

Manuel Berenguel

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/3999623/publications.pdf>

Version: 2024-02-01

293
papers

6,095
citations

66234

42
h-index

118652

62
g-index

301
all docs

301
docs citations

301
times ranked

3669
citing authors

#	ARTICLE	IF	CITATIONS
1	A survey on control schemes for distributed solar collector fields. Part I: Modeling and basic control approaches. <i>Solar Energy</i> , 2007, 81, 1240-1251.	2.9	201
2	A survey on control schemes for distributed solar collector fields. Part II: Advanced control approaches. <i>Solar Energy</i> , 2007, 81, 1252-1272.	2.9	166
3	A comparison of thermal comfort predictive control strategies. <i>Energy and Buildings</i> , 2011, 43, 2737-2746.	3.1	120
4	Advanced Control of Solar Plants. <i>Advances in Industrial Control</i> , 1997, , .	0.4	119
5	Simulation of Greenhouse Climate Monitoring and Control with Wireless Sensor Network and Event-Based Control. <i>Sensors</i> , 2009, 9, 232-252.	2.1	119
6	An artificial vision-based control system for automatic heliostat positioning offset correction in a central receiver solar power plant. <i>Solar Energy</i> , 2004, 76, 563-575.	2.9	101
7	Optimizing building comfort temperature regulation via model predictive control. <i>Energy and Buildings</i> , 2013, 57, 361-372.	3.1	101
8	Model predictive control of pH in tubular photobioreactors. <i>Journal of Process Control</i> , 2004, 14, 377-387.	1.7	100
9	Control of Solar Energy Systems. <i>Advances in Industrial Control</i> , 2012, , .	0.4	91
10	Control concepts for direct steam generation in parabolic troughs. <i>Solar Energy</i> , 2005, 78, 301-311.	2.9	88
11	Multiobjective hierarchical control architecture for greenhouse crop growth. <i>Automatica</i> , 2012, 48, 490-498.	3.0	87
12	A Comparison of Energy Consumption Prediction Models Based on Neural Networks of a Bioclimatic Building. <i>Energies</i> , 2016, 9, 57.	1.6	83
13	Nonlinear MPC based on a Volterra series model for greenhouse temperature control using natural ventilation. <i>Control Engineering Practice</i> , 2011, 19, 354-366.	3.2	81
14	Fuzzy logic control of a solar power plant. <i>IEEE Transactions on Fuzzy Systems</i> , 1995, 3, 459-468.	6.5	79
15	Application of a gain scheduling generalized predictive controller to a solar power plant. <i>Control Engineering Practice</i> , 1994, 2, 227-238.	3.2	77
16	Thermo-economic design optimization of parabolic trough solar plants for industrial process heat applications with memetic algorithms. <i>Applied Energy</i> , 2014, 113, 603-614.	5.1	69
17	Feedback linearization control for a distributed solar collector field. <i>Control Engineering Practice</i> , 2007, 15, 1533-1544.	3.2	66
18	Dynamic model of microalgal production in tubular photobioreactors. <i>Bioresource Technology</i> , 2012, 126, 172-181.	4.8	66

#	ARTICLE	IF	CITATIONS
19	ROBUST ADAPTIVE MODEL PREDICTIVE CONTROL OF A SOLAR PLANT WITH BOUNDED UNCERTAINTIES. , 1997, 11, 311-325.		65
20	Interactive learning modules for PID control [Lecture Notes]. IEEE Control Systems, 2008, 28, 118-134.	1.0	65
21	Control of Solar Energy Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 848-855.	0.4	65
22	Heuristic knowledge-based heliostat field control for the optimization of the temperature distribution in a volumetric receiver. Solar Energy, 1999, 66, 355-369.	2.9	64
23	Effective utilization of flue gases in raceway reactor with event-based pH control for microalgae culture. Bioresource Technology, 2014, 170, 1-9.	4.8	64
24	Direct steam generation in solar boilers. IEEE Control Systems, 2004, 24, 15-29.	1.0	59
25	Solar field control for desalination plants. Solar Energy, 2008, 82, 772-786.	2.9	59
26	Control scheme for direct steam generation in parabolic troughs under recirculation operation mode. Solar Energy, 2006, 80, 1-17.	2.9	57
27	Repetitive control of tubular heat exchangers. Journal of Process Control, 2007, 17, 689-701.	1.7	57
28	Robust constrained predictive feedback linearization controller in a solar desalination plant collector field. Control Engineering Practice, 2009, 17, 1076-1088.	3.2	56
29	Fuzzy predictive control of a solar power plant. IEEE Transactions on Fuzzy Systems, 2005, 13, 58-68.	6.5	55
30	Prediction models to analyse the performance of a commercial-scale membrane distillation unit for desalting brines from RO plants. Desalination, 2018, 445, 15-28.	4.0	55
31	Adaptive hierarchical control of greenhouse crop production. International Journal of Adaptive Control and Signal Processing, 2008, 22, 180-197.	2.3	53
32	A machine vision system for seeds quality evaluation using fuzzy logic. Computers and Electronics in Agriculture, 2001, 32, 1-20.	3.7	52
33	Review of software for optical analyzing and optimizing heliostat fields. Renewable and Sustainable Energy Reviews, 2017, 72, 1001-1018.	8.2	51
34	Temperature control of a solar furnace. IEEE Control Systems, 1999, 19, 8-24.	1.0	50
35	Interactive teaching of constrained generalized predictive control. IEEE Control Systems, 2005, 25, 52-66.	1.0	49
36	Reference governor optimization and control of a distributed solar collector field. European Journal of Operational Research, 2009, 193, 709-717.	3.5	49

