Enrico Macii

List of Publications by Year
in descending order

87 papers	982 citations	623734 14 h-index	580821 25 g-index
87 all docs	87 docs citations	87 times ranked	839 citing authors

#	Article	IF	Citations
1	Communication-Efficient Federated Learning With Gradual Layer Freezing. IEEE Embedded Systems Letters, 2023, 15, 25-28.	1.9	1
2	A User-Centric View of a Demand Side Management Program: From Surveys to Simulation and Analysis. IEEE Systems Journal, 2022, 16, 1885-1896.	4.6	5
3	Human activity recognition: suitability of a neuromorphic approach for on-edge AIoT applications. Neuromorphic Computing and Engineering, 2022, 2, 014006.	5.9	8
4	Guest Editorial: Thematic Section on Applications of Emerging Computing Technologies in Smart Manufacturing and Industry 4.0. IEEE Transactions on Emerging Topics in Computing, 2022, 10, 6-8.	4.6	0
5	Stability and Accuracy Analysis of a Distributed Digital Real-Time Cosimulation Infrastructure. IEEE Transactions on Industry Applications, 2022, 58, 3193-3204.	4.9	9
6	Anomaly detection on household appliances based on variational autoencoders. Sustainable Energy, Grids and Networks, 2022, 32, 100823.	3.9	6
7	Low-Overhead Adaptive Brightness Scaling for Energy Reduction in OLED Displays. IEEE Transactions on Emerging Topics in Computing, 2021, 9, 1625-1636.	4.6	7
8	A Microservices-Based Framework for Smart Design and Optimization of PV Installations. IEEE Transactions on Sustainable Computing, 2021, 6, 531-543.	3.1	1
9	Supporting Telecommunication Alarm Management System With Trouble Ticket Prediction. IEEE Transactions on Industrial Informatics, 2021, 17, 1459-1469.	11.3	9
10	Flexible On-Line Reconfiguration of Multi-Core Neuromorphic Platforms. IEEE Transactions on Emerging Topics in Computing, 2021, 9, 915-927.	4.6	6
11	Industrial Digitisation and Maintenance: Present and Future. Information Fusion and Data Science, 2021, , 3-18.	0.3	0
12	Comparative Analysis of Neural Networks Techniques to Forecast Global Horizontal Irradiance. IEEE Access, 2021, 9, 122829-122846.	4.2	8
13	Assessing the Impact of Sensor-Based Task Scheduling on Battery Lifetime in IoT Devices. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-15.	4.7	6
14	A Hybrid Cloud-to-Edge Predictive Maintenance Platform. Information Fusion and Data Science, 2021, , 19-37.	0.3	0
15	Optimizing Quality Inspection and Control in Powder Bed Metal Additive Manufacturing: Challenges and Research Directions. Proceedings of the IEEE, 2021, 109, 326-346.	21.3	18
16	PageRank Implemented with the MPI Paradigm Running on a Many-Core Neuromorphic Platform. Journal of Low Power Electronics and Applications, 2021, 11, 25.	2.0	4
17	Ultra-compact binary neural networks for human activity recognition on RISC-V processors. , 2021, , .		14
18	A compound of feature selection techniques to improve solar radiation forecasting. Expert Systems With Applications, 2021, 178, 114979.	7.6	45

