electromagnetics Research C, 2015, 58, 51-60.	0.9	18
43	Optimal Task Allocation in Wireless Sensor Networks by Means of Social Network Optimization. Mathematics, 2019, 7, 315.	2.2	18
44	A Selective Ensemble Approach for Accuracy Improvement and Computational Load Reduction in ANN-Based PV Power Forecasting. IEEE Access, 2022, 10, 32900-32911.	4.2	18
45	Improved PSO algorithms for electromagnetic optimization. , 0, , .		17
46	PV Plant Power Nowcasting: A Real Case Comparative Study With an Open Access Dataset. IEEE Access, 2020, 8, 194428-194440.	4.2	17
47	Improving LVRT characteristics in variable-speed wind power generation by means of fuzzy logic. , 2014, , .		16
48	A new algorithm for antenna optimization in aerospace applications: The sounding rocket test case. , 2013, , .		15
49	Genetical swarm optimization: a new hybrid evolutionary algorithm for electromagnetics. , 0, , .		14
50	Genetical Swarm Optimization: a New Hybrid Evolutionary Algorithm for Electromagnetic Applications. , 2005, , .		13
51	Digital Energy. International Journal of Virtual Communities and Social Networking, 2009, 1, 75-93.	0.2	13
52	Improved LVRT based on coordination control of active crowbar and reactive power for doubly fed induction generators. , 2015, , .		13
53	Day-ahead forecasting for photovoltaic power using artificial neural networks ensembles. , 2016, , .		13
54	A novel MPPT algorithm for photovoltie systems under dynamic partial shading â€" Recurrent scan and track method. , 2016, , .		13

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55	Analytical optimization of photovoltaic output with Lagrange Multiplier Method. Optik, 2019, 199, 163379.	2.9	13
56	Adaptive Wavelet Neural Network Based Wind Speed Forecasting Studies. Journal of Electrical Engineering and Technology, 2014, 9, 1812-1821.	2.0	13
57	A new hybrid genetical - swarm algorithm for electromagnetic optimization. , 0, , .		12
58	Genetical Swarm Optimization of Multihop Routes in Wireless Sensor Networks. Applied Computational Intelligence and Soft Computing, 2010, 2010, 1-14.	2.3	12
59	Optimization of an energy harvesting buoy for coral reef monitoring. , 2013, , .		12
60	Coordination control of active crowbar for doubly fed induction generators. , 2014, , .		12
61	Impact of SCIG, DFIG wind power plant on IEEE 14 bus system with small signal stability assessment. , 2014, , .		12
62	Effects of bypass diode configurations on solar photovoltaic modules suffering from shading phenomenon. , 2017, , .		12
63	Validation of ANN Training Approaches for Day-Ahead Photovoltaic Forecasts. , 2018, , .		12
64	Design and simulation of PI-type control for the Buck Boost converter. , 2017, , .		11
65	Comparison of different optimization techniques in microstrip filter design. , 2012, , .		10
66	OPTIMIZATION OF A DUAL RING ANTENNA BY MEANS OF ARTIFICIAL NEURAL NETWORK. Progress in Electromagnetics Research B, 2014, 58, 59-69.	1.0	10
67	Small signal stability of power system with SCIG, DFIG wind turbines. , 2014, , .		9
68	Reflectarray optimization by means of SNO and PSO. , 2016, , .		9
69	Efficiency analysis of a hybrid power system for a campus in Romania. , 2017, , .		9
70	Comparison of Data-Driven Techniques for Nowcasting Applied to an Industrial-Scale Photovoltaic Plant. Energies, 2019, 12, 4520.	3.1	9
71	Meta-PSO for Multi-Objective EM Problems. Studies in Computational Intelligence, 2010, , 125-150.	0.9	9
72	Optimization of integrated antennas for wireless sensor networks. , 2005, , .		8