#	ARTICLE	IF	CITATIONS
37	New approach for solar tracking systems based on computer vision, low cost hardware and deep learning. <i>Renewable Energy</i> , 2019, 133, 1158-1166.	4.3	48
38	Interactivity in education: An experience in the automatic control field. <i>Computer Applications in Engineering Education</i> , 2013, 21, 360-371.	2.2	47
39	Dynamic model of an industrial raceway reactor for microalgae production. <i>Algal Research</i> , 2016, 17, 67-78.	2.4	47
40	Improving feedforward disturbance compensation capabilities in Generalized Predictive Control. <i>Journal of Process Control</i> , 2012, 22, 527-539.	1.7	46
41	Neural identification applied to predictive control of a solar plant. <i>Control Engineering Practice</i> , 1998, 6, 333-344.	3.2	45
42	Optimal operation of a Solar Membrane Distillation pilot plant via Nonlinear Model Predictive Control. <i>Computers and Chemical Engineering</i> , 2018, 109, 151-165.	2.0	45
43	Event-based predictive control of pH in tubular photobioreactors. <i>Computers and Chemical Engineering</i> , 2014, 65, 28-39.	2.0	44
44	Minimization of carbon losses in pilot-scale outdoor photobioreactors by model-based predictive control. <i>Biotechnology and Bioengineering</i> , 2003, 84, 533-543.	1.7	43
45	A practical NMPC with robustness of stability applied to distributed solar power plants. <i>Solar Energy</i> , 2013, 92, 106-122.	2.9	43
46	Adaptive generalized predictive control of a distributed collector field. <i>IEEE Transactions on Control Systems Technology</i> , 1994, 2, 462-467.	3.2	42
47	Control of thermal solar energy plants. <i>Journal of Process Control</i> , 2014, 24, 332-340.	1.7	42
48	Selective pH and dissolved oxygen control strategy for a raceway reactor within an event-based approach. <i>Control Engineering Practice</i> , 2015, 44, 209-218.	3.2	42
49	Modeling and Control of Greenhouse Crop Growth. <i>Advances in Industrial Control</i> , 2015, , .	0.4	41
50	Interactive tool for analysis of time-delay systems with dead-time compensators. <i>Control Engineering Practice</i> , 2008, 16, 824-835.	3.2	39
51	Generalized Predictive Control With Actuator Deadband for Event-Based Approaches. <i>IEEE Transactions on Industrial Informatics</i> , 2014, 10, 523-537.	7.2	39
52	An Interactivity-Based Methodology to Support Control Education: How to Teach and Learn Using Simple Interactive Tools [Lecture Notes]. <i>IEEE Control Systems</i> , 2016, 36, 63-76.	1.0	39
53	Web-based remote control laboratory using a greenhouse scale model. <i>Computer Applications in Engineering Education</i> , 2005, 13, 111-124.	2.2	38
54	Local model predictive controller in a solar desalination plant collector field. <i>Renewable Energy</i> , 2011, 36, 3001-3012.	4.3	37

#	ARTICLE	IF	CITATIONS
55	Application of Predictive Sliding Mode Controllers to a Solar Plant. IEEE Transactions on Control Systems Technology, 2008, 16, 819-825.	3.2	36
56	A switching control strategy applied to a solar collector field. Control Engineering Practice, 2011, 19, 135-145.	3.2	36
57	An interactive software tool for system identification. Advances in Engineering Software, 2012, 45, 115-123.	1.8	36
58	Uncertainty and global sensitivity analysis in the design of parabolic-trough direct steam generation plants for process heat applications. Applied Energy, 2014, 121, 233-244.	5.1	36
59	Bayesian networks for greenhouse temperature control. Journal of Applied Logic, 2016, 17, 25-35.	1.1	35
60	Leaf area index estimation for a greenhouse transpiration model using external climate conditions based on genetics algorithms, back-propagation neural networks and nonlinear autoregressive exogenous models. Agricultural Water Management, 2017, 183, 107-115.	2.4	35
61	First Principles Model of a Tubular Photobioreactor for Microalgal Production. Industrial & Engineering Chemistry Research, 2014, 53, 11121-11136.	1.8	34
62	A feedback control system with reference governor for a solar membrane distillation pilot facility. Renewable Energy, 2018, 120, 536-549.	4.3	34
63	A Robust Adaptive Dead-Time Compensator with Application to A Solar Collector Field 1. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 93-98.	0.4	33
64	An unified approach for DTC design using interactive tools. Control Engineering Practice, 2009, 17, 1234-1244.	3.2	33
65	Optimization of biomass production in outdoor tubular photobioreactors. Journal of Process Control, 2016, 37, 58-69.	1.7	32
66	Modelling the free response of a solar plant for predictive control. Control Engineering Practice, 1998, 6, 1257-1266.	3.2	31
67	New low-cost solar tracking system based on open source hardware for educational purposes. Solar Energy, 2018, 174, 826-836.	2.9	31
68	Gain-scheduling model predictive control of a Fresnel collector field. Control Engineering Practice, 2019, 82, 1-13.	3.2	30
69	On the filtered Smith predictor with feedforward compensation. Journal of Process Control, 2016, 41, 35-46.	1.7	29
70	An interactive tool for mobile robot motion planning. Robotics and Autonomous Systems, 2008, 56, 396-409.	3.0	28
71	Serial grey-box model of a stratified thermal tank for hierarchical control of a solar plant. Solar Energy, 2008, 82, 441-451.	2.9	28
72	Generalized feedforward tuning rules for non-realizable delay inversion. Journal of Process Control, 2013, 23, 1241-1250.	1.7	28