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19	A Distributed Multimodel Platform to Cosimulate Multienergy Systems in Smart Buildings. IEEE Transactions on Industry Applications, 2021, 57, 4428-4440.	4.9	11
20	Solar radiation forecasting based on convolutional neural network and ensemble learning. Expert Systems With Applications, 2021, 181, 115167.	7.6	55
21	Enhancing manufacturing intelligence through an unsupervised data-driven methodology for cyclic industrial processes. Expert Systems With Applications, 2021, 182, 115269.	7.6	7
22	Data-Driven Predictive Maintenance: AÂMethodology Primer. Information Fusion and Data Science, 2021, , 39-73.	0.3	2
23	Services to Facilitate Predictive Maintenance in Industry4.0. Information Fusion and Data Science, 2021, , 75-95.	0.3	0
24	A Win-Win Algorithm for Learning the Flexibility of Aggregated Residential Appliances. IEEE Access, 2021, 9, 150495-150507.	4.2	2
25	Adaptive Random Forests for Energy-Efficient Inference on Microcontrollers. , 2021, , .		6
26	Q-PPG: Energy-Efficient PPG-Based Heart Rate Monitoring on Wearable Devices. IEEE Transactions on Biomedical Circuits and Systems, 2021, 15, 1196-1209.	4.0	20
27	Configuring an Embedded Neuromorphic Coprocessor Using a RISC-V Chip for Enabling Edge Computing Applications. , 2021, , .		2
28	Logic Synthesis of Pass-Gate Logic Circuits With Emerging Ambipolar Technologies. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2020, 39, 397-410.	2.7	3
29	A win-win algorithm for aggregated residential energy management: resource optimisation and user acceptance learning. , 2020, , .		5
30	GAMES: A General-Purpose Architectural Model for Multi-energy System Engineering Applications. , 2020, , .		3
31	CRIME: Input-Dependent Collaborative Inference for Recurrent Neural Networks. IEEE Transactions on Computers, 2020, , 1-1.	3.4	10
32	Electric Vehicles Plug-In Duration Forecasting Using Machine Learning for Battery Optimization. Energies, 2020, 13, 4208.	3.1	7
33	A Distributed Multimodel Cosimulation Platform to Assess General Purpose Services in Smart Grids. IEEE Transactions on Industry Applications, 2020, 56, 5613-5624.	4.9	11
34	Battery-Aware Electric Truck Delivery Route Exploration. Energies, 2020, 13, 2096.	3.1	6
35	An Engineering Process model for managing a digitalised life-cycle of products in the Industry 4.0. , 2020, , .		12
36	Optimal Battery Sizing for Electric Truck Delivery. Energies, 2020, 13, 709.	3.1	17

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37	Cost-Aware Design and Simulation of Electrical Energy Systems. Energies, 2020, 13, 2949.	3.1	4
38	Modeling and Simulation of Cyber-Physical Electrical Energy Systems With SystemC-AMS. IEEE Transactions on Sustainable Computing, 2020, 5, 552-567.	3.1	10
39	A Cloud-to-Edge Approach to Support Predictive Analytics in Robotics Industry. Electronics (Switzerland), 2020, 9, 492.	3.1	26
40	Predicting the Oncogenic Potential of Gene Fusions Using Convolutional Neural Networks. Lecture Notes in Computer Science, 2020, , 277-284.	1.3	0
41	Fine-Grain Back Biasing for the Design of Energy-Quality Scalable Operators. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2019, 38, 1042-1055.	2.7	2
42	Forecasting Heating Consumption in Buildings: A Scalable Full-Stack Distributed Engine. Electronics (Switzerland), 2019, 8, 491.	3.1	7
43	A Multi-Patient Data-Driven Approach to Blood Glucose Prediction. IEEE Access, 2019, 7, 69311-69325.	4.2	78
44	A Deep Learning Approach to the Screening of Oncogenic Gene Fusions in Humans. International Journal of Molecular Sciences, 2019, 20, 1645.	4.1	11
45	Battery-Aware Operation Range Estimation for Terrestrial and Aerial Electric Vehicles. IEEE Transactions on Vehicular Technology, 2019, 68, 5471-5482.	6.3	42
46	A SystemC-AMS Framework for the Design and Simulation of Energy Management in Electric Vehicles. IEEE Access, 2019, 7, 25779-25791.	4.2	11
47	Benchmarking a Many-Core Neuromorphic Platform With an MPI-Based DNA Sequence Matching Algorithm. Electronics (Switzerland), 2019, 8, 1342.	3.1	4
48	Automated Synthesis of Energy-Efficient Reconfigurable-Precision Circuits. IEEE Access, 2019, 7, 172030-172044.	4.2	4
49	SystemC-AMS Thermal Modeling for the Co-simulation of Functional and Extra-Functional Properties. ACM Transactions on Design Automation of Electronic Systems, 2019, 24, 1-26.	2.6	5
50	Optimizing Network Traffic for Spiking Neural Network Simulations on Densely Interconnected Many-Core Neuromorphic Platforms. IEEE Transactions on Emerging Topics in Computing, 2018, 6, 317-329.	4.6	25
51	Empirical derivation of upper and lower bounds of NBTI aging for embedded cores. Microelectronics Reliability, 2018, 80, 294-305.	1.7	0
52	Aging and Cost Optimal Residential Charging for Plug-In EVs. IEEE Design and Test, 2018, 35, 16-24.	1.2	12
53	GIS-Based Software Infrastructure to Model PV Generation in Fine-Grained Spatio-Temporal Domain. IEEE Systems Journal, 2018, 12, 2832-2841.	4.6	32
54	Work-in-Progress: Multiple Alignment of Packet Sequences for Efficient Communication in a Many-Core Neuromorphic System. , 2018, , .		2