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73	Frequency response optimization of a double layer reflectarray antenna. , 2007, , .		8
74	Comparison of different optimization techniques in the design of electromagnetic devices. , 2012, , .		8
75	Advanced predictive models towards PV energy integration in smart grid. , 2012, , .		8
76	Recently developed social-based algorithms for antennas optimization. , 2014, , .		8
77	Performance analysis of a 310Wp photovoltaic module based on single and double diode model. , 2016, , .		8
78	PV hourly day-ahead power forecasting in a micro grid context. , 2016, , .		8
79	Optimal bypass diode configuration for PV arrays under shading influence. , 2017, , .		8
80	The Impact of 150MWp PhoAn Solar Photovoltaic Project into Vietnamese QuangNgai - Grid. , 2018, , .		8
81	PV power forecasting improvement by means of a selective ensemble approach. , 2019, , .		8
82	Modelling and Parameters Extraction of Flexible Amorphous Silicon Solar Cell a-Si:H. Applied Solar Energy (English Translation of Geliotekhnika), 2020, 56, 1-12.	1.6	8
83	A new hybrid evolutionary algorithm for high dimension electromagnetic problems. , 0, , .		7
84	An optimized three phase TPM-LiG for marine applications. , 2010, , .		7
85	Black-hole PSO and SNO for electromagnetic optimization. , 2014, , .		7
86	Hybrid controller for transient stability in wind generators. , 2015, , .		7
87	Genetical Swarm Optimization (GSO): a class of Population-based Algorithms for Antenna Design. , 2006, , .		6
88	Improved compact genetic algorithm for EM complex system design. , 2012, , .		6
89	Application of modified BBO to microstrip filter optimization. , 2013, , .		6
90	Differentiated Meta-PSO for rectangular ring antenna with proximity-coupled feed. , 2013, , .		6

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91	Novel population-based algorithms for reflectarray optimization. , 2014, , .		6
92	SNO design of microstrip antennas for an experimental rocket. , 2014, , .		6
93	Sparse array design by means of Social Network Optimization. , 2015, , .		6
94	Simulation and performance analysis of a new LVRT and damping control scheme for DFIG wind turbines. , 2016, , .		6
95	Neural forecasting of the day-ahead hourly power curve of a photovoltaic plant. , 2016, , .		6
96	Neural networks as decision making support system for hydroelectric power plant. , 2017, , .		6
97	Modeling and Performance Evaluation of a Fuzzy Logic Controller for Buck-Boost DC/DC Converters. , 2018, , .		6
98	Intelligent Approach to Improve Genetic Programming Based Intra-Day Solar Forecasting Models. , 2018, , .		6
99	Fuel Cell Characteristic Curve Approximation Using the Bézier Curve Technique. Sustainability, 2020, 12, 8127.	3.2	6
100	Neural networks and evolutionary algorithm application to complex EM structures modeling. , 2009, , .		5
101	Bio-inspired optimization techniques for wireless energy transfer. , 2010, , .		5
102	Thinned array optimization by means of M-cGA. , 2014, , .		5
103	Small and large signal stability analysis of IMPSA wind power plant integration on Vietnamese power system. , 2015, , .		5
104	Day-ahead PV Power Forecast by Hybrid ANN Compared to the Five Parameters Model Estimated by Particle Filter Algorithm. Lecture Notes in Computer Science, 2016, , 291-298.	1.3	5
105	Comparison of Binary Evolutionary Algorithms for Optimization of Thinned Array Antennas. , 2018, , .		5
106	Optimal Computational Distribution of Social Network Optimization in Wireless Sensor Networks. , 2018, , .		5
107	Intra-day forecasting of building-integrated PV systems for power systems operation using ANN ensemble. , 2019, , .		5
108	Social Network Optimization for WSN Routing: Analysis on Problem Codification Techniques. Mathematics, 2020, 8, 583.	2.2	5

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109	Genetic optimization of microstrip reflectarrays. , 0, , .		4
110	Optimization of a reflectarray antenna via hybrid evolutionary algorithms. , 2006, , .		4
111	Comparison of different optimization techniques in antenna design - Part I. , 2012, , .		4
112	Modified Bayesian Optimization Algorithm for microstrip filter design. , 2012, , .		4
113	Direct Synthesis of Dual-Parameter Concentric Ring RA with Enhanced Bandwidth. International Journal of Antennas and Propagation, 2012, 2012, 1-6.	1.2	4
114	Multi-layer antenna design with evolutionary optimization. , 2013, , .		4
115	Synthesis of sparse planar array using modified Bayesian Optimization Algorithm. , 2013, , .		4
116	MODIFIED BAYESIAN OPTIMIZATION ALGORITHM FOR SPARSE LINEAR ANTENNA DESIGN. Progress in Electromagnetics Research B, 2013, 54, 385-405.	1.0	4
117	Planar array optimization by means of SNO and StudGA. , 2014, , .		4
118	Event-based measurement of power in sport activities by means of distributed wireless sensors. , 2015, , .		4
119	A hybrid Fuzzy-PI cascade controller for transient stability improvement in DFIG wind generators. , 2016, , .		4
120	Hybrid weather-based ANN for forecasting the production of a real wind power plant. , 2016, , .		4
121	Hybrid Artificial Intelligence Techniques for Automatic Simulation Models Matching with Field Data. , 2018, , .		4
122	Seamless Grid: an off-chain model proposal for scalable P2P electricity markets and grids management. , 2019, , .		4
123	A Hybrid Method for the Run-Of-The-River Hydroelectric Power Plant Energy Forecast: HYPE Hydrological Model and Neural Network. Forecasting, 2020, 2, 410-428.	2.8	4
124	Hybrid Artificial Intelligence Techniques for Automatic Simulation Models Matching with Field Data and Constrained Production Optimization. , 2020, , .		4
125	Experimental validation of a genetically optimized microstrip reflectarray. , 2004, , .		3
126	Frequency Response of a Gangbuster-Surface Off-set Reflectarray Antenna. , 2006, , .		3