#	ARTICLE	IF	CITATIONS
73	FEEDBACK LINEARIZATION CONTROL FOR A DISTRIBUTED SOLAR COLLECTOR FIELD. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 356-361.	0.4	27
74	Application of SSOD-PI and PI-SSOD event-based controllers to greenhouse climatic control. ISA Transactions, 2016, 65, 525-536.	3.1	27
75	Hybrid modeling of a solar-thermal heating facility. Solar Energy, 2013, 97, 577-590.	2.9	26
76	Distributed Sliding Mode Control of pH in Tubular Photobioreactors. IEEE Transactions on Control Systems Technology, 2016, 24, 1160-1173.	3.2	26
77	Predictive Control Applied to a Solar Desalination Plant Connected to a Greenhouse with Daily Variation of Irrigation Water Demand. Energies, 2016, 9, 194.	1.6	24
78	Robust constrained economic receding horizon control applied to the two time-scale dynamics problem of a greenhouse. Optimal Control Applications and Methods, 2014, 35, 435-453.	1.3	23
79	An IoT Architecture for Water Resource Management in Agroindustrial Environments: A Case Study in Almería (Spain). Sensors, 2020, 20, 596.	2.1	23
80	Adaptive repetitive control for resonance cancellation of a distributed solar collector field. International Journal of Adaptive Control and Signal Processing, 2009, 23, 331-352.	2.3	22
81	A practical approach for Generalized Predictive Control within an event-based framework. Computers and Chemical Engineering, 2012, 41, 52-66.	2.0	22
82	Implementation of feedback linearization GPC control for a solar furnace. Journal of Process Control, 2013, 23, 1545-1554.	1.7	22
83	Tools and methodologies for teaching robotics in computer science & engineering studies. Computer Applications in Engineering Education, 2016, 24, 202-214.	2.2	22
84	Heterogeneous resource management in energy hubs with self-consumption: Contributions and application example. Applied Energy, 2018, 229, 537-550.	5.1	22
85	Optimal thermal energy management of a distributed energy system comprising a solar membrane distillation plant and a greenhouse. Energy Conversion and Management, 2019, 198, 111791.	4.4	22
86	Predictive Control with Disturbance Forecasting for Greenhouse Diurnal Temperature Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 1779-1784.	0.4	21
87	A parallel Teaching-Learning-Based Optimization procedure for automatic heliostat aiming. Journal of Supercomputing, 2017, 73, 591-606.	2.4	21
88	Feedforward controllers for greenhouse climate control based on physical models. , 2001, , .		20
89	Modelling and Control Issues of pH in Tubular Photobioreactors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 186-191.	0.4	20
90	Incremental fuzzy PI control of a solar power plant. IET Control Theory and Applications, 1997, 144, 596-604.	1.7	19

#	ARTICLE	IF	CITATIONS
91	CALIBRATION AND VALIDATION OF COMPLEX AND SIMPLIFIED TOMATO GROWTH MODELS FOR CONTROL PURPOSES IN THE SOUTHEAST OF SPAIN. <i>Acta Horticulturae</i> , 2004, , 147-154.	0.1	19
92	IMPROVING EFFICIENCY OF GREENHOUSE HEATING SYSTEMS USING MODEL PREDICTIVE CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 40-45.	0.4	19
93	Application of time-series methods to disturbance estimation in predictive control problems. , 2010, , .		19
94	Solar Energy Fundamentals. <i>Advances in Industrial Control</i> , 2012, , 1-23.	0.4	19
95	A lumped parameter chemical-physical model for tubular photobioreactors. <i>Chemical Engineering Science</i> , 2014, 112, 116-129.	1.9	19
96	A New IoT-Based Platform for Greenhouse Crop Production. <i>IEEE Internet of Things Journal</i> , 2022, 9, 6325-6334.	5.5	19
97	A new model to analyze the temperature effect on the microalgae performance at large scale raceway reactors. <i>Biotechnology and Bioengineering</i> , 2021, 118, 877-889.	1.7	19
98	Modeling of a Solar Seawater Desalination Plant for Automatic Operation Purposes. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , 2008, 130, .	1.1	18
99	Técnicas de Control del Confort en Edificios. <i>RIAI - Revista Iberoamericana De Automatica E Informatica Industrial</i> , 2010, 7, 5-24.	0.6	18
100	Filtered Smith predictor with feedback linearization and constraints handling applied to a solar collector field. <i>Solar Energy</i> , 2011, 85, 1056-1067.	2.9	18
101	Constrained Temperature Control of a Solar Furnace. <i>IEEE Transactions on Control Systems Technology</i> , 2012, 20, 1263-1274.	3.2	18
102	Control System for pH in Raceway Photobioreactors Based on Wiener Models. <i>IFAC-PapersOnLine</i> , 2019, 52, 928-933.	0.5	18
103	Adaptive UKF-based model predictive control of a Fresnel collector field. <i>Journal of Process Control</i> , 2020, 85, 76-90.	1.7	18
104	Understanding PID design through interactive tools. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 12243-12248.	0.4	17
105	Incremental State-Space Model Predictive Control of a Fresnel Solar Collector Field. <i>Energies</i> , 2019, 12, 3.	1.6	17
106	EXTENDED MOVING BOUNDARY MODEL FOR TWO-PHASE FLOWS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 368-373.	0.4	16
107	Improvements on the computation of boundaries in QFT. <i>International Journal of Robust and Nonlinear Control</i> , 2006, 16, 575-597.	2.1	16
108	Event-based control and wireless sensor network for greenhouse diurnal temperature control: A simulated case study. , 2008, , .		16

