Mohamed Becherif

List of Publications by Year
in descending order

103 papers	3,018 citations	136950 32 h-index	182427 51 g-index
108 all docs	108 docs citations	108 times ranked	2352 citing authors

#	Article	IF	Citations
1	A review on model-based diagnosis methodologies for PEMFCs. International Journal of Hydrogen Energy, 2013, 38, 7077-7091.	7.1	266
2	A review on non-model based diagnosis methodologies for PEM fuel cell stacks and systems. International Journal of Hydrogen Energy, 2013, 38, 8914-8926.	7.1	172
3	A double-fuzzy diagnostic methodology dedicated to online fault diagnosis of proton exchange membrane fuel cell stacks. Journal of Power Sources, 2014, 271, 570-581.	7.8	96
4	Online identification of semi-empirical model parameters for PEMFCs. International Journal of Hydrogen Energy, 2014, 39, 21165-21176.	7.1	91
5	Extended kalman filter for accurate state of charge estimation of lithium-based batteries: a comparative analysis. International Journal of Hydrogen Energy, 2017, 42, 29033-29046.	7.1	88
6	Analytical modelling and experimental validation of proton exchange membrane electrolyser for hydrogen production. International Journal of Hydrogen Energy, 2017, 42, 1366-1374.	7.1	87
7	Reconfiguration solution for shaded PV panels using switching control. Renewable Energy, 2015, 82, 4-13.	8.9	79
8	Vehicle hybridization with fuel cell, supercapacitors and batteries by sliding mode control. Renewable Energy, 2011, 36, 2627-2634.	8.9	78
9	AI-based global MPPT for partial shaded grid connected PV plant via MFO approach. Solar Energy, 2018, 171, 593-603.	6.1	77
10	MPPT of a PEMFC based on air supply control of the motocompressor group. International Journal of Hydrogen Energy, 2010, 35, 12521-12530.	7.1	72
11	Hydrogen Energy Storage: New Techno-Economic Emergence Solution Analysis. Energy Procedia, 2015, 74, 371-380.	1.8	71
12	Passivity-Based Control applied to DC hybrid power source using fuel cell and supercapacitors. Energy Conversion and Management, 2010, 51, 1468-1475.	9.2	70
13	Dynamic modeling and experimental analysis of PEMFCs: A comparative study. International Journal of Hydrogen Energy, 2017, 42, 1544-1557.	7.1	69
14	Comparison of proton exchange membrane fuel cell static models. Renewable Energy, 2013, 56, 64-71.	8.9	67
15	Fault diagnosis methods for Proton Exchange Membrane Fuel Cell system. International Journal of Hydrogen Energy, 2017, 42, 1534-1543.	7.1	63
16	Adaptive thermal control for PEMFC systems with guaranteed performance. International Journal of Hydrogen Energy, 2018, 43, 11550-11558.	7.1	57
17	Wind Energy Conversion System Topologies and Converters: Comparative Review. Energy Procedia, 2019, 162, 38-47.	1.8	56
18	Fuzzy Logic and Passivity-based Controller Applied to Electric Vehicle Using Fuel Cell and Supercapacitors Hybrid Source. Energy Procedia, 2014, 50, 619-626.	1.8	53