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127	Comparison of different hybridization strategies in evolutionary optimization for EM. , 2006, , .		3
128	MetaPSO-based design of the frequency behavior of a beam scanning linear array. , 2007, , .		3
129	Differentiated Meta-PSO Techniques for Antenna Optimization. , 2007, , .		3
130	Antenna optimization based on Artificial Neural Network. , 2014, , .		3
131	Stability Analysis and Optimal Energy Management of a Stand-Alone Hybrid Micro-Grid. , 2018, , .		3
132	New Planning for the 500kV Vietnamese Grid with High Penetration of Renewable Energy Sources. , 2019, , .		3
133	Design of a Resonant Converter for a Regenerative Braking System Based on Ultracap Storage for Application in a Formula SAE Single-Seater Electric Racing Car. Electronics (Switzerland), 2021, 10, 161.	3.1	3
134	Information Processing in Smart Grids and Consumption Dynamics. Studies in Computational Intelligence, 2010, , 267-286.	0.9	3
135	Investigating the impact of data quality on the energy yield forecast using data mining techniques. , 2020, , .		3
136	Transient Stability Analysis of Power System with Grid Integration of Wind Generation. International Review of Electrical Engineering, 2015, 10, 442.	0.2	3
137	Optimization Environment Definition for Beam Steering Reflectarray Antenna Design. Mathematics, 2022, 10, 33.	2.2	3
138	Optimization of a Gangbuster Reflectarray Antenna. , 0, , .		2
139	Introducing differentiated behavior within PSO agents in electromagnetic optimization. , 2006, , .		2
140	Optimization of a dual-band reflectarray antenna. , 2010, , .		2
141	An innovative device for Energy Harvesting in smart cities. , 2012, , .		2
142	Optimization of a radio frequency energy harvesting device. , 2012, , .		2
143	An evolutionary optimized device for energy harvesting from traffic. , 2012, , .		2
144	Evolutionary techniques for sensor networks energy optimization in marine environmental monitoring. Proceedings of SPIE, 2012, , .	0.8	2

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145	Complete full-wave analysis of a S-band reflectarray demonstrator with square ring resonators. , 2012, , .		2
146	Thinning array using improved compact Genetic Algorithm. , 2013, , .		2
147	Linear sparse array synthesis using Modified Bayesian Optimization Algorithm. , 2013, , .		2
148	The optimum PV plant of an inverter. , 2013, , .		2
149	Multi-Net ANN approach for improving antenna optimization. , 2014, , .		2
150	Array optimization by means of Black-hole PSO. , 2015, , .		2
151	Comparative prediction of single and double diode parameters for solar cell models with firefly algorithm. , 2017, , .		2
152	Load modeling and scheduling optimization for energy sharing in prosumers network. , 2019, , .		2
153	Comparison of two neural network optimization approaches. , 0, , .		1
154	Application of genetic algorithms for optimization of a FSS reflectarray antenna. , 0, , .		1
155	Antennas miniaturization by means of optimized EBG materials. , 2005, , .		1
156	Development and validation of differentiated and undifferentiated Meta-PSO Techniques for electromagnetics. , 2008, , .		1
157	Dual-band reflectarray antenna: Design and experimental validation. , 2009, , .		1
158	Prototype of a dual band reflectarray antenna for UAVs tracking. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	1
159	ANN characterization of printed reflectarray elements. , 2010, , .		1
160	Automated TPM-LiG modeling for WSN subsystems in marine environment. , 2010, , .		1
161	Architecture and methods for UAV-based heterogeneous sensor network applications. , 2012, , .		1
162	An innovative device for traffic energy harvesting. , 2012, , .		1

