

Josã© Boaventura-Cunha

List of Publications by Year in descending order

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72
papers

1,492
citations

430442

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78
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docs citations

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times ranked

1340
citing authors

#	ARTICLE	IF	CITATIONS
1	Localization and Mapping on Agriculture Based on Point-Feature Extraction and Semiplanes Segmentation From 3D LiDAR Data. <i>Frontiers in Robotics and AI</i> , 2022, 9, 832165.	2.0	11
2	Reconfigurable Grasp Planning Pipeline with Grasp Synthesis and Selection Applied to Picking Operations in Aerospace Factories. <i>Robotics and Computer-Integrated Manufacturing</i> , 2021, 67, 102032.	6.1	8
3	Bringing Semantics to the Vineyard: An Approach on Deep Learning-Based Vine Trunk Detection. <i>Agriculture (Switzerland)</i> , 2021, 11, 131.	1.4	18
4	Particle filter refinement based on clustering procedures for high-dimensional localization and mapping systems. <i>Robotics and Autonomous Systems</i> , 2021, 137, 103725.	3.0	10
5	Influence of Air Vents Management on Trombe Wall Temperature Fluctuations: An Experimental Analysis under Real Climate Conditions. <i>Energies</i> , 2021, 14, 5043.	1.6	11
6	Smarter Robotic Sprayer System for Precision Agriculture. <i>Electronics (Switzerland)</i> , 2021, 10, 2061.	1.8	15
7	Grape Bunch Detection at Different Growth Stages Using Deep Learning Quantized Models. <i>Agronomy</i> , 2021, 11, 1890.	1.3	35
8	Robotic grasping: from wrench space heuristics to deep learning policies. <i>Robotics and Computer-Integrated Manufacturing</i> , 2021, 71, 102176.	6.1	20
9	Trombe wall thermal performance: Data mining techniques for indoor temperatures and heat flux forecasting. <i>Energy and Buildings</i> , 2021, 252, 111407.	3.1	11
10	Unimodal and Multimodal Perception for Forest Management: Review and Dataset. <i>Computation</i> , 2021, 9, 127.	1.0	9
11	Hydroponics Monitoring through UV-Vis Spectroscopy and Artificial Intelligence: Quantification of Nitrogen, Phosphorous and Potassium. <i>Chemistry Proceedings</i> , 2021, 5, .	0.1	5
12	Localization and Mapping for Robots in Agriculture and Forestry: A Survey. <i>Robotics</i> , 2020, 9, 97.	2.1	60
13	Review of nature and biologically inspired metaheuristics for greenhouse environment control. <i>Transactions of the Institute of Measurement and Control</i> , 2020, 42, 2338-2358.	1.1	19
14	Smartphone Applications Targeting Precision Agriculture Practices—A Systematic Review. <i>Agronomy</i> , 2020, 10, 855.	1.3	61
15	Evaluation of Hunting-Based Optimizers for a Quadrotor Sliding Mode Flight Controller. <i>Robotics</i> , 2020, 9, 22.	2.1	4
16	Innovating in Control Engineering Teaching/Learning with Smartphones. , 2019, , .		3
17	On KNoT Meta-Platform for IoT-Based Control of Storage Grains. <i>Lecture Notes in Computer Science</i> , 2019, , 180-185.	1.0	0
18	Cyberphysical Network for Crop Monitoring and Fertigation Control. <i>Lecture Notes in Computer Science</i> , 2019, , 200-211.	1.0	1