#	Article	IF	Citations
19	Optimal blade pitch control for enhancing the dynamic performance of wind power plants via metaheuristic optimisers. IET Electric Power Applications, 2017, 11, 1432-1440.	1.8	53
20	Optimal energy control of a PV-fuel cell hybrid system. International Journal of Hydrogen Energy, 2017, 42, 1456-1465.	7.1	52
21	Implementation of MRAC controller of a DFIG based variable speed grid connected wind turbine. Energy Conversion and Management, 2014, 79, 281-288.	9.2	47
22	Hydrogen production horizon using solar energy in Biskra, Algeria. International Journal of Hydrogen Energy, 2016, 41, 21899-21912.	7.1	45
23	Dynamic performance enhancement for wind energy conversion system using Moth-Flame Optimization based blade pitch controller. Sustainable Energy Technologies and Assessments, 2018, 27, 206-212.	2.7	44
24	Modeling and sizing of combined fuel cell-thermal solar system for energy generation. International Journal of Hydrogen Energy, 2016, 41, 19929-19935.	7.1	41
25	Optimal Sizing Design and Energy Management of Stand-alone Photovoltaic/Wind Generator Systems. Energy Procedia, 2014, 50, 163-170.	1.8	40
26	Energy Management of Fuel Cell/ Supercapacitor Hybrid Source Based on Linear and Sliding Mode Control. Energy Procedia, 2015, 74, 1258-1264.	1.8	36
27	Energy management hypothesis for hybrid power system of H_2/WT/PV/GMT via AI techniques. International Journal of Hydrogen Energy, 2018, 43, 3527-3541.	7.1	36
28	Novel Energy Management Technique for Hybrid Electric Vehicle via Interconnection and Damping Assignment Passivity Based Control. Renewable Energy, 2018, 119, 116-128.	8.9	36
29	Experimental validation for Li-ion battery modeling using Extended Kalman Filters. International Journal of Hydrogen Energy, 2017, 42, 25509-25517.	7.1	35
30	Dual loop controllers using PI, sliding mode and flatness controls applied to low voltage converters for fuel cell applications. International Journal of Hydrogen Energy, 2016, 41, 19154-19163.	7.1	34
31	The key issues of electric vehicle charging via hybrid power sources: Techno-economic viability, analysis, and recommendations. Renewable and Sustainable Energy Reviews, 2021, 138, 110534.	16.4	34
32	A nonlinear adaptive backstepping approach applied to a three phase PWM AC–DC converter feeding induction heating. Communications in Nonlinear Science and Numerical Simulation, 2009, 14, 1515-1525.	3.3	32
33	Electrical equivalent model of a proton exchange membrane fuel cell with experimental validation. Renewable Energy, 2011, 36, 2582-2588.	8.9	32
34	Multi-stack Fuel Cells Powering a Vehicle. Energy Procedia, 2015, 74, 308-319.	1.8	32
35	Fuzzy logic-based water heating control methodology for the efficiency enhancement of hybrid PV–PEM electrolyser systems. International Journal of Hydrogen Energy, 2015, 40, 2149-2161.	7.1	31
36	Metaheuristic-based energy management strategies for fuel cell emergency power unit in electrical aircraft. International Journal of Hydrogen Energy, 2019, 44, 2390-2406.	7.1	31

#	Article	IF	Citations
37	Triple hybrid system coupling fuel cell with wind turbine and thermal solar system. International Journal of Hydrogen Energy, 2020, 45, 11484-11491.	7.1	30
38	A Combined Experimental and Simulation Study on the Effects of Irradiance and Temperature on Photovoltaic Modules. Energy Procedia, 2015, 75, 373-380.	1.8	28
39	Modelling and Experimental Analysis of a PEM Electrolyser Powered by a Solar Photovoltaic Panel. Energy Procedia, 2014, 62, 714-722.	1.8	25
40	Optimal Genetic-sliding Mode Control of VSC-HVDC Transmission Systems. Energy Procedia, 2015, 74, 1048-1060.	1.8	24
41	Determination of the health state of fuel cell vehicle for a clean transportation. Journal of Cleaner Production, 2018, 171, 1510-1519.	9.3	24
42	PASSIVITY-BASED CONTROL OF HYBRID SOURCES: FUEL CELL AND BATTERY. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 585-590.	0.4	23
43	Optimal gain scheduling of VSCâ€HVDC system sliding mode control via artificial bee colony and mine blast algorithms. IET Generation, Transmission and Distribution, 2018, 12, 661-669.	2.5	22
44	Efficient experimental energy management operating for FC/battery/SC vehicles via hybrid Artificial Neural Networks-Passivity Based Control. Renewable Energy, 2021, 178, 1291-1302.	8.9	22
45	STABILITY AND ROBUSTNESS OF DISTURBED-PORT CONTROLLED HAMILTONIAN SYSTEMS WITH DISSIPATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 574-579.	0.4	20
46	Modeling and simulation of a hybrid energy source based on solar energy and battery. International Journal of Hydrogen Energy, 2015, 40, 13702-13707.	7.1	19
47	Parameter estimation of triple diode photovoltaic model using an artificial ecosystemâ€based optimizer. International Transactions on Electrical Energy Systems, 2021, 31, e13043.	1.9	19
48	Analyze and evaluate of energy management system for fuel cell electric vehicle based on frequency splitting. Mathematics and Computers in Simulation, 2020, 167, 65-77.	4.4	18
49	<scp>PIDâ€</scp> / <scp>FOPID</scp> â€based frequency control of zeroâ€carbon multisourcesâ€based interconnected power systems underderegulated scenarios. International Transactions on Electrical Energy Systems, 2021, 31, e12712.	1.9	18
50	Dual-layer approach for systematic sizing and online energy management of fuel cell hybrid vehicles. Applied Energy, 2021, 300, 117345.	10.1	18
51	Passivity-Based Control of Hybrid Power Sources using Fuel Cell, Supercapacitors, and Batteries on the DC link for Energy Traction System. , 2007, , .		16
52	Three order state space modeling of proton exchange membrane fuel cell with energy function definition. Journal of Power Sources, 2010, 195, 6645-6651.	7.8	16
53	Nonlinear Flatness Control Applied to Supercapacitors Contribution in Hybrid Power Systems Using Photovoltaic Source and Batteries. Energy Procedia, 2014, 50, 333-341.	1.8	16
54	Health-aware frequency separation method for online energy management of fuel cell hybrid vehicle considering efficient urban utilization. International Journal of Hydrogen Energy, 2021, 46, 16030-16047.	7.1	16

