Francesco Riganti Fulginei

List of Publications by Year
in descending order

67 papers	1,225 citations	394421 19 h-index	395702 33 g-index
67 all docs	67 docs citations	67 times ranked	799 citing authors

#	Article	IF	Citations
1	High performing extraction procedure for the one-diode model of a photovoltaic panel from experimental Iâ€“V curves by using reduced forms. Solar Energy, 2014, 103, 316-326.	6.1	195
2	Identification of the one-diode model for photovoltaic modules from datasheet values. Solar Energy, 2014, 108, 432-446.	6.1	167
3	On Training Efficiency and Computational Costs of a Feed Forward Neural Network: A Review. Computational Intelligence and Neuroscience, 2015, 2015, 1-13.	1.7	58
4	Neural Network Approach for Modelling Hysteretic Magnetic Materials Under Distorted Excitations. IEEE Transactions on Magnetics, 2012, 48, 307-310.	2.1	51
5	An in-depth analysis of the modelling of organic solar cells using multiple-diode circuits. Solar Energy, 2016, 135, 590-597.	6.1	44
6	Boucâ€“Wen Hysteresis Model Identification by the Metric-Topological Evolutionary Optimization. IEEE Transactions on Magnetics, 2014, 50, 621-624.	2.1	39
7	Computer Modeling of Nickelâ€“Iron Alloy in Power Electronics Applications. IEEE Transactions on Industrial Electronics, 2017, 64, 2494-2501.	7.9	36
8	Shape Optimization of Multistage Depressed Collectors by Parallel Evolutionary Algorithm. IEEE Transactions on Magnetics, 2012, 48, 435-438.	2.1	31
9	Comparative analysis between modern heuristics and hybrid algorithms. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2007, 26, 259-268.	0.9	28
10	Comparative analysis of Boucâ€“Wen and Jilesâ€“Atherton models under symmetric excitations. Physica B: Condensed Matter, 2014, 435, 134-137.	2.7	27
11	An effective neural network approach to reproduce magnetic hysteresis in electrical steel under arbitrary excitation waveforms. Journal of Magnetism and Magnetic Materials, 2021, 528, 167735.	2.3	27
12	Hysteresis model identification by the Flock-of-Starlings Optimization. International Journal of Applied Electromagnetics and Mechanics, 2009, 30, 321-331.	0.6	25
13	CFSO^{3}: A New Supervised Swarm-Based Optimization Algorithm. Mathematical Problems in Engineering, 2013, 2013, 1-13.	1.1	25
14	Swarm/flock optimization algorithms as continuous dynamic systems. Applied Mathematics and Computation, 2014, 243, 670-683.	2.2	25
15	Two FPGA-Oriented High-Speed Irradiance Virtual Sensors for Photovoltaic Plants. IEEE Transactions on Industrial Informatics, 2017, 13, 157-165.	11.3	25
16	A challenging hysteresis operator for the simulation of Goss-textured magnetic materials. Journal of Magnetism and Magnetic Materials, 2017, 432, 14-23.	2.3	25
17	Accurate design of Helmholtz coils for ELF Bioelectromagnetic interaction by means of Continuous FSO. International Journal of Applied Electromagnetics and Mechanics, 2012, 39, 651-656.	0.6	24
18	TMS Array Coils Optimization by Means of CFSO. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	23

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19	Low-Cost Solar Irradiance Sensing for PV Systems. Energies, 2017, 10, 998.	3.1	22
20	A neural networks-based maximum power point tracker with improved dynamics for variable dc-link grid-connected photovoltaic power plants. International Journal of Applied Electromagnetics and Mechanics, 2013, 43, 127-135.	0.6	19
21	An Efficient Architecture for Floating Point Based MISO Neural Neworks on FPGA. , 2014, , .		19
22	On the Generalization Capabilities of the Ten-Parameter Jiles-Atherton Model. Mathematical Problems in Engineering, 2015, 2015, 1-13.	1.1	19
23	Irradiance intensity dependence of the lumped parameters of the three-diodes model for organic solar cells. Solar Energy, 2018, 163, 526-536.	6.1	18
24	Dynamic hysteresis modelling of magnetic materials by using a neural network approach. , 2014, , .		16
25	Very Fast and Accurate Procedure for the Characterization of Photovoltaic Panels from Datasheet Information. International Journal of Photoenergy, 2014, 2014, 1-10.	2.5	16
26	Bacterial chemotaxis shape optimization of electromagnetic devices. Inverse Problems in Science and Engineering, 2014, 22, 910-923.	1.2	15
27	TWT magnetic focusing structure optimization by parallel evolutionary algorithm. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2012, 31, 1338-1346.	0.9	14
28	A fast and effective procedure for sensing solar irradiance in photovoltaic arrays. , 2016, , .		14
29	FPGA Implementations of Feed Forward Neural Network by using Floating Point Hardware Accelerators. Advances in Electrical and Electronic Engineering, 2014, 12, .	0.3	13
30	TEAM problem 22 approached by a hybrid artificial life method. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2012, 31, 816-826.	0.9	12
31	Closed Forms for the Fully-Connected Continuous Flock of Starlings Optimization Algorithm. , 2013, , .		10
32	Power Forecasting of a Photovoltaic Plant Located in ENEA Casaccia Research Center. Energies, 2021, 14, 707.	3.1	10
33	The Flock of Starlings Optimization: Influence of Topological Rules on the Collective Behavior of Swarm Intelligence. Studies in Computational Intelligence, 2010, , 129-145.	0.9	10
34	Towards non-destructive individual cell I-V characteristic curve extraction from photovoltaic module measurements. Solar Energy, 2020, 202, 342-357.	6.1	9
35	Optimization of multistage depressed collectors using fem and parallel algorithm MeTEO. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2013, 32, 1955-1963.	0.9	8
36	Neural Networks for Muscle Forces Prediction in Cycling. Algorithms, 2014, 7, 621-634.	2.1	7