#	ARTICLE	IF	CITATIONS
19	An analytical approach to assess the influence of the massive wall material, thickness and ventilation system on the Trombe wall thermal performance. <i>Journal of Building Physics</i> , 2018, 41, 445-468.	1.2	15
20	Instrumentation and Control of an Industrial Sewing Station. , 2018, , .		1
21	Posicast Based Experiments to Motivate Undergraduates to Control Engineering. , 2018, , .		0
22	PID Posicast Control for Uncertain Oscillatory Systems: A Practical Experiment. <i>IFAC-PapersOnLine</i> , 2018, 51, 416-421.	0.5	3
23	Soft Computing Optimization for the Biomass Supply Chain Operational Planning. , 2018, , .		4
24	An Overview on Visual Sensing for Automatic Control on Smart Farming and Forest Management. , 2018, , .		0
25	Digital Technologies for Forest Supply Chain Optimization: Existing Solutions and Future Trends. <i>Environmental Management</i> , 2018, 62, 1108-1133.	1.2	44
26	Trends in Gravitational Search Algorithm. <i>Advances in Intelligent Systems and Computing</i> , 2018, , 270-277.	0.5	5
27	Experimental and analytical approach on the Trombe wall thermal performance parameters characterization. <i>Energy and Buildings</i> , 2017, 150, 262-280.	3.1	28
28	An experimental analysis of the Trombe wall temperature fluctuations for high range climate conditions: Influence of ventilation openings and shading devices. <i>Energy and Buildings</i> , 2017, 138, 546-558.	3.1	46
29	Optimized Fractional Order Sliding Mode Controller for Water Level in Irrigation Canal Pool. <i>IFAC-PapersOnLine</i> , 2017, 50, 7663-7668.	0.5	5
30	Classroom partial flip for feedback control systems: A biomedical engineering experience. , 2017, , .		2
31	Swarm-based auto-tuning of PID posicast control for uncertain systems. , 2017, , .		1
32	Chaos-based grey wolf optimizer for higher order sliding mode position control of a robotic manipulator. <i>Nonlinear Dynamics</i> , 2017, 90, 1353-1362.	2.7	44
33	Model Predictive Control Applied to a Supply Chain Management Problem. <i>Lecture Notes in Electrical Engineering</i> , 2017, , 167-177.	0.3	3
34	Disturbance Rejection Improvement for the Sliding Mode Smith Predictor Based on Bio-inspired Tuning. <i>Lecture Notes in Electrical Engineering</i> , 2017, , 45-58.	0.3	0
35	Model Predictive Control of a Conveyor-Based Drying Process Applied to Cork Stoppers. <i>Lecture Notes in Electrical Engineering</i> , 2017, , 617-627.	0.3	0
36	Automation and Control in Greenhouses: State-of-the-Art and Future Trends. <i>Lecture Notes in Electrical Engineering</i> , 2017, , 597-606.	0.3	9

#	ARTICLE	IF	CITATIONS
37	A new brain emotional learning Simulink Â® toolbox for control systems design * *This work was funded by the ERDF â€“ European Regional Development Fund through the COMPETE Programme and by Portuguese funds through the FCT â€“ FundaÃ§Ã£o para a CiÃªncia e a Tecnologia within the project POCI-01-0145-FEDER-006961.. IFAC-PapersOnLine, 2017, 50, 16009-16014.	0.5	14
38	A Multilayer Model Predictive Control Methodology Applied to a Biomass Supply Chain Operational Level. Complexity, 2017, 2017, 1-10.	0.9	6
39	Comparative Analysis between LDR and HDR Images for Automatic Fruit Recognition and Counting. Journal of Sensors, 2017, 2017, 1-12.	0.6	4
40	A feasibility study of sliding mode predictive control for greenhouses. Optimal Control Applications and Methods, 2016, 37, 730-748.	1.3	12
41	Modelling a biomass supply chain through discrete-event simulation—This work was supported by the FCT - FundaÃ§Ã£o para a CiÃªncia e Tecnologia through the PhD Studentship SFRH/BD/98032/2013, program POPH - Programa Operacional Potencial Humano and FSE - Fundo Social Europeu.. IFAC-PapersOnLine, 2016, 49, 84-89.	0.5	13
42	Forest-based supply chain modelling using the SimPy simulation framework. IFAC-PapersOnLine, 2016, 49, 90-95.	0.5	3
43	Blending Artificial Intelligence into PID Controller Design: A Biomedical Engineering Experiment. IFAC-PapersOnLine, 2016, 49, 366-371.	0.5	7
44	Controller System Design Using the Coefficient Diagram Method. Arabian Journal for Science and Engineering, 2016, 41, 3663-3681.	1.1	18
45	E-GRAF CET+: An Internet Based Multimedia Tool Refined. IFAC-PapersOnLine, 2015, 48, 111-116.	0.5	2
46	Framework Using ROS and SimTwo Simulator for Realistic Test of Mobile Robot Controllers. Lecture Notes in Electrical Engineering, 2015, , 751-759.	0.3	6
47	Overview of MPC applications in supply chains: Potential use and benefits in the management of forest-based supply chains. Forest Systems, 2015, 24, e039.	0.1	6
48	FPGA Implementation of a Multi-Population PBIL Algorithm. , 2015, , .		1
49	Long Term Solar Radiation Forecast Using Computational Intelligence Methods. Applied Computational Intelligence and Soft Computing, 2014, 2014, 1-14.	1.6	3
50	Teaching particle swarm optimization through an open-loop system identification project. Computer Applications in Engineering Education, 2014, 22, 227-237.	2.2	10
51	Energy performance of Trombe walls: Adaptation of ISO 13790:2008(E) to the Portuguese reality. Energy and Buildings, 2014, 74, 111-119.	3.1	67
52	A swarm intelligence-based tuning method for the sliding mode generalized predictive control. ISA Transactions, 2014, 53, 1501-1515.	3.1	24
53	Gantry crane control: A simulation case study. , 2013, , .		4
54	Particle Swarm Optimization for Gantry Control: A Teaching Experiment. Lecture Notes in Computer Science, 2011, , 196-207.	1.0	2

