Rui Esteves Araujo

List of Publications by Year
in descending order

106 papers	1,449 citations	516215 16 h-index	433756 31 g-index
106 all docs	106 docs citations	106 times ranked	1455 citing authors

#	Article	IF	Citations
1	*qTSL*: A Multilayer Control Framework for Managing Capacity, Temperature, Stress, and Losses in Hybrid Balancing Systems. IEEE Transactions on Control Systems Technology, 2022, 30, 1228-1243.	3.2	4
2	Improvement of Steady State Performance of Voltage Control in Switched Reluctance Generator: Experimental Validation. Machines, 2022, 10, 103.	1.2	6
3	An Analytic Hierarchy Process for Selecting Battery Equalization Methods. Energies, 2022, 15, 2439.	1.6	5
4	Comparative Study of Discrete PI and PR Controller Implemented in SRG for Wind Energy Application: Theory and Experimentation. Electronics (Switzerland), 2022, 11, 1285.	1.8	9
5	Learning-Based Control for Hybrid Battery Management Systems. Springer Optimization and Its Applications, 2022, , 187-222.	0.6	0
6	Integration of Switched Reluctance Generator in a Wind Energy Conversion System: An Overview of the State of the Art and Challenges. Energies, 2022, 15, 4743.	1.6	10
7	Modulation Methods for Direct and Indirect Matrix Converters: A Review. Electronics (Switzerland), 2021, 10, 812.	1.8	12
8	Battery Model Identification Approach for Electric Forklift Application. Energies, 2021, 14, 6221.	1.6	4
9	Feasibility of Utilizing Photovoltaics for Irrigation Purposes in Moamba, Mozambique. Sustainability, 2021, 13, 10998.	1.6	6
10	Multi-Layer Control for Hybrid Balancing Systems. , 2021, , .		1
11	How to Win the 2021 IEEE VTS Motor Vehicles Challenge With a Pragmatic Energy Management Strategy. , 2021, , .		4
12	Li-ion battery State-of-Charge estimation using computationally efficient neural network models. , 2021, , .		2
13	A new approach for the diagnosis of different types of faults in dc–dc power converters based on inversion method. Electric Power Systems Research, 2020, 180, 106103.	2.1	15
14	Virtual Inertia and Droop Control Using DC-Link in a Two-Stage PV Inverter. , 2020, , .		5
15	Vehicle Lateral Dynamic Identification Method Based on Adaptive Algorithm. IEEE Open Journal of Vehicular Technology, 2020, 1, 267-278.	3.4	3
16	Fault Diagnosis in DC-DC Power Converters Based on Parity Equations. , 2020, , .		2
17	Moore-Penrose pseudo-inverse and artificial neural network modeling in performance prediction of switched reluctance machine. COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering, 2020, 39, 1411-1430.	0.5	1
18	Active Fault Diagnosis Method for Vehicles in Platoon Formation. IEEE Transactions on Vehicular Technology, 2020, 69, 3590-3603.	3.9	17

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19	Inversion-Based Approach for Detection and Isolation of Faults in Switched Linear Systems. Electronics (Switzerland), 2020, 9, 561.	1.8	2
20	A Survey of the Modeling of Switched Reluctance Machines and their Applications. U Porto Journal of Engineering, 2020, 6, 26-36.	0.2	1
21	Model Predictive Current Control of Switched Reluctance Motor Drive: An Initial Study. IFIP Advances in Information and Communication Technology, 2020, , 256-264.	0.5	1
22	A Back-EMF Estimation Method for a Switched Reluctance Motor using Model Predictive Control. , 2020, , .		1
23	Nonlinear Control of Dual Half Bridge Converters in Hybrid Energy Storage Systems. , 2020, , .		1
24	Smart and Hybrid Balancing System: Design, Modeling, and Experimental Demonstration. IEEE Transactions on Vehicular Technology, 2019, 68, 11449-11461.	3.9	16
25	Analysis of Static Magnetic Hysteresis Impact on a Switched Reluctance Motor Drive Controller. , 2019, , .		0
26	Model Predictive Power Allocation for Hybrid Battery Balancing Systems. , 2019, , .		1
27	Influence of Geometric Dimensions on the Performance of Switched Reluctance Machine. Machines, 2019, 7, 71.	1.2	8
28	Analysis and Design of a Speed Controller for Switched Reluctance Motor Drive. U Porto Journal of Engineering, 2019, 5, 46-58.	0.2	3
29	Modulation Strategy for a Single-Stage Bidirectional and Isolated AC–DC Matrix Converter for Energy Storage Systems. IEEE Transactions on Industrial Electronics, 2018, 65, 3458-3468.	5.2	107
30	Smart Balancing Control of a Hybrid Energy Storage System Based on a Cell-to-Cell Shared Energy Transfer Configuration. , 2018, , .		5
31	Modeling a Switched Reluctance Motor with Static Magnetic Hysteresis: Impact on High-Speed Operation. , 2018, , .		1
32	EMI Filter Design for a Single-stage Bidirectional and Isolated AC–DC Matrix Converter. Electronics (Switzerland), 2018, 7, 318.	1.8	17
33	A Practical Comparison of Two Algorithms for Inverter Control with Virtual Inertia Emulation. , 2018, , .		2
34	Modeling and Simulation of a Switched Reluctance Motor with Hysteresis Effect. , 2018, , .		1
35	An Outline of Fault-Tolerant Control System for Electric Vehicles Operating in a Platoon. IFIP Advances in Information and Communication Technology, 2018, , 224-231.	0.5	0
36	An Overview on Preisach and Jiles-Atherton Hysteresis Models for Soft Magnetic Materials. IFIP Advances in Information and Communication Technology, 2017, , 398-405.	0.5	6