#	ARTICLE	IF	CITATIONS
109	Localization and control of tracked mobile robots under slip conditions. , 2009, , .		16
110	Hybrid modeling of central receiver solar power plants. Simulation Modelling Practice and Theory, 2009, 17, 664-679.	2.2	16
111	Hybrid Modeling of a Solar Cooling System. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 26-31.	0.4	16
112	Learning Switching Control: A Tank Level-Control Exercise. IEEE Transactions on Education, 2012, 55, 226-232.	2.0	16
113	Hierarchical control for microalgae biomass production in photobioreactors. Control Engineering Practice, 2016, 54, 246-255.	3.2	16
114	Hector, a new methodology for continuous and pattern-free heliostat field optimization. Applied Energy, 2018, 225, 1123-1131.	5.1	16
115	Daytime/Nighttime Event-Based PI Control for the pH of a Microalgae Raceway Reactor. Processes, 2019, 7, 247.	1.3	16
116	Indirect regulation of temperature in raceway reactors by optimal management of culture depth. Biotechnology and Bioengineering, 2021, 118, 1186-1198.	1.7	16
117	Modelado y control de la producción de microalgas en fotobioreactores industriales. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2020, 18, 1.	0.6	16
118	Very high-energy $\hat{\gamma}$ -ray observations of the Crab nebula and other potential sources with the GRAAL experiment. Astroparticle Physics, 2002, 17, 293-318.	1.9	15
119	A hierarchical control system for maximizing profit in greenhouse crop production. , 2003, , .		15
120	Robust Pressure Control in a Mobile Robot for Spraying Tasks. Transactions of the ASABE, 2008, 51, 715-727.	1.1	15
121	The input amplitude saturation problem in QFT: A survey. Annual Reviews in Control, 2011, 35, 34-55.	4.4	15
122	Perspectives on control-relevant identification through the use of interactive tools. Control Engineering Practice, 2013, 21, 171-183.	3.2	15
123	High performance computing for the heliostat field layout evaluation. Journal of Supercomputing, 2017, 73, 259-276.	2.4	15
124	Biomass estimation of an industrial raceway photobioreactor using an extended Kalman filter and a dynamic model for microalgae production. Algal Research, 2019, 37, 103-114.	2.4	15
125	Hierarchical control for the start-up procedure of solar thermal fields with direct storage. Control Engineering Practice, 2020, 95, 104254.	3.2	15
126	MODELLING AND SIMULATION OF GREENHOUSE CLIMATE USING DYMOLA. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2002, 35, 79-84.	0.4	14

#	ARTICLE	IF	CITATIONS
127	The influence of event-based sampling techniques on data transmission and control performance. , 2009, , .		14
128	Bumpless switching in control - A comparative study. , 2010, , .		14
129	Teaching Control Engineering Concepts using Open Source tools on a Raspberry Pi board**This work has been partially funded by the following projects: DPI2014- 55932-C2-1-R and DPI2014-56364-C2-1-R (financed by the Spanish Ministry of Science and Innovation and EU- ERDF funds). IFAC-PapersOnLine, 2015. 48. 99-104.	0.5	14
130	A two-layered solution for automatic heliostat aiming. Engineering Applications of Artificial Intelligence, 2018, 72, 253-266.	4.3	14
131	GREENHOUSE DIURNAL TEMPERATURE CONTROL WITH NATURAL VENTILATION BASED ON EMPIRICAL MODELS. Acta Horticulturae, 2006, , 57-64.	0.1	13
132	Preliminary modeling and control studies in AQUASOL project. Desalination, 2008, 222, 466-473.	4.0	13
133	A QFT Framework for Antiwindup Control Systems Design. Journal of Dynamic Systems, Measurement and Control, Transactions of the ASME, 2010, 132, .	0.9	13
134	Viability and application of ethanol production coupled with solar cooling. Applied Energy, 2013, 102, 501-509.	5.1	12
135	A multivariable nonlinear MPC control strategy for thermal comfort and indoor-air quality. , 2013, , .		12
136	Optimal feedforward compensators for systems with right-half plane zeros. Journal of Process Control, 2014, 24, 368-374.	1.7	12
137	Robust design methodology for simultaneous feedforward and feedback tuning. IET Control Theory and Applications, 2016, 10, 84-94.	1.2	12
138	Frequency-based adaptive control of systems with antiresonance modes. Control Engineering Practice, 1996, 4, 677-684.	3.2	11
139	Nonlinear neural model-based predictive control of a solar plant. , 1997, , .		11
140	PI+CI compensation with variable reset: Application on solar collector fields. , 2008, , .		11
141	A robust constrained reference governor approach using linear matrix inequalities. Journal of Process Control, 2009, 19, 773-784.	1.7	11
142	Parabolic trough collector field dynamic model: Validation, energetic and exergetic analyses. Applied Thermal Engineering, 2019, 148, 777-786.	3.0	11
143	Multiobjective control architecture to estimate optimal set points for user comfort and energy saving in buildings. ISA Transactions, 2020, 99, 454-464.	3.1	11
144	Diurnal and nocturnal pH control in microalgae raceway reactors by combining classical and event-based control approaches. Water Science and Technology, 2020, 82, 1155-1165.	1.2	11