#	ARTICLE	IF	CITATIONS
55	Particle swarm optimization with fractional-order velocity. <i>Nonlinear Dynamics</i> , 2010, 61, 295-301.	2.7	196
56	Greenhouse Heat Load Prediction Using a Support Vector Regression Model. <i>Advances in Intelligent and Soft Computing</i> , 2010, , 111-117.	0.2	2
57	Multi-Objective Particle Swarm Optimization Design of PID Controllers. <i>Lecture Notes in Computer Science</i> , 2009, , 1222-1230.	1.0	8
58	Fractional Electrical Impedances in Botanical Elements. <i>JVC/Journal of Vibration and Control</i> , 2008, 14, 1389-1402.	1.5	136
59	Fractional order electromagnetics. <i>Signal Processing</i> , 2006, 86, 2637-2644.	2.1	91
60	Greenhouse climate hierarchical fuzzy modelling. <i>Control Engineering Practice</i> , 2005, 13, 613-628.	3.2	65
61	Greenhouse air temperature predictive control using the particle swarm optimisation algorithm. <i>Computers and Electronics in Agriculture</i> , 2005, 49, 330-344.	3.7	134
62	Fractional dynamic fitness functions for GA-based circuit design. , 2005, , .		0
63	A networked platform for agricultural management systems. <i>Computers and Electronics in Agriculture</i> , 2001, 31, 75-90.	3.7	55
64	Real-time parameter estimation of dynamic temperature models for greenhouse environmental control. <i>Control Engineering Practice</i> , 1997, 5, 1473-1481.	3.2	55
65	Solar data acquisition wireless network for agricultural applications. , 0, , .		12
66	Soil moisture sensor with built-in fault-detection capabilities. , 0, , .		4
67	Optimal Control of Air Temperature and Carbon Dioxide Concentration in Greenhouses. , 0, , .		1
68	A Silicon Probe with Integrated Microelectronics for Soil Moisture Measurements. , 0, , .		0
69	Evaluation of Plant Growth Models for a Soil Greenhouse Tomato Crop. , 0, , .		0
70	Application of image processing techniques in the characterization of plant leaves. , 0, , .		12
71	Curve Fitting: Fitting Functions to Agricultural and Biological Data. , 0, , .		1
72	Real-time Adaptive Control for Greenhouse Heating, Cooling and CO2 Enrichment. , 0, , .		0