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37	A System for Driver Analysis Using Smartphone as Smart Sensor. IFIP Advances in Information and Communication Technology, 2017, , 103-110.	0.5	0
38	Comparative study of inversion-based and observer-based approaches for fault diagnosis in DC-DC converters. , 2017, , .		4
39	Study on the combined influence of battery models and sizing strategy for hybrid and battery-based electric vehicles. Energy, 2017, 137, 272-284.	4.5	19
40	Sliding mode fault-tolerant controller for overactuated electric vehicles with active steering. , 2016, , .		0
41	Indoor Global Localisation in Anchor-based Systems using Audio Signals. Journal of Navigation, 2016, 69, 1024-1040.	1.0	3
42	Sensor fusion algorithm based on Extended Kalman Filter for estimation of ground vehicle dynamics. , 2016, , .		4
43	Evaluation of a Novel BEV Concept Based on Fixed and Swappable Li-Ion Battery Packs. IEEE Transactions on Industry Applications, 2016, 52, 5073-5085.	3.3	14
44	Evaluation of Advanced Control for Li-ion Battery Balancing Systems Using Convex Optimization. IEEE Transactions on Sustainable Energy, 2016, 7, 1703-1717.	5.9	41
45	Indoor localization with audible sound â€" Towards practical implementation. Pervasive and Mobile Computing, 2016, 29, 1-16.	2.1	36
46	Initial Study on Fault Tolerant Control with Actuator Failure Detection for a Multi Motor Electric Vehicle. IFIP Advances in Information and Communication Technology, 2016, , 197-205.	0.5	0
47	Minimum-Time Path-Following for Highly Redundant Electric Vehicles. IEEE Transactions on Control Systems Technology, 2016, 24, 487-501.	3.2	22
48	Fault detection scheme for a road vehicle with four independent single-wheel electric motors and steer-by-wire system. , 2016, , 417-422.		7
49	Model-based Predictive Control implementation for Cooperative Adaptive Cruise Control. U Porto Journal of Engineering, 2016, 2, 1-10.	0.2	1
50	Indoor Localization Using Barely Perceptible Audio Signals. U Porto Journal of Engineering, 2016, 2, 26-38.	0.2	0
51	Spread Spectrum Audio Indoor Localization. , 2015, , .		1
52	Fault-tolerant control based on sliding mode for overactuated electric vehicles. , 2014, , .		5
53	Adaptive-robust friction compensation in a hybrid brake-by-wire actuator. Proceedings of the Institution of Mechanical Engineers Part I: Journal of Systems and Control Engineering, 2014, 228, 769-786.	0.7	34
54	Design considerations on feed-forward and Kalman tracking filters in grid-tied-inverters current-control. , 2014, , .		2

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55	Multi-Objective Control of Balancing Systems for Li-Ion Battery Packs: A Paradigm Shift?. , 2014, , .		24
56	Influence of Li-Ion Battery Models in the Sizing of Hybrid Storage Systems with Supercapacitors. , 2014, , .		6
57	Towards a new technological solution for community energy storage. , 2014, , .		9
58	Minimum-time manoeuvring in electric vehicles with four wheel-individual-motors. Vehicle System Dynamics, 2014, 52, 824-846.	2.2	24
59	Combined Sizing and Energy Management in EVs With Batteries and Supercapacitors. IEEE Transactions on Vehicular Technology, 2014, 63, 3062-3076.	3.9	109
60	Assisted Assignment of Automotive Safety Requirements. IEEE Software, 2014, 31, 62-68.	2.1	28
61	Design of safety-oriented control allocation strategies for overactuated electric vehicles. Vehicle System Dynamics, 2014, 52, 1017-1046.	2.2	29
62	Minimum-time Path Following in Highly Redundant Electric Vehicles. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 3918-3923.	0.4	0
63	Exploring the Impact of Different Cost Heuristics in the Allocation of Safety Integrity Levels. Lecture Notes in Computer Science, 2014, , 70-81.	1.0	6
64	Power flow control with bidirectional dual active bridge battery charger in low-voltage microgrids. , 2013, , .		13
65	Rapid Prototyping Framework for real-time control of power electronic converters using simulink. , 2013, , .		12
66	Evaluation of applicability of system inversion to fault detection and isolation on switched power converters. , 2013, , .		4
67	Microgrid Service Restoration: The Role of Plugged-in Electric Vehicles. IEEE Industrial Electronics Magazine, 2013, 7, 26-41.	2.3	49
68	A comparative study between causal and non-causal algorithms for the energy management of hybrid storage systems. , 2013, , .		4
69	Indoor Sound Based Localization: Research Questions and First Results. IFIP Advances in Information and Communication Technology, 2013, , 521-528.	0.5	1
70	Wheel Slip Control of EVs Based on Sliding Mode Technique With Conditional Integrators. IEEE Transactions on Industrial Electronics, 2013, 60, 3256-3271.	5.2	142
71	Fault-tolerant control using sliding mode techniques applied to multi-motor electric vehicle. , 2013, , .		8
72	Torque allocation in electric vehicles with in-wheel motors: A performance-oriented approach. , 2013, , .		6