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55	Directed Graph Placement for SNN Simulation into a multi-core GALS Architecture. , 2018, , .		3
56	Work-in-Progress: Impact of Graph Partitioning on SNN Placement for a Multi-Core Neuromorphic Architecture. , 2018, , .		1
57	Battery-aware Design Exploration of Scheduling Policies for Multi-sensor Devices. , 2018, , .		12
58	Optimal Topology-Aware PV Panel Floorplanning with Hybrid Orientation. , 2018, , .		3
59	GIS-based optimal photovoltaic panel floorplanning for residential installations. , 2018, , .		11
60	Forecasting Short-term Solar Radiation for Photovoltaic Energy Predictions. , 2018, , .		8
61	A Software Toolchain for Variability Awareness on Heterogenous Multicore Platforms. IEEE Transactions on Emerging Topics in Computing, 2017, 5, 95-107.	4.6	1
62	A Layered Methodology for the Simulation of Extra-Functional Properties in Smart Systems. IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, 2017, 36, 1702-1715.	2.7	9
63	A circuit-equivalent battery model accounting for the dependency on load frequency. , 2017, , .		13
64	A Flexible Distributed Infrastructure for Real-Time Cosimulations in Smart Grids. IEEE Transactions on Industrial Informatics, 2017, 13, 3265-3274.	11.3	31
65	Building Energy Modelling and Monitoring by Integration of IoT Devices and Building Information Models. , 2017, , .		45
66	An Efficient MPI Implementation for Multi-Coreneuromorphic Platforms. , 2017, , .		3
67	Quasi-Adiabatic Logic Arrays for Silicon and Beyond-Silicon Energy-Efficient ICs. IEEE Transactions on Circuits and Systems II: Express Briefs, 2016, 63, 1111-1115.	3.0	5
68	IP-XACT for smart systems design: extensions for the integration of functional and extra-functional models. , 2016, , .		4
69	A Unified Model of Power Sources for the Simulation of Electrical Energy Systems. , 2016, , .		6
70	Energy-Efficient Digital Processing via Approximate Computing. , 2016, , 55-89.		14
71	Distributed Software Infrastructure for General Purpose Services in Smart Grid. IEEE Transactions on Smart Grid, 2016, 7, 1156-1163.	9.0	42
72	Event-Driven User-Centric Middleware for Energy-Efficient Buildings and Public Spaces. IEEE Systems Journal, 2016, 10, 1137-1146.	4.6	40

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73	Top-Down Profiling of Application Specific Many-core Neuromorphic Platforms. , 2015, , .		10
74	Ultra-low power circuits using graphene pâ€“n junctions and adiabatic computing. Microprocessors and Microsystems, 2015, 39, 962-972.	2.8	6
75	One-pass logic synthesis for graphene-based Pass-XNOR logic circuits. , 2015, , .		12
76	VDJSeq-Solver: In Silico V(D)J Recombination Detection Tool. PLoS ONE, 2015, 10, e0118192.	2.5	12
77	Design and implementation of a multi-standard event-driven energy management system for smart buildings. , 2014, , .		3
78	Towards a Software Infrastructure for District Energy Management. , 2014, , .		4
79	Ultra Low-Power Computation via Graphene-Based Adiabatic Logic Gates. , 2014, , .		10
80	A framework for efficient evaluation and comparison of EES Models. , 2014, , .		2
81	Enable sensor networks interoperability in smart public spaces through a service oriented approach. , 2013, , .		21
82	A Verilog-A Model for Reconfigurable Logic Gates Based on Graphene pn-Junctions. , 2013, , .		8
83	Acceleration of coarse grain molecular dynamics on GPU architectures. Journal of Computational Chemistry, 2013, 34, 803-818.	3.3	6
84	Bellerophontes: an RNA-Seq data analysis framework for chimeric transcripts discovery based on accurate fusion model. Bioinformatics, 2012, 28, 2114-2121.	4.1	35
85	A novel framework for chimeric transcript detection based on accurate gene fusion model. , 2011, , .		0
86	Graph models for PLA folding problems. International Journal of Systems Science, 1995, 26, 1439-1445.	5.5	1
87	The impact of cell library characteristics on area, speed and power consumption of CMOS circuits. International Journal of Electronics, 1995, 78, 395-407.	1.4	0