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	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
2	Computing Frequency-Dependent Hysteresis Loops and Dynamic Energy Losses in Soft Magnetic Alloys via Artificial Neural Networks. Mathematics, 2022, 10, 2346.	2.2	4
3	Power Forecasting of a Photovoltaic Plant Located in ENEA Casaccia Research Center. Energies, 2021, 14, 707.	3.1	10
4	Vector Hysteresis Processes for Innovative Fe-Si Magnetic Powder Cores: Experiments and Neural Network Modeling. Magnetochemistry, 2021, 7, 18.	2.4	5
5	Irradiance Sensing through PV Devices: A Sensitivity Analysis. Sensors, 2021, 21, 4264.	3.8	6
6	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
7	A Computationally Efficient Algorithm for Feedforward Active Noise Control Systems. Electronics (Switzerland), 2020, 9, 1504.	3.1	4
8	Improvement of an Equivalent Circuit Model for Li-Ion Batteries Operating at Variable Discharge Conditions. Electronics (Switzerland), 2020, 9, 78.	3.1	7
9	Towards non-destructive individual cell I-V characteristic curve extraction from photovoltaic module measurements. Solar Energy, 2020, 202, 342-357.	6.1	9
10	Optimal PV Panel Reconfiguration Using Wireless Irradiance Distributed Sensing. Lecture Notes in Electrical Engineering, 2020, , 525-537.	0.4	0
11	A novel method for dynamic battery model identification based on CFSO. , 2019, , .		0
12	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
13	Numerical Dynamic Modeling and Analysis of DC-DC Converters for Photovoltaic Applications. , 2019, , .		3
14	Sensitivity analysis of the reduced forms of the one-diode model for photovoltaic devices. International Journal of Numerical Modelling: Electronic Networks, Devices and Fields, 2019, 32, e2327.	1.9	5
15	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
16	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
17	Two FPGA-Oriented High-Speed Irradiance Virtual Sensors for Photovoltaic Plants. IEEE Transactions on Industrial Informatics, 2017, 13, 157-165.	11.3	25
18	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

#	Article	IF	Citations
19	Computer Modeling of Nickel–Iron Alloy in Power Electronics Applications. IEEE Transactions on Industrial Electronics, 2017, 64, 2494-2501.	7.9	36
20	Low-Cost Solar Irradiance Sensing for PV Systems. Energies, 2017, 10, 998.	3.1	22
21	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
22	Identification of a FEM based model through CFSO3algorithm. , 2016, , .		0
23	Modeling dynamic hysteresis through Fully Connected Cascade neural networks. , 2016, , .		6
24	FEM model identification for a vector hysteresis workbench. , 2016, , .		3
25	A fast and effective procedure for sensing solar irradiance in photovoltaic arrays. , 2016, , .		14
26	An equipment for photovoltaic panels characterization based on a fully programmable DC-DC converter. , 2016, , .		2
27	3D ELF magnetic field strength modeling through fully connected cascade networks. , 2016, , .		0
28	An in-depth analysis of the modelling of organic solar cells using multiple-diode circuits. Solar Energy, 2016, 135, 590-597.	6.1	44
29	An advanced measurement equipment for the tracing of photovoltaic panel I–V curves. , 2015, , .		6
30	Improving the Jiles-Atherton model by introducing a full dynamic dependence of parameters. , 2015, , .		5
31	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
32	Hybrid Neural Network Approach Based Tool for the Modelling of Photovoltaic Panels. International Journal of Photoenergy, 2015, 2015, 1-10.	2.5	7
33	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
34	On the Generalization Capabilities of the Ten-Parameter Jiles-Atherton Model. Mathematical Problems in Engineering, 2015, 2015, 1-13.	1.1	19
35	TMS Array Coils Optimization by Means of CFSO. IEEE Transactions on Magnetics, 2015, 51, 1-4.	2.1	23
36	A ten-parameter model for the static hysteresis simulation of ferromagnetic materials. , 2015, , .		1

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37	A Neural Network Embedded System for Real-time Estimation of Muscle Forces. Procedia Computer Science, 2015, 51, 60-69.	2.0	7
38	PV Panel Modeling: A Mobile Application for Modeling Photovoltaic Panels Using Datasheets Information. , 2015, , .		2
39	Neural Networks for Muscle Forces Prediction in Cycling. Algorithms, 2014, 7, 621-634.	2.1	7
40	Dynamic hysteresis modelling of magnetic materials by using a neural network approach. , 2014, , .		16
41	Bacterial chemotaxis shape optimization of electromagnetic devices. Inverse Problems in Science and Engineering, 2014, 22, 910-923.	1.2	15
42	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
43	An Efficient Architecture for Floating Point Based MISO Neural Neworks on FPGA. , 2014, , .		19
44	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
45	A New Neural Predictor for ELF Magnetic Field Strength. IEEE Transactions on Magnetics, 2014, 50, 69-72.	2.1	6
46	Boucâ€"Wen Hysteresis Model Identification by the Metric-Topological Evolutionary Optimization. IEEE Transactions on Magnetics, 2014, 50, 621-624.	2.1	39
47	Swarm/flock optimization algorithms as continuous dynamic systems. Applied Mathematics and Computation, 2014, 243, 670-683.	2.2	25
48	Electric circuits performing the swarm optimization. Inverse Problems in Science and Engineering, 2014, 22, 1109-1127.	1.2	1
49	Identification of the one-diode model for photovoltaic modules from datasheet values. Solar Energy, 2014, 108, 432-446.	6.1	167
50	Comparative analysis of Boucâ€"Wen and Jilesâ€"Atherton models under symmetric excitations. Physica B: Condensed Matter, 2014, 435, 134-137.	2.7	27
51	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
52	FPGA Implementations of Feed Forward Neural Network by using Floating Point Hardware Accelerators. Advances in Electrical and Electronic Engineering, 2014, 12, .	0.3	13
53	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
54	Closed Forms for the Fully-Connected Continuous Flock of Starlings Optimization Algorithm. , 2013, , .		10

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55	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
56	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
57	CFSO^3: A New Supervised Swarm-Based Optimization Algorithm. Mathematical Problems in Engineering, 2013, 2013, 1-13.	1.1	25
58	Classification of ECG patterns for diagnostic purposes by means of Neural Networks and Support Vector Machines. , 2013, , .		5
59	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
60	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
61	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
62	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
63	Shape Optimization of Multistage Depressed Collectors by Parallel Evolutionary Algorithm. IEEE Transactions on Magnetics, 2012, 48, 435-438.	2.1	31
64	Neural Network Approach for Modelling Hysteretic Magnetic Materials Under Distorted Excitations. IEEE Transactions on Magnetics, 2012, 48, 307-310.	2.1	51
65	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
66	Hysteresis model identification by the Flock-of-Starlings Optimization. International Journal of Applied Electromagnetics and Mechanics, 2009, 30, 321-331.	0.6	25
67	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