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37	Hybrid Neural Network Approach Based Tool for the Modelling of Photovoltaic Panels. International Journal of Photoenergy, 2015, 2015, 1-10.	2.5	7
38	A Neural Network Embedded System for Real-time Estimation of Muscle Forces. Procedia Computer Science, 2015, 51, 60-69.	2.0	7
39	Improvement of an Equivalent Circuit Model for Li-Ion Batteries Operating at Variable Discharge Conditions. Electronics (Switzerland), 2020, 9, 78.	3.1	7
40	A New Neural Predictor for ELF Magnetic Field Strength. IEEE Transactions on Magnetics, 2014, 50, 69-72.	2.1	6
41	An advanced measurement equipment for the tracing of photovoltaic panel Iâ€"V curves. , 2015, , .		6
42	Modeling dynamic hysteresis through Fully Connected Cascade neural networks. , 2016, , .		6
43	Irradiance Sensing through PV Devices: A Sensitivity Analysis. Sensors, 2021, 21, 4264.	3.8	6
44	Classification of ECG patterns for diagnostic purposes by means of Neural Networks and Support Vector Machines. , 2013, , .		5
45	Improving the Jiles-Atherton model by introducing a full dynamic dependence of parameters. , 2015, , .		5
46	Sensitivity analysis of the reduced forms of the oneâ€diode model for photovoltaic devices. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2019, 32, e2327.	1.9	5
47	Vector Hysteresis Processes for Innovative Fe-Si Magnetic Powder Cores: Experiments and Neural Network Modeling. Magnetochemistry, 2021, 7, 18.	2.4	5
48	Neural-FEM approach for the analysis of hysteretic materials in unbounded domain. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2013, 32, 1964-1973.	0.9	4
49	A Computationally Efficient Algorithm for Feedforward Active Noise Control Systems. Electronics (Switzerland), 2020, 9, 1504.	3.1	4
50	Computing Frequency-Dependent Hysteresis Loops and Dynamic Energy Losses in Soft Magnetic Alloys via Artificial Neural Networks. Mathematics, 2022, 10, 2346.	2.2	4
51	A moving approach to magnetic modeling of electrical steels in 2-d. International Journal of Applied Electromagnetics and Mechanics, 2015, 48, 263-270.	0.6	3
52	FEM model identification for a vector hysteresis workbench. , 2016, , .		3
53	Numerical Dynamic Modeling and Analysis of DC-DC Converters for Photovoltaic Applications. , 2019, , .		3
54	Comments on â€œAn efficient analytical approach for obtaining a five parameters model of photovoltaic modules using only reference dataâ€•(Appl. Energy 111 (2013) 894â€"903). Applied Energy, 2014, 129, 395-397.	10.1	2

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55	PV Panel Modeling: A Mobile Application for Modeling Photovoltaic Panels Using Datasheets Information. , 2015, , .		2
56	An equipment for photovoltaic panels characterization based on a fully programmable DC-DC converter. , 2016, , .		2
57	Continuous Flock-of-Starlings Optimization for a general magnetic hysteresis model. International Journal of Applied Electromagnetics and Mechanics, 2017, 53, S229-S238.	0.6	2
58	Finite element model of charge transport across ionic channels. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2013, 32, 1845-1854.	0.9	1
59	Electric circuits performing the swarm optimization. Inverse Problems in Science and Engineering, 2014, 22, 1109-1127.	1.2	1
60	A ten-parameter model for the static hysteresis simulation of ferromagnetic materials. , 2015, , .		1
61	Parallel Algorithm Based on Singular Value Decomposition for High Performance Training of Neural Networks. Lecture Notes in Computer Science, 2019, , 581-587.	1.3	1
62	Algorithms to reduce the computational cost of vector Preisach model in view of Finite Element analysis. Journal of Magnetism and Magnetic Materials, 2022, 546, 168876.	2.3	1
63	Identification of a FEM based model through CFSO3algorithm. , 2016, , .		0
64	3D ELF magnetic field strength modeling through fully connected cascade networks. , 2016, , .		0
65	A novel method for dynamic battery model identification based on CFSO. , 2019, , .		0
66	Issue: Selected paper of OIPE 2016 on modeling and optimal design of electromagnetic and electronic devices. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2019, 32, e2615.	1.9	0
67	Optimal PV Panel Reconfiguration Using Wireless Irradiance Distributed Sensing. Lecture Notes in Electrical Engineering, 2020, , 525-537.	0.4	0