#	ARTICLE	IF	CITATIONS
145	Hierarchical Control of a Distributed Solar Collector Field. Lecture Notes in Computer Science, 2005, , 614-620.	1.0	10
146	Copper sintering in a solar furnace through fuzzy control. , 2006, , .		10
147	A Wireless Sensor Network for greenhouse climate monitoring. , 2010, , .		10
148	Practical MPC with robust dead-time compensation applied to a solar desalination plant. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 4909-4914.	0.4	10
149	A combined FSP and reset control approach to improve the set-point tracking task of dead-time processes. Control Engineering Practice, 2013, 21, 351-359.	3.2	10
150	Constrained control strategies for disturbance rejection in a solar furnaces. Control Engineering Practice, 2013, 21, 1410-1421.	3.2	10
151	Fast MPC with staircase parametrization of the inputs: Continuous input blocking. , 2017, , .		10
152	Modeling and simulation of a solar field based on flat-plate collectors. Solar Energy, 2018, 170, 369-378.	2.9	10
153	Experimental evaluation of feedforward tuning rules. Control Engineering Practice, 2021, 114, 104877.	3.2	10
154	ITSIE: An Interactive Software Tool for System Identification Education. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2009, 42, 752-757.	0.4	9
155	Robust control of solar plants with distributed collectors. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 823-828.	0.4	9
156	A repetitive control scheme for distributed solar collector field. International Journal of Control, 2010, 83, 970-982.	1.2	9
157	i-pIDtune: An interactive tool for integrated system identification and PID control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 146-151.	0.4	9
158	Teaching real-time programming using mobile robots**This work has been partially funded by the following projects: DPI2014-55932-C2-1-R and DPI2014-56364-C2-1-R (financed by the Spanish Ministry of Tj ETQQ050 0 rgBT /Overlock		
159	Design of a parallel genetic algorithm for continuous and pattern-free heliostat field optimization. Journal of Supercomputing, 2019, 75, 1268-1283.	2.4	9
160	Revisiting the simplified IMC tuning rules for low-order controllers: Novel 2DoF feedback controller. IET Control Theory and Applications, 2020, 14, 1700-1710.	1.2	9
161	Modelado y control automatico en destilacin por membranas solar: fundamentos y propuestas para su desarrollo tecnolgico. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2020, 17, 329.	0.6	9
162	Dynamic Models for Hydrogen Peroxide Control in Solar Photo-Fenton Systems. Journal of Solar Energy Engineering, Transactions of the ASME, 2007, 129, 37-44.	1.1	8

#	ARTICLE	IF	CITATIONS
163	Object-oriented modelling and simulation of ACUREX solar thermal power plant. Mathematical and Computer Modelling of Dynamical Systems, 2010, 16, 211-224.	1.4	8
164	Control Issues in Solar Systems. Advances in Industrial Control, 2012, , 25-47.	0.4	8
165	Symmetric send-on-delta PI control of a greenhouse system. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 4411-4416.	0.4	8
166	Nonlinear controllers for solar thermal plants: A comparative study. Control Engineering Practice, 2015, 43, 12-20.	3.2	8
167	On reduction of control effort in feedback linearization GPC strategy applied to a solar furnace. Optimal Control Applications and Methods, 2016, 37, 521-536.	1.3	8
168	Application of Predictive Feedforward Compensator to Microalgae Production in a Raceway Reactor: A Simulation Study. Energies, 2018, 11, 123.	1.6	8
169	Apparent delay analysis for a flat-plate solar field model designed for control purposes. Solar Energy, 2019, 177, 241-254.	2.9	8
170	Development of an empirical tomato crop disease model: a case study on gray leaf spot. European Journal of Plant Pathology, 2020, 156, 477-490.	0.8	8
171	A nonlinear control approach for hybrid solar thermal plants based on operational conditions. Renewable Energy, 2022, 183, 114-129.	4.3	8
172	Object oriented modelling and simulation of parabolic trough collectors with modelica. Mathematical and Computer Modelling of Dynamical Systems, 2008, 14, 361-375.	1.4	7
173	Interactive Learning Module: Basic Modelling and Identification Concepts. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 14606-14611.	0.4	7
174	Interactive Tools to Learn Basic Concepts of Nonlinear Systems Linearization Through a Case Study*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 66-71.	0.4	7
175	A New Framework to develop Web-based Interactive Tools for Control Education. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 183-188.	0.4	7
176	Development of interactive books for Control Education. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 150-155.	0.4	7
177	Advanced Control Strategy Combined with Solar Cooling for Improving Ethanol Production in Fermentation Units. Industrial & Engineering Chemistry Research, 2014, 53, 11384-11392.	1.8	7
178	Event-Based GPC for Multivariable Processes: A Practical Approach With Sensor Deadband. IEEE Transactions on Control Systems Technology, 2017, 25, 1621-1633.	3.2	7
179	On building-up a yearly characterization of a heliostat field: A new methodology and an application example. Solar Energy, 2018, 173, 578-589.	2.9	7
180	Machine learning for solar trackers. AIP Conference Proceedings, 2019, , .	0.3	7