#	Article	IF	Citations
55	Observer design for induction motor: an approach based on the mean value theorem. Frontiers in Energy, 2014, 8, 426-433.	2.3	15
56	Design and implementation of DTC based on AFLC and PSO of a PMSM. Mathematics and Computers in Simulation, 2020, 167, 340-355.	4.4	15
57	Interconnection and damping assignment passivity based control for fuel cell and battery vehicle: Simulation and experimentation. International Journal of Hydrogen Energy, 2019, 44, 22467-22477.	7.1	14
58	Dual Loop Control of Fuel Cell Source Using Non-isolated IBC-IDDB Converter for Hybrid Vehicle Applications. Energy Procedia, 2014, 50, 155-162.	1.8	13
59	A Novel Adaptive Operation Mode based on Fuzzy Logic Control of Electrical Vehicle. Energy Procedia, 2014, 50, 194-201.	1.8	13
60	Optimal PV Location Choice Considering Static and Dynamic Constraints. International Journal of Emerging Electric Power Systems, 2017, 18, .	0.8	13
61	Efficient start–up energy management via nonlinear control for eco–traction systems. Applied Energy, 2017, 187, 899-909.	10.1	13
62	Passivity-based control of a doubly-fed induction generator interconnected with an induction motor. , 0, , .		12
63	Energy management of fuel cell/ supercapacitor hybrid power sources based on the flatness control. , 2013, , .		12
64	A lumped fluidic model of an anode chamber for fault tolerant strategy design. International Journal of Hydrogen Energy, 2016, 41, 5037-5047.	7.1	12
65	Experimental validation of differential flatness-based control applied to stand alone using photovoltaic/fuel cell/battery hybrid power sources. International Journal of Hydrogen Energy, 2017, 42, 1510-1517.	7.1	11
66	Dynamic Behavior Analysis for Optimally Tuned On-Grid DFIG Systems. Energy Procedia, 2019, 162, 339-348.	1.8	11
67	Fuzzy logic approach based mppt for the dynamic performance improvement for PV systems. , 2017, , .		10
68	Optimal metaheuristic-based sliding mode control of VSC-HVDC transmission systems. Mathematics and Computers in Simulation, 2021, 179, 178-193.	4.4	10
69	Carbone dioxide capture and utilization in gas turbine plants via the integration of power to gas. Petroleum, 2017, 3, 127-137.	2.8	9
70	Nonlinear control and optimization of hybrid electrical vehicle under sources limitation constraints. International Journal of Hydrogen Energy, 2020, 45, 11255-11266.	7.1	9
71	Modelling, simulation and identification of an engine air path electromechanical actuator. Control Engineering Practice, 2015, 34, 88-97.	5.5	8
72	Detecting of Multi Phase Inter Turn Short Circuit in the Five Permanent Magnet Synchronous Motor. International Journal of Emerging Electric Power Systems, 2016, 17, 583-595.	0.8	8