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163	Power transfer optimization of wireless energy harvesting system. , 2012, , .		1
164	Using field-to-wire coupling technique in optimization of energy harvesting devices. , 2012, , .		1
165	Black-hole PSO for antennas optimization. , 2014, , .		1
166	Neural network training schemes for antenna optimization. , 2014, , .		1
167	Enegy production estimation for suitable PV Planning. , 2014, , .		1
168	Population-adaptive SNO for antenna optimization. , 2015, , .		1
169	General structure-based classification of Optimization Algorithms for an objective comparison. , 2015, , .		1
170	A comparison between SNO and PSO for reflect-array optimization. , 2016, , .		1
171	SNO multi-objective implementation for sparse array optimization. , 2017, , .		1
172	Effect of introduction of hypotheses in Antenna Optimization: Thinned array test case. , 2018, , .		1
173	Assessment of Exogenous Variables on Intra-Day Solar Irradiance Forecasting Models. , 2018, , .		1
174	Echo State Network Performance in Electrical and Industrial Applications. , 2020, , .		1
175	Analytical Modelling and Analysis of Thermal Behavior for Series Resistance of Solar Cell. Advances in Intelligent Systems and Computing, 2019, , 21-29.	0.6	1
176	A Soft Computing Hybridization Technique for Antenna Optimization. International Journal on Communications Antenna and Propagation, 2015, 5, 16.	0.3	1
177	Optimization of integrated antennas for wireless sensors. , 2006, , .		1
178	Digital Energy. , 2010, , 2263-2279.		1
179	Modelling of interaction in swarm intelligence focused on particle swarm optimization and social networks optimization. , 2018, , 551-581.		1
180	Frequency response of a new genetically optimized microstrip reflectarray. , 0, , .		0

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181	New evolutionary algorithm for EBG materials optimization. , 2004, 5648, 269.		0
182	EMC problems in microelectronic sensor packaging. , 2005, , .		0
183	Metaswarm: Enhanced evolutionary algorithms for electromagnetic optimization. , 2006, , .		0
184	Development and Validation of Different Hybridization Strategies to Explore GSO Performances. , 2007, , .		0
185	Design and optimization of antennas with wireless sensor networks applications. Proceedings of SPIE, 2007, , .	0.8	0
186	Performance assessment of Meta-PSO on EM optimization problems. , 2008, , .		0
187	An enhanced GSO technique for wireless sensor networks optimization. , 2008, , .		0
188	Meta-PSO techniques for multi-objective optimization of non-uniform planar arrays. Digest / IEEE Antennas and Propagation Society International Symposium, 2009, , .	0.0	0
189	Optimization of a dual-layer reflectarray antenna by means of soft-computing techniques. , 2010, , .		0
190	Comparison of different optimization techniques in antenna design - Part II. , 2012, , .		0
191	Improved optimization algorithm for frequency selective surface. , 2012, , .		0
192	Dual-parameter concentric ring RA elements. , 2012, , .		0
193	Modified Bayesian optimization algorithm for EMC complex system design. , 2012, , .		0
194	Design of single layer RA with enhanced bandwidth. , 2012, , .		0
195	Modified Bayesian optimization algorithm for planar array design. , 2012, , .		0
196	Reflectarray antenna for X-band satellite communication. , 2012, , .		0
197	Validation of a S-band reflectarray prototype with square ring resonators. , 2012, , .		0
198	Charging electrical vehicles with wireless power transmission. , 2013, , .		0

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199	Modified cGA for electromagnetic optimization. , 2014, , .		0
200	Evolutionary algorithm for bandstop Frequency Selective Surface. , 2014, , .		0
201	Splitted neural networks for better performance of antenna optimization. , 2014, , .		0
202	Leadership-based optimization algorithm for reflectarray optimization. , 2016, , .		0
203	A new evolutionary algorithm for sparse array optimization. , 2016, , .		0
204	Optimization of Scattered Far Field of Multiple Magnetic Dipoles on Doubly-Coated Spheroids. IEEE Antennas and Wireless Propagation Letters, 2016, 15, 147-150.	4.0	0
205	Optimized linear generator for vehicle energy harvesting by social network optimization algorithm. , 2017, , .		0
206	Leadership-based algorithm for planar array optimization. , 2017, , .		0
207	Different Approaches to Multi-Objective Sparse Array Problem with Social Network optimization. , 2020, , .		0
208	Optimally Placing Photovoltaic Systems in Distribution Networks Considering the Influence of Harmonics on Power Losses. International Journal on Electrical Engineering and Informatics, 2021, 13, 252-270.	0.5	0
209	Hybrid Structure and Fuzzy Logic High Precision Control for Non-Geostationary Satellite Antenna Tracking. International Journal on Communications Antenna and Propagation, 2015, 5, 290.	0.3	0