#	ARTICLE	IF	CITATIONS
181	Copper Sintering in a Solar Furnace through Fuzzy control. , 2006, , .		7
182	Optimizing the Heliostat Field Layout by Applying Stochastic Population-Based Algorithms. Informatica, 2018, 29, 21-39.	1.5	7
183	Entornos de experimentación para la Enseñanza de Conceptos Básicos de Modelado y Control. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2010, 7, 10-22.	0.6	7
184	Modelling Free Response of a Solar Plant for Predictive Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1997, 30, 1241-1246.	0.4	6
185	VIRTUAL LAB FOR TEACHING GREENHOUSE CLIMATIC CONTROL. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2005, 38, 79-84.	0.4	6
186	VENTILATION RATE MODELS OF MEDITERRANEAN GREENHOUSES FOR CONTROL PURPOSES. Acta Horticulturae, 2006, , 197-204.	0.1	6
187	Control of Solar Power Systems: a survey. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 817-822.	0.4	6
188	Study of fundamental control concepts through interactive learning objects. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 7286-7291.	0.4	6
189	Feedforward control concepts through Interactive Tools. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6361-6366.	0.4	6
190	Sliding Mode Control of Distributed Parameter Processes: Application to a Solar Power Plant. Journal of Control, Automation and Electrical Systems, 2014, 25, 291-302.	1.2	6
191	ITCLI : An Interactive Tool for Closed-Loop Identification. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 12249-12254.	0.4	6
192	Measurable Disturbances Compensation: Analysis and Tuning of Feedforward Techniques for Dead-Time Processes. Processes, 2016, 4, 12.	1.3	6
193	An IoT based Control System for a Solar Membrane Distillation Plant used for Greenhouse Irrigation. , 2019, , .		6
194	Hybrid NMPC Applied to a Solar-powered Membrane Distillation System. IFAC-PapersOnLine, 2019, 52, 124-129.	0.5	6
195	Optimal Water Management in Agro-Industrial Districts: An Energy Hub's Case Study in the Southeast of Spain. Processes, 2021, 9, 333.	1.3	6
196	Control Predictivo por Desacoplo con Compensación de Perturbaciones para el Benchmark de Control 2009-2010. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2011, 8, 112-121.	0.6	6
197	A Simple and Effective Heuristic Control System for the Heliostat Field of Solar Power Tower Plants. Acta Polytechnica Hungarica, 2020, 17, 7-26.	2.5	6
198	A stabilizing predictive controller with implicit feedforward compensation for stable and time-delayed systems. Journal of Process Control, 2022, 115, 12-26.	1.7	6

#	ARTICLE	IF	CITATIONS
199	A Volterra model of the greenhouse temperature using natural ventilation. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2008, 41, 2925-2930.	0.4	5
200	The Design of QFT Robust Compensators with Magnitude and Phase Specifications. Mathematical Problems in Engineering, 2010, 2010, 1-20.	0.6	5
201	Control Strategies for Disturbance Rejection in a Solar Furnace. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 12243-12248.	0.4	5
202	Design of PID Controller with Filter for Distributed Parameter Systems. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 495-500.	0.4	5
203	A fuzzy controller for visual comfort inside a meeting-room. , 2015, , .		5
204	Event-based selective control strategy for raceway reactor: A simulation study**This work has been supported by Cajamar Foundation and partially funded by the following projects: DPI2014- 55932-C2-1-R, DPI2014-56364-C2-1-R and DPI2012-31303 (financed by the Spanish Ministry of Economy and) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 54		
		0.5	5
208	A Multivariable Controller for the Start-up Procedure of a Solar Membrane Distillation Facility. IFAC-PapersOnLine, 2018, 51, 376-381.	0.5	5
209	Solar tower power mockup for the assessment of advanced control techniques. Renewable Energy, 2020, 149, 682-690.	4.3	5
210	FREQUENCY BASED ADAPTIVE CONTROL OF SYSTEMS WITH ANTIRESONANCE MODES. , 1995, , 197-202.		5
211	Revisiting the simplified internal model control tuning rules for low-order controllers: feedforward controller. IET Control Theory and Applications, 2020, 14, 1612-1618.	1.2	5
212	Genetic design of a fuzzy logic controller for a solar power plant. , 1997, , .		4
213	Easy Mobile Device Programming for Educational Purposes. , 0, , .		4
214	Explanatory Analysis of Data from a Distributed Solar Collector Field. Lecture Notes in Computer Science, 2005, , 621-626.	1.0	4
215	Modelling and Simulation of Central Receiver Solar Thermal Power Plants. , 0, , .		4
216	Interactive Learning Module for control interaction understanding. , 2009, , .		4

