Antonio José Calderón Godoy

List of Publications by Year
in descending order

41 papers	1,566 citations	331670 21 h-index	395702 33 g-index
41 all docs	41 docs citations	41 times ranked	1323 citing authors

#	Article	IF	Citations
1	Fractional order control strategies for power electronic buck converters. Signal Processing, 2006, 86, 2803-2819.	3.7	255
2	On Fractional PI? Controllers: Some Tuning Rules for Robustness to Plant Uncertainties. Nonlinear Dynamics, 2004, 38, 369-381.	5.2	225
3	Fractional PID Controllers for Industry Application. A Brief Introduction. JVC/Journal of Vibration and Control, 2007, 13, 1419-1429.	2.6	158
4	Analysis of the Van der Pol Oscillator Containing Derivatives of Fractional Order. JVC/Journal of Vibration and Control, 2007, 13, 1291-1301.	2.6	139
5	Evaluation of a hybrid photovoltaic-wind system with hydrogen storage performance using exergy analysis. International Journal of Hydrogen Energy, 2011, 36, 5751-5762.	7.1	75
6	A Literature Survey on Open Platform Communications (OPC) Applied to Advanced Industrial Environments. Electronics (Switzerland), 2019, 8, 510.	3.1	68
7	Innovative Multi-Layered Architecture for Heterogeneous Automation and Monitoring Systems: Application Case of a Photovoltaic Smart Microgrid. Sustainability, 2021, 13, 2234.	3.2	62
8	Automatic management of energy flows of a stand-alone renewable energy supply with hydrogen support. International Journal of Hydrogen Energy, 2010, 35, 2226-2235.	7.1	45
9	Integration of Sensor and Actuator Networks and the SCADA System to Promote the Migration of the Legacy Flexible Manufacturing System towards the Industry 4.0 Concept. Journal of Sensor and Actuator Networks, 2018, 7, 23.	3.9	43
10	IoT real time system for monitoring lithium-ion battery long-term operation in microgrids. Journal of Energy Storage, 2022, 51, 104596.	8.1	43
11	Easy Handling of Sensors and Actuators over TCP/IP Networks by Open Source Hardware/Software. Sensors, 2017, 17, 94.	3.8	40
12	Novel remote monitoring platform for RES-hydrogen based smart microgrid. Energy Conversion and Management, 2017, 148, 489-505.	9.2	39
13	Integration of open source hardware Arduino platform in automation systems applied to Smart Grids/Micro-Grids. Sustainable Energy Technologies and Assessments, 2019, 36, 100557.	2.7	33
14	A New, Scalable and Low Cost Multi-Channel Monitoring System for Polymer Electrolyte Fuel Cells. Sensors, 2016, 16, 349.	3.8	31
15	Estimation of the state-of-charge of gel lead-acid batteries and application to the control of a stand-alone wind-solar test-bed with hydrogen support. International Journal of Hydrogen Energy, 2012, 37, 11090-11103.	7.1	30
16	Integration of Sensors, Controllers and Instruments Using a Novel OPC Architecture. Sensors, 2017, 17, 1512.	3.8	30
17	Monitoring System for Tracking a PV Generator in an Experimental Smart Microgrid: An Open-Source Solution. Sustainability, 2021, 13, 8182.	3.2	27
18	Novel Networked Remote Laboratory Architecture for Open Connectivity Based on PLC-OPC-LabVIEW-EJS Integration. Application in Remote Fuzzy Control and Sensors Data Acquisition. Sensors, 2016, 16, 1822.	3.8	26

#	Article	IF	Citations
19	An Optimized Balance of Plant for a Medium-Size PEM Electrolyzer: Design, Control and Physical Implementation. Electronics (Switzerland), 2020, 9, 871.	3.1	25
20	Using Fractional Calculus for Lateral and Longitudinal Control of Autonomous Vehicles. Lecture Notes in Computer Science, 2003, , 337-348.	1.3	22
21	Comprehensive diagnosis methodology for faults detection and identification, and performance improvement of Air-Cooled Polymer Electrolyte Fuel Cells. Renewable and Sustainable Energy Reviews, 2018, 88, 193-207.	16.4	22
22	Development of Final Projects in Engineering Degrees around an Industry 4.0-Oriented Flexible Manufacturing System: Preliminary Outcomes and Some Initial Considerations. Education Sciences, 2018, 8, 214.	2.6	18
23	Simulation platform for the assessment of PEM electrolyzer models oriented to implement digital Replicas. Energy Conversion and Management, 2022, 267, 115917.	9.2	17
24	Configurable IoT Open-Source Hardware and Software I-V Curve Tracer for Photovoltaic Generators. Sensors, 2021, 21, 7650.	3.8	15
25	Weather data and energy balance of a hybrid photovoltaic-wind system with hydrogen storage. International Journal of Hydrogen Energy, 2010, 35, 7706-7715.	7.1	14
26	Extended Model Predictive Controller to Develop Energy Management Systems in Renewable Source-Based Smart Microgrids with Hydrogen as Backup. Theoretical Foundation and Case Study. Sustainability, 2020, 12, 8969.	3.2	12
27	Integration of a Multi-Stack Fuel Cell System in Microgrids: A Solution Based on Model Predictive Control. Energies, 2020, 13, 4924.	3.1	11
28	Greenhouse automation with programmable controller and decentralized periphery via field bus. , 2009, , .		7
29	Integration of air-cooled multi-stack polymer electrolyte fuel cell systems into renewable microgrids. International Journal of Electrical Power and Energy Systems, 2022, 142, 108305.	5.5	7
30	Cultivation of Autochthonous Microalgae for Biomass Feedstock: Growth Curves and Biomass Characterization for Their Use in Biorefinery Products. Energies, 2021, 14, 4567.	3.1	6
31	Experimental automation platform of stand-alone hybrid renewable energy systems: Fuzzy logic application and exergy analysis. , 2015, , .		5
32	SOFTWARE-IN-THE-LOOP APPROACH FOR AUTOMATION AND SUPERVISORY SYSTEMS EDUCATION. INTED Proceedings, 2018, , .	0.0	4
33	Management of a PEM Electrolyzer in Hybrid Renewable Energy Systems. Atlantis Computational Intelligence Systems, 2014, , 217-234.	0.5	3
34	Some Hardware and Instrumentation Aspects of the Development of an Automation System for Jar Tests in Drinking Water Treatment. Sensors, 2017, 17, 2305.	3.8	3
35	Discovering the dynamic behavior of unknown systems using fuzzy logic. Fuzzy Optimization and Decision Making, 2018, 17, 421-445.	5.5	3
36	Monitoring of electric power systems: Application to self-sufficient hybrid renewable energy systems. , 2015, , .		2

#	Article	IF	Citations
37	PEM Electrolyser Digital Twin Embedded within MATLAB-Based Graphical User Interface. , 0, , .		1
38	Some comments to the paper â€œEnergy, exergy and sustainability analyses of hybrid renewable energy based hydrogen and electricity production and storageÂsystems: Modeling and case studyâ€• Applied Thermal Engineering, 2013, 58, 261-263.	6.0	0
39	DESIGN OF AN EDUCATIONAL PLATFORM FOR AUTOMATION AND SUPERVISION UNDER THE INDUSTRY 4.0 FRAMEWORK. , 2018, , .		0
40	INTRODUCING DIGITAL TWINS IN AUTOMATION AND ROBOTICS LABORATORY SESSIONS. INTED Proceedings, 2022, , .	0.0	0
41	Processes Supervision System for Green Hydrogen Production: Experimental Characterization and Data Acquisition of PEM Electrolyzer. , 0, , .		0