#	Article	IF	Citations
73	Multiâ€stack fuel cell efficiency enhancement based on thermal management. IET Electrical Systems in Transportation, 2017, 7, 65-73.	2.4	8
74	Cooperative Operation of Parallel Connected Boost Converters for Low Voltage-High Power Applications: An Experimental Approach. Energy Procedia, 2019, 162, 349-358.	1.8	8
75	Implementation and dual loop control of two phases interleaved boost converter for fuel cell applications. , 2014, , .		7
76	Dynamic Performance Comparison for MPPT-PV Systems using Hybrid Pspice/Matlab Simulation. International Journal of Emerging Electric Power Systems, 2016, 17, 529-539.	0.8	7
77	Effect of Doubly Fed Induction Generator on Transient Stability Analysis under Fault Conditions. Energy Procedia, 2019, 162, 315-324.	1.8	7
78	Finite-State Predictive Current Control of a Standalone DFIG-Based Wind Power Generation Systems: Simulation and Experimental Analysis. Journal of Control, Automation and Electrical Systems, 2021, 32, 1332-1343.	2.0	7
79	Electrical Train Feeding By Association Of Supercapacitors, Photovoltaic And Wind Generators. , 2007, , .		6
80	Heat management methodology for enhanced global efficiency in hybrid electric vehicles. Case Studies in Thermal Engineering, 2017, 10, 325-334.	5.7	6
81	An iterative algorithm for simulating heat recovery from exhaust gas â€"ÂApplication on generators. Mathematics and Computers in Simulation, 2020, 167, 92-103.	4.4	6
82	Neural network power management for hybrid electric elevator application. Mathematics and Computers in Simulation, 2020, 167, 155-175.	4.4	6
83	Thermal Control for Electric Vehicle Based on the Multistack Fuel Cells. Energy Technology, 2021, 9, 2100242.	3.8	6
84	Fuzzy logic and passivity based control applied to hybrid DC power source using fuel cell and battery. , 2015, , .		5
85	Estimation of Battery Soc for Hybrid Electric Vehicle using Coulomb Counting Method. International Journal of Emerging Electric Power Systems, 2018, 19, .	0.8	5
86	On the use of nonâ€orthogonal multiple access for V2V message dissemination. IET Intelligent Transport Systems, 2019, 13, 1125-1129.	3.0	5
87	Combined passivity based control and optimal control for energy management of fuel cell/battery hybrid system. Asian Journal of Control, 2019, 21, 1857-1868.	3.0	5
88	Energy management and optimal control strategies of fuel cell/supercapacitors hybrid vehicle. , 2014, , .		4
89	Optimal energy management control scheme for fuel cell hybrid vehicle. , 2014, , .		4
90	Thermal Management for Efficiency Enhancement for Multi-Stack Fuel Cell Electric Vehicle. , 2015, , .		4

#	Article	IF	Citations
91	Experimental validation of a dual loop control of two phases interleaved boost converter for fuel cell applications. Journal of Fundamental and Applied Sciences, 2016, 8, 327.	0.2	4
92	Experimental study of energy management of FC/SC hybrid system using the Passivity Based Control. International Journal of Hydrogen Energy, 2018, 43, 11583-11592.	7.1	4
93	Efficient control and multiâ€criteria energy scheduling of renewableâ€based utility grid via paretoâ€metaheuristic optimizers. IET Renewable Power Generation, 2022, 16, 1246-1266.	3.1	4
94	A reduced-order model and a higher-order sliding-mode control of the air supply system of a proton-exchange-membrane fuel cell with experimental validation. , 2009, , .		3
95	How nonlinear control can enhance the automobile efficiency and reduce harmful emissions: China case study. Journal of Cleaner Production, 2019, 212, 70-80.	9.3	3
96	Fuzzy Logic Maximum Structure and State Feedback Control Strategies of the Electrical Car. Energy Procedia, 2014, 50, 178-185.	1.8	2
97	Flatness and sliding mode based controller of fuel cell and supercapacitors hybrid source. , 2015, , .		2
98	States Feedback Control Applied to the Electric Vehicle. Energy Procedia, 2014, 50, 186-193.	1.8	1
99	Dynamic Performance Enhancement of Synchronous Generator Excitation via Nonlinear Backstepping Control. International Journal of Emerging Electric Power Systems, 2017, 18, .	0.8	1
100	Survey on Passivity Based Control of Induction Machine. Asian Journal of Control, 2019, 21, 2137-2154.	3.0	1
101	Modeling of a Small Scale Wind Turbine for Water Pumping Process: Case Study. Journal of Environmental Accounting and Management, 2018, 6, 273-289.	0.5	1
102	New Connection of DFIG Wind Turbines to the Grid to Minimize Converter Number. International Journal of Emerging Electric Power Systems, 2017, 18, .	0.8	0
103	Preface â€•special issue on Control Applications in Renewable Energy Systems. Asian Journal of Control, 2019, 21, 1778-1780.	3.0	0