#	ARTICLE	IF	CITATIONS
217	Diurnal greenhouse temperature control with predictive control and online constrains mapping. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 43, 140-145.	0.4	4
218	Teaching Cascaded Controllers with a Fuel Cell Plant in a Hands-on Laboratory. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 203-207.	0.4	4
219	Boundary Control of an Industrial Tubular Photobioreactor Using Sliding Mode Control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 4903-4908.	0.4	4
220	Understanding closed-loop identification with ITCLI. IFAC-PapersOnLine, 2015, 48, 739-744.	0.5	4
221	Event-based control for a greenhouse irrigation system. , 2016, , .		4
222	A New Methodology for Building-Up a Robust Model for Heliostat Field Flux Characterization. Energies, 2017, 10, 730.	1.6	4
223	A Flexible Tool for Modeling and Optimal Dispatch of Resources in Agri-Energy Hubs. Sustainability, 2020, 12, 8820.	1.6	4
224	Optimal operation of solar thermal desalination systems coupled to double-effect absorption heat pumps. Energy Conversion and Management, 2020, 210, 112705.	4.4	4
225	An Indoor Illuminance Prediction Model Based on Neural Networks for Visual Comfort and Energy Efficiency Optimization Purposes. Lecture Notes in Computer Science, 2019, , 146-156.	1.0	4
226	Leaf area index soft sensor for tomato crops in greenhouses. IFAC-PapersOnLine, 2020, 53, 15796-15803.	0.5	4
227	Improving the performance of solar membrane distillation processes for treating high salinity feeds: A process control approach for cleaner production. Journal of Cleaner Production, 2022, 338, 130446.	4.6	4
228	LQG/LTR Control of the Distributed Collector Field of a Solar Power Plant. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1996, 29, 6975-6980.	0.4	3
229	Application of artificial neural networks for greenhouse climate modelling. , 1999, , .		3
230	REMOTE LABORATORY FOR TEACHING MULTIVARIABLE CONTROL TECHNIQUES. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 493-498.	0.4	3
231	ITCRI: An Interactive Software Tool for Control-Relevant Identification Education*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2011, 44, 6367-6372.	0.4	3
232	Improvements on the Filtered Smith Predictor using the Clegg Integrator. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 110-115.	0.4	3
233	A feedback linearization GPC control strategy for a solar furnace. , 2012, , .		3
234	Optimal feedforward compensators for integrating plants. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 170-175.	0.4	3

#	ARTICLE	IF	CITATIONS
235	Solar membrane distillation: A control perspective. , 2015, , .		3
236	A proposal for teaching SCADA systems using Virtual Industrial Plants in Engineering Education. IFAC-PapersOnLine, 2016, 49, 138-143.	0.5	3
237	Control predictivo lineal del PH en un fotobiorreactor Raceway. , 0, , .		3
238	Interactive Tool to Teach Solar Parabolic Trough Concepts. , 2011, , .		3
239	Optimal operating conditions analysis of a multi-effect distillation plant. , 0, 69, 229-235.		3
240	Frequency Based Adaptive Control of Systems with Antiresonance Modes. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1995, 28, 197-202.	0.4	2
241	Analyzing Solar Power Plant Performance Through Data Mining. Journal of Solar Energy Engineering, Transactions of the ASME, 2008, 130, .	1.1	2
242	Advanced Control of Parabolic Troughs. Advances in Industrial Control, 2012, , 129-238.	0.4	2
243	Basic Control of Parabolic Troughs. Advances in Industrial Control, 2012, , 67-127.	0.4	2
244	A feedback linearization-based two-degree-of-freedom constrained controller strategy for a solar furnace. , 2013, , .		2
245	Lagrange interpolation for signal reconstruction in event-based GPC. , 2014, , .		2
246	Filtered Smith Predictor with nonlinear model applied to a solar field. , 2014, , .		2
247	Hierarchical Non-linear Control of a Tubular Photobioreactor. IFAC-PapersOnLine, 2015, 48, 224-229.	0.5	2
248	Low-order feedback-feedforward controller for dead-time processes with measurable disturbances. IFAC-PapersOnLine, 2016, 49, 591-596.	0.5	2
249	Editorial optimal control of solar energy systems. Optimal Control Applications and Methods, 2016, 37, 463-465.	1.3	2
250	Multivariable GPC for processes with multiple time delays: Implementation issues. , 2016, , .		2
251	Predictive feedforward compensator for dead-time processes * *This work has been partially funded by the following projects: DPI2014-55932-C2-1-R, DPI2014-55932-C2-2-R, DPI2014-56364-C2-1-R and and the UNED through a postdoctoral scholarship.. IFAC-PapersOnLine. 2017. 50. 1239-1244.	0.5	2
252	Control and optimal management of a heliostat field for solar power tower systems. , 2019, , .		2