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73	Automatic Decomposition and Allocation of Safety Integrity Levels Using a Penalty-Based Genetic Algorithm. Lecture Notes in Computer Science, 2013, , 449-459.	1.0	15
74	FIEEV: A co-simulation framework for Fault Injection in electrical vehicles. , 2012, , .		9
75	Optimal sizing and energy management of hybrid storage systems. , 2012, , .		15
76	Driving coach: A smartphone application to evaluate driving efficient patterns. , 2012, , .		75
77	Robust DC-Link Control in EVs With Multiple Energy Storage Systems. IEEE Transactions on Vehicular Technology, 2012, 61, 3553-3565.	3.9	35
78	Torque blending and wheel slip control in EVs with in-wheel motors. Vehicle System Dynamics, 2012, 50, 71-94.	2.2	95
79	Impact of phase-shift modulation on the performance of a single-stage bidirectional electric vehicle charger. , 2012, , .		7
80	Real-time estimation of tyreâ€"road friction peak with optimal linear parameterisation. IET Control Theory and Applications, 2012, 6, 2257-2268.	1.2	41
81	A control allocation approach to manage multiple energy sources in EVs. , 2011, , .		6
82	A new bi-directional charger for vehicle-to-grid integration. , 2011, , .		36
83	Optimal Linear Parameterization for On-Line Estimation of Tire-Road Friction. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 8409-8414.	0.4	13
84	Ancillary services &#x2014; The current situation in the iberian electricity market and future possible developments. , 2011, , .		2
85	DC link control for multiple energy sources in electric vehicles. , 2011, , .		13
86	Survey on Fault-Tolerant Diagnosis and Control Systems Applied to Multi-motor Electric Vehicles. International Federation for Information Processing, 2011, , 359-366.	0.4	8
87	Reusable IP cores library for EV propulsion systems. , 2010, , .		4
88	A new linear parametrization for peak friction coefficient estimation in real time. , 2010, , .		11
89	Design, development and characterisation of a FPGA platform for multi-motor electric vehicle control. , 2009, , .		9
90	Control in Multi-Motor Electric Vehicle with a FPGA platform. , 2009, , .		15

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91	Experimental evaluation of a loss-minimization control of induction motors used in EV. , 2008, , .		9
92	An electric wheelchair as a tool for motivating students in power electronics. , 2008, , .		2
93	A new FPGA based control system for electrical propulsion with electronic differential. , 2007, , .		11
94	Experimental evaluation on parameter identification of induction motor using continuous-time approaches. , 2007, , .		3
95	Experimental evaluation of new one-chip solution for induction motor drives. , 2006, , .		1
96	Design and Development of New Controller Suitable to Neighbourhood Electric Vehicle Propulsion Control. Industrial Electronics Society (IECON), Annual Conference of IEEE, 2006, , .	0.0	5
97	A Low Cost Induction Motor Controller for Light Electric Vehicles in Local Areas. , 2005, , .		6
98	A new approach for speed estimation in induction motor drives based on a reduced-order extended Kalman filter. , 2004, , .		12
99	Sliding Mode Controllers for the Regulation of DC/DC Power Converters. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2003, 36, 407-412.	0.4	0
100	Non-linear control of an induction motor: sliding mode theory leads to robust and simple solution. International Journal of Adaptive Control and Signal Processing, 2000, 14, 331-353.	2.3	8
101	An instrument for measurement of induction motor drives based on phasor and modelling techniques. IEEE Transactions on Energy Conversion, 1999, 14, 704-711.	3.7	1
102	Sliding Mode Controller for Torque Control of an Induction Motor Drive. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 321-326.	0.4	0
103	Progresses on the design of a surveillance system to protect forests from fire. , 0, , .		4
104	Full and reduced order extended kalman filter for speed estimation in induction motor drives: a comparative study. , 0, , .		25
105	The design and implementation of an electric go-kart for education in motor control. , 0, , .		5
106	Switched Reluctance Motor Drives: Fundamental Control Methods. , 0, , .		2