#	ARTICLE	IF	CITATIONS
253	Comfort in Buildings. Advances in Industrial Control, 2014, , 39-78.	0.4	2
254	A computer-based tool to simulate raceway photobioreactors for design, operation and control purposes. Computers and Chemical Engineering, 2022, 156, 107572.	2.0	2
255	Techniques and Applications of Fuzzy Logic Control of Solar Power Plants. , 1999, , 717-745.		2
256	A virtual lab for modeling and control of a solar collector field. IFAC-PapersOnLine, 2020, 53, 17216-17221.	0.5	2
257	Dynamic Model for the pH in a Raceway Reactor Using Deep Learning Techniques. Lecture Notes in Electrical Engineering, 2021, , 190-199.	0.3	2
258	Constructive Radial Basis Function Networks for Mobile Robot Positioning. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 181-186.	0.4	1
259	Discrete-time nonlinear FIR models with integrated variables for greenhouse indoor temperature simulation. , 0, , .		1
260	Robust GPC-QFT approach using Linear Matrix Inequalities. , 2007, , .		1
261	Nonlinear model predictive control of greenhouse temperature using a Volterra model. , 2009, , .		1
262	Virtual lab for programmable logic controllers. , 2009, , .		1
263	Selección de variables en la predicción de llamadas en un centro de atención telefónica. RIAI - Revista Iberoamericana De Automatica E Informatica Industrial, 2009, 6, 94-104.	0.6	1
264	An open-source graphical library for the development of Interactive Tools. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 42, 37-42.	0.4	1
265	ITCRI: An Interactive Software Tool for Evaluating Control-Relevant Identification*. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 1529-1534.	0.4	1
266	Event-based GPC for multivariable processes. , 2015, , .		1
267	Control strategies applied in the HYSOL demonstrator: A simulation-based evaluation. , 2016, , .		1
268	Using a Nonlinear Model Predictive Control strategy for the efficient operation of a solar-powered membrane distillation system. , 2017, , .		1
269	Event-Based Generalized Predictive Control. , 2018, , 151-176.		1
270	Inverse pole placement method for PI control in the tracking problem – This work has been partially funded by the following projects: DPI2014-55932-C2-1-R, DPI2014-56364-C2-1-R and DPI2017-84259-C2-1-R (financed by the Spanish Ministry of Economy, Industry and Competitiveness and EU-ERDF funds).. IFAC-PapersOnLine, 2018, 51, 406-411.	0.5	1

#	ARTICLE	IF	CITATIONS
271	Use of the benchmark for PID control in engineering studies at the University of Almería. This work has been partially funded by the following projects: DPI2014-55932-C2-1-R, DPI2014-56364-C2-1-R and DPI2017-84259-C2-1-R (financed by the Spanish Ministry of Economy Industry and Competitiveness and the European Union). Advances in Industrial Control, 2012, , 239-313.	0.5	1
272	Application of a Symmetric-Send-On-Delta event-based controller for a microalgal raceway reactor. , 2019, , .		1
273	Control of Central Receiver Systems. Advances in Industrial Control, 2012, , 239-313.	0.4	1
274	Comfort Control Techniques for the Users of a Room. Advances in Industrial Control, 2014, , 143-218.	0.4	1
275	Starting-up strategies for solar thermal fields attending to time and economic criteria: Application of hierarchical control. IFAC-PapersOnLine, 2020, 53, 12822-12828.	0.5	1
276	Adaptive Control of a Solar Furnace for Material Testing. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 1998, 31, 163-169.	0.4	0
277	A SYNTHESIS THEORY FOR A CLASS OF UNCERTAIN LTI SYSTEMS WITH AMPLITUDE AND RATE SATURATION. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 197-202.	0.4	0
278	INTERACTIVE TOOL FOR ANALYSIS OF TIME-DELAY SYSTEMS WITH DEAD-TIME COMPENSATORS. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2006, 39, 428-433.	0.4	0
279	Applications of Hybrid Predictive Control. International Journal of Adaptive Control and Signal Processing, 2008, 22, 101-102.	2.3	0
280	Teaching System Identification Through Interactivity. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2010, 42, 43-48.	0.4	0
281	Integrated Control of Solar Systems. Advances in Industrial Control, 2012, , 369-385.	0.4	0
282	Other Solar Applications. Advances in Industrial Control, 2012, , 315-368.	0.4	0
283	Integrated virtual and remote lab for greenhouse climate control. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2012, 45, 264-269.	0.4	0
284	Photovoltaics. Advances in Industrial Control, 2012, , 49-66.	0.4	0
285	An educational software to develop robot mapping and localization practices using visual information. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2013, 46, 174-179.	0.4	0
286	Event-based predictive control triggered by input and output deadband conditions. IFAC Postprint Volumes IPPV / International Federation of Automatic Control, 2014, 47, 8116-8121.	0.4	0
287	Multivariable controller for stationary flat plate solar collectors. , 2018, , .		0
288	Nonlinear Control of a Fan-Coil Operation. , 2018, , .		0

#	ARTICLE	IF	CITATIONS
289	Control and Optimization of Distributed Solar Collector Fields. , 2018, , .		0
290	A lightweight heliostat field post-optimizer. AIP Conference Proceedings, 2019, , .	0.3	0
291	Thermal Comfort Predictive Control Strategies for a Solar Energy Research Center. , 2011, , .		0
292	Subsystems and Disturbance Models. Advances in Industrial Control, 2014, , 79-142.	0.4	0
293	Integration of Photovoltaic Generation Within a Modeling Framework for Energy Hubs. Frontiers in Control Engineering, 2022, 3, .	0.4	0